

z/OS Communications Server



# IP and SNA Codes

*Version 1 Release 4*



z/OS Communications Server



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*Version 1 Release 4*

**Note:**

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 547.

**Third Edition (September 2002)**

This edition applies to Version 1 Release 4 of z/OS (5694-A01) and Version 1 Release 4 of z/OS.e (5655-G52) and to all subsequent releases and modifications until otherwise indicated in new editions.

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## About this document

This document is intended to help network operators and system programmers understand the meaning of VTAM® or TCP/IP codes. Use this document to look up specific VTAM or TCP/IP codes. For background reading to help understand concepts involved in VTAM operations, and for examples of the message output for a variety of DISPLAY commands, refer to the *z/OS Communications Server: SNA Operation*.

This document supports z/OS.e™.

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## Who should use this document

This document is written for network operators, system programmers, and anyone required to interpret a VTAM or TCP/IP code. Familiarity with VTAM and TCP/IP concepts and terms is assumed.

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## Where to find more information

This section contains:

- Pointers to information available on the Internet
- Information about licensed documentation
- Information about LookAt, the online message tool
- A set of tables that describes the documents in the z/OS™ Communications Server (z/OS CS) library, along with related publications

## Where to find related information on the Internet

### **z/OS**

- <http://www.ibm.com/servers/eserver/zseries/zos/>

### **z/OS Internet Library**

- <http://www.ibm.com/servers/eserver/zseries/zos/bkserv/>

### **IBM Communications Server product**

- <http://www.software.ibm.com/network/commserver/>

### **IBM Communications Server product support**

- <http://www.software.ibm.com/network/commserver/support/>

### **IBM Systems Center publications**

- <http://www.redbooks.ibm.com/>

### **IBM Systems Center flashes**

- <http://www-1.ibm.com/support/techdocs/atmastr.nsf>

### **RFCs**

- <http://www.ietf.org/rfc.html>

### **RFC drafts**

- <http://www.ietf.org/ID.html>

Information about Web addresses can also be found in information APAR I11334.

### **DNS web sites**

For more information about DNS, see the following USENET news groups and mailing:

| **USENET news groups:**

| comp.protocols.dns.bind

| **For BIND mailing lists, see:**

- | • <http://www.isc.org/ml-archives/>
- | – BIND Users
- | - Subscribe by sending mail to [bind-users-request@isc.org](mailto:bind-users-request@isc.org).
- | - Submit questions or answers to this forum by sending mail to [bind-users@isc.org](mailto:bind-users@isc.org).
- | – BIND 9 Users (Note: This list may not be maintained indefinitely.)
- | - Subscribe by sending mail to [bind9-users-request@isc.org](mailto:bind9-users-request@isc.org).
- | - Submit questions or answers to this forum by sending mail to [bind9-users@isc.org](mailto:bind9-users@isc.org).

For definitions of the terms and abbreviations used in this document, you can view or download the latest *IBM Glossary of Computing Terms* at the following Web address:

<http://www.ibm.com/ibm/terminology>

**Note:** Any pointers in this publication to Web sites are provided for convenience only and do not in any manner serve as an endorsement of these Web sites.

## Accessing z/OS licensed documents on the Internet

z/OS licensed documentation is available on the Internet in PDF format at the IBM Resource Link™ Web site at:

<http://www.ibm.com/servers/resourceLink>

Licensed documents are available only to customers with a z/OS license. Access to these documents requires an IBM Resource Link user ID and password, and a key code. With your z/OS order you received a Memo to Licensees, (GI10-0671), that includes this key code.

To obtain your IBM Resource Link user ID and password, log on to:

<http://www.ibm.com/servers/resourceLink>

To register for access to the z/OS licensed documents:

1. Sign in to Resource Link using your Resource Link user ID and password.
2. Select **User Profiles** located on the left-hand navigation bar.

**Note:** You cannot access the z/OS licensed documents unless you have registered for access to them and received an e-mail confirmation informing you that your request has been processed.

Printed licensed documents are not available from IBM.

You can use the PDF format on either **z/OS Licensed Product Library CD-ROM** or IBM Resource Link to print licensed documents.

## Using LookAt to look up message explanations

LookAt is an online facility that allows you to look up explanations for most messages you encounter, as well as for some system abends and codes. Using LookAt to find information is faster than a conventional search because in most cases LookAt goes directly to the message explanation.

You can access LookAt from the Internet at:

<http://www.ibm.com/eserver/zseries/zos/bkserv/lookat/>

or from anywhere in z/OS where you can access a TSO/E command line (for example, TSO/E prompt, ISPF, z/OS UNIX System Services running OMVS). You can also download code from the *z/OS Collection* (SK3T-4269) and the LookAt Web site that will allow you to access LookAt from a handheld computer (Palm Pilot VIIx suggested).

To use LookAt as a TSO/E command, you must have LookAt installed on your host system. You can obtain the LookAt code for TSO/E from a disk on your *z/OS Collection* (SK3T-4269) or from the **News** section on the LookAt Web site.

Some messages have information in more than one document. For those messages, LookAt displays a list of documents in which the message appears.

## How to contact IBM service

For immediate assistance, visit this Web site:

<http://www.software.ibm.com/network/commserver/support/>

Most problems can be resolved at this Web site, where you can submit questions and problem reports electronically, as well as access a variety of diagnosis information.

For telephone assistance in problem diagnosis and resolution (in the United States or Puerto Rico), call the IBM Software Support Center anytime (1-800-237-5511). You will receive a return call within 8 business hours (Monday – Friday, 8:00 a.m. – 5:00 p.m., local customer time).

Outside of the United States or Puerto Rico, contact your local IBM representative or your authorized IBM supplier.

If you would like to provide feedback on this publication, see “Communicating Your Comments to IBM” on page 553.

## z/OS Communications Server information

This section contains descriptions of the documents in the z/OS Communications Server library.

z/OS Communications Server publications are available:

- Online at the z/OS Internet Library web page at <http://www.ibm.com/servers/eserver/zseries/zos/bkserv>
- In softcopy on CD-ROM collections.

### Softcopy information

Softcopy publications are available in the following collections:

Titles	Order Number	Description
<i>z/OS V1R4 Collection</i>	SK3T-4269	This is the CD collection shipped with the z/OS product. It includes the libraries for z/OS V1R4, in both BookManager <sup>®</sup> and PDF formats.

<b>Titles</b>	<b>Order Number</b>	<b>Description</b>
<i>z/OS Software Products Collection</i>	SK3T-4270	This CD includes, in both BookManager and PDF formats, the libraries of z/OS software products that run on z/OS but are not elements and features, as well as the <i>Getting Started with Parallel Sysplex</i> <sup>®</sup> bookshelf.
<i>z/OS V1R4 and Software Products DVD Collection</i>	SK3T-4271	This collection includes the libraries of z/OS (the element and feature libraries) and the libraries for z/OS software products in both BookManager and PDF format. This collection combines SK3T-4269 and SK3T-4270.
<i>z/OS Licensed Product Library</i>	SK3T-4307	This CD includes the licensed documents in both BookManager and PDF format.
<i>System Center Publication IBM S/390<sup>®</sup> Redbooks<sup>™</sup> Collection</i>	SK2T-2177	This collection contains over 300 ITSO redbooks that apply to the S/390 platform and to host networking arranged into subject bookshelves.

### **z/OS Communications Server library**

z/OS V1R4 Communications Server documents are available on the CD-ROM accompanying z/OS (SK3T-4269 or SK3T-4307). Unlicensed documents can be viewed at the z/OS Internet library site.

Updates to documents are available on RETAIN<sup>®</sup> and in information APARs (info APARs). See Appendix B, "Information APARs" on page 541 for a list of the documents and the info APARs associated with them.

- Info APARs for OS/390<sup>®</sup> documents are in the document called *OS/390 DOC APAR and PTF ++HOLD Documentation* which can be found at [http://publibz.boulder.ibm.com/cgi-bin/bookmgr\\_OS390/BOOKS/IDDOCMST/CCONTENTS](http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/BOOKS/IDDOCMST/CCONTENTS).
- Info APARs for z/OS documents are in the document called *z/OS and z/OS.e DOC APAR and PTF ++HOLD Documentation* which can be found at [http://publibz.boulder.ibm.com:80/cgi-bin/bookmgr\\_OS390/BOOKS/ZIDOCMST/CCONTENTS](http://publibz.boulder.ibm.com:80/cgi-bin/bookmgr_OS390/BOOKS/ZIDOCMST/CCONTENTS).

### **Planning and migration:**

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: SNA Migration</i>	GC31-8774	This document is intended to help you plan for SNA, whether you are migrating from a previous version or installing SNA for the first time. This document also identifies the optional and required modifications needed to enable you to use the enhanced functions provided with SNA.
<i>z/OS Communications Server: IP Migration</i>	GC31-8773	This document is intended to help you plan for TCP/IP Services, whether you are migrating from a previous version or installing IP for the first time. This document also identifies the optional and required modifications needed to enable you to use the enhanced functions provided with TCP/IP Services.
<i>z/OS Communications Server: IPv6 Network and Application Design Guide</i>	SC31-8885	This document is a high-level introduction to IPv6. It describes concepts of z/OS Communications Server's support of IPv6, coexistence with IPv4, and migration issues.

### **Resource definition, configuration, and tuning:**

Title	Number	Description
<i>z/OS Communications Server: IP Configuration Guide</i>	SC31-8775	This document describes the major concepts involved in understanding and configuring an IP network. Familiarity with the z/OS operating system, IP protocols, z/OS UNIX <sup>®</sup> System Services, and IBM Time Sharing Option (TSO) is recommended. Use this document in conjunction with the <i>z/OS Communications Server: IP Configuration Reference</i> .
<i>z/OS Communications Server: IP Configuration Reference</i>	SC31-8776	This document presents information for people who want to administer and maintain IP. Use this document in conjunction with the <i>z/OS Communications Server: IP Configuration Guide</i> . The information in this document includes: <ul style="list-style-type: none"> <li>• TCP/IP configuration data sets</li> <li>• Configuration statements</li> <li>• Translation tables</li> <li>• SMF records</li> <li>• Protocol number and port assignments</li> </ul>
<i>z/OS Communications Server: SNA Network Implementation Guide</i>	SC31-8777	This document presents the major concepts involved in implementing an SNA network. Use this document in conjunction with the <i>z/OS Communications Server: SNA Resource Definition Reference</i> .
<i>z/OS Communications Server: SNA Resource Definition Reference</i>	SC31-8778	This document describes each SNA definition statement, start option, and macroinstruction for user tables. It also describes NCP definition statements that affect SNA. Use this document in conjunction with the <i>z/OS Communications Server: SNA Network Implementation Guide</i> .
<i>z/OS Communications Server: SNA Resource Definition Samples</i>	SC31-8836	This document contains sample definitions to help you implement SNA functions in your networks, and includes sample major node definitions.
<i>z/OS Communications Server: AnyNet SNA over TCP/IP</i>	SC31-8832	This guide provides information to help you install, configure, use, and diagnose SNA over TCP/IP.
<i>z/OS Communications Server: AnyNet Sockets over SNA</i>	SC31-8831	This guide provides information to help you install, configure, use, and diagnose sockets over SNA. It also provides information to help you prepare application programs to use sockets over SNA.
<i>z/OS Communications Server: IP Network Print Facility</i>	SC31-8833	This document is for system programmers and network administrators who need to prepare their network to route SNA, JES2, or JES3 printer output to remote printers using TCP/IP Services.

**Operation:**

Title	Number	Description
<i>z/OS Communications Server: IP User's Guide and Commands</i>	SC31-8780	This document describes how to use TCP/IP applications. It contains requests that allow a user to log on to a remote host using Telnet, transfer data sets using FTP, send and receive electronic mail, print on remote printers, and authenticate network users.
<i>z/OS Communications Server: IP System Administrator's Commands</i>	SC31-8781	This document describes the functions and commands helpful in configuring or monitoring your system. It contains system administrator's commands, such as TSO NETSTAT, PING, TRACERTE and their UNIX counterparts. It also includes TSO and MVS™ commands commonly used during the IP configuration process.

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: SNA Operation</i>	SC31-8779	This document serves as a reference for programmers and operators requiring detailed information about specific operator commands.
<i>z/OS Communications Server: Quick Reference</i>	SX75-0124	This document contains essential information about SNA and IP commands.

**Customization:**

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: SNA Customization</i>	LY43-0092	This document enables you to customize SNA, and includes the following: <ul style="list-style-type: none"> <li>• Communication network management (CNM) routing table</li> <li>• Logon-interpret routine requirements</li> <li>• Logon manager installation-wide exit routine for the CLU search exit</li> <li>• TSO/SNA installation-wide exit routines</li> <li>• SNA installation-wide exit routines</li> </ul>

**Writing application programs:**

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: IP Application Programming Interface Guide</i>	SC31-8788	This document describes the syntax and semantics of program source code necessary to write your own application programming interface (API) into TCP/IP. You can use this interface as the communication base for writing your own client or server application. You can also use this document to adapt your existing applications to communicate with each other using sockets over TCP/IP.
<i>z/OS Communications Server: IP CICS Sockets Guide</i>	SC31-8807	This document is for programmers who want to set up, write application programs for, and diagnose problems with the socket interface for CICS® using z/OS TCP/IP.
<i>z/OS Communications Server: IP IMS Sockets Guide</i>	SC31-8830	This document is for programmers who want application programs that use the IMS™ TCP/IP application development services provided by IBM's TCP/IP Services.
<i>z/OS Communications Server: IP Programmer's Reference</i>	SC31-8787	This document describes the syntax and semantics of a set of high-level application functions that you can use to program your own applications in a TCP/IP environment. These functions provide support for application facilities, such as user authentication, distributed databases, distributed processing, network management, and device sharing. Familiarity with the z/OS operating system, TCP/IP protocols, and IBM Time Sharing Option (TSO) is recommended.
<i>z/OS Communications Server: SNA Programming</i>	SC31-8829	This document describes how to use SNA macroinstructions to send data to and receive data from (1) a terminal in either the same or a different domain, or (2) another application program in either the same or a different domain.
<i>z/OS Communications Server: SNA Programmer's LU 6.2 Guide</i>	SC31-8811	This document describes how to use the SNA LU 6.2 application programming interface for host application programs. This document applies to programs that use only LU 6.2 sessions or that use LU 6.2 sessions along with other session types. (Only LU 6.2 sessions are covered in this document.)

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: SNA Programmer's LU 6.2 Reference</i>	SC31-8810	This document provides reference material for the SNA LU 6.2 programming interface for host application programs.
<i>z/OS Communications Server: CSM Guide</i>	SC31-8808	This document describes how applications use the communications storage manager.
<i>z/OS Communications Server: CMIP Services and Topology Agent Guide</i>	SC31-8828	This document describes the Common Management Information Protocol (CMIP) programming interface for application programmers to use in coding CMIP application programs. The document provides guide and reference information about CMIP services and the SNA topology agent.

### **Diagnosis:**

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: IP Diagnosis</i>	GC31-8782	This document explains how to diagnose TCP/IP problems and how to determine whether a specific problem is in the TCP/IP product code. It explains how to gather information for and describe problems to the IBM Software Support Center.
<i>z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures and z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT</i>	LY43-0088 LY43-0089	These documents help you identify an SNA problem, classify it, and collect information about it before you call the IBM Support Center. The information collected includes traces, dumps, and other problem documentation.
<i>z/OS Communications Server: SNA Data Areas Volume 1 and z/OS Communications Server: SNA Data Areas Volume 2</i>	LY43-0090 LY43-0091	These documents describe SNA data areas and can be used to read an SNA dump. They are intended for IBM programming service representatives and customer personnel who are diagnosing problems with SNA.

### **Messages and codes:**

<b>Title</b>	<b>Number</b>	<b>Description</b>
<i>z/OS Communications Server: SNA Messages</i>	SC31-8790	This document describes the ELM, IKT, IST, ISU, IUT, IVT, and USS messages. Other information in this document includes: <ul style="list-style-type: none"> <li>• Command and RU types in SNA messages</li> <li>• Node and ID types in SNA messages</li> <li>• Supplemental message-related information</li> </ul>
<i>z/OS Communications Server: IP Messages Volume 1 (EZA)</i>	SC31-8783	This volume contains TCP/IP messages beginning with EZA.
<i>z/OS Communications Server: IP Messages Volume 2 (EZB)</i>	SC31-8784	This volume contains TCP/IP messages beginning with EZB.
<i>z/OS Communications Server: IP Messages Volume 3 (EZY)</i>	SC31-8785	This volume contains TCP/IP messages beginning with EZY.
<i>z/OS Communications Server: IP Messages Volume 4 (EZZ-SNM)</i>	SC31-8786	This volume contains TCP/IP messages beginning with EZZ and SNM.
<i>z/OS Communications Server: IP and SNA Codes</i>	SC31-8791	This document describes codes and other information that appear in z/OS Communications Server messages.

### **APPC Application Suite:**

Title	Number	Description
<i>z/OS Communications Server: APPC Application Suite User's Guide</i>	SC31-8809	This documents the end-user interface (concepts, commands, and messages) for the AFTP, ANAME, and APING facilities of the APPC application suite. Although its primary audience is the end user, administrators and application programmers may also find it useful.
<i>z/OS Communications Server: APPC Application Suite Administration</i>	SC31-8835	This document contains the information that administrators need to configure the APPC application suite and to manage the APING, ANAME, AFTP, and A3270 servers.
<i>z/OS Communications Server: APPC Application Suite Programming</i>	SC31-8834	This document provides the information application programmers need to add the functions of the AFTP and ANAME APIs to their application programs.

## Redbooks

The following Redbooks may help you as you implement z/OS Communications Server.

Title	Number
<i>TCP/IP Tutorial and Technical Overview</i>	GG24-3376
<i>SNA and TCP/IP Integration</i>	SG24-5291
<i>IBM Communications Server for OS/390 V2R10 TCP/IP Implementation Guide: Volume 1: Configuration and Routing</i>	SG24-5227
<i>IBM Communications Server for OS/390 V2R10 TCP/IP Implementation Guide: Volume 2: UNIX Applications</i>	SG24-5228
<i>IBM Communications Server for OS/390 V2R7 TCP/IP Implementation Guide: Volume 3: MVS Applications</i>	SG24-5229
<i>Secureway Communications Server for OS/390 V2R8 TCP/IP: Guide to Enhancements</i>	SG24-5631
<i>TCP/IP in a Sysplex</i>	SG24-5235
<i>Managing OS/390 TCP/IP with SNMP</i>	SG24-5866
<i>Security in OS/390-based TCP/IP Networks</i>	SG24-5383
<i>IP Network Design Guide</i>	SG24-2580
<i>Migrating Subarea Networks to an IP Infrastructure</i>	SG24-5957
<i>IBM Communication Controller Migration Guide</i>	SG24-6298

## Related information

For information about z/OS products, refer to *z/OS Information Roadmap* (SA22-7500). The Roadmap describes what level of documents are supplied with each release of z/OS Communications Server, as well as describing each z/OS publication.

Relevant RFCs are listed in an appendix of the IP documents. Architectural specifications for the SNA protocol are listed in an appendix of the SNA documents.

The table below lists documents that may be helpful to readers.

Title	Number
<i>z/OS Security Server Firewall Technologies</i>	SC24-5922
<i>S/390: OSA-Express Customer's Guide and Reference</i>	SA22-7403

Title	Number
<i>z/OS JES2 Initialization and Tuning Guide</i>	SA22-7532
<i>z/OS MVS Diagnosis: Procedures</i>	GA22-7587
<i>z/OS MVS Diagnosis: Reference</i>	GA22-7588
<i>z/OS MVS Diagnosis: Tools and Service Aids</i>	GA22-7589
<i>z/OS Security Server LDAP Client Programming</i>	SC24-5924
<i>z/OS Security Server LDAP Server Administration and Use</i>	SC24-5923
<i>Understanding LDAP</i>	SG24-4986
<i>z/OS UNIX System Services Programming: Assembler Callable Services Reference</i>	SA22-7803
<i>z/OS UNIX System Services Command Reference</i>	SA22-7802
<i>z/OS UNIX System Services User's Guide</i>	SA22-7801
<i>z/OS UNIX System Services Planning</i>	GA22-7800
<i>z/OS MVS Using the Subsystem Interface</i>	SA22-7642
<i>z/OS C/C++ Run-Time Library Reference</i>	SA22-7821
<i>z/OS Program Directory</i>	GI10-0670
<i>DNS and BIND</i> , Fourth Edition, O'Reilly and Associates, 2001	ISBN 0-596-00158-4
<i>Routing in the Internet</i> , Christian Huitema (Prentice Hall PTR, 1995)	ISBN 0-13-132192-7
<i>sendmail</i> , Bryan Costales and Eric Allman, O'Reilly and Associates, 1997	ISBN 156592-222-0
<i>TCP/IP Tutorial and Technical Overview</i>	GG24-3376
<i>TCP/IP Illustrated, Volume I: The Protocols</i> , W. Richard Stevens, Addison-Wesley Publishing, 1994	ISBN 0-201-63346-9
<i>TCP/IP Illustrated, Volume II: The Implementation</i> , Gary R. Wright and W. Richard Stevens, Addison-Wesley Publishing, 1995	ISBN 0-201-63354-X
<i>TCP/IP Illustrated, Volume III</i> , W. Richard Stevens, Addison-Wesley Publishing, 1995	ISBN 0-201-63495-3
<i>z/OS System Secure Sockets Layer Programming</i>	SC24-5901

### Determining if a publication is current

As needed, IBM updates its publications with new and changed information. For a given publication, updates to the hardcopy and associated BookManager softcopy are usually available at the same time. Sometimes, however, the updates to hardcopy and softcopy are available at different times. The following information describes how to determine if you are looking at the most current copy of a publication:

- At the end of a publication's order number there is a dash followed by two digits, often referred to as the dash level. A publication with a higher dash level is more current than one with a lower dash level. For example, in the publication order number GC28-1747-07, the dash level 07 means that the publication is more current than previous levels, such as 05 or 04.
- If a hardcopy publication and a softcopy publication have the same dash level, it is possible that the softcopy publication is more current than the hardcopy publication. Check the dates shown in the Summary of Changes. The softcopy publication might have a more recently dated Summary of Changes than the hardcopy publication.
- To compare softcopy publications, you can check the last two characters of the publication's filename (also called the book name). The higher the number, the

| more recent the publication. Also, next to the publication titles in the CD-ROM  
| booklet and the readme files, there is an asterisk (\*) that indicates whether a  
| publication is new or changed.

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# Summary of changes

## Summary of changes for SC31-8791-02 z/OS Version 1 Release 4

This document contains information previously presented in SC31-8791-01, which supports z/OS Version 1 Release 2.

### New information

- Multiple new FTPD Reply Codes were added to Chapter 16, “FTPD reply codes” on page 369.

An appendix with z/OS product accessibility information has been added.

### Changed information

- Added a column for hexadecimal values to Table 13 on page 295, Table 14 on page 302, and Table 15 on page 302.

### Deleted information

- Two reply codes were removed from “SMTP reply code messages” on page 318 because they were duplicates of FTPD reply codes.

This document contains terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

Starting with z/OS V1R4, you might notice changes in the style and structure of some content in this document (for example, headings that use uppercase for the first letter of initial words only, and procedures that have a different look and format). The changes are ongoing improvements to the consistency and retrievability of information in our documents.

This document supports z/OS.e.

## Summary of changes for SC31-8791-01 z/OS Version 1 Release 2

This document contains information previously presented in SC31-8791-00, which supports z/OS Version 1 Release 1.

### New information

- One new SMTP reply code.
- Multiple new FTPD reply codes.
- Chapter 18, “Intrusion detection services probe IDs” on page 523.

### Deleted information

- “Chapter 13. OS/390 UNIX System Services Error Codes.” Now we refer to the *z/OS UNIX System Services Messages and Codes* for information about `errno`s and `errnojrs`. You can link to that document by clicking on the document title.

This document contains terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

**Summary of changes  
for SC31-8791-00  
z/OS Version 1 Release 1**

This document contains information also presented in *OS/390 V2R10 IBM Communications Server: IP and SNA Codes*.

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## Chapter 1. SNA sense codes

This section contains the following sections:

- “08XX (request reject)”
- “10XX (request error)” on page 97
- “20XX (state error)” on page 116
- “40XX (RH usage error)” on page 119
- “80XX (path error)” on page 120
- “A0XX (RTP sense data)” on page 130
- “FFXX (HPR sense data)” on page 137
- “SNA sense field values for RPL-based macroinstructions” on page 138
- “3270 SNA and non-SNA device sense fields” on page 140

### Notes:

1. This section contains all sense codes set by VTAM. To assist you in problem determination, a number of SNA-architected sense codes set by products other than VTAM are also included. However, this section does not include all product-specific sense codes that may display in VTAM messages. Refer to *SNA Formats* or *SNA Network Product Formats* for a description of all SNA-architected sense codes.
2. If a sense code is set by NCP, NetView®, CICS, a device, or any other product, refer to the appropriate product documentation for a complete explanation of the sense code.
3. The SNA sense code definitions used in this section are the architected descriptions written at the time this document was published. Additional VTAM information or helpful hints may be added to the basic SNA definition.

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## Sense codes

Sense data in a request/response unit (RU) consists of one byte for the category, one byte for the modifier, and two bytes for either sense-code-specific information or user-defined data. Following is the format of sense data:

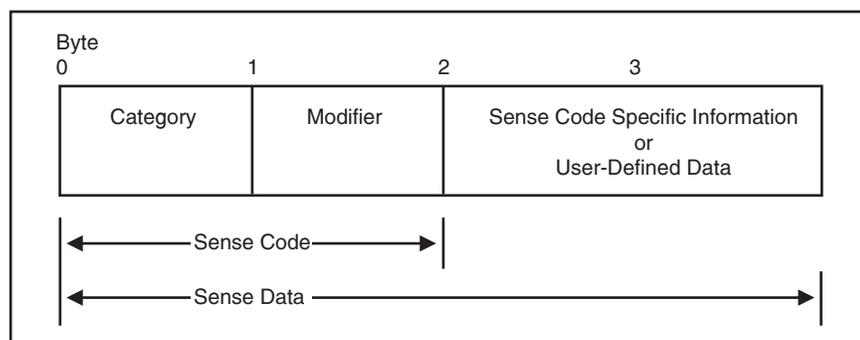


Figure 1. Sense data format

### 08XX (request reject)

This category indicates that the request was delivered to the intended component; it was understood and supported, but not executed.

#### Sense code 0801

Resource not available: The LU, PU, link station, or link specified in an RU is not available.

## Request reject sense code 0801

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- A CINIT request fails because an application rejects a terminal log on. Message IST663I is displayed when this error occurs, and the logon from the terminal fails with USSMSG07. See the information about common subarea network problems in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem.
- The logmode is incorrect.
- The major node is not active for the resource. (A frequent reason for this error is that the NCP has not been activated.)
- The line is inactive.
- The line is a CALL=INOUT line over which simultaneous connections are being attempted (dial-in and dial-out). This is a temporary condition and the session might be retried.
- APPC=YES was coded on the APPL definition, and there is an attempt to establish the session using OPNDST.
- With NTRI, this error can occur when DIALNO is incorrect.
- For IMS, the LU may not be defined.

**0001** Independent LU does not receive ACTLU: An ACTLU has been sent by the SSCP to an independent LU (sent by BF).

**0002** Reserved resources requested for sessions exceed allowable maximum: The resource reservation request in RNAA exceeds the maximum allowed by system definition. The address was not assigned and no change was made to the current reservation of resources for the LU.

**0003** Name aliasing cannot be performed because the name alias function is not available.

**0004** A switched connection currently exists for the link being activated, and the SSCP or the subarea PU does not support the protocols necessary to allow takeover of such a link.

**0005** A SETCV has been received for a resource that is still represented in the pool of available control blocks.

**0006** The line is not associated with a line adapter, or the line is associated with a line adapter that is not valid for the genned usage tier.

**0007** The line is associated with a line adapter that is not installed or not attached to the CCU.

**0008** The line is associated with a line adapter that is inoperative.

**0009** The LU is not available because it is not ready to accept sessions.

**000A** The PLU is not available because it is being taken down or has issued SETLOGON with the OPTCD=QUIESCE. The PLU is, therefore, not accepting new sessions. The initiation request should not be retried.

**VTAM Hint:** If the PLU is TSO, then it is likely that the TSO USERMAX limit has been reached. If a MODIFY TSO,USERMAX=0 was issued, then all LOGON attempts for TSO will fail with this sense code.

## Request reject sense code 0801

- 000B** The PLU is not available because it is unable to comply with the PLU-SLU role specification.
- 000C** The SLU is not available because it is unable to comply with the PLU-SLU role specification.
- 000D** The LU is not available because its SSCP is in the process of being taken down, and is therefore not allowing new sessions to be started. The initiation request should not be retried.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- VTAM Hint:** A possible cause of this error is that a dynamic application program is trying to open its ACB at the same time its SSCP is in the process of being taken down.
- 000E** The LU is not available because an intermediate gateway SSCP is in the process of being taken down, and is therefore not allowing new sessions to be started.
- 000F** The SLU is not available because it is being taken down, and is therefore not accepting new sessions. The initiation request should not be retried.
- 0010** A switched subarea connection cannot be established because no switched subarea links are defined.
- 0011** Switched subarea connection to another network cannot be established because no switched subarea links are defined within a gateway NCP.
- 0012** An APPN<sup>®</sup> connection cannot be established because this node has no available integers to represent a new TG.
- 0013** Switched connection cannot be established because a SHM GROUP was not defined in the switched PU's PATH definitions.
- 0014** A switched connection cannot be established. Call request verification was requested, but is not supported for this configuration. This condition results from conflicting system definition.
- 0015** The link connection is unavailable as a result of a hardware failure within the line adapter.
- 0016** A link resource is not available as a result of maintenance occurring on the supporting hardware.
- 0017** A link resource is not available because a mismatch exists within the microcode of the supporting hardware.
- 0018** Activation of the channel link failed because the supporting hardware is undergoing error recovery.
- 0019** Activation of the channel link failed because the supporting hardware is undergoing concurrent maintenance.
- 001A** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.
- 001B** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

## Request reject sense code 0801

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**001C** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**001D** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**001E** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**001F** A link connection is associated with a protocol that is inoperative.

**0020** A link resource is not available because of a mismatch between current operational parameters and the values specified at system generation.

**0026** The PU is not available because the dependent LU server-dependent LU requester connection could not be established.

**0027** A switched connection cannot be established because no switched link has been defined.

**VTAM Hint:** A switched connection cannot be established because a GROUP was not defined in the switched PU's PATH definitions or the defined GROUP does not exist in any active NCP major node.

**0028** REQDACTPU was received for a PU that is known but whose SSCP-PU session is currently inactive.

**0029** A multipath channel connection cannot be established because the system level is not at least MVS 4.3.

**002A** An ACTLINK has been received for a resource that is still represented in the pool of available control blocks.

**002B** Resource is unavailable due to program or operator action. This sense code is returned by the DLU network node server when it performs resource verification reduction for a DLU in its domain which has registered itself as unavailable for an unexpired time.

**002C** The required extended coupling facility is not available.

**002E** Generic Resource exit indicated to fail this session.

**4001** Line cannot be force deactivated while panel line test is active.

**4002** A forced deactivate was attempted when wrap test was active.

### Sense code 0802

Intervention required: Forms or cards are required at an output device, or a device is temporarily in local mode, or other conditions require intervention.

**Sense code 0803**

Missing password: The required password was not supplied.

**Sense code 0804**

Password was not valid.

**Sense code 0805**

Session limit exceeded: The requested session cannot be activated, as one of the NAUs is at its session limit, for example, the LU-LU session limit or the (LU, mode) session limit. This sense code applies to ACTCDRM, INIT, BIND, and CINIT requests.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:** Possible causes of this error include:

- A dynamic reconfiguration (DR) mismatch exists between VTAM and NCP. Check the PU DR and LU DR pools.
- The session limit was exceeded because:
  - The given mode name was found and the limit is currently set to zero, preventing activation of additional sessions.
  - The given mode name cannot be found. The session limit is assumed to be zero.

**0001** If accepted, the BIND request would prevent either the receiving LU or the sending LU from activating the number of contention-winner sessions to the partner LU that were agreed upon during a change-number-of-sessions procedure.

**0002** If accepted, the BIND request would cause the XRF-backup session limit to be exceeded.

**0003** If accepted, the BIND request would cause the XRF-active session limit to be exceeded.

**Note:** The session limit for XRF-active sessions is one. An XRF-active BIND is valid only if there are no XRF-active or XRF-backup sessions with the receiving SLU.

**0004** For an independent LU, the BIND request, if accepted, would cause the system-defined maximum number of sessions (MAXSESS) allowed for any LU to be exceeded for this LU.

**0005** The intermediate session router is unable to create a session connector control block. The pool of session connectors is saturated with active sessions and with pending active sessions for which the queue bit was set in the BIND; the BIND should not be retried.

**0006** The intermediate session router is unable to create a session connector control block. The pool of session connectors is saturated with active sessions and with pending active sessions for which the queue bit was not set in the BIND; the BIND should be retried.

**0008** For a dependent LU, if accepted, the BIND request would cause the session limit to be exceeded.

**0009** If accepted, the request would cause the PLU session limit to be exceeded.

**000A** If accepted, the request would cause the SLU session limit to be exceeded.

## Request reject sense code 0805

**000B** The request was rejected because a session already exists between the same LU pair, and at least one of the LUs does not support parallel sessions.

**000C** Duplicate controller session attempted.

### Sense code 0806

Resource unknown: For example, the request contained a name or address not identifying a PU, LU, SSCP, link, or link station known to the receiver or the sender.

**Note:** In an interconnected network environment, this sense code may be set by an SSCP in whose subnetwork and domain the LU was expected to reside; it is not set by an SSCP that is only an intermediary on the session-setup path. A gateway SSCP examines the resource identifier control vector in a session setup request (for example, CDINIT), to determine whether the LU is in the SSCP's subnetwork and domain.

Bytes 2 and 3 following the sense code contain sense code-specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** A possible cause of this error is that *uservarname* has been specified on the ID operand of the DISPLAY NCPSTOR command.

**0001** The resources identified in an SNA address list (X'04') MS common subvector are unknown to the PU receiving the request.

**Note:** When this sense data flows in a negative response to a network management vector transport (NMVT), the referenced X'04' subvector is the one that was present in the request NMVT to which the negative response corresponds. When this sense data flows in a sense data (X'7D') MS common subvector, the referenced X'04' subvector is present with the X'7D' subvector in the same major vector.

**0002** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

VTAM issues this code in response to an NPM session collection request for an undefined resource to indicate that the request was successful.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**0004** The indicated resources in the accompanying name list (X'06') subvector are unknown to the control point to which the request containing the subvector was routed.

**Note:** Names in the hierarchy below the level of the first unknown resource are not examined by the control point.

**0005** The physical unit is currently in the physical unit dynamic reconfiguration pool.

**0006** For a dynamic reconfiguration DELETE, MOVE, or REPLACE operation, the resource to be dynamically reconfigured could not be found.

## Request reject sense code 0806

- 0007** The LU address in bytes 8–9 of RNAA Type X'04' is already in the free pool.
- 0008** For a dynamic reconfiguration DELETE, MOVE, or REPLACE operation, the NAU name in RNAA does not correspond to the resource identified by the element address in the RNAA.
- 0009** The SSCP(OLU) cannot identify the SSCP(DLU), and the default SSCP rerouting is not enabled.
- 000A** The configuration identifier specified in a management services command is not recognized by the DLC manager at the receiving node.
- 0011** An unknown OLU name was specified in the request.
- 0012** An unknown DLU name was specified in the request.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- No CDRMs are active.
- No CDRSC exists for the DLU, and one cannot be created dynamically because CDRDYN=NO. Verify that a host CDRM definition exists and is activated if this node was started with a subarea number, and ensure that CDRDYN=YES is specified on the CDRM definition. See *z/OS Communications Server: SNA Resource Definition Reference* for information about the CDRDYN operand.

- 0013** An unknown SLU name was specified in the request.
- 0014** An unknown PLU name was specified in the request.
- 0015** An unknown OLU address was specified in the request.
- 0016** An unknown DLU address was specified in the request.
- 0017** An unknown SLU address was specified in the request.
- 0018** An unknown PLU address was specified in the request.
- 0021** The session-initiation request specified that the receiving SSCP is the SSCP having the DLU in its domain, but the DLU is unknown to the receiving SSCP. This error can occur if a CDRM is coded incorrectly on the CDRSC definition statement.
- 0022** The originator of the request or response is unknown to the receiver.
- 0023** The destination of the request or response is unknown to the sender.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 0024** An unknown LU1 name was specified in the request.
- 0025** An unknown LU2 name was specified in the request.
- 0026** The SSCP does not have a session with the boundary function PU of an independent LU.
- 0027** The PU associated with a switched SLU is unknown. Session setup processing for the switched SLU cannot proceed.

## Request reject sense code 0806

- 0028** NAU1 network address is unknown.
- 0029** NAU2 network address is unknown.
- 002A** The NAU name in the CONTACT or ACTLU does not correspond to the resource at the target address.
- 002B** The TG being activated is unknown.
- 002C** The identification supplied by the adjacent node in its XID3 differed from the identification that the receiving node was configured to expect.
- 002D** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.
- 002E** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.
- 002F** The destination resource was not found on this node during a session activation attempt.
- 0030** The adjacent node was not identified during CP-CP session activation or deactivation.
- 0031** Upon receiving a route request from another component in the node, TRS has been unable to locate in its topology database the destination network node or any network node specified in the TG vectors for the destination end node; the request is rejected.
- 0032** A SETCV defining an intra-FRSE PCV segment subport set was received containing an element address unknown to the receiver.
- 0033** A network resource needed for session establishment has become unavailable resulting in the termination of the pending session establishment procedure.
- 0034** REQDACTPU received for an unknown PU.
- VTAM Hint:** This sense code is set by VTAM when processing the REQDACTPU request received from the dependent LU requester (DLUR) to deactivate the PU, but the PU is not known to VTAM. VTAM will send a negative REQDACTPU response with the sense code to the DLUR.
- Verify that the PU name is specified correctly in the PU definition for the switched major node and in the DLUR definitions. If you have a system where PUs are being dynamically created, verify that the PU name is specified correctly in either the NIDDEF or CPNDEF definitions and in the DLUR definitions.
- 0035** The local node has received an unknown adjacent CP name in a request to activate or deactivate a CP-CP session.
- 0036** No SSCP-SSCP session exists between the VRTG end points.
- VTAM Information:** VTAM sets this sense code when a CDINIT(5) cannot be sent because there is no SSCP session between the VRTG endpoints.
- 3426** Product-specific sense code.

## Request reject sense code 0806

**VTAM Hint:** This sense code can be displayed in a VTAM message but is set by another product. It may be issued by CICS. If issued by CICS, bytes 2 and 3 map to a CICS message number. Refer to *CICS Messages and Codes* for additional information.

### Sense code 0807

Resource not available—LUSTAT forthcoming: A subsidiary device will be unavailable for an indeterminate period of time. LUSTAT will be sent when the device becomes available.

### Sense code 0808

The contents ID contained on the ACTCDRM request was not valid.

### Sense code 0809

Mode inconsistency: The requested function cannot be performed in the present state of the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- If resources are not activating correctly when a new NCP is activated, either rename the new NCP or use another method to make sure that the old resource resolution table (RRT) is replaced with the new RRT.
- If you are trying to establish a session to a 3274, this error can occur when DATMODE=HALF is not coded on the PU definition statement.
- A VARY INACT,FORCE command on a switched PU is turned into a VARY INACT,REACT.
- If a USERVAR is defined, the USERVAR name is required for session initiation instead of the real name.
- There is not enough storage to enable VTAM to add a dynamic application program to the symbol resolution table (SRT).
- Another resource with the same name as a dynamic application program that requests to open its ACB has already been defined.

**0001** The logical unit vector (LUV) table is too small.

**0002** Either the SSCP is not the owner, or it was not added by dynamic reconfiguration.

**0003** Previous RNAA received for the same address. Check the LOCADDR in the LU definitions.

**0004** Local address X'0000' specified for a logical unit added to a cluster controller module (PU Type 2).

**0005** Attempted to switch the line mode when the link was already active.

**0006** The logical unit was specified at system generation as not available for dynamic reconfiguration.

**0007** Attempted to switch the line mode while an activate link command is in progress.

**0008** Attempted to switch the line mode while a deactivate link is in progress.

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- 0009 Attempted to switch the line mode while a wrap is in progress on this line.
  - 000A Either the specified physical unit was not assigned to the specified link, or the specified logical unit was not assigned to the specified physical unit.
  - 000B The logical unit or the physical unit was in active session.
  - 000D A logical unit was still assigned to the physical unit.
  - 000E The resource to be dynamically reconfigured is a system generated resource and is defined as not DR-deletable.
  - 000F An RNAA received from an SSCP is rejected because it specifies a resource (adjacent link station or LU) that currently has an address assigned as a result of the RNAA of another SSCP; or an ACTLU, FNA, or SETCV received from an SSCP is rejected because it specifies a resource address that is not assigned to an existing resource or is assigned as a result of the RNAA of another SSCP.
- 0010–0013** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- 0010 Attempted to switch the line mode while a line trace or scanner interface trace (SIT) is in process.
  - 0014 ANS mismatch discovered.
  - 0015 The type modifier (3270 indicator) is already set and does not match the type modifier in this command.
  - 0016 The PU type on SETCV does not match the actual PU type.
  - 0017 The error-recovery modifier is already set and does not match the error-recovery modifier in this command.
  - 0018 The pass limit is already set and does not match the pass limit field in this command.
  - 0019 A SETCV was received containing a value for the SDLC BTU send limit that conflicts with the previous value received.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It may be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.
- 001A The maximum segment size is already set and does not match the maximum segment size in this command.
  - 001B The command specifies a pool indicator that is not X'00' or X'01'.
  - 001C The RNAA request contains a network ID that is not known to the gateway PU.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 001D An address-pair session key in a network-qualified address pair control vector (X'15') is not known to the gateway PU.
  - 001E A gateway PU received an RNAA request for a cross-network session and all possible address transforms for the named resource are allocated.

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**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0020** The gateway node receiving an RNAA request cannot support another session between the named resource pair.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0024** A PU received an ACTPU request with the SSCP-PU session capabilities control vector (X'0B') indicating that the sending SSCP does not support ENA, but the PU does not know the SSCP's maximum subarea address value.

**0025** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

**0026** MAXOUT of zero received.

**0027** A request for a function was received by a component, but the function was not enabled or activated.

**0028** Cleanup termination of an LU-LU session has been converted to a forced termination by the LU. The SSCP must wait for session-ended signals before deleting its session awareness records of the session.

**0029** Second-level application state change has occurred. An application program served by an MS application program has changed the state of a node that may result in the rejection or failure of a current request or of a future request that would have previously been honored.

**002A** The route setup procedure identified in a session services request was not in the expected state.

**0030** An FNA was received for an LU that has an active SSCP-LU session.

**0031** Bind failure: Mismatch of date, time, or NCP load module name. The load module currently processing in the CCU does not match the NPM resource resolution table (RRT) in use by NPM. The NCP generation date, time, and load module name in the NPM RRT must match that in the NCP exactly. Verification is through the user data in the bind image.

**0032** A BFSESSINFO was received when the LU was not pending BFSESSINFO; the reported sessions will be terminated, and the associated network addresses will be freed. This sense data is also included in the BFCLEANUP when the sessions are terminated.

**0033** A BIND with the same LFSID as an existing pending-reset session has been received by a boundary function from a peripheral PLU.

**0034** A termination request has been received for a resource that has been taken over by an SSCP. The termination type is not strong enough to apply to the resources. The termination type needs to be forced or cleanup.

**0035** A cross-domain resource, which was expected to be active, is inactive.

**0036** The short hold mode logical connection selected does not exist.

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- 0037 A non-short hold mode connection was attempted on a port (group) that is dedicated to short hold mode operation.
- 0038 There is an inconsistency of mode between the XID sender and receiver. The XID receiver is operating in short hold mode. Examples include inconsistent settings of the short hold indicator (SHI), the short hold status indicator (SHSI), and the XID exchange state indicator.
- 0039 CP Transaction Error: CP Capabilities (X'12C1') GDS variable request sent indicating conversation complete or without change direction (CEB or -CD) or CP Capabilities reply sent indicating conversation not yet complete (-CEB).

**VTAM Hint:** This sense code is set by VTAM in the following situations:

- During contention winner CP-CP session activation.
  - The execution of an APPCCMD CONTROL=ALLOC,QUALIFY=CONWIN instruction to allocate a conwinner CP-CP session failed due to an unrecoverable error, and APPC did not communicate to the issuing TP a non-zero sense code at the time the ALLOC instruction was posted back. The RCPRI and RCSEC return codes displayed in message IST1002I in the IST1110I message group provide more information about the cause of the error.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the capabilities of the adjacent CP completed successfully, but the TP issuing that instruction was not notified that the partner LU has unconditionally deallocated the conversation. You may want to make the system programmer aware of this situation.
- During contention loser CP-CP session activation.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the capabilities of the adjacent CP completed successfully, but the partner LU did not enter RECEIVE state as expected. You may want to make the system programmer aware of this situation.
- During contention winner or contention loser CP-CP session activation.
  - The execution of an APPCCMD CONTROL=SEND,QUALIFY=DATA instruction to send our CP capabilities to the adjacent CP failed due to an unrecoverable error, and APPC did not communicate to the issuing TP a non-zero sense code at the time the SEND was posted back. The RCPRI and RCSEC return codes displayed in message IST1002I in the IST1110I message group provide more information about the cause of the error.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the adjacent CP's capabilities failed due to an unrecoverable error, and APPC did not communicate to the issuing TP a non-zero sense code at the time the RECEIVE was posted back. The RCPRI and RCSEC return codes displayed in message IST1002I in the IST1110I message group provide more information about the cause of the error.
  - The execution of the APPCCMD CONTROL=RECEIVE,QUALIFY=SPEC instruction to receive the adjacent CP's capabilities completed successfully, but something other than data was received from the partner CP. You may want to make the system programmer aware of this situation.

- 003A A null XID was received when an XID3 with its exchange state indicators

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set to “prenegotiation,” “negotiation proceeding,” or “exchange state indicators not supported” was expected.

- 003B** A null XID was received when a nonactivation XID3 was expected.
- 003C** An XID3 with the exchange state indicators set to “prenegotiation” was received when either of the values “negotiation proceeding” or “exchange state indicators not supported” was expected.
- 003D** A nonactivation XID3 was received when a null XID or link-activation XID3 was expected.
- 003E** A link activation XID3 was received when a null XID or nonactivation XID3 was expected.
- 003F** The node with a secondary link station attempted to initiate a nonactivation exchange when secondary-initiated nonactivation exchanges are not supported on the connection.
- 0040** A mode-setting command was received and was either not expected or not valid for the receiving node; for example, SNRME was received when SNRM was expected.
- 0041** An XID3 with the Exchange State indicators specifying a negotiation-proceeding exchange was received when an XID3 indicating a renegotiation exchange was expected. If renegotiation XID3s are used in a link activation XID exchange, each node must send and receive one.
- 0042** On an ABM TG on which secondary-initiated nonactivation XID exchanges are supported, the adjacent link station has initiated a nonactivation exchange by sending a nonactivation XID3 in which the ABM Nonactivation XID Exchange Initiator indicator specifies that the sending node is not initiating a nonactivation exchange. On such TGs, the initiator of a nonactivation exchange always explicitly indicates that it is initiating a nonactivation exchange.
- 0046** An XID3 indicating that the sender supports the Exchange State indicators was received when the sender had previously indicated that it does not support this field in XID3.
- 0047** An XID has been received after receipt of a mode-setting command but before the completion of the mode-setting sequence, for example, before RR, RNR, or an I-frame with the poll bit set has been sent by the node with the primary link station after it has received UA in response to its mode-setting command.
- 0048** A node with an NRM primary link station has received an XID3 when it has no outstanding commands. NRM secondary link stations send XIDs only in response to XID commands.
- 0049** The XID3 received from the adjacent node had an XID negotiation error (X'22') control vector appended. The XID exchange will therefore terminate unsuccessfully.
- 004A** The request cannot be accepted because dynamic reconfiguration is in process for the target resource.
- 004B** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.

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- 004C** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.
- 004D** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.
- 004E** A node with a secondary NRM link station has attempted to initiate a nonactivation XID exchange with an XID3. Nodes with secondary NRM link stations may solicit a nonactivation XID3 exchange only by means of sending a null XID at a response opportunity.
- 0050** An UNBIND request was received on behalf of a resource for which a previous UNBIND is in progress. The second UNBIND does not indicate an override of the first, and is therefore a duplicate request.
- 0051** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.
- 0052** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.
- VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP, SSP, and EP Messages and Codes* for a complete description.
- 0053** An activation request was received for a CDRM whose subarea address is already known by another CDRM name.
- 0054** An adjacent node is not the node type that the receiving node was configured to expect.
- 0055** The adjacent node is attempting to establish a connection through a connection network but the virtual routing node CP named in the TG Descriptor (X'46') control vector appended on the received negotiation-proceeding XID3 is not valid.
- 0056** Locate Phase Error: A Locate GDS variable was received that contained an incorrect request-reply-chain status field; for example, c reply was received while the receiver was in chain state.
- 0057** The received NOTIFY type is not supported in the current state of the receiver.
- 0058** An intra-FRSE PVC segment subport received an RNAA (assignment type X'5') with a DLC header link station address field containing a value outside the valid range. The RNAA is rejected.
- 0059** An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' specifying discontinue link-level contact if an auto network shutdown procedure is initiated. The RNAA is rejected.

## Request reject sense code 0809

- 005A** RNAA was received to add an intra-FRSE PVC segment subport to a hierarchical physical resource that is not active.
- 0060** An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' specifying that modem test support is permitted. The RNAA is rejected.
- 0061** An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' frame send control value field containing a value outside the valid range. The RNAA is rejected.
- 0062** An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' node type identifier field specifying a node type other than T1. The RNAA is rejected.
- 0063** An intra-FRSE PVC segment subport received an RNAA with a control vector X'43' specifying that null XID polling for the secondary station should be used. The RNAA is rejected.
- 0064** A SETCV defining an intra-FRSE PVC segment subport set was received that contained an element address in the DR pool.
- 0065** A SETCV defining an intra-FRSE PVC segment subport set was received from an SSCP that did not originally add all the subarea element addresses listed in the SETCV to the DR pool.
- 0066** An ACTTRACE was received for a link connection trace while a trace for a logical link using that link connection was active, or ACTTRACE was received for a logical link trace while a trace for its underlying physical link connection was active.
- 0067** An intra-FRSE PVC segment subport received an RNAA5 containing a DLC Header Link Station Address that is being used by an existing frame relay terminating equipment subport.
- 0068** An XID was received with a networking capabilities indicator (specifying whether the sender is an APPN network node) that is not consistent with the receiver definition for the connection. The connection is rejected.
- 0069** An XID was received with CP services and CP-CP session support indicators that are not consistent with the receiver definition for the connection. The connection is rejected.
- 006A** A node type mismatch exists between the two SSCPs setting up a VRTG.  
**VTAM Hint:** VTAM sets this sense code when a VRTG connection is rejected because the VRTG partner host is configured as an unexpected node type.
- 006B** The IP address specified in an RNAA(Type=X'05') for a new internet protocol (IP) PU is a duplicate of an existing IP address.

### Sense code 080A

Permission rejected: The receiver has denied an implicit or explicit request of the sender; when sent in response to BIND, it implies either that the secondary LU will not notify the SSCP when a BIND can be accepted, or that the SSCP does not recognize the NOTIFY vector key X'0C'. (See the X'0845' sense code for a contrasting response.)

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.

## Request reject sense code 080A

- 0001** An SSCP has denied permission to establish a session through its resources; the receiving SSCP should not attempt to reroute the request to another SSCP.
- 0002** An SSCP has denied permission to establish a session through its resources; the receiving SSCP should attempt to reroute the request to another SSCP.
- 0005** The alias application has denied permission to establish a session through this SSCP. The receiving SSCP should not attempt to reroute the request to another SSCP.
- 0006** The alias application has denied permission to establish a session through this SSCP. The receiving SSCP should attempt to reroute the request to another SSCP.
- 0007** Permission rejected for an activation request received for a resource that has a network ID different from that of the requesting SSCP, and the requesting SSCP indicated previously that it does not support this configuration.
- 0008** The request specified in the request change control MS major vector was rejected because it did not originate from a valid focal point.  
**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.
- 0009** The request specified in the request change control MS major vector was rejected because the ability to support it has been disabled at the receiver.  
**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.
- 000A** The request was rejected because it would prohibit compliance with the status-reporting requirements specified in the reporting level MS common subvector.
- 000B** The request was rejected because the second-level application, though recognized, operates under the control of a program other than that which has received and is to forward the request to that second-level application program.
- 000C** The request was rejected because the timer/clock at the receiver is protected and cannot be set by the request sender.
- 000D** An SSCP or CP has denied a locate search request. The receiving SSCP or CP should attempt to reroute the request.
- 000E** The request was rejected because of constraints or policies specific to the receiving implementation or installation. The request should not be retried.
- 000F** The request was rejected because of constraints or policies specific to the receiving DLUs. The request should not be retried.

### Sense code 080B

Bracket race error: Loss of contention within the bracket protocol. This error can arise when bracket initiation or termination by both NAUs is allowed.

### Sense code 080C

Procedure not supported: A procedure (test, trace, IPL, REQMS type, MS major vector key) specified in an RU is not supported by the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

## Request reject sense code 080C

- 0000** No specific code applies.
- 0005** The MS major vector key is not supported by the receiver.
- 0006** The MS major vector is identified as one that contains a command, but the receiver does not recognize or support the command subvector. (See the X'086C' sense code for the case in which the command subvector is identified, but an additional required subvector is missing.)
- 0007** Function not supported.
- 0009** A request for session information retrieval for an independent LU was received in an REQMS; such requests are permitted only in a network management vector transport (NMVT).
- 000A** A request was received containing a name list or an address list MS subvector with multiple entries, but the receiver supports only a single entry in such a subvector.
- 000D** An MS request change control major vector was received requesting post-test, but the receiver does not support that function.
- 000E** An MS request change control major vector was received prohibiting automatic removal of a change, but the receiver does not support that function.
- 000F** An activate MS major vector was received from a change management focal point specifying use of changes installed in production only, but the receiver supports such a request only when it is received locally.
- 0012** Application GDS variable in an MDS\_MU not supported.
- 0013** MDS message type not supported. Receiving application does not support the MDS message type in this MDS\_MU.
- 0014** An MS major vector was received requesting execution window timing, but the receiver does not support that function.
- 0015** An MS activate major vector was received specifying change management activation use, but the receiver does not support that function.
- 0016** An MS request change control major vector was received requesting activate with force delay, but the receiver does not support that function.
- 0017** The changes referred to in a request change control MS major vector are already installed on trial and the receiver does not support the transfer from trial to production with REMOVABILITY=YES.
- 0018** An MS request change control major vector was received requesting pretest, but the receiver does not support that function.
- 0019** A link trace requested in ACTTRACE is not supported for frame-relay logical links.
- 0161** Focal point authorization request (X'61') subvector missing the function subfield. (X'10', X'20', or X'30') is required.
- 0162** Focal point authorization reply (X'62') subvector missing the function subfield. (X'10', X'20', or X'30') is required.
- 0163** Focal point authorization request (X'63') subvector missing the function subfield. (X'10' or X'30') is required.
- 0164** Focal point authorization reply (X'64') subvector missing the function subfield. (X'10' or X'20') is required.

## Request reject sense code 080C

**4001** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**4003** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

### Sense code 080D

NAU contention: A request to activate a session was received while the receiving half-session was awaiting a response to a previously sent activation request for the same session; for example, the SSCP receives an ACTCDRM from the other SSCP before it receives the response for an ACTCDRM that it sent to the other SSCP, and the SSCP ID in the received ACTCDRM was less than or equal to the SSCP ID in the ACTCDRM previously sent.

### Sense code 080E

NAU not authorized: The requesting NAU does not have access to the requested resource.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** A possible cause of this error is that the PLU is not defined or cannot be found.

**0001** The PU, according to its system definition, does not accept an ACTPU from any SSCP having the network ID of the sending SSCP.

**0002** A gateway T4 node received a request that was not valid from an SSCP that is not in the native network of the gateway node.

**0003** The link station received a CONTACT from an unauthorized SSCP.

**0004** A BFCLEANUP is received from an unauthorized SSCP.

**0005** A RNAA is received from an unauthorized SSCP.

**0006** A network node (NN) received a REGISTER from an unauthorized end node.

**0007** A network node (NN) received a REGISTER from another network node (NN); receiver rejects the REGISTER with this code.

**0008** A network node (NN) received a DELETE from another network node (NN); receiver rejects the DELETE with this code.

**0009** A network node (NN) received a DELETE from an unauthorized end node.

**000B** A Locate/CD-Initiate was received from a node that is not defined as a client end node. This can be detected by either DS or SS.

**000C** A gateway T4 node received a dynamic dump request from an SSCP that is not in the native network of the gateway T4 node.

**Sense code 080F**

End user not authorized: The requesting end user does not have access to the requested resource.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**0002** Session-level LU-LU verification protocol mismatch: An LU that supports only the enhanced LU-LU verification protocol received a BIND or RSP(BIND) that specified the basic LU-LU verification protocol.

**0003** An attempt was made to enter a remote subnetwork to which the origin subnetwork was not authorized.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.

**0004** An attempt was made to install or remove a database table before issuing a logon to the database.

**6051** Access security information not valid: The request specifies an access security information field that is not acceptable to the receiver; for security reasons, no further detail about the error is provided. This sense data is sent in FMH-7 or UNBIND.

**VTAM Hint:** A security protocol error has been detected in an RU received from the remote LU or transaction program. For persistent verification, VERIFY and PV must be coded on the conversation security level (CONVSEC) in the RACF® profile.

**6052** Authentication failed.

**6053** Not signed on.

**6054** Lifetime expired.

**6055** Authentication required.

**6058** Access failure: The request specifies an access security information field that is not acceptable due to a processing failure. This sense code is only allowed on sessions that support extended security sense codes.

**8000** Access failure: GSS-API unexpected status value — A GSS-API request returned an unrecognized status value.

**8001** Access failure: GSS-API GSS\_BAD\_MECH — unsupported mechanism requested

**8002** Access failure: FSS-API GSS\_BAD\_NAMETYPE — name of unsupported type provided

**8003** Access failure: GSS\_API GSS\_BAD\_BINDINGS — channel binding mismatch

**8004** Access failure: GSS\_API GSS\_BAD\_NAME — no valid name provided

**8005** Access failure: GSS\_API GSS\_BAD\_STATUS — no valid input status selector

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- 8006** Access failure: GSS\_API GSS\_BAD\_SIG — token had invalid signature
- 8007** Access failure: GSS\_API GSS\_DEFECTIVE\_CREDENTIAL — defective credential detected
- 8008** Access failure: GSS\_API GSS\_DEFECTIVE\_TOKEN — defective token detected
- 8009** Access failure: GSS\_API GSS\_FAILURE — failure, unspecified at GSS\_API level
- 800A** Access failure: GSS\_API GSS\_NO\_CONTEXT — no valid security context specified
- 800B** Access failure: GSS\_API GSS\_NO\_CRED — no valid credentials provided
- 8101** Retryable access failure: GSS\_API GSS\_CONTEXT\_EXPIRED — specified security context expired
- 8102** Retryable access failure: GSS\_API GSS\_CREDENTIALS\_EXPIRED — expired credentials detected
- 8103** Retryable access failure: Deferred authentication processing was requested, but communications failures occurred while attempting to communicate with the distributed authentication service TP.
- 8104** Retryable access failure: Deferred authentication processing was requested, but the origin could not locate the conversation's security context.
- FF00** Access failure: The request specifies a password that is expired. This sense code is only allowed on sessions that support extended security sense codes.
- FF01** Access failure: The request specifies a password that is invalid. This sense code is only allowed on sessions that support extended security sense codes.
- FF02** Access failure: The request specifies a user ID that is revoked. This sense code is only allowed on sessions that support extended security sense codes.
- FF03** Access failure: The request specifies a user ID that is invalid. This sense code is only allowed on sessions that support extended security sense codes.
- FF04** Access failure: The request is missing a user ID. This sense code is only allowed on sessions that support extended security sense codes.
- FF05** Access failure: The request is missing a password. This sense code is only allowed on sessions that support extended security sense codes.
- FF06** Access failure: The request specifies a group that is invalid. This sense code is only allowed on sessions that support extended security sense codes.
- FF07** Access failure: The request specifies a user ID that is revoked in the specified group. This sense code is only allowed on sessions that support extended security sense codes.
- FF08** Access failure: The request specifies a user ID that is not defined in the specified group. This sense code is only allowed on sessions that support extended security sense codes.
- FF09** Access failure: The request specifies a user ID that is not authorized to

## Request reject sense code 080F

access the remote LU. This sense code is only allowed on sessions that support extended security sense codes.

- FF0A** Access failure: The request specifies a user ID that is not authorized to access the remote LU from the local LU. This sense code is only allowed on sessions that support extended security sense codes.
- FF0B** Access failure: The request specifies a user ID that is not authorized to access the transaction program at the remote LU. This sense code is only allowed on sessions that support extended security sense codes.
- FF0C** Access failure: The request failed due to installation exit processing at the remote LU. This sense code is only allowed on sessions that support extended security sense codes.
- FF0D** Access failure: The request failed due to processing failure between the local LU and remote LU. This is a correctable error, so subsequent requests might succeed. This sense code is only allowed on sessions that support extended security sense codes.

### Sense code 0810

Missing requester ID: The required requester ID was missing.

### Sense code 0811

Break: Asks the receiver of this sense code to terminate the present chain with CANCEL or with an FMD request carrying EC. The half-session sending the break sense code enters chain-purge state when break is sent; the half-session receiving the break sense code discards the terminated chain without ever retransmitting it.

### Sense code 0812

Insufficient resources: Receiver cannot act on the request because of a temporary lack of resources.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** A possible cause of this error is that VTAM cannot find a predefined application program definition or model application program definition when processing an OPEN macro for an application program requesting to open its ACB.

**0001** More PUs or LUs requested by RNAA than are present in the pool.

**VTAM Hint:** If you are activating a PU connected to an NCP, check the NCP LUDRPOOL definition statement.

See *NCP, SSP, and EP Resource Definition Reference* for more information.

**0002** More PUs or LUs are requested by RNAA than the attachment resource will hold.

**0003** Resources are not currently available to support an XRF session.

**0004** The RNAA request indicates that the requested address must be pre-ENA compatible, but no pre-ENA compatible address is available. See *z/OS Communications Server: SNA Resource Definition Reference* for information about MAXSUBA.

## Request reject sense code 0812

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0005** The requested reserved resources for sessions are not available: In RNAA, a reservation of session resources exceeded those available; no address was assigned and no change was made to the current reservation of the LU.

**0006** Insufficient resources are available for a boundary LU-LU session.

**VTAM Hint:**

For NCP-attached devices, when there is a BIND, INITOTHER or RNAA failure, check the following NCP parameters:

- NUMILU, NUMTYPE1, and NUMTYPE2 in the LUDRPOOL statement
- AUXADDR on the BUILD statement
- The LUPOOL statement, if applicable

See *NCP, SSP, and EP Resource Definition Reference* for more information.

Check the system log or the network log for additional messages that may pertain to the problem. For example, if message IST651I is issued for STORAGE UNAVAILABLE BS BUFFER POOL, it might be necessary to increase the size of the buffer pool.

**0007** Insufficient resources are available for LU address allocation.

**0008** No buffer space: The session was deactivated because of a buffer shortage when extending a nonextended positive RSP(BIND). Insufficient resources exist to extend a BIND response.

**0009** No unreserved session connectors are available to add an LU.

**000A** A network node does not have adequate resources to honor a Register request (the available directory capacity has already been reached).

**000B** A BFSESSINFO was received for an LU that is unknown to VTAM. VTAM attempted to create a representation for the LU, but was unable to do so because of insufficient resources.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**000C** Not enough buffer space exists to support a deadlock-free transmission group. The receiver does not have enough buffers to allocate a BIND receive buffer.

**000D** Insufficient buffers exist to activate a session.

**000E** The network names table is full.

**VTAM Hint:** The NCP network names table is full. Increase the NNT in the NAMTAB on the BUILD definition statement. This sense code is set by the NCP.

See *NCP, SSP, and EP Resource Definition Reference* for more information.

**000F** Insufficient buffer space exists to build a BFINIT.

**0010** The CP does not have adequate resources to process a GDS variable request; it will deactivate its CP-CP sessions with the partner CP.

## Request reject sense code 0812

**0011** There is insufficient storage available to the SNA component to satisfy the request at this time.

**VTAM Hint:** A possible cause of this error is that VTAM is trying to build a dynamic application program from a model application program definition and there is not enough storage to allow VTAM to build the dynamic application program.

**0012** No network address available to assign to a parallel session.

**0014** This session has failed because of storage depletion at an intermediate node.

**0015** Insufficient resources are available to initiate a short hold mode logical connection.

**0016** Unknown network identifier.

**0017** Insufficient buffer space exists to process a nonimmediate UNBIND.

**0018** All LFSIDs this node is allowed to assign on the TG are in use at this time; the request is rejected.

**0019** Insufficient storage is available to conduct an XID exchange.

**001A** Insufficient storage is available to activate a TG.

**001B** Insufficient resources to activate a token-ring connection.

**VTAM Hint:** A possible correction for this error is to code the NCP parameter NEWDEFN, and the output deck must be supplied to the VTAM configuration found in SYS1.VTAMLIST.

See *z/OS Communications Server: SNA Migration* for information about key data sets.

**001C** Insufficient storage exists to respond precisely to an error condition.

**001D** The PU Type 4 node does not have sufficient disk space to perform the requested dump.

**001E** A session has failed because depletion of pooled buffer storage has exceeded a critical threshold resulting from that session monopolizing the usage.

**0021** A received XID3 cannot be fully processed because the receiver has insufficient storage to keep the network-qualified name of the control point of the sender.

**0022** No specific code applies.

**VTAM Hint:** This sense code can be displayed in a VTAM message but is set by NCP. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a description of sense codes set by NCP.

**0023** No specific code applies.

**VTAM Hint:** This sense code can be displayed in a VTAM message but is set by NCP. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a description of sense codes set by NCP.

**0024** No specific code applies.

**VTAM Hint:** This sense code can be displayed in a VTAM message but is set by NCP. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a description of sense codes set by NCP.

## Request reject sense code 0812

**0025** Insufficient storage to keep the network-qualified name of the connection network virtual node control point.

### Sense code 0813

Bracket bid reject—no RTR forthcoming: BID (or BB) was received while the first speaker was in the in-bracket state, or while the first speaker was in the between-brackets state and the first speaker denied permission. RTR will not be sent.

**VTAM Hint:** First speaker refers to the contention winner.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** Bracket bid reject: The component was in the in-bracket state when a bracket request was received.

**0002** Bracket bid reject: The component was in the between-bracket state when a bracket request was received.

### Sense code 0814

Bracket bid reject—RTR forthcoming: BID (or BB) was received while the first speaker was in the in-bracket state, or while the first speaker was in the between-brackets state and the first speaker denied permission. RTR will be sent.

### Sense code 0815

Function active: A request to activate a network element or procedure was received, but the element or procedure was already active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** A session activation request was received by a boundary function to activate a session that was already active.

**0002** A session activation request was received by a gateway function to activate a cross-network session that was already active.

**0003** Processing for another management services request in progress. Sender should retry the request.

**Note:** This sense data is sent only by a Type 2 node, which may lack sufficient queuing space.

**0004** A bind was received from an T2.1 node when the session receiver rejects the bind.

**0005** An IPL function (the loading or storing of a load module) is in progress (MOSS busy).

**0006** The short hold mode logical connection selected has been recalled on another port.

**0007** A session activation request was received by an APPN node to activate a CP-CP session that was already active.

**0009** A session activation request was received by an APPN end node to activate a CP-CP session with a network node when a CP-CP session is already active with another network node.

### Sense code 0816

Function inactive: A request to deactivate a network element or procedure was received, but the element or procedure was not active.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

- 0000** No specific code applies.
- 0001** A session deactivation request was received by an APPN node to deactivate a CP-CP session that was not active.

### Sense code 0817

Link or link resource inactive: A request requires the use of a link or link resource that is not active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Link inactive.  
**VTAM Hint:** A possible cause of this error is that auto activation is not supported for the PU.
- 0002** Link station inactive.
- 0003** Switched link connection inactive.
- 0004** The TG number of the desired link has been renegotiated to a new value; the route cannot be activated.
- 0005** Service link inactive.
- 0006** The link between an SNA node and an attached processor is inactive; for example, the connection between the main processor and its attached service processor goes down.
- 0007** The requested test was not initiated because the link to be tested was put into an inactive state.
- 0008** The requested test was interrupted because the link to be tested was put into an inactive state.
- 0009** Transport configuration table entry not active.

**VTAM Hint:** An APPN host-to-host channel PU is being activated and one of following has occurred:

- The RDTE for the transport resource list element (TRLE) whose name is specified in the PU definition cannot be found in the transport resource list (TRL).
- The RDTE for the TRLE can be found but is already in use by another PU.

VTAM fails the activation of the PU and the PU is left in an inactive state.

Perform™ the following steps:

1. Issue a D NET,ID=*puname* command to determine which TRLE name is specified on the PU definition statement.
2. Issue a D NET,TRL command to get a list of the TRLEs that are defined in the TRL.

## Request reject sense code 0817

If the name specified on the PU definition cannot be found in the list obtained using the D NET,TRL command, verify that the TRLE name is spelled properly in the PU definition and that the TRLE name exists and is spelled properly in the TRL definition.

If the TRLE name in the PU definition is also on the list obtained in response to the D NET,TRL command, the current state of the TRLE should be active, indicating that another PU is already using this TRLE. Issue a D NET,TRL,TRLE=*trle\_name* command to find the name of the PU already using this TRLE.

**4001** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

## Sense code 0818

Link procedure in process: CONTACT, DISCONTACT, IPL, or other link procedure in progress when a conflicting request was received.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**0002** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**0003** CONTACT not serialized, retry: An initial CONTACT procedure is in progress and a nonactivation CONTACT was received by the PU. The nonactivation CONTACT is rejected until the initial CONTACT procedure is completed.

**0004** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It might be an NCP sense code. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a complete description.

**0005** Link problem determination test for a modem in progress.

**0006** On-line terminal test in progress.

**0007** SDLC link test, Level 2, in progress.

**0009** The requested test was not initiated because another test was already in progress.

**000A** An online terminal test (OLTT) is active on the service link.

**000B** SDLC link test, Level 2, in progress on the service link.

## Request reject sense code 0818

**000C** Link problem determination test for a modem on the service link in progress.

### Sense code 0819

RTR not required: Receiver of ready to receive has nothing to send.

### Sense code 081A

Request-sequence error: Sequence of requests not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** An ACTLU was received and no SSCP-PU session exists.

**0002** An IPL or DUMP RU sequence error has occurred.

**0004** An NC\_ER\_TEST was to be sent as a result of receiving a ROUTE\_TEST request. The ROUTE\_TEST was sent in one subnetwork, the NC\_ER\_TEST was to be sent in another. The SSCP sending the ROUTE\_TEST did not have a required alias address within the subnetwork where the NC\_ER\_TEST was to be sent. (Before sending ROUTE\_TEST, the SSCP sends RNAA, or the installation predefines the alias address, so that an origin SSCP address is available within the subnetwork of the route being tested. This address is then specified in the NC\_ER\_TEST RU.)

**0006** RNAA Rejected: If the PU to which the LU is to be added is RNAA added and a control vector has not been received, the RNAA is rejected. A SETCV for the PU has not been received and processed.

**0007** A CONTACT, BIND, or ACTLU has been received from an SSCP that has not established ownership of a permanent (system-defined) resource. The resource is not usable until RNAA(Move) has been received.

**0008** A CONTACT, BIND, or ACTLU has been received from an SSCP that has not established ownership of a temporary (DR added) resource. The resource is not usable until RNAA(ADD) has been received.

**0009** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.

**000F** Set aside for implementation-specific use, and will not be otherwise defined in SNA; see implementation documentation for details of usage.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.

**0010** The request is rejected or fails because the entry point or a target resource in the entry point is already in the state or condition that the request would have produced.

**0011** A CONTACT was received specifying APPN in its connection support field, but was not preceded by a CONNOUT, a protocol violation.

**0012** A CONTACT was received with a connection support field value that does not match that in the preceding CONNOUT.

**0013** A CONNOUT, specifying LEN in its connection support field, was received for a nonswitched link station, a protocol violation.

## Request reject sense code 081A

- 0014 A CONTACT was received for an intra-FRSE PVC segment subport whose frame-relay port is in a disconnected state. The CONTACT is rejected.
- 0015 A CONTACT was received for an RNAA-added intra-FRSE PVC segment subport and a SETCV with a FRSE (X'80') control vector has not been received. The CONTACT is rejected.

### Sense code 081B

Receiver in transmit mode (a race condition): Normal-flow request received while the half-duplex contention state was not-receive, (\*S,¬R), or while resources (such as buffers) necessary for handling normal-flow data were unavailable. (Contrast this sense code with sense code X'2004', which signals a protocol violation.)

### Sense code 081C

Request not executable: The requested function cannot be executed, because of a permanent error condition in the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**Note:** For VTAM sense codes, the meaning of the data in bytes 2 and 3 is dependent upon the context of the sense code.

- 0000 No specific code applies.
- 0002 The receiver has an error resulting from a software problem that prevents execution of the request.
- 0004 **For request dump request units:**

A requested NCP dump has been terminated because of a permanent I/O error on the dump file—the dump is partially complete and can be formatted and printed.

**For activate link and deactivate link request units:**

During activation of a channel link, the channel device name for the link to be activated did not consist of three valid hexadecimal digits.
- 0008 **For request load (conditional) and request load (unconditional) request units:**

VTAM is unable to successfully open the data set containing the NCP load module.

**For request dump request units:**

A requested NCP dump has been terminated because of a permanent communication controller I/O error—the dump is partially complete and can be formatted and printed.

**For activate link and deactivate link request units:**

During activation of a channel link, the channel device name for the link to be activated was found not to have been defined to the operating system.
- 0009 Device is not online due to system action or explicit system operator action. The device must be varied online. Contact the system operator.
- 000C **For request load (conditional) and request load (unconditional) request units:**

One of the following has occurred:

## Request reject sense code 081C

- A permanent I/O error has occurred on the diagnostic or load-module data set.
- The diagnostic program has detected a probable communication controller hardware error.
- A permanent I/O error has occurred on the communication controller. Check that the channel adapter is enabled and that the device is attached.

### For Request dump request units:

A requested NCP dump has been terminated because of a permanent I/O error on the dump file—the dump data set cannot be formatted and printed.

### For activate link and deactivate link request units:

The hardware device type associated with the channel device name of the channel link being activated is not supported by the PU receiving an ACTLINK.

### 0010 For request load (conditional) and request load (unconditional) request units:

A time-out has occurred while the diagnostic load program was running (hardstop in the communication controller).

### For request dump request units:

A requested NCP dump has been terminated because of a permanent communication controller I/O error—the dump data set cannot be formatted and printed.

### For activate link and deactivate link request units:

During activation of a channel link, the attached device specified by a channel device name could not be allocated because it was already allocated to another user.

### VTAM Hint:

- This sense code can occur in response to a VARY ACT command for an NCP if U=*device\_numbers* is specified on the command when the same device number has already been activated.
- When this sense code is received in message IST380I for an ACTLINK request, message IST1386I may also be issued. Refer to the return code and reason code in IST1386I to determine the cause of the failure.

### 0014 For request load (conditional) and request load (unconditional) request units:

The loaded NCP has encountered an error, preventing successful initialization.

### For request dump request units:

Cannot successfully open the dump data set.

### 0018 For request load (conditional) and request load (unconditional) request units:

## Request reject sense code 081C

Load not performed—HALT is in progress.

### **001C For request load (conditional) and request load (unconditional) request units:**

The communication controller dump-load-restart router has received an input work element that contains an unrecognized command code. The NCP load module is not present in the load module data set (BLDL failure).

This error may also occur if there is an I/O error while loading the file.

### **0020 For request load (conditional) and request load (unconditional) request units:**

A permanent I/O error has occurred. Possible reasons include, but are not limited to, the following:

- The device type is not defined properly.
- The communication controller is not in the proper state for loading.
- The service processor is not in the proper state. For example, MOSS-E is powered off.
- A hardware error occurred.
- The channel adapter address in NCP GEN may not match the hardware address.

#### **For request dump request units:**

Unable to successfully load a necessary dump utility module, or insufficient storage is available.

#### **For activate link and deactivate link request units:**

VPBUF storage is insufficient.

### **0024 For request load (conditional) and request load (unconditional) request units:**

VTAM is unable to successfully open the data set containing the diagnostic program (ddname INITTEST).

### **0028 For request load (conditional) and request load (unconditional) request units:**

A load of an NCP was requested with an SSP release prior to V3R4 and a release of VTAM prior to V3R2 (this is prohibited), or IFWLEVEL was not loaded with SSP V3R4.

#### **For activate link and deactivate link request units:**

During deactivation of a channel link, a device could not be deallocated by the operating system.

#### **For request dump request units:**

A requested NCP dump has been terminated because ENQUEUE of the dump data set failed—DASD was not opened and the dump data set cannot be formatted and printed.

### **002C For request load (conditional) and request load (unconditional) request units:**

## Request reject sense code 081C

The diagnostic program has detected a probable communication controller hardware error.

### **0030 For request load (conditional) and request load (unconditional) request units:**

The NCP or diagnostic program load module has a block size greater than 1024 bytes (the DC option was not specified when the link edit was performed), or the channel adapter address of the controller is not correct in NCP GEN.

#### **For activate link and deactivate link request units:**

During activation of a channel link, the operating system path validation failed for the device specified by the channel device name.

### **0034 For activate link and deactivate link request units:**

An SSCP sent ACTLINK or DACTLINK for a resource type to which ACTLINK or DACTLINK does not apply.

### **0038 For activate link and deactivate link request units:**

During activation or deactivation of a channel link, the RDTE was not found, causing a permanent error in locating the resource definition was detected in the PU.

If this sense code is issued as the result of the activation of a 3172 XCA major node, verify that the ADAPNO parameter on the PORT definition statement matches the adapter number assigned by the IBM 3172 communication controller.

### **003C For request load (conditional) and request load (unconditional) request units:**

The communication controller unit control block does not contain a valid value for the channel-adapter-type field, or the channel adapter address of the controller is not correct in NCP GEN.

#### **For activate link and deactivate link request units:**

During activation of a channel link, the device specified by the channel device name was found not to have been made available by the operating system.

### **0040 For request load (conditional) and request load (unconditional) request units:**

The NCP or diagnostic program load module is improperly constructed.

#### **For activate link and deactivate link request units:**

During activation of a channel link, the operating system could not complete OPEN processing, denying access to the channel link.

#### **For request dump request units:**

A requested NCP dump has been terminated because the dump file is empty.

### **0044 For request load (conditional) and request load (unconditional) request units:**

The IFLOADRN communication controller load utility program is unable to allocate sufficient storage.

## Request reject sense code 081C

- 0048 For request load (conditional) and request load (unconditional) request units:**  
The function is already active; the NCP is already loaded.
- 004A For request load (conditional) and request load (unconditional) request units:**  
The NCP is ready to receive the load module.
- 004C For request load (conditional) and request load (unconditional) request units:**  
The size of the NCP load module exceeds the storage capacity of the communication controller.
- 0050 For request load (conditional) and request load (unconditional) request units:**  
A permanent I/O error has occurred on the NCP load-module library.
- 0054 For request load (conditional) and request load (unconditional) request units:**  
A permanent I/O error has occurred on the diagnostic program load-module library (ddname INITTEST).
- 0058 For request load (conditional) and request load (unconditional) request units:**  
A diagnostic program cannot be located in the diagnostic program load-module library (ddname INITTEST)—BLDL failure.
- 005C For request load (conditional) and request load (unconditional) request units:**  
Request Load (conditional) is attempted while another host is already loading the communication controller (unit exception on SENSE channel program).
- 0060 For request load (conditional) and request load (unconditional) request units:**  
Start I/O condition Code 3 on SENSE channel program can occur for the following reasons:
- Request load (conditional) is attempted while another host is already loading the communication controller.
  - Channel bypass switch is on.
  - If the request load is attempted through an ESCON<sup>®</sup> channel, check the fiber link for loose connectors.
- 0064 For request load (conditional) and request load (unconditional) request units:**  
A load I/O operation (to a link-attached communication controller) has been purged (by VARY INACT or error recovery of the communication controller of another node in the path to the communication controller).
- 0068 For request load (conditional) and request load (unconditional) request units:**  
A load I/O operation (to a link-attached communication controller) has failed (a negative response has been generated by the adjacent communication controller).

## Request reject sense code 081C

- 0070 For request load (conditional) and request load (unconditional) request units:**  
A load from the disk was initiated, and the save was ignored.
- 0074 For request load (conditional) and request load (unconditional) request units:**  
Error caused by specifying DIAG with the 3725 or the 3720.
- 0078 For request load (conditional) and request load (unconditional) request units:**  
Either the CCU is not at the correct level, or the CTLR disk option is not available.
- 007C For request load (conditional) and request load (unconditional) request units:**  
Load module not available on disk.
- 0080 For request load (conditional) and request load (unconditional) request units:**  
MOSS error—load module not loaded from the disk.
- 0084 For request load (conditional) and request load (unconditional) request units:**  
MOSS error—load module and switch not saved.
- 0088 For request load (conditional) and request load (unconditional) request units:**  
The disk function is not supported. Either the CCU is not the correct level, or the CTLR disk option is not available.
- 008C For request load (conditional) and request load (unconditional) request units:**  
The NCP load module has an entry point address of zero.
- 0090 For request load (conditional) and request load (unconditional) request units:**  
Warning—loading continued: cannot perform LOADFROM, SAVEMOD, or DUMPLOAD.
- 00AB For request load (conditional) and request load (unconditional) request units:**  
Load not performed—the load subtask has abended.  
**For request dump request units:**  
Dump not performed—the dump subtask has abended.
- 00B0 For request load (conditional) and request load (unconditional) request units:**  
Probable MOSS error—the load module or switch may not be saved.
- 00B4 For request load (conditional) and request load (unconditional) request units:**  
MOSS error—switch not saved.
- 00B8 For request load (conditional) and request load (unconditional) request units:**

## Request reject sense code 081C

Load already in progress.

**00BC For request load (conditional) and request load (unconditional) request units:**

Duplicate load module on the disk.

**00C0 For request load (conditional) and request load (unconditional) request units:**

No room on the disk.

**00C4 For request load (conditional) and request load (unconditional) request units:**

A disk resource is temporarily unavailable.

**00C8 For request load (conditional) and request load (unconditional) request units:**

RU length error.

**00CC For request load (conditional) and request load (unconditional) request units:**

The request was cancelled by the operator.

**00D0 For request load (conditional) and request load (unconditional) request units:**

A fast load was not performed, a sequential load has been started.

**00D4 For request load (conditional) and request load (unconditional) request units:**

The logical unit block (LUB) for the controller is not valid.

**00D8 For request load (conditional) and request load (unconditional) request units:**

The scheduled IPL cannot be cancelled because it was never scheduled.

**00DC For request load (conditional) and request load (unconditional) request units:**

The function is not supported.

**00E0 For request load (conditional) and request load (unconditional) request units:**

RU sequence error.

**00E4 For request load (conditional) and request load (unconditional) request units:**

Another load module has been scheduled to IPL within five minutes on the MOSS disk.

**00E8** A request was made to BINDER to perform the GETBUF function. The request failed with the return code specified in the message.

**00EC** A request was made to BINDER to perform the STARTD function. The request failed with the return code and reason code specified in the message.

## Request reject sense code 081C

- 00F0** A request was made to BINDER to perform the CREATEW function. The request failed with the return code and reason code specified in the message.
- 00F2** **For request load (conditional) and request load (unconditional) request units:**  
IPL time is earlier than the system time.
- 00F4** A request was made to BINDER to perform the INCLUDE function. The request failed with the return code and reason code specified in the message.
- 00F6** **For request load (conditional) and request load (unconditional) request units:**  
Notify time is earlier than the system time.
- 00F8** A request was made to BINDER to perform the GETDATA function. The request failed with the GETDATA function. The request failed with the message.
- 00FC** A request was made to BINDER to perform the FREEBUF function. The request failed with the return code specified in the message.
- 0A01** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Volatile storage error.
- 0A02** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Nonvolatile storage error.
- 0A03** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Link connection component interface error.
- 0A04** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status has not changed from the state previous to the execution. Unspecified software error condition.
- 0B01** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Volatile storage error.
- 0B02** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Nonvolatile storage error.
- 0B03** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link connection status was modified from the state existing previous to the execution. Link connection component interface error.
- 0B04** An error was detected by the DLC manager of the receiving node during the execution of a management services request. The link

## Request reject sense code 081C

connection status was modified from the state existing previous to the execution. Unspecified software error condition.

### Sense code 081D

network address or name not valid: A node, station, or CP identifier in the request was not valid.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** The station ID or SSCP ID in the request was not valid.
- 0001** The network ID, LU name pair in the request was not valid.
- 0002** Resource name found in the request was not valid.
- 0003** The network ID, SSCP name pair in the request was not valid.
- 0004** A duplicate CP name has been detected, causing the links to one or both nodes to be deactivated.

**VTAM Hint:** If a PU will always be used as a LEN node, CONNTYPE=LEN should be specified on the PU definition statement.

### Sense code 081E

Session reference error: The request contained reference to a half-session that either could not be found or was not in the expected state (generally applies to network services requests).

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.  
**VTAM Hint:** A possible cause of this error is that the ACTCDRM was sent to the incorrect network in the gateway NCP.
- 0001** No session found: The session identified in the BFCLEANUP was not found; the BFCLEANUP is rejected.
- 0002** The session identified in the BFCINIT was not found; the BFCINIT is rejected.
- 0003** No session was found during the processing of a session services request.
- 0004** The appropriate session was found during processing of a session services request, but the session is not in the expected state.

### Sense code 0820

Control vector error: Data for the control vector specified by the target network address and key was not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.  
**VTAM Hint:** If this sense code is set in response to a SETCV RU, then the MAXOUT value is incorrect. It must be between one and 127, or equal to one or 127.
- 0001** In a SETCV defining an intra-FRSE PVC subport set, one or both of the primary subport partners that define the subport set are not defined.
- 0002** In a SETCV defining an intra-FRSE PVC subport set, a specified element address does not define a subport within a subport set, or is defined more than once in a subport set.

## Request reject sense code 0820

**0003** An element address of an intra-FRSE PVC subport set received in a SETCV was found to be already associated with another subport set.

### Sense code 0821

Session parameters not valid: Session parameters included on a BIND were not valid or not supported by the half-session whose activation was requested. The session parameters are usually obtained from the logmode table entry.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- Sessions cannot log on to CICS.  
If this problem occurs, the sense code is displayed in message IST663I, and *request* is **CINIT**. When running CICS with AUTO-INSTALLATION, the terminal definition in the terminal control table terminal entry (TCTTE) must match the VTAM LOGMODE definition statement for the device. See the information about common subarea network problems in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem.
- The PLU has rejected the BIND session parameters.
- The cryptographic function referenced in the logmode table entry is not active in all SSCPs involved in establishing the session.

**0001** Mode name at LU not valid: The specified mode name was not recognized by the LU.

**0002** Mode name at CP not valid: The specified mode name was not recognized by the CP.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- A logon mode name was not specified when using dynamic reconfiguration to add a logical unit.
- The logon mode name associated with the session request was not found in the specified mode table or in the default logon mode table (ISTINCLM).

Verify that the requested logon mode name is defined in the following places:

- In a subarea environment, the mode name must be defined in the SSCP of the secondary logical unit (SLU).
- In an APPN environment, the mode name must be defined in the origin and destination nodes, as well as the servers of the origin and destination nodes (if the origin and/or destination is owned by an end node).
- In a combined APPN and subarea environment, the mode name must be defined at the APPN node that owns the origin or destination, the server of that node (if it is an end node), and at the interchange node(s) that represents the subarea entry points.

If the SLU is owned by a subarea node other than the interchange node representing the subarea entry point, the mode name must also be defined there.

## Request reject sense code 0821

Since mode table names are not carried on APPN line flows, a user-defined mode table is only used at the SSCP of the SLU. Other nodes defining the mode must define it in the default logon mode table. See *z/OS Communications Server: SNA Network Implementation Guide* for information about mode-to-class-of-service (COS) resolution in an APPN or combined APPN and subarea environments.

- 0003** The primary half-session requires cryptography, but the secondary half-session does not support cryptography.
- 0004** The secondary half-session requires cryptography, but the primary half-session does not support cryptography.
- 0005** Selective or required cryptography is specified, but no SLU cryptographic data key is provided.
- 0006** The BIND was rejected because it was non-negotiable and specified a primary send pacing window size larger than the SSCP or boundary function (BF) can handle, as determined by the logon mode entry or PACING/VPACING parameters.
- 0007** The specified mode name was not recognized in a subarea network.
- 000A** Specified mode table name not found at receiving CP.  
**VTAM Hint:** This sense code indicates that the mode table associated with the LU was not found. Verify that the specified table exists and activate it if necessary.
- 000B** The PLU requires message authentication code support, but it cannot be supported.
- 000C** The SLU requires message authentication code support, but it cannot be supported.
- 000D** The PLU requires Triple-DES but the SLU can only provide DES encryption.
- 000E** The SLU requires Triple-DES but the PLU can only provide DES encryption. The processor where the PLU is running does not have the Triple-DES chip installed.

### Sense code 0822

Link procedure failure: A link-level procedure has failed because of link equipment failure, loss of contact with a link station, or a response to a link command was not valid. This is not a path error, since the request being rejected was delivered to its destination.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies  
**VTAM Hint:** Ensure that you have activated the correct line.
- 0001** The controller is not loaded, but it is ready to receive a load module.
- 0010** Product-specific sense code.  
**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.
- 80nn** *nn* is product-specific and will not be otherwise defined in SNA.

## Request reject sense code 0822

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. It may be issued by NCP. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a description of sense codes set by NCP.

### Sense code 0823

Unknown control vector: The control vector specified by a network address and key is not known to the receiver.

### Sense code 0824

Logical unit of work abnormally terminated: The current unit of work has been abnormally terminated; when sync point protocols are in use, both sync point managers are to revert to the previously committed sync point.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** For LU 6.2, backout initiated: A transaction program or its LU has initiated backout. The protected resources for the distributed logical unit of work are to be restored to the previously committed sync point. This sense data is sent only in FMH-7.

For non-LU 6.2, no specific code applies.

**0001** For LU 6.2, backout initiated: Resync In Progress: A transaction program or its LU has initiated backout. The protected resources for the distributed logical unit of work are to be restored to the previously committed sync point.

When sent in reply to a PS header, resync in progress means that one or more resources in the transaction subordinate to the backout sender have experienced failure so it is not known whether they have backed out.

### Sense code 0825

Component not available: The LU component (a device indicated by an FM header) is not available.

### Sense code 0826

FM function not supported: A function requested in an FMD RU is not supported by the receiver.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

### Sense code 0827

Intermittent error—retry requested: An error at the receiver caused an RU to be lost. The error is not permanent, and retry of the RU (or chain) is requested.

### Sense code 0828

Reply not allowed: A request requires a normal-flow reply, but the outbound data flow for this half-session is quiesced or shut down, and there is no delayed reply capability.

### Sense code 0829

Change direction required: A request requires a normal-flow reply, but the half-duplex flip-flop state (of the receiver of the request) is not-send, and change direction (CD) was not set on the request. Therefore, there is no delayed reply capability.

## Request reject sense code 082A

### Sense code 082A

Presentation space alteration: Presentation space altered by the end user while the half-duplex state was not-send, (-S,\*R); request executed.

### Sense code 082B

Presentation space integrity lost: Presentation space integrity lost (for example, cleared or changed) because of a transient condition, for example, because of a transient hardware error or an end-user action such as allowing presentation services to be used by the SSCP.

**Note:** The end-user action described under sense codes X'082A' and X'084A' is excluded here.

### Sense code 082C

Resource-sharing limit reached: The request received from an SSCP was to activate a half-session, a link, or a procedure, when that resource was at its share limit.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:** A possible cause of this error is that the line you are attempting to activate is already active to another SSCP.

**0001** Request not valid: The specified link station has already received a CONTACT and is therefore under the control of another SSCP. This CONTACT would exceed the share limit (=1).

**0002** Request not valid: The specified PU has already received an ACTPU and is therefore under the control of another SSCP. This ACTPU exceeds the share limit of 1.

**VTAM Hint:** This sense code is for an ACTPU request which is not valid and is issued when the PU is already active. It is set by the dependent LU requester (DLUR). When VTAM receives this sense code on the ACTPU response, it deactivates the PU and fails the VARY DIAL or DIAL START command.

### Sense code 082D

LU busy: The LU resources needed to process the request are being used; for example, the LU resources needed to process the request received from the SSCP are being used for the LU-LU session.

### Sense code 082E

Intervention required at LU subsidiary device: A condition requiring intervention, such as out of paper, or power-off, or cover interlock open, exists at a subsidiary device.

### Sense code 082F

Request not executable because of LU subsidiary device: The requested function cannot be executed, because of a permanent error condition in one or more of the receiver's subsidiary devices.

### Sense code 0830

Session-related identifier not found: The receiver could not find a session-related identifier for a specified session.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

## Request reject sense code 0830

**0001** PCID not found for the specified resources.

**0002** LSID not found for the specified session.

### Sense code 0831

LU component disconnected: An LU component is not available because of power off or some other disconnecting condition.

### Sense code 0832

Count field not valid: A count field contained in the request indicates a value too long or too short to be interpreted by the receiver, or the count field is inconsistent with the length of the remaining fields.

**nnnn** Bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the count field that is not valid.

**Note:** This sense code is not used for a BIND error because the displacement of fields within the BIND may not be the same at both ends of a session when the BIND was affected by name transformations, for example, after the BIND has passed through a gateway. Sense code X'0835' is used to specify a displacement for a BIND error.

### Sense code 0833

Parameter (with pointer and complemented byte) not valid: One or more parameters contained in fixed- or variable-length fields of the request are not valid or not supported by the NAU that received the request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**nnmm** Byte 2 contains a binary value that indexes (zero-origin) the first byte of the parameter that is not valid.

Byte 3 contains a transform of the first byte that contained a parameter that was not valid. The bits that constitute the parameters that are not valid are complemented, and all other bits are copied.

**Note:** This sense code is not used for a BIND error because the displacement of fields within the BIND may not be the same at both ends of a session when the BIND was affected by name transformations, for example, after the BIND has passed through a gateway. Sense code X'0835' is used to specify a displacement for a BIND error.

### Sense code 0834

RPO not initiated: A power-off procedure for the specified node was not initiated because one or more other SSCPS have contacted the node, or because a contact, dump, IPL, or discontact procedure is in progress for that node.

### Sense code 0835

Parameter (with pointer only) not valid: The request contained a fixed- or variable-length field whose contents are not valid or not supported by the NAU that received the request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**000A** The SLU maximum RU size is not valid.

**000B** The PLU maximum RU size is not valid.

**nnnn** Bytes 2 and 3 contain a two-byte binary count that indexes (zero-origin) the first byte of the fixed- or variable-length field that has contents that are not valid.

## Request reject sense code 0835

**Note:** This sense code is not used to report a value that is not valid in an MS major vector. If the value that is not valid occurs in a formatted MS subvector, sense code X'086B' is used. If it occurs in an unformatted subvector, sense code X'0870' is used.

**VTAM Hint:** Sense code 083500 $nn$  indicates that the BIND contains parameters that are not valid and supplies an index ( $nn$ ) into the BIND that identifies the bytes that the BIND receiver cannot interpret. A buffer trace can provide more problem determination information.

**Note:** The offset seen in the buffer trace may differ from the offset seen in the IST663I message group and seen by the application.

See the information about common subarea network problems in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem.

### Sense code 0836

PLU/SLU specification mismatch: For a specified LU-LU session, both LUs are either only primary session capable, or only secondary session capable. A session cannot be established between these two LUs.

### Sense code 0837

Queuing limit exceeded: For an LU-LU session initiation request (INIT, CDINIT, or INIT-OTHER-CD), specifying (1) initiate or queue (if initiate not possible) or (2) queue only, the queuing limit of either the OLU or the DLU, or both, was exceeded.

**VTAM Hint:** A possible cause of this error is that the value of MAXSUBA is not consistent throughout the network.

### Sense code 0838

Request not executable because of resource or component state incompatibility: The request is not executable because it is not compatible with the state of a resource or component in the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** The sender has sent valid data. The data parses correctly, but the receiver is in the wrong state to process it because it is not what was expected.

For example, in focal point function, the entry point sends a X'63' subvector, but the focal point incorrectly sends back a X'62' subvector rather than a X'64' subvector. The receiver does not expect the X'62' subvector and cannot process it.

**0001** The change referred to in a request change control MS major vector or report-FS-action command cannot be deleted or replaced because it is installed marked removable.

**0002** One or more of the changes referred to in a request change control MS major vector cannot be installed, removed, or accepted because they are in back-level state.

**0003** One or more of the changes referred to in a request change control MS major vector cannot be installed marked on-trial because they are already installed marked on-trial.

**0004** One or more of the changes referred to in a request change control MS major vector cannot be installed marked on-trial or in-production because they are already installed marked in-production removably. They can, however, be accepted if desired.

## Request reject sense code 0838

- 0005** One or more of the changes referred to in a request change control MS major vector cannot be installed marked on-trial or in-production because they are already installed marked in-production and nonremovable. The only possibility is to perform data object renewal using send-and-install with removability prohibited or desired—but not required.
- 0006** One or more of the changes referred to in a request change control MS major vector cannot be removed or accepted because they are installed marked nonremovable
- 0007** One or more of the changes referred to in a request change control MS major vector cannot be removed or accepted because they are not installed.
- 0008** Pretest is not applicable to one or more of the changes referred to in a request change control MS major vector.
- 0009** Execution window timing is not applicable to one or more of the changes referred to in a request change control MS major vector.
- 000A** Automatic removal is not applicable to one or more of the changes referred to in a request change control MS major vector.
- 000B** Post-test is not applicable to one or more of the changes referred to in a request change control MS major vector.
- 000D** One or more of the changes referred to in a request change control MS major vector cannot be installed marked in-production because they are installed marked on-trial with a set of corequisites different from those requested on this install request.
- 000E** One or more of the changes referred to in a request change control MS major vector cannot be accepted because they are installed marked on-trial.
- 000F** One or more of the changes referred to in a request change control MS major vector or report-FS-action command cannot be replaced or deleted because they are critical system components that must always have an installed instance. The only possibility is to perform data object renewal using send-and-install with removability prohibited or desired—but not required.
- 0010** One or more of the changes referred to in a request change control MS major vector or report-FS-action command cannot be stored or installed because an implementation-defined limit on the number of changes has been exceeded.
- 0011** One or more of the changes referred to in a request change control MS major vector or report-FS-action command cannot be deleted or replaced because they are required in order to maintain removability of other changes. They may be in backup state or installed marked in-production.
- 0012** One or more of the corequisite changes referred to in a request change control MS major vector are missing or are in a state incompatible with the request.
- 0013** The change referred to in a request change control MS major vector or report-FS-action command cannot be replaced because it is installed marked in-production and non-removable and another change is not being installed in this operation.
- 0014** One or more of the changes referred to in a request change control MS

## Request reject sense code 0838

major vector cannot be installed because a precluded combination of values in the removability, automatic removal, automatic acceptance, or activation use subfields was specified.

- 0015** One or more of the changes referred to in a request change control MS major vector cannot be installed because one or more changes already installed are still removable for one or more components to be altered by these changes.
- 0016** One or more of the changes referred to in a request change control MS major vector or report-FS-action command cannot be replaced because they would be required for removable installation, and removability is required.
- 0017** Execution of the request referred to in an MS cancel major vector has proceeded too far to cancel.
- 0039** Queuing not supported
- 003A** The requested function cannot be completed because the specified adjacent node CP capabilities GDS variable does not indicate support for the complementary function.

**VTAM Hint:** This error will occur if you attempt to manually activate CP-CP sessions over an active APPN connection with an adjacent CP that does not support manual activation of CP-CP sessions over active APPN connections. To activate CP-CP sessions with the adjacent CP, you should first deactivate the APPN connection and then reactivate it.

## Sense code 0839

LU-LU session being taken down or LU being deactivated.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** During session-initiation processing, a session-termination request has caused the LU-LU session to be taken down.
- 0002** RNAA (Type 3) received for a session during the process of session deactivation. The RNAA should be retried.
- 0003** SSCP detected that this session should no longer exist and requested its termination. For example, BFSESSINFO was received, reporting a subject LU address that the SSCP believed already belonged to a cross domain resource.

## Sense code 083A

LU not enabled: At the time an LU-LU session initiation request is received at the SSCP, at least one of the two LUs, though having an active session with its SSCP, is not ready to accept CINIT or BIND requests.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** The PLU is not enabled.
- 0002** The SLU is not enabled.

## Sense code 083B

PCID not valid: The received PCID for a new session duplicated the PCID assigned to another session, or the received PCID intended as an identifier for an existing

## Request reject sense code 083B

session could not be associated with such an existing session, or an error was detected in the format of the received PCID.

**VTAM Hint:** PCID stands for procedure correlation identifier.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** The PCID contained in CDINIT(Initiate or Queue), INIT-OTHER-CD, or CDTAKED duplicates a PCID received previously in one of these requests.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** This error can occur during an attempt to take over a switched connection because a connection-network-capable control point (CP) on the connection network does not have a complete system definition. See the information about common APPN problems in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this session takeover problem.

**0002** The received fully qualified PCID duplicated one assigned to another session.

**VTAM Hint:** PCID means procedure-correlation identifier.

When VTAM receives an ACTPU.RSP(-) with this sense code, VTAM will delete the old PCID, then resend the ACTPU request with the newly-generated PCID.

A bind path has looped. For more information, see *z/OS Communications Server: SNA Network Implementation Guide*.

**0003** The received fully qualified PCID contains a network-qualified CP name identical to that of the receiving node.

**0004** The received fully qualified PCID duplicated one assigned to another route setup procedure.

**0005** The fully qualified PCID received in BFCINIT is not assigned to an existing route setup procedure. The BFCINIT is rejected.

**0006** The fully qualified PCID received in BFCLEANUP is not assigned to an existing route setup procedure. The BFCLEANUP is rejected.

### Sense code 083C

Domain-takedown contention: While waiting for a response to a CDTAKED, a CDTAKED request is received by the SSCP containing the SSCP-SSCP primary half-session. Contention is resolved by giving preference to the CDTAKED sent by the primary half-session.

### Sense code 083D

Dequeue retry unsuccessful—removed from queue: The SSCP cannot successfully honor a CDINIT(dequeue) request (which specifies “leave on queue if dequeue-retry is unsuccessful”) to dequeue and process a previously queued CDINIT request (for example, because the LU in its domain is still not available for the specified session), and removes the queued CDINIT request from its queue.

### Sense code 083E

Session key 08 required.

**0000** No specific code applies.

## Request reject sense code 083E

- 0001 The implementation-defined limit on XID exchanges was exceeded before link activation completed.
- 0002 The implementation-defined limit on XID exchanges was exceeded before a nonactivation exchange completed.
- 0004 The implementation-defined limit on contention-winner CP-CP session activation attempts has been exceeded.

### Sense code 083F

Terminate contention: While waiting for a response to a CDTERM, a CDTERM is received by the SSCP of the SLU. Contention is resolved by giving preference to the CDTERM sent by the SSCP of the SLU.

### Sense code 0840

Procedure not valid for resource: The named RU is not supported in the receiver for this type of resource. For example, (1) SETCV specifies boundary function support for a Type 1 node, but the capability is not supported by the receiving node or (2) the NCP PU receiving an EXECTEST or TESTMODE is not the primary NCP PU for the target link.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000 No specific code applies.
- 0001 Surrogate session setup failed.
- 0002 Link cannot be used because it supports only HPR routing and the session requires non-HPR routing.  
**VTAM Hint:** A possible cause of this error is that a session request was received from an adjacent VTAM subarea node by a VTAM APPN node that supports only HPR routing, such as a VTAM node that communicates in native mode across an asynchronous transfer mode (ATM) network.
- 0003 Link not valid: The link to which the PU is to be added is not an SNA link. Only SNA links are supported.
- 0004 Link not valid: A request that is allowed only for a nonswitched link was received for a link that is defined to the receiver as switched.
- 0005 Resource was not dynamically added: This request works only with resources that were added through dynamic reconfiguration.
- 0007 Resource not found: A DELETE or FIND could not be satisfied because the specified entry does not exist in the receiving directory.  
**VTAM Hint:**
  - VTAM cannot find a model definition to build a dynamic application program when the dynamic application program requests to open its ACB.
  - VTAM cannot find a dynamic application program when the dynamic application program requests to close its ACB.
- 0008 The directory entry cannot be deleted. The network node received a DELETE with a delete entry condition indicating that the entry can be deleted only if it is a leaf. The entry is not a leaf; therefore, the DELETE is rejected.
- 0009 RNAA(Move) received a resource that was added through dynamic reconfiguration. Such a resource may not be moved through RNAA(Move).
- 000A Procedure invalid for resource: A PN supporting independent LUs has

## Request reject sense code 0840

dialed into a boundary function that does not support sessions with independent LUs. The SSCP cannot activate the independent LUs.

- 000B** The REGISTER request specifies that a unique directory entry is required (for example, the REGISTER is for an LU), but there is a duplicate in the directory data base.
- 0010** A SETCV with control vector X'43' has been received for a nonswitched resource.
- 0011** A dynamically added or switched resource has not yet been activated.
- 0012** A request was received that is only allowed for a primary link station. The request must utilize the service link and that link is defined as secondary.
- 0013** A CONNOUT request was received that contained an invalid X.21 call type.
- 0014** A CONNOUT or CONTACT was received specifying that the receiver is to designate itself as an APPN end node in XID3s that it sends to an attached APPN or LEN.
- 0015** This sense data value is generated whenever an APPN session route must be calculated in two pieces (using two separate RSCVs) and it is determined that the two RSCVs identify a common node; that is, the session route passes through a given node twice.
- 0016** This sense data value is generated whenever an RSCV is precalculated because the OLU or DLU was thought to be in a subarea network and it is determined (based on the RSCV) that the location of the DLU is incorrect; that is, the RSCV indicates that the DLU is in the APPN network, but the DLU is really in a subarea network, or vice versa.
- 0017** A session initiation request was received for a multinode persistent enabled application program with a precalculated RSCV, but no HPR connection can be set up using the precalculated route.

**VTAM Information:** The Locate is resubmitted and the RSCV recalculated using a set of tail vectors that VTAM supplies on the Locate reply.

**VTAM Hint:** The error occurred because a VTAM V4R2 or VTAM V4R1 node calculated the RSCV.

## Sense code 0841

Duplicate network address: In an LU-LU session initiation request, one of the specified LUs has a duplicate network address already in use. This error can be caused by a mismatch between the CDRM and NCP gateway NAU subarea/element definitions.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** The SSCP of the DLU determines that the OLU network address specified in the CDINIT request is a duplicate of an LU network address assigned to a different LU name.  
**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 0001** A duplicate SLU address is found during session initiation.
- 0002** A duplicate PLU address is found during session initiation.
- 0003** An SSCP finds a duplicate network address for the DLU on the OLU side of the gateway.

## Request reject sense code 0841

- 0004 An SSCP finds a duplicate network address for the DLU on the DLU side of the gateway.
- 0005 An SSCP finds a duplicate network address for the OLU on the OLU side of the gateway.
- 0006 An SSCP finds a duplicate network address for the OLU on the DLU side of the gateway.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- A gateway NCP freed a network address before VTAM is finished with it. To diagnose the problem, first identify which LU has the network address and determine why NCP thinks it is freed. This will require looking at both a VTAM dump and a VTAM internal trace. Find the failing SRTA in the trace; it usually precedes the CPRC. From there, you can identify the LU. Most likely, there will be a SIB queued to the LU. This will provide some information about why the network address is still in use.
  - There is a mismatch between the VTAM CDRM definitions for a null network attached user and the user gateway NCP GWNAU statements. For example, this VTAM has a CDRM definition for ADJNETEL=2, but the user gateway NCP does not have a GWNAU statement for ELEMENT=2. The problem is intermittent because the gateway NCP assigns element numbers randomly.
  - There are gateway NCPs sharing the same subarea in the same null network.
- 0008 An ACTCDRM request was received that contained a network address already in use.

## Sense code 0842

Session not active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000 No specific code applies.

**VTAM Hint:** The SSCP-SSCP session, which is required for the processing of a network services request, is not active. For example, at the time an LU-LU session initiation or termination request is received, at least one of the following conditions exists:

- The SSCP of the ILU and the SSCP of the OLU do not have an active session with each other, and therefore, INIT-OTHER-CD cannot flow.
- There is no active session between two specific SSCPs in the session setup path. RUs cannot be routed from one SSCP directly to the other SSCP. However, other SSCPs may be tried.

**Note:** This value is used if there is not enough data to select one of the more specific codes listed below.

- 0001 The session between Type 2.1 CPs is not active.
- 0002 For a session-initiation request, an SSCP does not have an SSCP-SSCP session with an SSCP in the direction of the DLU.
- 0003 For a session-initiation request, an SSCP does not have an SSCP-SSCP session with an SSCP in the direction of the OLU.
- 0004 An intermediate SSCP has lost connectivity with an SSCP in the session setup path for an LU-LU session. This sense data is used when the SSCP

## Request reject sense code 0842

previously lost connectivity with one or more participating gateway nodes so that it cannot learn that the LU-LU session is ended by receiving a NOTIFY RU from a gateway node.

**FFFF** Logon intercepted.

### Sense code 0843

Required synchronization not supplied: For example, a secondary LU (LU Type 2 or 3) received a request with write control code = start print, along with RQE and -CD.

### Sense code 0844

Initiation dequeue contention: While waiting for a response to a CDINIT(dequeue), a CDINIT(dequeue) is received by the SSCP of the SLU. Contention is resolved by giving preference to the CDINIT(dequeue) sent by the SSCP of the SLU.

### Sense code 0845

Permission rejected—SSCP will be notified: The receiver has denied an implicit or explicit request of the sender; when sent in response to BIND, it implies that the secondary LU will notify the SSCP (via NOTIFY vector key X'0C') when a BIND can be accepted, and the SSCP of the SLU supports the notification. (See sense code X'080A' for a contrasting response.)

### Sense code 0846

ERP message forthcoming: The received request was rejected for a reason to be specified in a forthcoming request.

### Sense code 0847

Restart mismatch: Sent in response to STSN, SDT, or BIND to indicate that the secondary half-session is trying to execute a resynchronizing restart but has received insufficient or incorrect information.

### Sense code 0848

Cryptography function inoperative: The receiver of a request was not able to decipher the request because of a malfunction in its cryptography facility.

### Sense code 0849

System generation mismatch.

### Sense code 084A

Presentation space alteration: The presentation space was altered by the end user while the half-duplex state was not-send, (-S,\*R); request not executed.

### Sense code 084B

Requested resources not available: Resources named in the request, and required to honor it, are not currently available. It is not known when the resources will be made available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:** This error can be caused by a DR ADD for a duplicate address. Check your DR statements to see if an address was duplicated.

**0001** BIND queuing not supported, retry: The SLU is not available and the sender of the UNBIND does not support BIND queuing as requested by the PLU.

**0002** Requested resource not available: For dynamic reconfiguration MOVE, ADD, or ADDLINK operation, the requested local address is already assigned to an active resource. For MOVE PU, this is the DLC address; for MOVE LU, the LU local address.

## Request reject sense code 084B

- 0003** The application transaction program specified in the request is not available.
- 0004** Session resources unavailable: The receiver of the RNAA cannot satisfy the request for reserved session resources specified on the assign LU characteristics (X'30') control vector.  
**VTAM Hint:** A possible cause of this error is a mismatch between the values specified on the EAS and MAXSESS operands on the BUILD definition statement.
- 0005** Controller resource is not available.
- 0009** The intersubnetwork Locate failed because the maximum number of intersubnetwork hops was exceeded. The value of the maximum intersubnetwork hop count field in the locate was reduced by a number greater than one while being processed by a border node along the route.
- 6002** The resource identified by the destination program name (DPN) is not supported.
- 6003** The resource identified by the primary resource name (PRN) is not supported.
- 6031** Transaction program not available—retry allowed: The FMH-5 attach command specifies a transaction program that the receiver is unable to start. Either the program is not authorized to run or the resources to run it are not available at this time. The condition is temporary. The sender is responsible for subsequent retry. This sense data is sent only in FMH-7.

## Sense code 084C

Permanent insufficient resource: Receiver cannot act on the request because resources required to honor the request are permanently unavailable. The sender should not retry immediately because the situation is not transient. This error can occur if MAXBFRU is either not read because of a coding error or not coded.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** For LU 6.2, transaction program not available—no retry: The FMH-5 Attach command specifies a transaction program that the receiver is unable to start. The condition is not temporary. The sender should not retry immediately. This sense data is sent only in FMH-7.  
For non-LU 6.2, no additional information is specified.
- 0001** Request not processed: Processing an ACTLINK request, and read buffers not allowed. The ACTLINK request will not be processed.
- 0002** Creating allocation exception: The receiver is unable to create the specified data object as a result of an insufficient storage condition that occurred at allocation time.
- 0003** Replacing allocation exception: The receiver is unable to replace the specified data object as a result of an insufficient storage condition that occurred at allocation time.
- 0006** Data-object storing exception: The receiver is unable to store the specified data object as a result of an insufficient storage condition that occurred during the storing process.
- 0007** Data-object classification code not supported: The receiver is unable to satisfy the allocation requirements of the specified data-object classification code.

## Request reject sense code 084C

**0008** Volume not mounted: The receiver is unable to perform the requested allocation/storing operation because the required volume is not mounted.

**hnnn** Where  $h \geq 8$ ; that is, the high-order bit in Byte 2 is set to one. The 15 low-order bits of Bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the field found to be in error.

### Sense code 084D

Session parameters not valid—BF: The session parameters were not valid or were unacceptable by the boundary function.

### Sense code 084E

Session parameters not valid—PRI: A positive response to an activation request (for example, BIND) was received and was changed to a negative response because session parameters that were not valid were carried in the response. The services manager receiving the response sends a deactivation request for the corresponding session. This error can occur if NETIDs are coded incorrectly on any NETWORK statements in CDRM definitions. See *z/OS Communications Server: SNA Resource Definition Reference* for more information.

### Sense code 084F

Resource not available: A requested resource is not available to service the given request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** The disk is full; therefore, the load module cannot be stored.

**0002** The security component is not available.

### Sense code 0850

Link-level operation cannot be performed: An IPL, dump, or remote power off (RPO) cannot be performed through the addressed link station because the system definition or current state of the hardware configuration does not allow it.

**0000** No specific code applies.

**0001** Link activation limit reached: The specified TG was not activated because the maximum number of active link stations allowed on this port has already been reached.

### Sense code 0851

Session busy: Another session that is needed to complete the function being requested on this session is temporarily unavailable.

**VTAM Hint:** A possible cause of this error is that the session needed by the host to complete the command is busy.

### Sense code 0852

Duplicate session activation request: Two session activation requests have been received with related identifiers. The relationship of the identifiers and the resultant action varies by request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:**

## Request reject sense code 0852

- If the RU is an ACTPU or ACTCDRM, it means that a session has already been activated for the subject destination-origin pair by a session activation request that carried a larger activation request identifier than the current request; the current request is refused.
- If the RU is an ACTLU, a session has already been activated for the subject destination-origin pair by a session activation request. The current request is denied.
- If the RU is a BIND, it means that the BIND request was received with the same session-instance identifier (in the structured subfield X'03' of the user data field) as an active session's; the current request is refused.

**0001** Received a second BIND from a peripheral node PLU while the session is still in the activation process.

**0002** A REQACTPU has been received by an SSCP that has already sent an ACTPU for the same PU.

### Sense code 0853

TERMINATE(Cleanup) required: The SSCP cannot process the termination request, as it requires cross-domain SSCP-SSCP services that are not available. (The corresponding SSCP-SSCP session is not active.) TERMINATE(Cleanup) is required.

### Sense code 0855

Route Setup procedure failure: An intermediate or destination node was unable to successfully complete the processing of a high-performance routing (HPR) Route Setup request or reply.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

- 0000** No specific code applies.
- 0001** The destination LU is not ready to accept sessions.
- 0002** An unknown destination LU was specified in the request.
- 0003** A TG specified in the RSCV could not be activated.
- 0004** An unknown TG was specified in the RSCV.
- 0005** A TG specified in the RSCV has failed.
- 0006** A TG specified in the RSCV was not activated as an HPR TG.
- 0007** An intermediate node had insufficient storage to activate a TG specified in the RSCV.
- 0008** The receiving node had insufficient storage to process the route setup request.
- 0009** The route setup request was received over a TG that was not activated as an HPR TG.
- 000A** A VR within a composite network node is inoperative.
- 000B** The receiving node does not support HPR protocols.
- 000C** The receiving node does not support the HPR transport option.
- 000D** The route setup request or reply could not be forwarded over the TG in the FID2 format because its size was greater than the TG maximum BTU size.
- 000E** The value of the current hop count field of the RSCV received in a route

## Request reject sense code 0855

setup request exceeded the value of the destination hop index field in the request (for example, the route setup request appeared to have passed the destination node).

**000F** The route setup request completed unsuccessfully. The route setup reply was not received in the allotted time (as determined by the IOPURGE start option).

**0020** The intended destination was not able to perform the RTP function (for example, it does not support the RTP transport tower). When a negative route setup reply with this sense code passes through an RTP-capable intermediate node, the intermediate node attempts to become the new destination and perform the RTP function.

**VTAM Hint:** This might be encountered due to an error in the definition of an activate-on-demand switched link, which was dialed as the result of the route setup request. If the link was predefined as HPR capable, but the partner node does not support HPR (or does not wish to support HPR protocols on the designated link), the route setup will fail when the link fails to activate as an HPR-capable link.

This should not lead to a failure to set up the session, but might lead to the use of normal APPN intermediate session routing instead of HPR.

## Sense code 0856

SSCP-SSCP session lost: Carried in the sense data field in a NOTIFY (third-party notification vector, X'03') or -RSP(INIT\_OTHER) sent to an ILU to indicate that the activation of the LU-LU session is uncertain because the SSCP(ILU)-SSCP(OLU) session has been lost. (Another sense code, X'0842', is used when it is known that the LU-LU session activation cannot be completed.)

## Sense code 0857

SSCP-LU Session Not Active: The SSCP-LU session, required for the processing of a request, is not active; for example, in processing REQECHO, the SSCP did not have an active session with the target LU named in the REQECHO RU.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**VTAM Hint:** The primary logical unit (PLU) or secondary logical unit (SLU) is not available.

**0001** The SSCP-SLU session is in the process of being reactivated.

**0002** The SSCP-PLU session is inactive.

**VTAM Hint:** For a USERVAR, an APPL or CDRSC definition with the same name as the USERVAR was found and was not active.

**0003** The SSCP-SLU session is inactive.

**VTAM Hint:** For independent logical units, the independent logical unit is inactive.

**0004** The SSCP-PLU session is in the process of being reactivated.

**0005** The SSCP lost connectivity with the PLU after the LU-LU session was started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

**0006** The SSCP lost connectivity with the SLU after the LU-LU session was

## Request reject sense code 0857

started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

- 0007** The selected ALS for the OLU is not in a state permitting LU-LU sessions to be established using it. The condition is detected when the session request (BFINIT) was received, but, when the request was processed, the ALS was no longer in an active state. The session request is rejected.
- 0008** The selected ALS for the DLU is not in a state permitting LU-LU sessions to be established using it. The condition is detected when the session request was being processed in the DLU domain and the ALS selected for the DLU is no longer in an active state. The session request is rejected.

### Sense code 0858

SSCP-SSCP session activation rejected.

- 0000** No specific code applies.
- 0001** An SSCP rejected a received ACTCDRM attempting to restart a session that terminated as a result of an operator-initiated nondisruptive deactivation request.

**VTAM Hint:** This is not an error condition. The ACTCDRM was rejected because the SSCP that was deactivated is at a prior level of VTAM.

### Sense code 0859

REQECHO data-length error: The specified length of data to be echoed (in REQECHO) violates the maximum RU size limit for the target LU.

### Sense code 085A

Specific server exception: an architecturally defined or customer-defined server that is sensitive to data object contents has detected an exception.

### Sense code 085B

Unknown resource name: the identified resource, required to complete the requested unit-of-work, is not known to the SNA node.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Unknown server name. When this SNA report code is used in an SNA condition report, it is accompanied by a supplemental report containing the server name.
- 0002** Unknown agent.
- 0003** The clock identifier specified in an MS set clock major vector is unknown to the receiver.
- 0004** The timing source name specified in an MS set clock major vector is unknown to the receiver.
- 0005** The agent unit-of-work correlator referred to by an MS cancel major vector is unknown to the receiver, or represents a unit of work already completed.

### Sense code 085C

System exception: the node experiences an exception condition within a resident system or subsystem that inhibits subsequent processing by the SNA component.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

## Request reject sense code 085C

- 0000** No specific code applies.
- 0001** The exception is identifiable as a system-related problem.
- 0002** The exception is identifiable as a permanent system-related problem.

### Sense code 085D

The MU\_id could not be accepted in the MU\_id registry.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** The MU\_id is a duplicate. When this SNA-Report-Code is used in an SNA\_Condition\_Report, it is accompanied by three supplemental-reports that identify information about the receiver MU\_id registry: supplemental-report 1 contains the lowest MU\_id the receiver would accept; supplemental-report 2 contains the highest MU\_id the receiver would accept; supplemental-report 3 contains the time stamp of the receiver's MU\_id registry.
- 0002** The MU\_id value is greater than expected. When this SNA-Report-Code is used in an SNA\_Condition\_Report, it is accompanied by three supplemental-reports that identify information about the receiver's MU\_id registry: supplemental-report 1 contains the lowest MU\_id the receiver would accept; supplemental-report 2 contains the highest MU\_id the receiver would accept; supplemental-report 3 contains the time stamp of the receiver's MU\_id registry.
- 0003** A temporary condition prevents acceptance of the MU\_id.
- 0004** A permanent condition prevents acceptance of the MU\_id.
- 0005** The MU\_id registry is not initialized.

### Sense code 085E

Operator intervention.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** The operator has suspended the transmission of the message unit.
- 0002** The operator has purged the message unit.

### Sense code 0860

Function not supported—continue session: The function requested is not supported; the function may have been specified by a request code or some other field, control character, or graphic character in an RU.

- nnnn** Bytes 2 and 3 contain a two-byte binary count that indexes (zero-origin) the first byte in which an error was detected. This sense code is used to request that the session continue, thereby ignoring the error.

### Sense code 0861

COS name not valid: The class-of-service (COS) name, either specified by the ILU or generated by the SSCP of the SLU from the mode table is not in the "COS name to VR identifier list" table used by the SSCP of the PLU.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** COS name was generated by the SSCP.

## Request reject sense code 0861

**VTAM Hint:** If this sense code is displayed in message IST663I, and message IST264I follows, this may indicate that an incorrect COS table is referenced. The NetView program also has a COS table, and if this error occurs, the NetView program library was concatenated in front of the VTAM library causing the wrong table selection. See the information about common subarea network problems in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem.

- 0001** COS name was generated by the ILU.
- 0002** The COS name generated by the Type 2.1 CP local to, or the Type 2.1 NNCP server for, the ILU is not in the COS name definition table.
- 0003** The CDINIT request or response contains a session initiation control vector that has class-of-service (COS) name fields that have not been properly specified. A virtual route list could not be found associated with the COS name.

### Sense code 0862

Medium presentation space recovery: An error has occurred on the current presentation space. Recovery consists of restarting at the top of the current presentation space. The sequence number returned is of the RU, in effect, at the top of the current presentation space.

**nnnn** Bytes 2 and 3 following the sense code contain the byte offset from the beginning of the RU to the first byte of the RU that is displayed at the top of the current presentation space.

### Sense code 0863

Referenced local character set identifier (LCID) not found: A referenced character set does not exist.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**hnnn** Where  $h \geq 8$ ; that is, the high-order bit in byte 2 is set to one. The 15 low-order bits of bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the field found to be in error.

### Sense code 0864

Function terminated abnormally: The conversation was terminated abnormally. Other terminations may occur after repeated reexecutions; the request sender is responsible for detecting such a loop.

**VTAM Hint:** Sense codes in the X'0864nnnn' range should not be used with APPCCMD CONTROL=SEND,QUALIFY=ERROR,TYPE=USER unless followed by an APPCCMD CONTROL=DEALLOCATE macro. These codes indicate to the receiver that deallocation is occurring.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** For LU 6.2, premature conversation termination: The conversation is terminated abnormally; for example, the transaction program may have issued a DEALLOCATE\_ABEND verb, or the program may have terminated (normally or abnormally) without explicitly terminating the conversation. This sense data is sent only in FMH-7 or UNBIND.

For LU 6.2 half-duplex conversations, this sense data is sent only in FMH-7 or indicated in UNBIND.

## Request reject sense code 0864

For LU 6.2 full-duplex conversations, this sense data is also sent in the negative response that precedes an FMH-7, when there is a chain to respond to. The sense data in the negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming. For this error, the ERP message will contain the same sense data value used in the negative response.

For non-LU 6.2, no additional information is specified.

- 0001** System logic error—no retry: A system logic error has been detected. No retry of the conversation should be attempted. This sense data is sent only in FMH-7 or UNBIND.

For LU 6.2 half-duplex conversations, this sense data is sent only in FMH-7 or indicated in UNBIND.

For LU 6.2 full-duplex conversations, this sense data is also sent in the negative response that precedes an FMH-7, when there is a chain to respond to. The sense data in the negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming. For this error, the ERP message will contain the same sense data value used in the negative response.

- 0002** Excessive elapsed time—no retry: Excessive time has elapsed while waiting for a required action or event. For example, a transaction program has failed to issue a conversation-related protocol boundary verb. No retry of the conversation should be attempted. This sense data is sent in UNBIND when there is no chain to respond to; otherwise, it is sent in FMH-7.

For LU 6.2 half-duplex conversations, this sense data is sent in UNBIND when there is no chain to respond to; otherwise, it is sent in FMH-7.

For LU 6.2 full-duplex conversations, this sense data is also sent in the negative response that precedes an FMH-7. The sense data in the negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming. For this error, the ERP message will contain the same sense data value used in the negative response.

- 0003** Allocation error message forthcoming: An error has been detected in a received attach request, resulting in a rejection of the attach. The sense data value that indicates the reason for rejection will be specified in a forthcoming FMH-7.

This sense data is sent in the negative response that precedes an allocation error FMH-7 for an LU 6.2 full-duplex conversation. The negative response gives advance notice to the transaction program (in the form of an error return code) that an ERP message is forthcoming.

**Note:** The phrases following the sense data are symbolic return codes provided to a full-duplex transaction program when a negative response with sense data is received by the LU. (See *SNA Transaction Programmer's Reference Manual for LU 6.2* for full-duplex verbs and possible return codes.)

### Sense Data

#### Return Code

**08640000**

ERROR\_INDICATION (with a subcode of DEALLOCATE\_ABEND\_PROG)

## Request reject sense code 0864

### 08640001

ERROR\_INDICATION (with a subcode of DEALLOCATE\_ABEND\_SVC)

### 08640002

ERROR\_INDICATION (with a subcode of DEALLOCATE\_ABEND\_TIMER)

### 08640003

ERROR\_INDICATION (with a subcode of ALLOCATION\_ERROR)

### Sense code 0867

Sync event response: Indicates a required negative response to an (RQE,CD) synchronizing request.

### Sense code 0868

No panels loaded: Referenced format not found because no panels are loaded for the display.

### Sense code 0869

Panel not loaded: The referenced panel is not loaded for the display.

### Sense code 086A

Subfield key not valid: A subfield key in an MS subvector was not valid in the conditions under which it was processed.

**nnmm** Byte 2 following the sense code contains the subvector key (*nn*) of the subvector containing the unrecognized subfield, and byte 3 contains the unidentified subfield key (*mm*).

### Sense code 086B

Subfield value not valid: A value in a subfield within an MS major vector is not valid for the receiver.

**nnmm** Byte 2 following the sense code contains the subvector key (*nn*) of the subvector containing the subfield with the value that was not valid, and byte 3 contains the subfield key (*mm*) of the subfield with the invalid value.

**Note:** See sense code X'0870' for the case in which the invalid value occurs in an unformatted subvector, that is, one not containing subfields with keys and lengths, or in the unformatted portion of a partially formatted subvector.

**6991** ATM dial information does not indicate ATMSVC or SHARE/EXCLUSIVE.

**VTAM Hint:** A possible cause of this error is that the values ATMSVC or SHARE or EXCLUSIVE might be missing or could be specified incorrectly on the DLCADDR operand (subfield 1) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

**6997** ATM traffic description is not valid.

## Request reject sense code 086B

**VTAM Hint:** A possible cause of this error is that the best effort indicator, cell rates, and traffic management options might be missing or could be specified incorrectly on the DLCADDR operand (subfield 7) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

**6998** ATM quality of service (QoS) class is not valid.

**VTAM Hint:** A possible cause of this error is that the quality of service (QoS) class might be missing or could be specified incorrectly on the DLCADDR operand (subfield 8) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

**6999** ATM transit network selection (TNS) identifier is not a valid length.

**VTAM Hint:** A possible cause of this error is that the carrier identification code might be missing or could be specified incorrectly on the DLCADDR operand (subfield 9) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

**69A5** ATM addresses are not a valid length or type.

**VTAM Hint:** A possible cause of this error is that the ATM address or addresses might be missing or could be specified incorrectly on the DLCADDR operand (subfield 21) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

## Request reject sense code 086B

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

**69C3** ATM bearer capabilities are not specified or are specified incorrectly.

**VTAM Hint:** A possible cause of this error is that the ATM bearer capabilities are not specified or are specified incorrectly on the DLCADDR operand (subfield 51) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

**69CD** ATM adaptation layer is not specified or is specified incorrectly.

**VTAM Hint:** A possible cause of this error is that the ATM adaptation layer is not specified or is specified incorrectly on the DLCADDR operand (subfield 61) on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

See *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

## Sense code 086C

Required control vector or subvector missing: One or more control vectors or MS subvectors that are required by the receiver to perform some function are missing from the received message, or are not present in the required position.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**nn00** Byte 2 following the sense code contains the key (nn) of one of the control vectors or subvectors that is missing, or improperly positioned. Byte 3 is reserved (00).

**Note:** See the X'080C0006' sense data for the case in which the major vector key is recognized but a subvector representing the function to be performed cannot be identified.

**0400** Subvector X'04' not first.

**0800** Reported on destination prefix (X'08') subvector not present.

**0900** Reported on destination location (X'09') subvector not present.

**0B00** Reported on destination suffix (X'0B') subvector not present.

## Request reject sense code 086C

- 2100** Required focal point identification (X'21') subvector not present. Already found either X'61', X'63', or X'E1' subvector.
- 4400** Second CV in TDU was not a CV44.
- 4600** CV46 not present.
- 7D00** Report code (X'7D') subvector not present.
- 8000** First CV in TDU was not a GVC280.
- 8100** Origin location name (X'81') subvector not present.
- 8200** Destination location name (X'82') subvector not present.
- 9000** Flags (X'90') subvector not present.

### Sense code 086D

Required subfield missing: A control vector or MS subvector lacks one or more subfield keys required by the receiver to perform the function requested.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- nnmm** Byte 2 following the sense code contains the key (nn) of the subvector or control vector lacking a required subfield, and byte 3 contains the subfield key (mm) of a missing subfield.
- 0901** NETID (X'01') subfield of the reported on destination location (X'09') subvector not present.
- 0902** NAU (X'02') subfield of the reported on destination location (X'09') subvector not present.
- 2101** Focal point identification (X'21') subvector is missing the MS\_category subfield (X'01').
- 2102** Focal point identification (X'21') subvector is missing the flags subfield (X'02').
- 2110** Focal point identification (X'21') subvector is missing the FP netid subfield (X'10').
- 2111** Focal point identification (X'21') subvector is missing the FP NAU name subfield (X'11').
- 2112** Focal point identification (X'21') subvector is missing the FP application program name subfield (X'12').
- 2120** Focal point identification (X'21') subvector is missing the backup FP netid subfield (X'20') when either the backup FP NAU name (X'21') subfield or the backup FP application program name (X'22') subfield was found.
- 2121** Focal point identification (X'21') subvector is missing the backup FP NAU name subfield (X'21') when the backup FP Netid (X'20') subfield is present.
- 2122** Focal point identification (X'21') subvector is missing the backup FP application program (X'22') subfield when the backup FP netid (X'20') subfield and the backup FP NAU name (X'21') subfield are present.
- 4580** Node characteristics (X'45') control vector is missing the node type and status subfield (X'80').
- 4680** TG descriptor (X'46') control vector is missing the TG identifier subfield (X'80').
- 6240** Focal point authorization reply (X'62') subvector missing current FP

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CP-name subfield (X'40') when required for the authorization request rejected (X'20') subfield or the authorization revoked (X'30') subfield.

**6241** Focal point authorization reply (X'62') subvector missing current FP application program subfield (X'41') when required for the authorization request rejected (X'20') subfield or the authorization revoked (X'30') subfield.

**6991** ATM dial information indicating ATMSVC or the type of SVC that can be used is not specified.

**VTAM Hint:** A possible cause of this error is that the DLCADDR operand (subfield 1) on the following definition statements in the following major nodes is not coded:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

**6997** ATM traffic description is not specified.

**VTAM Hint:** A possible cause of this error is that the DLCADDR operand (subfield 7) on the following definition statements in the following major nodes is not coded:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

**69A5** No ATM dial information is specified when a dial operation is attempted through a native ATM network.

**VTAM Hint:** A possible cause of this error is that the DLCADDR operand (subfield 21) on the following definition statements in the following major nodes is not coded:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

**8101** NETID (X'01') subfield of the origin location name (X'81') subvector not present.

**8102** NAU name (X'02') subfield of the origin location name (X'81') subvector not present.

**8103** MS application program name (X'03') subfield of the origin location name (X'81') subvector not present.

**8201** NETID (X'01') subfield of the destination location name (X'82') subvector not present.

**8202** NAU name (X'02') subfield of the destination location name (X'82') subvector not present.

**8203** MS application program name (X'03') subfield of the destination location name (X'82') subvector not present.

### Sense code 086E

Subvector combination not valid: Two or more subvectors, each permissible by itself, are present in a combination that is not allowed.

**nnmm** Bytes 2 and 3 following the sense code contain the subvector keys (*nn*) and (*mm*) of two of the subvectors that should not be jointly present.

**Sense code 086F**

Length error: A length field within an MS major vector is not valid, or two or more length fields are incompatible.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** The MS major vector length is incompatible with the RU length.

**VTAM Information:** If your CMIP application program receives this sense code with error code 817, your CMIP request or response buffer is too large. This error causes the association to end.

**VTAM Hint:** The CMIP application program can avoid this problem by building smaller CMIP requests and replies.

**0002** The sum of the MS subvector lengths is incompatible with the MS major vector length.

**0007** The length field of an MDS\_MU is incompatible with the sum of the lengths of the imbedded GDS variables, or a length that was not valid was found in an imbedded structure (or GDS variable).

**0008** The length field of a CP-MSU is incompatible with the sum of the lengths of the imbedded structures.

**VTAM Information:** If you are using CMIP services, this error causes the association to end.

**000A** The length field of a route setup GDS variable is incompatible with the sum of the lengths of the imbedded structures.

**000B** The sum of the control vector lengths in an RU or XID is incompatible with the length of the RU or XID.

**2103** The sum of the subfield lengths in the focal point identification (X'21') subvector incompatible with the length of the subvector.

**2106** One or more of the subfields in focal point identification (X'21') subvector has an invalid length field.

**8103** The sum of the subfield lengths in the origin location name (X'81') subvector is incompatible with the length of the subvector.

**8106** The origin location name (X'81') subvector of the MDS routing information (X'1311') GDS variable contains an invalid subfield length. (This is specified only if the sum of the subfield lengths is compatible with the subvector length).

**8203** The sum of the subfield lengths in the destination name (X'82') subvector is incompatible with the length of the subvector.

**8206** The destination location name (X'82') subvector of the MDS routing information (X'1311') GDS variable contains an invalid subfield length. (This is specified only if the sum of the subfield lengths is compatible with the subvector length).

**9005** The flags (X'90') subvector length is invalid in the MDS routing information (X'1311') GDS variable. (The length is not five.)

**nn03** The sum of the subfield lengths in an MS subvector is incompatible with the subvector length. Byte 2 following the sense code contains the subvector key.

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- nn05** The MS subvector length is not valid. Byte 2 following the sense code contains the relevant subvector key (*nn*). (This is specified only if the sum of the subvector lengths is compatible with the major vector length.)
- nn06** The Subfield length is not valid. Byte 2 following the sense code contains the subvector key (*nn*) of the MS subvector containing the invalid subfield length. (This is specified only if the sum of the subfield lengths is compatible with the subvector length.)
- nn09** The sum of the subfield lengths in a control vector is incompatible with the control vector length. Byte 2 following the sense code contains the control vector key.
- nn0C** The length field of a control vector in an RU or XID is not valid. Byte 2 following the sense code contains the control vector key.

### Sense code 0870

Unformatted subvector value invalid: A value in an unformatted MS subvector, or in an unformatted portion of a partially formatted MS subvector, is not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- nnxx** Byte 2 following the sense code contains the subvector key (*nn*) of the MS subvector containing the value that is not valid. Byte 3 contains a one-byte binary count that indexes the first byte in which the invalid value falls. The indexing is zero-origin, from the beginning of the subvector.

**Note:** See sense code X'086B' for the case in which the value that is not valid occurs in a formatted MS subvector, that is, one containing subfields with keys and lengths, or in the formatted portion of a partially formatted subvector.

- 8106** Subfield length in origin location name not valid(X'81') subvector. NETID is not a valid length (1-8 characters).
- 8206** Subfield length in destination location name not valid(X'82') subvector. NETID is not a valid length (1-8 characters).
- 9002** Flags (X'90') subvector contains setting that is not valid for MDS message type.
- 9003** Flags (X'90') subvector contains an flag setting that is not valid.

### Sense code 0871

Read partition state error: A read partition structured field was received while the display was in the retry state.

### Sense code 0872

Orderly deactivation refused: An NC\_DACTVR(Orderly) request has been received, but sessions are assigned to the VR and it will not be deactivated.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** An NC\_DACTVR(Orderly) request has been received, but sessions are assigned to the VR and it will not be deactivated.
- 0001** An MS major vector specifying orderly deactivation of the receiving node has been received, but sessions are active and their implied deactivation is not allowed; the requested activation will not proceed.

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**0002** An MS major vector specifying deactivation of the receiving node has been received, but the receiver cannot determine if sessions are active; the requested activation will not proceed.

### Sense code 0873

Virtual route not defined: No ERN is designated to support this VRN.

### Sense code 0874

ER not in a valid state: The ER supporting the requested VR is not in a state allowing VR activation.

### Sense code 0875

Incorrect or undefined explicit route requested: The reverse ERNs specified in the NC\_ACTVR do not contain the ERN defined to be used for the VR requested, or the ERN designated to be used for the VR is not defined.

### Sense code 0876

Nonreversible explicit route requested: The ERN used by the NC\_ACTVR does not use the same sequence of transmission groups (in reverse order) as the ERN that should be used for the RSP(NC\_ACTVR).

### Sense code 0877

Resource mismatch: The receiver of a request has detected a mismatch between two of the following: (1) its definition of an affected resource, (2) the actual configuration, and (3) the definition of the resource as implied in the request.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** Link defined as switched is nonswitched: A link defined to an ACTLINK receiver as being switched was found to be nonswitched during the activation attempt.

**0002** Link defined as SDLC is non-SDLC: A link defined to an ACTLINK receiver as being SDLC was found to be non-SDLC during the activation attempt.

**0003** Link defined as having automatic connect-out capability does not: A link defined to an ACTLINK receiver as having automatic connect-out capability was found to lack it during the activation attempt.

**0004** ACTLINK received for a resource other than a link: An ACTLINK was received that resolved to a local device number representing a device other than a link.

**0005** Link defined as X.21 is not X.21.

**0006** Link defined as LPDA<sup>®</sup>-capable is configured in NRZI mode.

**0007** A request that is allowed only for a primary link station was received for a link station that is defined to the receiver as secondary.

**0008** A request for link problem determination for modems was received for a link that is defined to the receiver as not supporting link problem determination for modems.

**0009** A request for link problem determination for modems was received for a link that is defined to the receiver as a supporting link, but no problem determination support for modems was found on the link.

**000A** A request that is allowed only for a nonswitched link was received for a link that is defined to the receiver as switched.

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- 000B** A request that is allowed only for a link with a modem not using the multiplexed links feature was received for a link that is defined to the receiver as having a modem using the multiplexed links feature.
- 000C** Resource definition mismatch for modems: A request that is allowed only for a link with a nontailed modem was received for a link that is defined to the receiver as having a tailed modem.
- 000D** The sending SSCP and the receiving Type 4 node having conflicting system definitions. A BIND has been received for an SLU that contains an incorrect SLU address. The LU address in the BIND is a primary address. The LU address cannot be used for a secondary role on a new session.
- 000E** The sending SSCP and the receiving Type 4 node have conflicting system definitions. A BIND has been received for an independent LU, but the LU specified is not in a Type 2.1 node.
- 000F** The sending SSCP and the receiving Type 4 node have conflicting system definitions. The SSCP owner is the same as the SSCP sending the nonactivation CONTACT PIU but the PU is not a Type 2.1. The CONTACT is for a Type 2.1 node, but the PU is not defined as Type 2.1 to the receiver.
- 0010** The BFCLEANUP is for an independent LU, but the LU specified is not an independent LU.
- 0011** The subarea address portion of an addressed LU is not equal to the subarea address of the Type 4 node. The LU is not in the same subarea as the Type 4 node.
- 0012** If the BFCLEANUP is for a resource that is not a BF LU, the request will be rejected. This is a situation where the function is not supported by the target resource. It can be caused by a SYSDEF mismatch between the Type 4 node and the SSCP.
- 0013** The network ID field in the BIND SLU name is not equal to the network ID of the boundary function, or the SLU name field is not equal to the LU name field in the boundary function control block for the LU.
- 0014** The LU specified in the FNA is not associated with the PU specified in the FNA; that is, an LU address (byte 7–*n*) is not associated with the PU target address specified.
- 0015** BFCINIT name mismatch: The BIND cannot be built from the BFCINIT because the NQ PLU name does not match. The session activation is rejected by the boundary function with a BFTERM.
- 0016** Invalid target address; either:
- The PU with which the specified LUs are to be associated is not Type 1 or Type 2; that is, the SSCP attempts to add an LU to a PU, but the boundary function has defined that PU as a Type 4.
  - The SSCP sent an RNAA assignment Type X'0' or X'5' with a PU or LU specified instead of a link. This is caused by a definition mismatch.
- 0017** MAXSUBA required for pre-ENA address assignment: If MAXSUBA is not specified and an RNAA requesting a pre-ENA address is received, the RNAA is rejected.
- 0018** An RNAA Type 4 was received requesting an auxiliary address on a dependent LU.

**0019** Multiple sets of dial information are specified for a native ATM call when only one set is allowed.

**VTAM Hint:** A possible cause of this error is that more than one DLCADDR operand (subfield 1 or 21) is specified on the following definition statements in the following major nodes:

- GROUP definition statement in the XCA major node (TGs to connection networks)
- PATH definition statement in the switched major node (TGs over SVCs)

**001A** The target LU specified in a BFCLEANUP or BFCINIT is not associated with the same link station that is associated with the session indicated in the URC control vector.

**001B** The target link station specified in a BFCLEANUP is not the same link station as the session indicated in the URC control vector.

**001C** Resource definition mismatch for BFCINIT: The sending SSCP and the receiving Type 4 node have conflicting system definition. A BFCINIT has been received for an LU address that is currently being used by an active LU-LU session. The LU address is primary on this already active session. The LU address cannot be used for a secondary role on a new session.

**001D** The LU address in the BFCINIT is a secondary address; the BFCINIT is rejected.

**001E** The subject LU specified in the BFSESSINFO RU is not defined to the SSCP as an independent LU; this is a mismatch between the SSCP and the BF.

**001F** A dependent LU is attached to a PU that indicates ACTPU is to be suppressed; the SSCP cannot activate the LU because ACTLU is not supported.

**VTAM Hint:**

The PU sent an XID that had the ACTPU suppression bit turned on. You need to reconfigure the PU to correct the error.

**0020** A peripheral node supporting independent LUs has attached (using a nonswitched link) to a Type 2 PU that cannot have independent LU sessions through it. The SSCP activation request received for one of these independent LUs has failed.

**0021** An RNAA(Add) was received by the boundary function for a resource defined at system definition time, which is not allowed.

**VTAM Hint:**

- A physical connection must exist for a resource if you are attempting to use dynamic reconfiguration. For more information about dynamic reconfiguration, see *z/OS Communications Server: SNA Network Implementation Guide*.
- This error can occur for a physical unit if a network address has been specified on the ADDR operand of the PU definition statement, but there is no physical connection for the resource. For more information about the ADDR operand, see *z/OS Communications Server: SNA Resource Definition Reference*.

**0022** The link for which ACTLINK was issued is an S/390 channel path that has

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been defined for connections only to a Type 2.1 node. However, the SSCP that sent ACTLINK had previously indicated it does not support Type 2.1 connections.

- 0023** Modem test support cannot be changed. The RNAA or SETCV containing the SDLC secondary station (X'03') or the extended SDLC secondary station (X'43') control vector is rejected.
- 0024** The data mode cannot be changed. The RNAA or SETCV containing the SDLC secondary station (X'03') or the extended SDLC secondary station (X'43') control vector is rejected.
- 0025** The receiving node is unable to process a BIND for the LU type specified for the given LU name.
- 0026** A connection over a native ATM SVC cannot be established because the TG is not defined to support APPN and HPR.  
**VTAM Hint:** A possible cause of this error is that an incorrect value or values are coded on a PU definition statement in a switched major node that defines an APPN TG over a native ATM SVC. These incorrect values could be on the HPR, CONNTYPE, or PUTYPE operands, which must specify HPR=YES, CONNTYPE=APPN, and PUTYPE=2 for native ATM connections. Any other values coded on these operands cause a connection failure.
- 0027** A link connection request for a nonempty active link connection configuration was received by the management services element; the active link connection configuration of the DLC element is empty; that is, it has no link connection components present.
- 0028** An RNAA(Move) was received for an adjacent link station (ALS), and the TO and FROM links were neither both primary nor both secondary.
- 0029** The RU refers to a resource, and the sender and receiver disagree about its status. One considers it a static resource, the other a dynamic resource.
- 002A** A session cannot be activated because the node does not support segment generation and the maximum link BTU size is too small to satisfy a requirement on the minimum send RU size as defined for the session mode.
- 002B** A session cannot be activated because the node does not support segment reassembly and the maximum link BTU size is too small to satisfy a requirement on the minimum receive RU size as defined for the session mode.
- 002C** BFSESSINFO was received reporting a subject LU in another network, or BFINIT was received with a NETID specified for the PLU which was not the same as the NETID of the ALS (XNETALS=YES) or the receiving SSCP (XNETALS=NO).
- 002D** BFSESSINFO was received for an (independent) subject LU, but the reported LU is considered by the receiver as a dependent LU.
- 002E** BFSESSINFO was received reporting a dynamic subject LU that the receiver considers to be located under a different adjacent link station (ALS) than that reported in the BFSESSINFO. The SSCP will attempt to correct this configuration mismatch.
- 002F** BFSESSINFO was received reporting a subject LU that the receiver

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considers to be located under a different adjacent link station (ALS) than that reported in the BFSESSINFO. The SSCP cannot correct this configuration mismatch.

- 0030** BFSESSINFO was received for a subject LU, but the receiver has the address associated with a different LU, which it considers to be static.
- 0031** BFSESSINFO was received for a subject LU, but the receiver has the address associated with anything other than a static LU or cross-domain resource.
- 0032** BFSESSINFO was received for an LU. The subject LU is verified, but, for a given session, either the partner LU is reported as the primary and the receiver does not consider that LU to be primary-capable, or the partner LU is reported as the secondary and the receiver does not consider that LU to be secondary-capable.
- 0033** Upon receipt of BFSESSINFO, the receiver considers the control block associated with a partner LU to be a cross-domain resource that is not active or an application that is not active.
- 0034** Upon receipt of BFSESSINFO, the receiver considers the control block associated with a partner LU to be neither an LU, cross-domain resource, nor an application.
- 0035** A network address was returned in RSP(RNAA) that the receiver believes is already associated with a different resource.
- 0036** BFSESSINFO was received containing an adjacent link station (ALS) address that was not valid. For example, the ALS does not represent a Type 2.1 node.
- 0037** BFSESSINFO was received for a subject LU, where the secondary address specified in the BFSESSINFO does not match the secondary address the SSCP believes is associated with the LU.
- 0038** The subject LU specified in the BFSESSINFO RU is not defined to the SSCP as an LU or a cross-domain resource.
- 0039** A request that is valid only for a switched subarea link was received for a link that is not subarea-capable.
- 003A** A request that is valid only for a nonswitched subarea link was received for a subarea dial link.
- 003B** An RNAA (add) was received for an LU; however an LU with the same name but a different local address already exists under the specified ALS.
- 0041** Takeover processing completed, but the SSCP did not receive a BFSESSINFO for a resource that the SSCP believed to be a static, independent LU.
- 0042** A BFINIT sent by the boundary was processed by the SSCP and the PLU resource is not owned by this SSCP. This is probably the result of a TAKEOVER and GIVEBACK occurring before the BFINIT was processed by the SSCP. This may also be caused by a definition error for the PLU.
- 0043** A request was received for a nonswitched resource that is valid only for a switched resource.
- 0044** X.21 dial and auto-call capability not present—resource mismatch.
- 0045** A session request was received and the NETID for the resource does not match that of the adjacent link station providing service for the resource.

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**VTAM Hint:** When a VTAM host has a Type 2.1 connection to a gateway NCP (XNETALS=YES is specified), a different VTAM host must own the Type 5 connection to the NCP.

- 0046** A CONNOUT was received indicating the sender and receiver have a system-definition mismatch: the CONNOUT connection type field specified a nonswitched link, but the receiver does not define the affected node as a T2.1 node on a nonswitched link or as one that supports XID3 exchange.

**VTAM Hint:** This sense code can be displayed in a VTAM message but is set by another product. It may be issued by NCP. See *NCP V7R8, SSP V4R8, EP R14 Messages and Codes* for a description of sense codes set by NCP.

- 0047** A session request or BFSESSINFO request was received and the network ID for the OLU or the subject LU does not match that of the adjacent link station providing service for the resource.

- 0048** The DLU is an independent LU but the selected boundary function is not independent LU capable.

- 0049** A BFSESSINFO request was received but the subject resource is not active.

- 0050** The element address of an intra-FRSE PVC segment subport specified in a SETCV resides on the same frame-relay port as another subport within a subport set.

- 0051** The maximum frame size in the system — definition differs for any two partners in an intra-FRSE PVC segment subport set specified in a SETCV.

- 0052** Adjacent frame-relay equipment management protocols are not supported on either of the frame-relay ports for the primary or its backup subport specified in the SETCV for the intra-FRSE PVC segment subport set.

**VTAM Hint:** A possible cause of this error is that there is a conflict in the coding of the PU definition and the FRSESET definition.

A backup PU has been coded in the FRSESET definition statement, but either this backup PU or its corresponding primary PU was coded on a line that has LMI=NO coded.

In order to have backup, the primary and backup PUs must be defined on lines whose link-station subport supports local management interface (LMI) protocol (LMI=ANSI or LMI=CCITT coded on the first PU definition statement under the LINE definition statement). For information about the LMI keyword, see *NCP, SSP, and EP Resource Definition Reference*.

- 0053** A node identifies itself as an extended border node for some sessions but claims not to be an extended border node for other sessions.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.

- 0054** SETCV was received to define an intra-FRSE segment subport set between subports that are incompatible; one of the subports does not support alternate physical paths.

- 0055** SETCV was received to define an intra-FRSE segment subport set between subports that are incompatible; one of the subports is on an outboard DLC and the other is not on an outboard DLC.

- 0056** A CPSVRMGR session cannot be established over a LEN connection that is not of type TCP.

**Sense code 0878**

Insufficient storage: The storage resource required for a data format is not available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** CONNOUT contained more dial digits than can be stored by the receiving product.

**Sense code 0879**

Storage medium error: A permanent error has occurred involving a storage medium.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** Disk I/O error.

**0002** I/O error: Load module and dump and re-IPL switches are not saved to disk.

**0003** I/O error: Automatic dump switches are not saved to disk.

**Sense code 087A**

Format processing error: A processing error occurred during data formatting.

**Sense code 087B**

Resource unknown: The request contains a session key that does not identify a session known to some gateway node; for example, a session activation request arrives at a gateway node after it has released the address transform for the intended session.

**Sense code 087C**

SSCP-PU session not active: A gateway SSCP-PU session that is needed to establish an address transform for the intended cross-network LU-LU session was not active, or the gateway node is not defined.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

Bytes 2 and 3 contain sense-code-specific information that indicates the specific reason for not rerouting the request.

**0000** No specific code applies.

**VTAM Hint:** A possible cause of this error is that the SSCP-PU session is not active on the DLU side.

**0001** An SSCP in the session setup path for an LU-LU session has lost connectivity with a gateway node traversed by the session, and has no other way to learn that the session has ended. An intermediate SSCP sends this sense data to one adjacent SSCP when it had previously lost connectivity with the other adjacent SSCP on the same session setup path. An endpoint SSCP sends this sense data to its adjacent SSCP when it had previously lost connectivity to a dependent LU or the boundary function of an independent LU.

**0002** The SSCP lost connectivity with the boundary function of an independent PLU after the LU-LU session was started, and has no other way to learn

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that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

- 0003** The SSCP lost connectivity with the boundary function of an independent SLU after the LU-LU session was started, and has no other way to learn that the session has ended; the SSCP either never had a session to a gateway node in the LU-LU session path, or had previously lost connectivity to it.

### Sense code 087D

Session services path error: A session-services request cannot be rerouted along a path of SSCP-SSCP sessions. This capability is required, for example, to set up a cross-network LU-LU session.

Bytes 2 and 3 contain sense-code-specific information that indicates the specific reason for not rerouting the request.

- 0000** No specific code applies.

**VTAM Hint:** A possible cause of this sense code is an error in the CDRM definition.

- 0001** An SSCP has attempted unsuccessfully to reroute a session services request to its destination via one or more adjacent SSCPs; this value is sent by a gateway SSCP or a nongateway SSCP when it has exhausted trial-and-error rerouting.

**Note:** This code is used when SSCP rerouting fails completely. The remaining codes are used for failures to reroute to a particular SSCP. For example, they are associated with specific SSCPs when information about a rerouting failure is displayed in the node that was trying to reroute.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- VTAM knows which node owns the LU but is not able to route a directed search to that node to verify the availability of the LU. If messages IST894I and IST895I are issued and indicate that one of the adjacent SSCPs was ISTAPNCP with a failure sense of 087F0001, this is probably the reason for the error.

Verify that a valid search path exists. This can be CP-CP sessions and/or a subarea path. One possible cause of the problem is the absence of a CP-CP session between two nodes that share an active CP-CP capable link. If this is the case, take one of the following actions:

- Reactivate the CP-CP session.
  - Deactivate the link and reactivate it as a link that is not CP-CP capable so that topology and routing services will know that it is no longer available for use in directed search routing.
- There is no SSCP-SSCP session.

## Request reject sense code 087D

- The half-session control block (HSCB) count is too low in the NCP to handle the number of sessions. A possible solution to this problem is to code a larger value on the ADDSESS keyword of the BUILD definition statement and regen.
- Both sides are using the same SSCP name.

**0002** An SSCP is unable to reroute a session services request because a necessary routing table is not available. This means that there is no adjacent SSCP table corresponding to the rerouting key in the resource identifier control vector. The receiver of this value will, if possible, try rerouting to another SSCP.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0003** This sense code is set in either of these two cases:

- A CDINIT is received from an ADJSSCP (OLU), and the CDRM statement for the ADJSSCP (OLU) does not allow this SSCP to build a dynamic CDRSC (CDRSC=REQ).
- An SSCP (OLU) or SSCP (INT) built a dynamic CDRSC for the DLU, but the ADJSSCP (DLU) selected does not allow this SSCP to build a dynamic CDRSC.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0004** Session services path error: Conflict in gateway capabilities support.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0005** An SSCP is unable to use the gateway node specified in CDINIT because that gateway node cannot allocate an address transform for the intended cross-network LU-LU session.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0006** An SSCP is able to use only a subset of the alternate gateway nodes available to it. However, for the subset that it can use, none can provide the needed alias address pair.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0007** An SSCP is unable to reroute a session services request. One of the session partners was defined as a real CDRSC, as well as a CDRSC without netid. This is not allowed.

**0008** The adjacent SSCP does not support the requested CDINIT function (for example, notification of resource availability or XRF).

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

## Request reject sense code 087D

- 0009** Network address not valid: NCP returned an address that was already in use for a different session. The initiate request cannot be rerouted.
- 000A** An SSCP is unable to reroute a session services request because the request has been routed through the same SSCP twice.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- VTAM Hint:** This error can occur during an attempt to take over a switched connection because a connection-network-capable control point (CP) on the connection network does not have a complete system definition. See the information about common APPN problems in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this session takeover problem.
- 000B** The DLU specified in the CDINIT is unknown to the receiving SSCP, and the receiving SSCP cannot reroute the CDINIT.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 000D** An SSCP has purged a session services request because the adjacent SSCP did not respond to the request within a specified installation-defined time limit.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- VTAM Hint:** A possible cause of this error is that the response from the CDINIT sent toward the DLU has not been received during the operator specified time interval. The CDINIT timed out, and a negative CDINIT response is assumed.
- 000E** A locate search request was limited because a prior search had determined that the subject target resource was not currently accessible and the search delay thresholds had not yet been met.
- VTAM Hint:** The resource was not found. A locate search request was limited because a prior search had determined that the subject target resource was not currently reachable (a valid search reduction entry exists).

### Sense code 087E

SSCP visit count exceeds limit: The SSCP visit count specified in the session services request—CDINIT, INIT\_OTHER\_CD, or DSRLST—has been decremented to zero. The session services request has been routed through an excessive number of SSCPs. (The SSCPs are not necessarily distinct.)

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

### Sense code 087F

Session services path error: A session services request cannot be rerouted into an APPN-subarea network.

Bytes 2 and 3 contain sense-code-specific information that indicates the specific reason for not rerouting the request.

## Request reject sense code 087F

- 0000** No specific code applies.
- 0001** A Locate/CD-Initiate reply, indicating resubmit on directed search, was received after a directed search had been performed in response to a previous Locate/CD-Initiate reply.
- 0002** A search request was received that was duplicated or not valid.
- 0003** A subarea search was not routed into an APPN network because a requested function was not supported by the APPN-subarea interchange node.
- 0004** An APPN search was not routed into a subarea network because a “search of subarea” was not permitted.
- 0005** A subarea search was not routed into an APPN network because the request originated in the APPN network containing this node and the APPN network is capable of executing a broadcast search.
- 0006** Subarea search not routed into APPN network because a required component was not available.
- 0007** This sense data value is generated when an interchange node receives a Locate/CD-Initiate request from an APPN network that contains a control vector X'5D' (subfield X'81') and does not route to SSCPs in the network specified in that control vector because its disjoint network indicator is not set.

### Sense code 0881

ACTCDRM failure—REQACTCDRM sent: An SSCP-SSCP session-activation request, ACTCDRM, cannot be rerouted to a gateway SSCP because, at some gateway PU, the necessary transform is not complete and the gateway PU has sent REQACTCDRM to the gateway SSCP.

### Sense code 0884

ACTCDRM failure—no REQACTCDRM sent: An SSCP-SSCP session activation request, ACTCDRM, cannot be rerouted to the destination SSCP because, at some gateway node PU, the necessary transform is not complete and REQACTCDRM cannot be sent to the destination SSCP because the gateway SSCP-PU session is not active or the intended SSCP session partner does not provide gateway services.

### Sense code 0885

Same-Network routing not supported: The requested function cannot be executed, because the SSCP will not reroute a request within its subnetwork. A CDINIT request has been received across a dynamic subarea interconnect gateway route from another node in this subnetwork or across a gateway node; or a CDINIT request has been received from another node in this subnetwork or through a gateway node that needs to be rerouted to another node in this subnetwork across a dynamic subarea interconnect gateway route. This error most likely results from a network configuration problem in which a node has been defined to have dynamic subarea interconnect gateway VRs and nondynamic subarea interconnect gateway VRs within the same subnetwork.

### Sense code 0886

Subnetwork rerouting not supported: An SSCP received a session services request—CDINIT, INIT\_OTHER\_CD, NOTIFY (vector key=X'01'), or DSRLST—from an SSCP in its subnetwork that, if rerouted, would not cross a subnetwork boundary. The SSCP does not support rerouting within a subnetwork.

## Request reject sense code 0886

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

### Sense code 0887

Dequeue retry unsuccessful—session remains queued: The SSCP cannot successfully honor a CDINIT(Dequeue) request. The request specifies “leave on queue if dequeue-retry is unsuccessful.” The SSCP has left the queued session on its queue.

### Sense code 0888

Name conflict: A name specified in an RU is unknown, or is known and does not have the required capabilities, or is a duplicate resource for the specified resource type. When a name conflict is detected, further name checking ceases; multiple name conflicts are not reported or detected.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**VTAM Hint:** Sense code 0888000n may be issued when an attempt to establish a session fails in an intermediate VTAM along the session setup path. This error may occur because the intermediate VTAM that set the sense code is operating with NQNMODE=NAME or is a pre-V4 VTAM. Therefore, the intermediate VTAM cannot define multiple resources with the same name even though the network identifiers are different.

Change the intermediate domain to operate with NQNMODE=NQNAME to allow definition of multiple resources with the same name and different network identifiers, or reroute the session through another path.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0001** The specified DLU real network name is known, but identifies a resource that is not LU-LU session capable.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** A possible cause of this error is a duplicate resource in the same network.

**0002** The specified DLU alias network name is known, but identifies a resource that is not LU-LU session capable.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0003** The specified OLU real network name is known, but identifies a resource that is not LU-LU session capable.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0004** The specified OLU alias network name is known, but identifies a resource that is not LU-LU session capable.

## Request reject sense code 0888

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0005** Name translation was not valid; that is, a different LU name was returned with the same network ID as the original LU name.

**0006** The specified DLU real network name is known, but is a duplicate resource.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- The same resource has been defined in the network in more than one location.
- If the origin LU is in APPN, this sense code can be issued if the destination resource has moved and the new location is not known throughout the network. This situation will be corrected when the origin LU receives this sense code and discards the incorrect information.
- If a LEN connection is being used, a possible cause of this error is that the network ID predefined for the cross-domain resource is the same as the network of the LEN connection but is not the same as the network where the resource resides. To fix this, move the CDRSC definition statement for the resource before any NETWORK definition statements so that the resource does not have a predefined network ID.

**0007** The specified DLU alias network name is known, but is a duplicate resource.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** A possible cause of this error is that VTAM is unable to determine the DLU real name for a TR\_REPLY RU. Ensure that the network ID is correct. To determine where the error occurred, look in the alias translation table for the alias name and the real name associated with it. Find the name that was given as the DLU alias name in IST664I and try to determine what the actual resource is in this host.

Refer to *z/OS Communications Server: SNA Network Implementation Guide* for a description of alternatives to predefining cross-network destination logical units.

**0008** The specified OLU real network name is known, but is a duplicate resource.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0009** The specified OLU alias network name is known, but is a duplicate resource.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**000A** A predefined real resource name and a predefined alias resource name were found for the same resource.

## Request reject sense code 0888

- 000B** A cross-network DLU name is defined as a shadow resource, but shadow resources are not supported for cross-network sessions.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 000C** A cross-domain or cross-network DLU name matches an alternate application name. However, the alternate application name is not the real name of the resource. This is only allowable in a same-domain session.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 000D** When processing a session initiation RU, an SSCP has found two different resource definitions for the OLU, one with the real OLU name and one with the alias OLU name.
- 000E** When processing a session initiation RU, an SSCP has found two different resource definitions for the DLU, one with the real DLU name and one with the alias DLU name.
- 000F** The specified DLU network name is defined as a generic resource. The session should be reinitiated using the name of an LU.
- VTAM Hint:** This sense code is issued in connection with generic resources and the centralized definition of cross-domain resources function.
- For an overview of centralized definition of cross-domain resources and information about how to set up these definitions, refer to *z/OS Communications Server: SNA Network Implementation Guide* .
- 0010** The LU 6.2 partner returned a name in the User Data field of its RSP(BIND) that differs from the name it returned in the User Data field of its RSP(BIND) for a previous BIND. Either the partner changed its name or name changes in the network have caused delivery of the latest BIND to a different partner.
- VTAM Hint:** Possible causes of this error include, but are not limited to, the following:
- The partner LU might have changed names or name changes in the network have caused delivery of the latest BIND to a different partner LU.
  - Name manipulations in the network are inconsistent or the network is finding different targets for the same name on subsequent BINDS.
  - A partner LU incorrectly using the sender's name might have caused a problem.
- 0011** The LU 6.2 partner receiving a BIND carrying one specific target SLU name returned a name in the User Data field of its RSP(BIND) that is the same as it returned in response to a previous BIND carrying a different target SLU name.
- VTAM Information:** The partner LU name returned in the user data field of the BIND response was found in a VARIANT\_NAME entry, but the SUPPLIED\_NAME entry used when the session was initiated indicates (by the associated name field) that no name associated has taken place. The name returned in the user data field of a BIND response found in a SUPPLIED\_NAME LU entry is different from the SUPPLIED\_NAME entry used in the setup of the session.

## Request reject sense code 0888

**VTAM Hint:** A possible cause of this error is that the name returned is identical to a name currently in an internal table as a name that has already been supplied by the application.

**0012** A session initiation request is received from the partner LU containing a LUNAME found in an internal table, but with a different network qualifier.

**VTAM Information:** Name changes in the network have caused alteration of the network identifier.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- The local LU does not support network-qualified names.
- A non-flat name space was detected where a flat name space is required.

**0013** A border node received a topology database update (TDU) from a node within its local subnet containing the CP name of a node that is adjacent to the border node across an intersubnet TG.

**0014** An excessive number of topology database updates (TDUs) have been processed for a resource.

**0015** A generic name of a resource has been received when only the real name of the resource can be specified.

**0016** The DLUR-specified network name is known, but is a duplicate resource.

### Sense code 0889

Transaction program error: The transaction program has detected an error.

This sense code is sent only in an FMH-7.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** Program error—no data truncation: The transaction program *sending* data detected an error but did not truncate a logical record.

Program error—purging: The transaction program *receiving* data detected an error. All remaining information, if any, that the receiving program had not yet received, and that the sending program had sent prior to being notified of the error, is discarded.

**0001** Program error—data truncation: The transaction program *sending* data detected an error and truncated the logical record it was sending.

**0100** Service transaction program error—no data truncation: The service transaction program *sending* data detected an error and did not truncate a logical record.

Service transaction program error—purging: The service transaction program *receiving* data detected an error. All remaining information, if any, that the receiving service transaction program had not yet received, and that the sending service transaction program had sent prior to being notified of the error, is discarded.

**0101** Service transaction program error—data truncation: The service transaction program *sending* data detected an error and truncated the logical record it was sending.

## Request reject sense code 088A

### Sense code 088A

Resource unavailable—NOTIFY forthcoming: The SSCP cannot satisfy the request because a required resource is temporarily unavailable. When the required resource becomes available, the NOTIFY NS keys X'07' or X'08' will be sent.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** SSCP-SSCP session not active: A SSCP-SSCP session required to reroute the cross-network request was not active.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

- 0003** SSCP-LU session not active: The SSCP(DLU) is currently not in session with the DLU.
- 0004** LU session limit exceeded: The DLU is currently at its session limit and the requested session would cause the limit to be exceeded.

### Sense code 088B

BB not accepted—BIS reply requested: Sent in response to a BB (either an LUSTAT bid or an Attach) to indicate that the receiver has sent a BIS request and wishes to terminate the session without processing any more conversations, but without sending an UNBIND. A BIS reply is requested so that the negative response sender may send a normal UNBIND. This sense code is sent only by LUs not supporting change-number-of-session protocols.

### Sense code 088C

Missing control vector: The RU or XID did not contain a required control vector or subfield.

Bytes 2 and 3 following the sense code contain sense code-specific information.

- nnyy** Byte 2 contains the key (*nn*) of the subject control vector and Byte 3 (*yy*) contains the control vector's type or the missing subfield.
- 0E00** The route setup request did not contain required control vector X'0E'.
- 0EF3** The name of the new PLU is missing from a third party initiated flow.
- 0EF4** A SLUINIT BIND was missing the PLU CP\_NAME control vector X'0E'.
- 2600** The route setup request did not contain required control vector X'26'.
- 2B00** RSCV control vector X'2B' for an APPN session was not provided, or the route setup request did not contain required control vector X'2B'.
- 2C00** The route setup request did not contain required control vector X'2C'.
- 2D00** The route setup request did not contain required control vector X'2D'.
- 3100** BIND image control vector X'31' missing.
- 3900** NCE instance ID control vector X'39' missing.
- 4680** Missing subvector X'80' on TG descriptor X'46'.
- 4581** Missing directory extensions subvector control vector X'4581'.
- 4683** Missing subvector X'83' on TG descriptor X'46'.
- 5F00** Control vector X'5F' missing.

## Request reject sense code 088C

- 6000** Control vector X'60' missing.
- 6380** Control vector X'63' crypto capabilities (control vector X'80') missing.
- 6500** Device characteristics control vector X'65' missing.
- 6700** The route setup request did not contain required control vector X'67'.
- 8000** Control vector X'80' missing.
- 8100** Control vector X'81' missing.

### Sense code 088D

Duplicate network name: An SSCP has detected a violation of the requirement that network names used across multiple domains be unique within the multiple-domain network. For example, the SSCP(DLU) has detected that the OLU name received in CDINIT is currently also defined in the domain of the SSCP(DLU).

### Sense code 088E

Capability mismatch: A network component detected a capability mismatch between different resources involved in the same network function. For example, an SSCP detects that an LU has been assigned a subarea address too large for one of the other resources involved in the session initiation to support.

Bytes 2 and 3 following the sense code contains sense-code-specific information.

- 0000** A resource encountered during LU-LU session initiation is not ENA-capable; the session initiation request may be rerouted.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

- 0001** A resource encountered during LU-LU session initiation is not ENA-capable; the session initiation request should not be rerouted.

- 0002** An SSCP has requested a "pre-ENA compatible" SLU address for an SLU that already has an ENA address.

- 0003** The gateway node selected by the gateway SSCP from the gateway node list is not ENA-capable when an ENA-capable gateway node is required. Another gateway node may be tried.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

- 0004** During a dynamic path update, the SSCP detected that the update contained a path with an explicit route (ER) number greater than seven and the target node did not have extended subarea addressing capabilities. Therefore, the dynamic path update information for this destination subarea is not being sent to the target node.

- 0005** The session could not be established because a specified extended subarea address exceeded that allowed at a node along the selected session setup path. The gateway SSCP doing gateway node selection may retry the session setup by selecting another gateway node having a larger subarea address limit in the network containing the DLU.

**VTAM Hint:** This sense code is issued when there are incompatible ESA capabilities along the session setup path. The DLU direction subarea address is greater than the OLU direction capabilities.

- 0006** The session could not be established because a specified extended

## Request reject sense code 088E

subarea address exceeded that allowed at a node along the selected session setup path. The gateway SSCP doing gateway node selection may retry the session setup by selecting another gateway node that uses a smaller subarea address in the network containing the DLU.

**VTAM Hint:** This sense code is issued when there are incompatible ESA capabilities along the session setup path. The OLU direction subarea address is greater than the DLU direction capabilities.

- 0007** During a dynamic path update, the SSCP detected that the update contained a path definition with a subarea address above 255 and that the target node did not support extended subarea addressing. Therefore, the dynamic path update information for this destination subarea is not being sent to the target node.
- 0008** The session could not be established because the dependent LU server detected an incompatibility between its capabilities and those of its dependent LU requester.
- 0009** The session could not be established because the dependent LU requester detected an incompatibility between its capabilities and those of its dependent LU server.
- 000A** An attempt was made to establish a connection between a boundary function that does not support cross-subnetwork connections and a border node.
- 000B** The extended border node indicator was set during XID exchange but both the border node and intersubnetwork extended session services support indicators were not set in the CP capabilities GDS variable.
- 000C** There is an APPN subnetwork link mismatch. Two nodes may have a system definition mismatch or two nodes may already have a non-APPN subnetwork connection active and one attempts to activate an APPN subnetwork connection.
- VTAM Hint:** An attempt was made to activate two or more links between two nodes in which at least one of the links is defined as an APPN intersubnetwork link, but not all the links are defined as APPN intersubnetwork links. Determine what type of links should be defined between the two nodes in your network. Then modify the NATIVE option on the PU definition to reflect this.
- 000E** Virtual-route-based transmission group does not support nonnative connections.
- VTAM Information:** VTAM sets this sense code when a virtual-route-based transmission group connection is requested between two adjacent nodes connected by a nonnative, Type 2.1 connection. The request for the VRTG connection will fail. The SSCP-SSCP session will also fail.
- 000F** An attempt was made to establish a CP-SVR pipe across a subnetwork boundary between a dependent LU server and a dependent LU requester with limited multi-subnetwork support.

### Sense code 088F

XRF procedure error: A request was received for an XRF-active or XRF-backup session and was not acted on.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.

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- 0003** A SWITCH request specifying a switch to the already existing state was received.
- 0004** A SWITCH request was received that was not valid.
- 0005** The SLU has received SWITCH (Conditional, to backup) and no current XRF-backup sessions exist that can replace this session (that is, become the XRF-active session).
- 0006** An INITIATE request for an XRF-backup session was received that allowed queuing. (XRF-backup and session queuing are mutually exclusive functions.)
- 0007** An initiation request for an XRF-backup session was received specifying an XRF-backup session, and the DLU does not support XRF sessions.
- 0008** An XRF-active BIND was received with a session correlation identifier that duplicates a session correlation identifier associated with an existing XRF session.
- 0009** An XRF-backup BIND was received for an LU that currently does not have an XRF session.
- 000A** Cryptography not supported: An XRF BIND was received indicating cryptography. A cryptography key must be defined for the NCP session as well.
- 000B** An initiation request for an XRF-backup session was received specifying an XRF-backup session, and the OLU does not support XRF sessions.
- 000F** Backup command not valid.
- 0010** An XRF-backup BIND was received with a session correlation identifier that does not match the session correlation identifier associated with the existing XRF session with that LU.
- 0011** Cryptography information could not be obtained for the backup XRF session.
- 0012** An XRF-backup BIND associated with the existing XRF session supporting data compression was received that did not support compression.
- 0013** The existing session was negotiated using an extended BIND carrying the length-checked compression (X'66') control vector, but the XRF-backup BIND is nonextended.
- 0014** The message authentication code level of the extended recovery facility (XRF) backup session does not match that of the XRF primary session.
- 0015** The NCP level did not support the MAC level with XRF.

## Sense code 0890

Search failure.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0010** Routing error during a directed search: A Locate GDS variable for a directed search was received by an intermediate NNCP and could not be successfully routed to the destination control point.
- 0011** The path used to transport the directed Locate request (a message containing Locate, Find Resource, and Cross-Domain Initiate GDS variables) does not support a sufficiently-large Locate message size to

## Request reject sense code 0890

return the Locate response (a message containing Locate, Found Resource, and Cross-Domain Initiate GDS variables). The NNS(OLU) was requested to retry the directed search over a path supporting a sufficient Locate message size.

**0020** Resource not found during a directed search: A Locate GDS variable for a directed search was received by the named destination CP and the search argument resource is not a local resource.

**0021** Verification reduction could not be satisfied, but was required for the request. This sense code is returned when resource verification reduction cannot be satisfied for the DLU.

**VTAM Hint:** This sense code is set by the PLU's network node server when resource verification reduction could not be satisfied for a request initiated by the PLU control point to obtain the RSCV from the network node server.

**0022** Destination of search not served by this CP.

**0028** Resource not found, broadcast required: The resource was not found on a directed LOCATE/CDINIT search, and a restricted broadcast was executed at the destination and failed; a broadcast should be tried.

**0030** Resource deleted, no broadcast required: A Locate GDS variable for a directed search was received by the named destination CP and the search argument resource has been deleted.

**0036** Duplicate search to a subnetwork. This is an attempt to search a network previously reached by this search procedure. This condition indicates an attempt to loop back into a subnetwork through a different entry point.

**0037** Unknown TG vectors to dependent LU requester. A resubmitted Located search for a dependent LU at its dependent LU requester was unsuccessful. This condition arises only after the dependent LU server has verified the existence of the dependent LU.

**VTAM Hint:** VTAM was unable to successfully locate the dependent LU requester (DLUR) node in order to obtain the necessary DLUR endpoint transmission group (TG) vectors. The current session setup will fail. Verify that connectivity exists between the node that issued the sense code and the DLUR node.

**0038** Too many directed search subprocedures: A LOCATE exceeded the maximum height of the search tree; too many directed search subprocedures were tried; no retry.

**0040** Resource not found during a broadcast search: A Locate GDS variable for a broadcast search was received by a CP that does not provide network services for the search argument resource and neither do any of the CPs searched in its broadcast subtree. This condition is detected by crossing search requests (a CP sends and receives a search request with the same PCID and the same search argument resource) or by a local search failure and all CPs in the broadcast subtree returning this sense data.

**0048** Neutral reply received from an end node: A locate reply with no found and no extended sense data (X'35') control vector was received from an APPN end node.

**0050** Quiesced CP: A CP in the broadcast search tree is in a quiescent state and, therefore, not receiving Locate GDS variables. This condition is detected when a CP in the search subtree is quiesced and no other CP in the subtree found the requested resource.

## Request reject sense code 0890

- 0060** Storage not available: A CP in the broadcast search tree does not have sufficient storage to participate in the search and no other CP in the search subtree found the requested resource.
- 0070** Session outage: A CP in the search tree has lost its CP-CP session with a CP that had been sent a Locate GDS variable and no reply had been received.
- 0080** Duplicate fully qualified PCID: A CP in the search tree detected a duplicate fully qualified PCID for a different session request from the session request that first used the fully qualified PCID.
- 0081** PCID modifier too long: A PCID modifier list was received that had a length greater than ten bytes.
- 0082** PCID modifier space exhausted: A PCID modifier list was received that contained the maximum of ten bytes. As the maximum list size has been reached, another list entry cannot be made that was longer than ten bytes.

### VTAM Hint:

This sense code is issued when a node determines that it may have to retry, resubmit, or redirect a search, but it cannot allocate a procedure-correlation identifier (PCID) Modifier slot, because all 20 half-byte slots have already been allocated. This indicates that the search has been exhausted (20 nodes have already allocated slots without finding the DLU). There is currently no recovery action architected or implemented to recover from this situation.

The PCID Modifier slots differ from the SSCP visit count in that the SSCP visit count is decremented by every SSCP on the session setup path. The PCID Modifier slots are not allocated by every SSCP, only those that may have to perform retried, resubmitted, or redirected searches.

## Sense code 0891

Network ID (NETID) not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** PLU NETID not valid: The NETID of the PLU is not the same as that of the SSCP(PLU).
- 0002** NETID not valid: The NETID field in CONNOUT does not match the NETID defined in the link station receiving the CONNOUT.
- 0003** NETID not valid: The NETID field in the RNAA is not the same as the native NETID. There is a mismatch between the system definitions of the SSCP and the Type 4 node.
- 0004** The network name control vector appended to the received XID3 does not contain a valid network ID. The network ID, preceding the CP name, must be greater than zero and less than eight bytes in length.  
  
Alternatively, a network ID was received as an entry in a register GDS variable without an accompanying resource name, resulting in a resource name at the receiver that is not valid; the entry was not registered.
- 0005** The network name control vector appended to the received XID3 does not contain a valid CP name. The CP name, following the network ID, must be greater than zero and less than eight bytes in length.

## Request reject sense code 0891

- 0006** Invalid NETID: The sender has deactivated CP-CP sessions with the adjacent nonnative CP because one of the following situations has occurred:
- Neither CP contains border node support (that is, neither sets Byte 9, Bit 7 to one in the CP capabilities GDS variable that it sends).
  - One or both nodes defined the connection as native, which is not allowed if the network IDs are different.

**VTAM Hint:** If this sense code is displayed in message IST1280I, this probably indicates that CP-CP sessions were attempted between two network nodes in different networks. If a nonnative relationship is desired, ensure that BN=YES is coded to enable border node support. Also ensure that NATIVE=YES is not coded on a PU or ADJCP statement representing the partner node.

If a native relationship is desired, modify the VTAM start lists for the specific nodes so that both start lists specify the same network.

- 0007** NETID not valid: Establishment of a switched link connection failed because the NETID of the destination PU was not equal to that of the requesting SSCP.
- 0008** Insufficient control blocks for dynamic network ID assignment. A CONNOUT specified a network ID that is not currently defined and sufficient control blocks are not available.
- 0009** The network ID specified in the VRID list (X'1B') control vector is not valid.
- 000A** Network ID not valid: the network ID in the network name control vector does not match the network ID of the target resource of the REQACTPU.

### Sense code 0892

Automatic network shutdown (ANS) has occurred.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Session reset when ANS=STOP: The SSCP controlling the LU has been lost. The session will be terminated because ANS=STOP was specified for this LU.
- 0002** The session was in pending-active state when the SSCP failed. However, since ANS=CONT, LU-LU sessions would normally continue, but since the session was not completely set up, it was reset.
- 0003** XRF-backup session reset when ANS=STOP: The XRF-backup session was reset because ANS=STOP was specified.

### Sense code 0893

Takeover not complete.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** PLU lacking a control point, retry: The PLU is not currently receiving network services from a control point. The BIND is rejected because the session cannot be established. This sense data is returned by the boundary function of the PLU.

## Request reject sense code 0893

- 0002** SLU lacking a control point, retry: The SLU is not currently receiving network services from a control point. The BIND is rejected because the session cannot be established. This sense data is returned by the boundary function of the SLU.
- 0003** Sequence error: The SSCP should not send an RNAA for an independent LU until the takeover sequence is complete for the link station, that is, until all BFSESSINFOS for that LU have been received and accepted.

### Sense code 0894

Migration support error: The sender of the request is relying on migration support that is not available.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** BIND cannot be extended: A BIND that is not an LU 6.2 BIND was received and cannot be extended by the receiver.

### Sense code 0895

Control vector error: The RU or XID contained a control vector that was in error. Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- xyyy** Byte 2 (xx) contains the key of the control vector first detected in error. If more than one control vector is in error, only the first erroneous one is reported. Byte 3 (yy) of the sense code specific data contains the (zero-origin) byte offset of the error within the control vector.

### Sense code 0896

Control vector too long.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Network name (X'0E') control vector is too long; the vector data portion is greater than 18 bytes long.

### Sense code 0897

System definition mismatch: The requested function is not supported by the receiver, or there is a mismatch between the sending and receiving system definitions.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** The BFCLEANUP specifies that it is for an independent LU, but the LU specified is not an independent LU. This also could be caused by a resource mismatch.
- 0002** The target LU is not in the same subarea as the Type 4 node.
- 0003** The function is not supported by the target resource.
- 0004** SLU name not valid: The network ID (if present) for the NS SLU name field is not equal to the network ID of the Type 4 node, or the SLU name is not equal to the LU name field in the LUB.

## Request reject sense code 0897

- 0005** The LU address specified in the FNA is not associated with the PU target address specified in the FNA.
- 0006** The SSCP has no predefinition for an LU and does not support dynamic resource definition.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 0007** The receiving SSCP has a different system-defined name for the SSCP(DLU) than the SSCP(DLU) name in the session initiation request.
- VTAM Hint:** In subarea, a possible cause of this error is that the CDRM definition statement in the OLU host for the DLU does not match what the DLU has coded for SSCPNAME in the VTAM start options.
- 0008** In a gateway with three gateway SSCPs, a gateway SSCP on the OLU side of the gateway was specified as having predesignated control in the CDINIT. In this configuration, only the middle gateway SSCP may have predesignated control.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 0009** In a gateway with multiple gateway SSCPs, the gateway node assumes that one gateway is coded with GWCTL=ONLY. As a result, the gateway node receives gateway-control RUs from a different SSCP than the one it expects.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- VTAM Hint:** A possible cause of this error is that the GWPATH definition specifies the wrong NCP name.
- 000A** The PU of an independent PLU named in BFINIT does not have the same element address as the one in the ALS field of BFINIT.
- 000B** An SSCP has detected a specification of gateway responsibility in the CDINIT request that is not consistent with its own definition. For example, an SSCP that has predesignated responsibility to control a gateway node specified in the CDINIT request sends this sense data when it receives the CDINIT from a session partner and the CDINIT indicates that the session partner also has predesignated responsibility for the gateway node; in this situation, a mismatch exists in the responsibilities of the SSCPs, because both cannot simultaneously have predesignated responsibility for the gateway node.
- VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.
- 000C** The receiver is unable to interpret the DLU name.
- 000D** Resource type not defined in receiver.
- 000F** A gateway node has received route data for a cross-network session in a form that it does not support.
- 0010** An adjacent SSCP has the same SSCP name as the SSCP that owns the DLU but a different network identifier than the DLU.

## Request reject sense code 0897

- 0011 The subsystem LU received CINIT with an appended LU definition (X'2F') control vector, but cannot process that control vector.
- 0012 The receiving SSCP has a different system-defined name for the SSCP(OLU) than the SSCP(OLU) name in the session initiation request.
- 0013 The session request (CDINIT) has routed back to the SSCP(OLU) or an SSCP on the session setup path has the same name as the SSCP(OLU).
- 0014 The MOSS automatic IPL/dump switches are not set properly.
- 0015 The OLU is represented using a dynamically defined resource but the ALS selected to provide its services does not permit dynamic definitions. The condition is detected when a session initiation request is received for an independent LU and no predefinition is found for the OLU resource. The session initiation is rejected.
- 0016 The DLU is represented using a dynamically defined resource but the ALS selected to provide its services does not permit dynamic definitions. The condition is detected when a session initiation request is being processed for an independent destination LU and no predefinition is found for the DLU resource. The session initiation request is rejected.  
**VTAM Hint:** You might need to change the CDRSC definition.
- 0017 The request was received for an independent LU over a specific ALS but that ALS is not defined to provide services for the subject LU. The condition is detected when a session initiation request is received and the ALS for which the request was received was not predefined to provide service for that independent LU. The session initiation request is rejected.
- 0018 Session Initiation Status Not Supported: A session initiation request was received that contained a session initiation status field that was not valid for the receiving node.
- 0019 The SSCP has received a CONTACTED or REQCONT containing an XID3 carrying an unrecognized CP name; the SSCP supports only predefined CP names.
- 001A The source or destination service access point address (SSAP or DSAP) in the logical link control protocol data unit of the XID information field for a token-ring LAN is unknown.

## Sense code 0898

Session reset: The XRF session is being reset.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000 No specific code applies.
- 0001 The XRF-active session has been reset because the XRF-backup PLU forced a takeover.
- 0002 XRF-backup hierarchical reset: The identified XRF-backup LU-LU session is being deactivated because the related XRF-active session terminated normally. The LU sending this sense data is resetting its half-session before receiving the response from the partner LU. (See UNBIND Type X'12'.)
- 0003 XRF-active hierarchical reset: The identified XRF-active LU-LU session is being deactivated because the related XRF-backup session performed a forced takeover of this session (via SWITCH). The LU sending this sense data is resetting its half-session before receiving the response from the partner LU. (See UNBIND Type X'13'.)

## Request reject sense code 0899

### Sense code 0899

Address not valid: An address modifying a control function is not valid, or outside the range allowed by the receiver.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0002** If the address requested in the RNAA is an existing address and an FNA has been received for this address, reject the RNAA.
- 0003** For a dynamic reconfiguration MOVE or REPLACE operation, the new LU local address specified in the RNAA is incompatible with the LU local address already specified in the control block. Both must be either zero or nonzero.

### Sense code 089A

File not valid or file not found: The requested file was not found, or was not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Requested file not found.
- 0002** Duplicate load module—one with same name already on disk. The load module cannot be added.
- 0003** Unable to locate required associated object.
- 0004** Another load module on the MOSS disk has the same IPL time as the one specified for the load module in the MODIFY LOAD command.

### Sense code 089B

Session correlation exception: The session correlation procedure detected an exceptional condition at the SLU.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** RUs out of order: A BIND request with the correlating fully qualified PCID control vector (X'5F') arrived before UNBIND (Type X'02') was received for the correlated session. This sense data is sent in an UNBIND that terminates the correlated session.
- 0002** Correlator not found: A BIND request with the correlating fully-qualified control vector (X'5F') cannot be correlated to any previous session.

### Sense code 089C

Duplicate session related identifier, URC not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** The URC received in the BFINIT duplicates a URC for an outstanding session initiation attempt from the same BF.

### Sense code 089D

Gateway node error detected during cross-network session initiation.

## Request reject sense code 089D

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0001** The gateway node list used to select a gateway node to cross a network boundary is exhausted. This error can be caused by an element address mismatch.

**VTAM Hint:** A possible cause of this error is an element address mismatch between VTAM and NCP.

**0003** RNAA has failed; another gateway node should be tried.

**0004** Address conversion based on the subarea or element address split was unsuccessful.

**0005** The gateway node selected by one gateway SSCP is not known to another gateway SSCP in the same gateway. This can be a system definition error in the gateway SSCP that does not recognize the gateway node.

**0006** A gateway SSCP has found that a gateway node has assigned duplicate addresses.

### Sense code 089E

Identified data object already exists.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0001** A request to create a new data object has failed because the identified data-object already exists at the target node.

**0002** A request to replace a data object has failed because it specifies a to-be-deleted data object different from the to-be-stored data object; however, the to-be-stored data object already exists.

### Sense code 089F

The node component required to satisfy a request is not currently available.

Bytes 2 and 3 following the sense code contain sense code-specific information.

**0004** A session initiation has failed because a generic resource coupling facility is not available to do the necessary information update.

**VTAM Hint:** This sense code is issued when VTAM is unable to access or create information about a generic resource in the MVS coupling facility structure for one of the following reasons:

- The coupling facility structure storage is exhausted. This might be a temporary situation, try the session again when the coupling storage is resolved.
- VTAM does not have a connection to the coupling facility structure.
- VTAM received an unexpected response from MVS while attempting to access or create the information.

### Sense code 08A0

Session Reset: An LU or PU is resetting an LU-LU session.

Bytes 2 and 3 following the sense code contain sense code-specific information.

**0000** No specific code applies.

## Request reject sense code 08A0

- 0001** The LU is sending an UNBIND with a reason code of X'0A' (SSCP gone); the identified LU-LU session had to be deactivated because of a forced deactivation of the associated SSCP-PU or SSCP-LU session, for example, because of a DACTPU, DACTLU, or DISCONTACT.
- 0002** The LU or SCM is sending UNBIND with a reason code of X'0F' (cleanup).
- 0003** A gateway node is cleaning up the session because a gateway SSCP has directed the gateway node (via NOTIFY) to deactivate the session, for example, a session setup error or session takedown failure has occurred. The gateway node will send UNBIND with a reason code of X'11' (gateway node cleanup).
- 0004** Reversed FRSN values: The value in the Last FRSN Sent field is greater than the value in the Current<sup>®</sup> FRSN field in a received TDU GDS variable (no retry). The CP will send an UNBIND with a reason code of X'0F' (Cleanup).
- 0005** TDU sent out of order: The value in the last FRSN sent field of the current TDU GDS variable is less than the value of the current FRSN field in the TDU GDS variable that immediately preceded it, or is greater than it and the receiver cannot store the out-of-sequence value (no retry). The CP will send an UNBIND with a reason code of X'0F' (Cleanup).

**VTAM Hint:** If this sense code is issued in the IST1097I message group (CP-CP sessions have been deactivated), it is likely that the topology database update (TDU) flowing between the two nodes has been lost. This is probably due to a storage depletion condition on either the sending or receiving end of the TDU flow.

If the CP-CP sessions do not come back up automatically, reactivate the CP-CP session by issuing VARY ACT,ID=*partner\_cpname*,IDTYPE=CP. If VTAM is experiencing temporary storage allocation problems, you might want to wait for the condition to clear before attempting to restart the session.

When the CP-CP session is restarted, TDUs will be exchanged so that the missing information in the lost flow will be recovered.

- 0006** This sense code can be displayed in a VTAM message but is set by another product.
- VTAM Hint:** If this sense code is issued in the IST1097I message group (CP-CP sessions have been deactivated), it is likely that CM/2 is failing the CP-CP session because the flow reduction sequence number (FRSN) in the topology database update (TDU) sent by VTAM is higher than expected by CM/2. Perform the following steps:
1. Delete the entry for the adjacent node from the topology database by issuing the MODIFY TOPO command:  
F TOPO,ID=*cpname*,TYPE=FORCE. All links between VTAM and the partner node must be inactive before issuing the MODIFY TOPO command.
  2. After deleting the node, reactivate the CP-CP session.
- 0007** DLUS-DLUR session deactivation (disruptive): LU-LU sessions for DLUR-supported dependent LUs should be reset
- 0008** DLUS-DLUR session deactivation (non-disruptive): LU-LU sessions for DLUR-supported dependent LUs should not be reset

## Request reject sense code 08A0

- 0009** DLUS-DLUR session deactivation (non-disruptive): protocol violation detected (LU-LU sessions for DLUR-supported dependent LUs should not be reset)
- 000A** DLUS-DLUR session deactivation (non-disruptive): DLUR should wait for DLUS reactivation of DLUS-DLUR session (LU-LU sessions for DLUR-supported dependent LUs should not be reset)
- 000C** The DLUS node has received from the DLUR node a FID2 Encapsulation (X'1500') GDS variable with a PIU length field of zero.

### Sense code 08A2

Resource active. The requested function must be performed on an inactive resource, but the resource is active.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** RNAA(MOVE) was received for an active resource.

### Sense code 08A3

Call security verification failed.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** The callee detected a password mismatch during call security verification.

### Sense code 08A4

Token-match exception: partial name matching is unsuccessful during the required find or store operation. The canonical identifier involved in the exception is reported in the FS server report.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** One or more must-match tokens were not specified.
- 0002** Specified token-match indicators yield multiple directory matches.

### Sense code 08A6

Object not found: an exception has occurred when the general server attempted to process the server object, but the server object could not be found.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Server object not found.

### Sense code 08A8

Multiple-domain support routing exception: The MDS router in the reporting NAU is unable to perform the required routing for an MDS-MU.

When this SNA report code is used in an SNA condition report (X'1532') GDS variable, the destination NAU name is included in the reported on location name (X'09') subvector and the destination MS application name is included in the reported on agent (X'04') subvector of the condition report.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

## Request reject sense code 08A8

- 0000** No specific code applies.
- 0001** Destination NAU name unknown. Directory services could not locate the requested destination name.
- 0002** Directory services unavailable. No routing possible.
- 0003** MS application program name not recognized.
- 0004** Use of CPSVCMG session not permitted. The reporting network node has received an MDS-MU over a CPSVCMG session from another network node. These sessions are used for MDS-MUs only between a network node and its served end nodes.
- 0005** Function not supported by EN destination. The back-level end node destination does not support receipt of MS messages (reported by serving network node).
- 0006** Function not supported by destination. The back-level destination does not support receipt of MS messages other than MS Capabilities and Alert.
- 0007** Function not supported by serving NN. The serving network node of the end node destination does not support routing of MS messages (reported by network node performing routing).
- 0008** Function not supported by EN. The reporting end node has received an MDS-MU with a destination other than itself.
- 0009** Destination not supported by reporting NN. A network node has received an MDS-MU from another network node that cannot be routed. The destination is not the reporting network node itself nor is it one of the served end nodes.  
  
If the MDS-MU was routed based on nonverified directory information (as indicated by the routing verification indicator in the MDS routing information), the MDS-MU will be returned to the routing network node along with the SNA condition report.
- 000A** Unrecoverable session failure. The MDS\_SEND TP in the reporting node was unable to send the message because of an allocation error. Retries have been exhausted.
- 000B** Unrecoverable TP failure in remote node. The MDS\_SEND TP in the reporting node was unable to send the message because of a TP failure in a remote node. Retries have been exhausted.
- 000C** MS application program failure. The MDS router in the destination NAU is unable to communicate with the destination MS application program.
- 000D** Unrecoverable TP failure in reporting node. The MDS router in the reporting node was unable to send the message because of a local TP failure.
- 000E** Correlation error. An MDS-MU has been received that is not the first for a unit of work (first MDS message indicator in the MDS routing information message is zero), but the agent unit of work correlator is unknown (does not match any active MDS transaction). Also used to report the receipt of a duplicate correlator (MDS-MU with first MDS message indicator is one, but the agent unit of work correlator matches one currently in use).
- 000F** MS application program congestion. The MDS router in the destination NAU is unable to communicate with the destination MS application program because of local congestion (implementation buffer space for queuing additional MDS-MUs has been exhausted).

## Request reject sense code 08A8

- 0011** MDS HPO not supported by MS application program. The destination MS application program does not support the use of the MDS high performance option.
- 0012** Unrecoverable failure of user-mode session. MDS has detected an error on a user-mode session (a user-mode session in this context is one with a mode name other than SNASVCMG or CPSVCMG). Retries have been exhausted. Application program data may have been lost.
- 0013** Session UNBIND notification. The last session to the indicated destination has been deactivated. Refer to product documentation for additional information.

## Sense code 08A9

Multiple-domain support transaction failure: The reporting MDS router or MS application program has detected a condition that has impacted an outstanding unit of work (identified by the agent unit of work correlator of the MDS error message).

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0000** No specific code applies.
- 0001** Failure caused by outage of a CPSVCMG session.
- 0002** Failure caused by outage of an SNASVCMG session. All retries have been exhausted.
- 0003** Unit of work canceled by reporting MS application program. The unit of work has been canceled because of a timeout in the reporting MS application program.  
**VTAM Hint:** For applications using the NetView LU 6.2 transport, the timeout value is determined by the SECONDS parameter on the transport send service, or the RCVREPLY value set by the DEFAULTS command.
- 0004** Unit of work canceled by reporting MDS Router. The unit of work has been canceled by a garbage-collection timeout in the reporting MDS router.  
**VTAM Hint:** For applications using the NetView LU 6.2 transport, this sense code is returned if the timeout value for a request matches that set by MAXREPLY on the DEFAULTS command.
- 0005** MDS router internal failure. The unit of work has been canceled because of an internal failure in the reporting MDS router.  
**VTAM Hint:** For applications using the NetView LU 6.2 transport, this sense code indicates that either the DSI6DST or DSIHPDST task is terminating, or that there was a problem with an internal NetView hashing routine.
- 0006** MS application internal error. The unit of work has been canceled either because the reporting MS application program was terminated or because another application program served by it was terminated. The type of program termination (normal or abnormal) is not indicated.
- 0007** MS application router reinitialization. The unit of work has been canceled by the reporting MDS router because of a reinitialization of the application-level router.
- 0008** OSI transport service MDS application stand-alone transport user disconnect.  
**VTAM Information:** Either the association for a CMIP application program is ending normally or an idle association is being ended. This is not an error condition.

## Request reject sense code 08A9

**0009** The CMIP agent client has received an MDS error message for its transaction with the CMIP agent server.

### Sense code 08AA

Required GDS variable missing: the MS multiple-domain support message unit (MDS MU) is missing a required GDS variable.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**nnnn** Bytes 2 and 3 following the sense code contain the ID of the missing GDS variable.

**1212** Control point management services unit X'1212' GDS variable is missing.

**1310** DS MU header X'1310' GDS variable is missing.

**1311** MDS routing information X'1311' GDS variable is missing.

**1532** MDS SNA condition report X'1532' GDS variable is missing.

**1549** MDS unit of work X'1549' GDS variable is missing.

**80F0** MS capabilities X'80F0' MS major vector is missing.

### Sense code 08B2

Data transmission failure: the data transmission between an application program in an SNA MS entry point and an application program in a subentry point was incomplete, causing abnormal termination of the function.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

**0000** No specific code applies.

**0001** A timeout has occurred while waiting for transmission of data between the two application programs. For example, a service processor has timed out while waiting to receive data from the main processor.

**0002** A timeout has occurred while waiting for transmission of data between two applications.

### Sense code 08B5

Network node server not required: Sent by an APPN end node control point to a network node control point (1) to deactivate CP-CP sessions with the NNCP, or (2) to reject a CP-CP session BIND from the NNCP. The end node no longer requires network node services from the receiver.

**Note:** This sense data value is carried within the X'35' control vector on an UNBIND(Type = X'01') for case (1) above, or on an UNBIND(Type = X'FE') for case (2).

**VTAM Hint:** A possible cause of this error is that the network node server for the CP-CP session attempt is not in the network node server list.

### Sense code 08B6

CP-CP Sessions Not Supported: Sent by a network node control point to reject a CP-CP session BIND from another APPN control point; support for CP-CP sessions on that TG was removed since the time when the TG was first activated.

**Note:** This sense data value is carried within the X'35' control vector on an UNBIND(Type = X'01').

## Request reject sense code 08B6

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0000** No specific code applies.

**0001** During link activation on a switched link, it was discovered that the partner node does not support CP-CP sessions on this TG.

## 10XX (request error)

This category indicates that the RU was delivered to the intended NAU component, but could not be interpreted or processed. This condition represents a mismatch of NAU capabilities.

Category and modifier (in hexadecimal):

### Sense code 1001

RU data error: Data in the request RU is not acceptable to the receiving component; for example, a character code is not in the set supported, a formatted data field is not acceptable to presentation services, or a value specified in the length field (LL) of a structured field is not valid.

**VTAM Hint:** This code can also be issued if a required name in the request is omitted.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0001** The request contains a subarea address of zero or a subarea address greater than the maximum subarea value within the specified or implied network.

**VTAM Hint:** A possible cause of this error is that a network address cannot be assigned to a dynamic application program when VTAM is trying to build that dynamic application program from a model application program definition.

**0002** The network ID specified in the ACTPU is unknown, or is not valid on the link over which the ACTPU was received.

**0003** Isolated pacing message format error: An incorrectly formatted isolated pacing message was received.

**0005** An RNAA Type 4 was received in which the local address field length is greater than one. The implementation does not support a length other than one.

**0006** An RNAA Type 4 was received in which the link station address field length is greater than one. The implementation does not support a length other than one.

**0007** On BFCINIT the network name portion of the network-qualified name field has a format error.

**0008** A character code that is not valid was found.

**0009** The formatted data field is unacceptable to presentation services.

**000A** A length field for a structured field that is not valid was found.

## Request error sense code 1001

- 000B The value in the name length field is not valid.
- 000C The value in the cryptography length field is too great.
- 000D The URC length field is not valid.
- 000E The control vector length field is inconsistent with the control vector data.
- 000F A PLU or SLU role specification encoding is not valid.
- 0010 The value in the user data length field is not valid.
- 0020 Too many session keys are present.
- 0021 A control vector or session key data is not valid.
- 0022 A BIND image in a session services RU is not valid.
- 0023 A device characteristics field is not valid.
- 0024 A BIND or +RSP(BIND) that was not for LU Type 6.2 and not in extended format was received at an intermediate APPN network node. The session is terminated.
- 0026 The length of GDS variable within the request RU is not valid.
- 0027 A GDS variable within a locate is not valid.
- 0030 Control vector ambiguity: The request contains two or more conflicting control vectors. Generally the two control vectors have the same key. However, there are cases where a new control vector key supersedes an old one. In this case, two control vectors with different keys but no other distinguishing data (such as network ID) could be ambiguous. An example is a SETCV to a gateway node with both a VR ID list control vector (control vector X'1B') and a route parameters control vector (control vector X'4E') for the same network.
- 0033 The name of the deciphering CP in a cryptography (X'63') control vector does not match the name of the receiving CP(PLU).
- 0034 A topology data update was received across an APPN subnetwork link carrying topology information about an adjacent subnet.  
**VTAM Hint:** Information that was not valid was received in a topology database update (TDU) over an APPN subnetwork link. This sense code is set only by a border node during the initial topology exchange after CP-CP sessions are established over an APPN subnetwork link. If the non-native node sends a TDU containing more topology information than its own X'44'/X'45' control vector pair, then the sense code is set. A dump from both nodes should be taken for problem determination.
- 0035 A logon command was entered using a format different from that specified at system-definition time for the USS table.
- 0036 The message authentication code received in the RU did not match the one generated by the receiver for that RU.
- 0037 The data manipulation header contained data that was not valid.
- 0038 The data manipulation header contained a length that was not valid.
- hnnn* Where  $h \geq 8$ ; that is, the high-order bit in Byte 2 is set to one. The 15 low-order bits of Bytes 2 and 3 contain a binary count that indexes (zero-origin) the first byte of the field found to be in error.

### Sense code 1002

RU length error: The request RU was too long or too short.

**Sense code 1003**

Function not supported: The function requested is not supported. The function may have been specified by a formatted request code, a field in an RU, or a control character.

**Note:** Numbers 0001 and 0002 are also assigned for implementation. See the implementation documentation for details of use.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**VTAM Hint:** If resources are not activating correctly when a new NCP is activated, either rename the new NCP or use another method to make sure that the old resource resolution table (RRT) is replaced with the new RRT.

**0001** The half-session receiving the request did not perform the function because it is not capable of doing so. The requesting half-session requested a function that the receiver does not support, and the receiver did not specify that it was capable of supporting the function at session activation; consequently, there is an apparent mismatch of half-session capabilities.

**Note:** This is to cover a system error. For example, if the PU receiving a SETCV (vector key=X'15') is not a gateway PU; that is, if the PU did not indicate in the ACTPU response that it is a gateway PU, the PU reports to the SSCP that sent the SETCV that there is an apparent mismatch of half-session capabilities.

**0002** The half-session receiving the request did not perform the function, though it is capable of doing so. The requesting half-session did not specify at session activation that it was capable of supporting the function; consequently, there is an apparent mismatch of half-session capabilities.

**Note:** This is to cover a system error. For example, if the SSCP sending a SETCV (vector key=X'15') is not known to the receiving PU as a gateway SSCP; that is, the SSCP did not indicate in ACTPU that it is a gateway SSCP, the PU reports a mismatch of capabilities.

**0003** The component received an unsupported normal-flow DFC command.

**0004** The component received an unsupported expedited-flow DFC command. For example, the LU 6.2 half-session may have received a SIGNAL RU when its local conversation style is full-duplex. (However, the half-session rejects the SIGNAL only if it is for the current bracket. Early SIGNALs are held for the correct bracket by saving the SIGNAL value until the correct BB arrives.)

**0005** The component received a network control command during an LU-SSCP session.

**0006** The component received an unsupported session control command during an LU-SSCP session.

**0007** The component received an unsupported data flow control command with LU-SSCP session specified.

## Request error sense code 1003

- 0008** Broadcast search with reservation: An NNCP received a broadcast search request with reservation.
- 0009** Initiate type: The initiate type requested in the CDINIT GDS variable or INIT\_OTHER\_CD GDS variable is not supported at the receiver.
- 000A** Session polarity: The session polarity requested in the CDINIT GDS variable is not supported at the receiver.
- 000B** A BIND specifying delayed request mode was received from a non-6.2 Type LU, but delayed request mode is not supported in the receiver.
- 000C** A stand-alone BIND is received from a node that is served by an SSCP that does not support stand-alone BINDs.
- 000D** The function identified in the request is not supported by the processing application transaction program.
- 0010** The RU is not known to session services.
- 0011** A session key is not supported.
- 0012** A control vector is not supported.
- 0014** Cryptography is not supported but a nonzero length was specified for the cryptography key.
- 0015** Queuing not supported for a controller session.
- 0016** Service parameter not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a supplemental report identifying the service parameter triplet (or triplets) that was not supported.
- 0017** Service parameter level not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a supplemental report identifying the service parameter triplet (or triplets) that was not supported.
- 0018** Destination-role function not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report identifying the structure and containing the contents that specified the unsupported function. Whenever the structure report is not sufficient to identify the unsupported functions, the supplemental report may also be present.
- 0019** All-role function not supported. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report identifying the structure and containing the contents that specified the unsupported function. Whenever the structure report is not sufficient to identify the unsupported functions, the supplemental report may also be present.
- 001B** Unable to initiate agent.
- 001C** Function conflicts with Format Set 1 encodings. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report identifying the structure and containing the contents that specified the conflicting function.
- 001F** Multiple-destination traffic not supported. The reporting location is a specialized, end-only role implementation that supports single-destination traffic only.
- 0020** A session initiation request specified an OLU and DLU that are the same LU. An LU that does not use VTAM LU 6.2 API cannot establish a session with itself.

## Request error sense code 1003

**0021** There is a mismatch between session initiation request type and LU type (independent or dependent). For example, a session initiation request other than BFINIT identifies an independent LU as a session partner.

**VTAM Hint:** Ensure that the PU name and CPNAME operand have unique names in the PU definition statement of the switched major node definition.

**0023** A session initiation request requiring Extended Session Services NNS Support was received at an EN that does not have this service available to it.

**0025** The component received a NOTIFY request whose type is not supported.

**0027** LU type is not supported.

**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product. See the appropriate product-specific manual for further information.

**0036** The network node server received a NOTIFY request whose type is not supported by the DLU.

**0037** Request received is inappropriate for the receiving type of network addressable unit.

**0039** A third-party-initiated session request specified an ILU (initiating LU) and a DLU (destination LU) that are the same LU. An application cannot initiate a third-party-initiated session to itself.

**6002** The resource identified by the destination program name (DPN) is not supported.

**6003** The resource identified by the primary resource name (PRN) is not supported.

**Note:** This sense code can also be used instead of sense code X'0826'.

## Sense code 1005

Parameter error: A parameter modifying a control function is not valid, or outside the range allowed by the receiver.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0001** For NMVT, the address type field in an SNA address list subvector does not match the address type required by the command subvector.

**0003** Number of element addresses requested was not valid.

**0004** Display type was requested was not valid.

**0005** Storage length for display type requested was not valid.

**0006** Storage address was not valid; out of specified range.

**0007** The command in a request change control MS major vector is incompatible with the SNA/FS server instruction.

**0010** A new backup focal point name was supplied when we are supposed to keep the current backup focal point information.

## Request error sense code 1006

### Sense code 1006

Required field or parameter is missing.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**VTAM Information:** When VTAM receives this sense code for a session initiation, it continues searching through the adjacent SSCP table until the destination LU is found or routing is exhausted.

**0001** One or more required COS names were omitted.

**0002** A required name was omitted.

**0003** A required network identifier was omitted.

**0004** A required session key was omitted.

**0005** A required control vector was omitted.

**0006** A required subfield of a control vector was omitted.

**0007** The TG number field was omitted.

**0008** The specific ID (IDNUM) was omitted.

**0009** A required GDS variable is missing.

### Sense code 1007

Category not supported: DFC, SC, NC, or FMD request was received by a half-session not supporting any requests in that category; or an NS request Byte 0 was not set to a defined value, or Byte 1 was not set to an NS category supported by the receiver.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0001** NS header received was not valid. An NS request Byte 0 was not set to a defined value.

### Sense code 1008

Invalid FM header: The FM header was not understood or translatable by the receiver, or an FM header was expected but not present. For LU 6.2, this sense code is sent in FMH-7 or UNBIND.

Table 1 shows the usage of the allowed values by LU type.

Table 1. Usage of hexadecimal 1008 sense code specific information by LU type

Range	LU 1	LU 4	LU 6.1	LU 6.2
0801–0824	X	X		
0825	X			
0826–082A	X	X		
2001–200D	X	X		
200E	X	X	X	
200F–201C	X	X		
201D				X
4001–400E	X	X		
6000				X

## Request error sense code 1008

Table 1. Usage of hexadecimal 1008 sense code specific information by LU type (continued)

Range	LU 1	LU 4	LU 6.1	LU 6.2
6001,6004			X	
6005			X	X
6006–6008			X	
6009			X	X
600A			X	
600B			X	X
600C–6010			X	
6011–6034				X
6040			X	X
6041				X
6046				X
6047				X
6048				X
C000–C003			X	

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0801** The function code parameters are not valid.
- 0803** The forms functions cannot be performed.
- 0805** The copy function cannot be performed.
- 0806** Compaction table outside the supported set: The number of master characters is not within the valid range.
- 0807** The PDIR (peripheral data information record) identifier is not valid.
- 0808** The printer train function cannot be performed.
- 0809** The FCB (forms control block) load function cannot be performed.
- 080A** The FCB (forms control block) load function is not supported.
- 080B** The compaction table name is not valid.
- 080C** The ACCESS is not valid.
- 080D** The RECLLEN is not valid.
- 080E** The NUMRECS is not valid.
- 080F** The data set is in use.
- 0810** The data set cannot be found.
- 0811** The password is not valid.
- 0812** The function is not allowed for the destination or for the data set.
- 0813** The record is too long.
- 0814** The data set is full.
- 0815** The RECID is not valid.

## Request error sense code 1008

- 0817 The VOLID format is not valid.
- 0818 The maximum number of logical records per chain is exceeded.
- 0819 The data set exists.
- 081A No space is available.
- 081B The VOLID is not valid.
- 081C The DSACCESS is not valid.
- 081D The RECTYPE is not valid **or** the data set cannot be found.
- 081E The resolution space is insufficient.
- 081F The key technique is not valid.
- 0820 The key displacement is not valid.
- 0821 The key is not valid.
- 0822 There is an not valid N (number of records).
- 0823 The KEYIND is not valid.
- 0824 The SERID is not valid.
- 0825 Disk error: An error was detected while reading from, or writing on, the disk.
- 0826 The RECID format is not valid.
- 0827 The password has not been supplied.
- 0828 The record ID has not been supplied.
- 0829 The volume ID has not been supplied.
- 082A The PGMNAME is not valid.
- 2001 The destination (active) is not valid.
- 2002 The destination (inactive) is not valid.
- 2003 The destination (suspended) is not valid.
- 2004 The suspend-resume sequence is not valid.
- 2005 There has been an interruption level violation.
- 2006 The resume properties are not valid.
- 2007 The destination is not available.
- 2008 The end sequence is not valid.
- 2009 The FM header length is not valid.
- 200A Field setting is not valid: The reserved field is set to one or the setting is not defined.
- 200B Destination is not valid: The destination does not exist.
- 200C The ERCL is not valid.
- 200D The data stream profile (DST) is not valid.
- 200E Concatenation indicator is not valid: The concatenation indicator is on, but concatenation is not allowed.
- 200F FM data is not allowed for the header.
- 2010 The FM header set specified in the BIND has been violated.

## Request error sense code 1008

- 2014** The FM header was not sent concatenated.
- 2019** The stack reference indicator (SRI) is not valid.
- 201A** The CMI modification could not be accepted.
- 201B** The CPI modification could not be accepted.
- 201C** The ECRL modification could not be accepted.
- 201D** FM header and associated data mismatch: The FM header indicated that associated data would or would not follow (for example, FM Header 7 followed by log data, or FM Header 5 followed by program-initialization parameters), but this indication was in error; or a previously received RU [for example, -RSP(X'0846')] implied that an FM header would follow, but none was received.
- 4001** FM header type for this LU is not valid: The type of the FM header is other than five, seven, or 12.
- 4002** The FMH code is not valid.
- 4003** Compression is not supported.
- 4004** Compaction is not supported.
- 4005** Basic exchange is not supported.
- 4006** Only basic exchange is supported.
- 4007** The medium is not supported.
- 4008** There has been a code selection compression violation.
- 4009** FMHC is not supported.
- 400A** Demand select is not supported.
- 400B** DSNAME is not supported.
- 400C** The media subaddress field is not valid.
- 400D** There are insufficient resources to perform the requested function.
- 400E** Data stream profile (DSP) select is not supported.
- 6000** FM header length not correct: The value in the FM header length field differs from the sum of the lengths of the subfields of the FM header.
- 6001** The deblocking algorithm (DBA) is not valid.
- 6004** The queue name length is not valid.
- 6005** Access security information length field not correct: The value in the access security information length field differs from the sum of the lengths of the access security information subfields.
- 6006** The data stream profile (DSP) is not valid.
- 6007** The FMH-7 is not preceded by a negative response carrying sense code X'0846'.
- 6008** The attach access code is not valid.
- 6009** Parameter length is not valid: The field that specifies the length of fixed-length parameters has a setting that is not valid.
- 600A** This is not the first FMH-5, the interchange unit type is not the same as the old, and the interchange unit end indicator is off.

## Request error sense code 1008

- 600B** Unrecognized FM header command code: The partner LU received an FM header command code that it does not recognize. For LU 6.2, this sense data is sent only in FMH-7.
- 600C** A null sequence field is required.
- 600D** User-to-user program transition is not allowed.
- 600E** User to non-SNA defined program transition is not allowed.
- 600F** The FMH-5 reset attached program (RAP) was not sent properly.
- 6010** The FMH-5 reset attached program (RAP) was sent with an inactive attach register.
- 6011** Logical unit of work (LUW) not valid: The LUW length field (in a compare states GDS variable or an FMH-5) is incorrect, or the length field is not valid, or a LUW ID is not present but is required by the setting of the synchronization level field.
- 6021** Transaction program name not recognized: The FMH-5 attach command specifies a transaction program name that the receiver does not recognize. This sense data is sent only in FMH-7.
- 6031** PIP not allowed: The FMH-5 attach command specifies that program initialization parameter (PIP) data is present, but the receiver does not support PIP data for the specified transaction program. This sense data is sent only in FMH-7.
- 6032** PIP not specified correctly: The FMH-5 attach command specifies a transaction program name that requires program initialization parameter (PIP) data, and either the FMH-5 specifies PIP data is not present or the number of PIP subfields present does not agree with the number required for the program. This sense data is sent only in FMH-7.
- 6034** Conversation type mismatch: The FMH-5 attach command specifies a conversation type that the receiver does not support for the specified transaction program. This sense data is sent only in FMH-7.
- 6040** Attach parameter is not valid: A parameter in the FMH-5 attach command conflicts with the statement of LU capability previously provided in the BIND negotiation.
- 6041** Synchronization level not supported: The FMH-5 attach command specifies a synchronization level that the receiver does not support for the specified transaction program. This sense data is sent only in FMH-7.
- 6042** Reconnection not supported: The FMH-5 attach command specifies reconnection support, but the receiver does not support reconnection for the specified transaction program. This sense data is sent only in FMH-7.
- 6043** Unable to reconnect transaction program—no retry: The FMH-5 reconnect command specifies the conversation correlator of a transaction program to which the receiver cannot reconnect. The condition is not temporary. This sense data is sent only in FMH-7.
- 6044** Unable to reconnect transaction program—retry allowed: The FMH-5 reconnect command specifies the conversation correlator of a transaction program to which the receiver cannot reconnect. The condition is temporary. This sense data is sent only in FMH-7.
- 6046** An SNA/DS transaction program is unable to allocate a conversation with an SNA/DS partner.

## Request error sense code 1008

- 6047** An SNA/DS transaction program in conversation with an adjacent SNA/DS transaction program has detected from LU 6.2 PS a return code of `resource_failure`.
- 6048** An SNA/DS transaction program in conversation with an adjacent SNA/DS transaction program has detected from LU 6.2 PS a return code of deallocate type (abend).
- 6050** For the receiver, one of the following conditions exists:
- Extended security bit is on and GDS variable X'12F6' does not immediately follow the attach FMH-5 and PIP data.
  - Extended security bit is off and GDS variable X'12F6' follows the attach FMH-5.
- For the sender, one of the following conditions exist:
- The partner responded to the attach with any data other than an FMH7 or an authenticator reply (GDS id X'12F8').
  - The authenticator reply subfield (X'FF85') is absent.
  - A subfield occurs more than once.
- 6051** One of the following conditions exist:
- The length of the GDS variable is incorrect. The length must be greater than zero and must equal to (*length\_field\_value* -2).
  - An unidentified subfield is present in the GDS variable.
  - The total length of a subfield is not equal to the value in its length field minus 2.
- 6053** The length of the GDS variable is incorrect. It is the responsibility of the application to ensure that the GDS variable length is correct. For the sender, the length must be greater than or equal to two and must equal the value in the length field.
- 6054** For the receiver, the extended security bit is on and either old FMH-5 security bits are on or the old access security information fields are present. For the sender, the authenticator reply fails the checks applied by the security manager. (Purge ID from Signed On To list.)
- 6056** The partner responded to the attach with any data other than an FMH7 or an authentication token (GDS variable X'12F6').
- 6057** The authentication token GDS requested that additional token exchanges be handled via the distributed authentication service TP. However, the FMH5 did not contain a valid conversation correlator.
- C000** The header is not supported.
- C001** The header length is not valid.
- C002** There has been a logical message services block-level error.
- C003** There is a version ID mismatch.

### Sense code 1009

Format group not selected: No format group was selected before issuing a present absolute or present relative format structured field to a display.

### Sense code 100A

Unknown user name.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.

## Request error sense code 100A

- 0001** The specified operations management served application name is not registered with operations management. The operations management served application name is specified in the DAN X'50' subfield of the name list X'06' subvector which is contained in the R and TI X'154D'.

## Sense code 100B

Format exception.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** Required structure absent. When this SNA report code is used in an SNA condition report, it is accompanied by a structure report that identifies the absent structure. For example, the destination application name is missing in the MDS\_MU received.
- 0002** Precluded structure present. This SNA report code is accompanied by a structure report that identifies the precluded structure.
- 0003** Multiple occurrences of a nonrepeatable structure. This SNA report code is accompanied by a structure report that identifies and contains the second occurrence of the structure.
- 0004** Excess occurrences of a repeatable structure. This SNA report code is accompanied by a structure report that identifies and contains the occurrence of the structure that exceeded the maximum number of occurrences.
- 0005** Unrecognized structure present where precluded. This SNA report code is accompanied by a structure report that identifies and contains the precluded unrecognized structure, plus a sibling list of all the allowed structures.
- 0006** Length outside specified range. This code assumes that the length arithmetic balances and that the sender intended to send the structure at that length. This SNA report code is accompanied by a structure report that identifies and contains the header of the excessively long structure plus a supplemental report that contains the allowed maximum length.
- 0007** Length exception. Length arithmetic is out of balance. This SNA report code is accompanied by a structure report that identifies and contains the header of the structure that exceeded its parent's boundary.
- 0008** Required combination of structures absent. This SNA report code is accompanied by structure reports that identify the structures that make up the combination, indicating for each whether it was present or absent.
- 0009** Precluded combination of structures present. This SNA report code is accompanied by structure reports that identify the structures that make up the precluded combination.
- 000A** Required combination of structures and data values absent. This SNA report code is accompanied by structure reports that identify the structures and data values that are present, plus structure reports that identify the absent structures needed to complete the combination.
- 000B** Precluded combination of structures and data values present. This SNA report code is accompanied by structure reports that identify the structures and data values that make up the precluded combination.
- 000C** Unknown or unsupported data value. This SNA report code is accompanied by a structure report that identifies the structure and contains the unknown or unsupported data value.

## Request error sense code 100B

- 000D** Incompatible data values. This SNA report code is accompanied by structure reports that identify the structures and contain the incompatible data values.
- 000E** Precluded character present. This SNA report code is accompanied by a structure report that identifies the structure, indicates the byte offset of the offending byte, and includes the byte containing the precluded code point.
- 000F** Data-value out of range. This SNA report code is accompanied by a structure report that identifies the structure and contains the offending data value, plus a supplemental report that contains the maximum value allowed within the range (if a maximum range value is applicable).
- 0010** Segmentation present where precluded. This SNA report code is accompanied by a structure report that identifies the structure that should not have been segmented.
- 0011** Precluded data value. This SNA report code is accompanied by a structure report that identifies the structure and contains the offending data value.
- 0012** Recognized but unsupported structure. This SNA report code is accompanied by a structure report that identifies the structure.
- 0013** None of several possible structures found. This SNA report code is accompanied by a structure report that identifies the parent of the absent structure and may contain an unrecognized structure that was found in the place of the absent structure. The structure report also contains a sibling list of the possible structures.
- 0014** Incorrect order of child structures found. This SNA report code is accompanied by a structure report that identifies the parent of the incorrectly ordered child structures.

### Sense code 100C

Unrecognized message unit.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** The received byte stream could not be identified by the receiving SNA component.

### Sense code 100D

Request inconsistency: the control information provided for the request is not consistent with other information in the request.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** Server object size is incompatible with service level.
- 0002** A reply DTMU was received before completing a three-way responsibility flow in an SNA/DS request. Retry is allowed.

### Sense code 100E

Directing exception: a node is unable to perform the required directing or redirecting function for a request as a result of insufficient directory support, or incompatibility between TP name and presence/absence of a user name.

Bytes 2 and 3 following the sense code contain sense code specific information.

## Request error sense code 100E

- 0000 No specific code applies.
- 0001 Agent name known but not supported for specified user destination.
- 0002 Agent name known but not supported for specified node destination.
- 0003 Agent name is known at this DSU but is not available.

## Sense code 100F

Improper SNA/DS usage of LU 6.2.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000 No specific code applies.
- 0001 An SNA/DS transaction program in conversation with an adjacent SNA/DS transaction program has detected an improper sequence of LU 6.2 basic conversation verbs.

## Sense code 1010

Error on locate search or CP capabilities message detected.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000 Unrecoverable error, such as a duplicate control vector, was detected.
- 0001 A broadcast search resulted in two or more conflicting positive replies that differ on the CP owning the target resource. Multiple positive replies are acceptable, as long as all indicate the same owning CP.
- 0003 An error was detected that prevented the exchange of CP capabilities. Recovery may be attempted.
- 0004 Unrecoverable error on CP Capabilities GDS variable exchange prevented its initiation or completion on a contention-winner CP-CP session.
- 0005 The intersubnetwork Locate failed because an entry for the destination network ID does not exist in the border node subnetwork list.  
**VTAM Hint:** This sense code can be displayed in a VTAM message, but is set by another product.

- 1000 Length error in CP capabilities GDS variable.
- 1002 A GDS variable that is not valid was received when the CP capabilities (X'12C1') GDS variable was expected.  
**VTAM Hint:** VTAM detects this condition during either contention-winner or the contention-loser CP-CP session activation. VTAM deactivates the CP-CP session.
- 4004 Incomplete negative or neutral reply received on a search or reservation indicated on Broadcast or "All" specified on a directed search.
- 5002 No CD-Initiate GDS variable returned on a search request.
- 5006 Session polarity or initiate type value received in CD-Initiate GDS variable not supported.
- 500A Mode name length error in CD-Initiate GDS variable.
- A002 Find GDS variable not present on Locate search request.
- B080 Command parameters (X'80') control vector not present on found GDS variable.

### Sense code 1011

RNAA request error: The RNAA must be rejected because there is a mismatch between sending and receiving system definitions, or capabilities.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** No available pre-ENA addresses: Reject an RNAA that requests an address that is pre-ENA compatible, and there are no pre-ENA addresses available.
- 0002** RNAA takeover error: In a takeover situation, a system definition mismatch was detected between the “old” SSCP and the SSCP taking over. For example, if the LU name field in the RNAA is not the same as the LU name field in the logical unit block (LUB), the RNAA is rejected. If an existing LU with the same local address is found, but the LU is generated (instead of DR-added), the RNAA is rejected. Also, if the adjacent link station (ALS) name given in the RNAA does not agree with the ALS name given in the common physical unit block (CUB), the RNAA is rejected.
- 0003** NETID not valid: If the NETID field in the RNAA is not the same as the native network ID, the RNAA is rejected. There is likely a mismatch between the PU Type 4 and SSCP system definitions.
- 0004** PU or LU type not valid: If the PU to which the LUs are to be added is not Type 1 or Type 2, the RNAA is rejected. The SSCP attempts to add an LU to a PU, but NCP has defined that PU as a PU Type 4. The second situation is if the SSCP sent an RNAA Type X'00' or X'05' with a PU or LU specified. This is an RU-NAU mismatch caused by an SSCP-NCP definition mismatch.
- 0005** MAXSUBA required for pre-ENA address assignment: If MAXSUBA is not specified and an RNAA requesting a pre-ENA address is received, the RNAA is rejected.

### Sense code 1012

SNA/DS receiver exception MU format exception: Parsing or building of the SNA/DS receiver exception MU format was unsuccessful.

### Sense code 1013

Unknown server parameters: The specified parameters are not recognized by the server.

### Sense code 1014

Control vector error on a directory services GDS variable.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 003C** Missing associated resource entry (X'3C') control vector on find or found.
- 003D** Missing directory entry (X'3D') control vector on find or found.
- 0060** Missing CV60 on LOCATE GDS variable.
- 0080** Control vector not valid.
- 023C** Conflicting directory entry, or associated resource entry (X'3C') control vector not valid.
- 502B** No RSCV received from a network node server.
- 502C** No COS/TPF control vector received in a CD-Initiate reply from a network node server.

## Request error sense code 1014

**502D** The COS/TPF control vector received on the BIND is different from that on the corresponding Locate.

**VTAM Hint:** A dump should be taken for problem determination.

**5046** TG vectors not present in a CD-Initiate from an end node OLU or DLU.

**VTAM Hint:** This sense code can also be set by AS/400® when an attempt to establish a session from one AS/400 to a second AS/400 across a VTAM network fails. Sessions across three different networks using APPN links are not supported in VTAM. See the information about common APPN problems in the *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem.

**A080** Missing command parameters (X'80') control vector on find.

**A082** Missing search argument directory entry (X'82') control vector on find.

**B280** A found from an end node indicated the directory entry for a located resource was a wild-card entry.

### Sense code 1015

XID Length Error: The XID3 was too long or too short. Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0001** The received XID3 has fewer than 29 bytes.

**0002** There is a mismatch between the number of bytes specified in the length field of XID3 and the actual length of the received XID3.

### Sense code 1016

XID Format 3 parameter error: Data in the XID3 is not acceptable to the receiving component because the value in the received XID3 field, whose byte and bit offset is specified by the XID negotiation error (X'22') control vector (which also carries this sense data), is inconsistent with the corresponding field in the sent XID3.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0001** The field in the received XID3 that specifies the maximum number of I-frames that the sender can receive before acknowledgment is set to zero.

**0002** The adjacent node has been inconsistent in its request for ACTPU. In a nonactivation XID3 exchange, it has changed the value of the ACTPU suppression indicator sent in the previous XID3 exchange.

**0003** The field in the received XID3 that specifies the maximum BTU length that the sender can receive is set to less than 99 bytes, the minimum required.

**0004** The received XID was not XID Format 3 when XID Format 3 was expected.

**0005** The adjacent node does not support BIND segment generation but does support receipt of BIND segments. Any T2.1 node supporting receipt of BIND segments must also support generation of BIND segments.

**0006** The adjacent node is an end node, does not support BIND segment receipt, and has a maximum BTU size of less than 265, the minimum required in this case.

**0007** The adjacent node is a network node, does not support BIND segment receipt, and has a maximum BTU size of less than 521, the minimum size required in this case.

## Request error sense code 1016

- 0008** The adjacent node has changed its networking capabilities in an XID3 from those declared in the previous negotiation-proceeding or nonactivation XID3. A node may not change from an end node to a network node or from a network node to an end node in two different negotiation-proceeding or nonactivation XID3s.
- 0009** The adjacent node is an APPN network node, does not provide CP services, and supports CP-CP sessions, a combination not allowed.
- 000A** During a nonactivation XID3 exchange, the adjacent node has changed the TG number that was negotiated during the activation exchange.
- 000B** The adjacent node is the TG number negotiation winner and designates a TG number that the receiving node cannot allocate to this connection. When parallel TGs are supported between the two nodes, zero is always such a number.
- VTAM Hint:** This sense code occurs when two VTAMs are attached by a 3172 token ring and channel-to-channel connections or any other type of connection in parallel to a 3172 connection. After inactivation of a VTAM node with 3172 connections, you should do one of the following:
- Wait at least four minutes before attempting to restart the failed VTAM.
  - Attempt reattachment of the 3172 connections to adjacent nodes first to prevent TG number contention.
- 000C** The adjacent node is an APPN network node that does not support BIND segment generation, and this node has a maximum BTU receive size of less than 521. This node might, therefore, be unable to receive a BIND with RSCV from the adjacent network node.
- 000D** The adjacent node indicates that it does not support the SDLC command/response profile in its XID3. This is the only command/response profile supported by APPN and LEN nodes.
- 000E** Different product set IDs have been given in the product set ID (X'10') control vectors appended to two different received XID3s from the same adjacent node.
- 000F** The link station roles specified in the sent and received negotiation-proceeding XID3s are not compatible. To activate a connection, one node must contain a primary link station; the other, a secondary link station.
- 0010** The support of combined asynchronous balanced mode link stations indicated in the sent and received negotiation-proceeding XID3s is not in agreement.
- 0011** A received XID3 indicates an attempt to activate multiple connections has been made when parallel transmission groups are not supported between the two nodes involved in the XID exchange.
- 0012** The adjacent node has sent the network name (X'0E', CP name) control vector in XID3 but indicates it does not support the exchange state indicators.
- 0013** The DLC type indicated in the sent and received negotiation-proceeding XID3s is not in agreement.
- 0016** This TG is predefined in this node (range 1–20) but the TG number received in the XID3 from the adjacent node is not the same.

## Request error sense code 1016

- 0018** The adjacent node is an APPN node but does not support adaptive BIND pacing as a sender and receiver.
- 001A** The adjacent node is inconsistent in its support of parallel TGs. Support of parallel TGs between two nodes cannot change either in link-activation XID exchanges on different TGs or in successive XID exchanges on the same TG.
- 001B** The adjacent node provides or requests CP services but does not support CP-CP sessions; for example, Bytes 8–9, bits 10–11 of the received negotiation-proceeding XID3 were set to ten, a setting combination not allowed for T2.1 nodes.
- 001F** The setting of the intersubnetwork link indicator of the TG descriptor control vector received in XID3 is inconsistent with the receiving node system definition. This sense data value is issued only if both sender and receiver support the setting of this bit.
- 0021** During a negotiation-proceeding XID3 exchange, one node specifies in the HPR capabilities (X'61') control vector that error recovery is required, but the other node specifies no error recovery is required. HPR protocols will not be used on this TG. (This sense data is not carried in the XID negotiation error (X'22') control vector.)
- VTAM Hint:** The link activated as a non-HPR link due to a disagreement between the link partners on the level of error recovery procedures (ERP) to be used. Check the value of the LLERP parameter associated with the VTAM PU, as well as the level of ERP supported for that DLC type by the link partner.
- 0022** The adjacent node is an HPR node (that is, it included an HPR capabilities (X'61') control vector in XID3), but is specified a maximum BTU size less than 768.
- VTAM Hint:** This sense code can also be issued at the following times:
- at XID time for a Local SNA (CDLC) connection if the maximum PIU size (a factor of the IOBUF size multiplied by the MAXBFRU value) is less than 525 bytes.
  - at XID time for a TCP/IP CDLC connection if the product of the write\_buffers times write\_size, specified on the DEVICE statement, is larger than the read capacity on the read side.
- 0023** The adjacent node is an HPR node (that is, it included an HPR capabilities (X'61') control vector in XID3), but it specified an ANR label length that was not valid (for example, less than one or greater than eight).
- 0024** The adjacent node is an HPR node (for example, it included an HPR Capabilities (X'61') control vector in XID3), but the receiving node detected that it specified a CP NCE identifier length that was not valid (for example, less than one or greater than eight).
- 0025** The adjacent node is an HPR node (for example, it included an HPR Capabilities (X'61') control vector in XID3), but the receiving node detected that it specified a route setup NCE identifier length that was not valid (for example, less than one or greater than eight).
- 0026** The adjacent node is an HPR node (for example, it included an HPR Capabilities (X'61') control vector in XID3), but the receiving node detected that the length of the HPR Transport Tower (X'81') subfield of the control vector is inconsistent with the length of a field included in the subfield.

## Request error sense code 1016

- 0031** The link being activated by this node requires the link to support HPR, be RTP capable, and support the control flows over RTP tower. The adjacent node has indicated that it does not support HPR for this link.
- 0032** The link being activated by this node requires the link to support HPR, be RTP capable, and support the control flows over RTP tower. The adjacent node has indicated that this link is not RTP capable.
- 0033** The link being activated by this node requires the link to support HPR, be RTP capable, and support the control flows over RTP tower. The adjacent node has indicated that it does not support control flows over RTP for this link.
- 0034** The link being activated by this node requires the support of logical data link control (LDLC) during XID exchange for this link. The adjacent node has indicated that it does not support LDLC for this link.
- 0035** A negotiable or zero TG number was received in XID3, but multiple links are defined between the switched ports. Use of predefined TG numbers is required.

## Sense code 1018

MU sequence exception: An SNA/DS transaction program detected an improper sequence of SNA/DS MUs.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0001** A DMU has been received, but the MU\_id has already been terminated.
- 0002** The MU\_id state received from the partner is incompatible with the state in the MU\_id registry.
- 0004** A previous terminate conversation indication has been ignored.
- 0005** An RRMU was received but was not followed by a change\_direction indicator (the receive\_and\_wait verb issued after receiving the RRMU, returned something other than what\_received=send).

## Sense code 1019

Restart byte position not valid.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0001** The restart byte position value specified in the DCMU is greater than one plus the value of the last byte received in the CRMU.
- 0002** The receiver does not support the byte-count restart elective, and the restart byte position value specified in the DCMU is not the beginning of the LLid structure following the last successfully received LLid structure.
- 0003** The receiver supports the byte-count restart elective, and the restart byte position value specified in the DCMU is not equal to one and is less than or equal to the last byte received value specified in the CRMU.

## Sense code 101A

Control vector sequence not valid: A control vector was found containing a key that was invalid for the position of the control vector within a TDU.

- 0000** No specific code applies.
- nnmm** Byte 2 following the sense code contains the key (nn) of the vector previous to the one in error; Byte 3 contains the key (mm) of the vector in error.

## Request error sense code 101C

### Sense code 101C

Data received not valid.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** Alteration of input data not allowed.

### Sense code 101D

Insufficient Length: The length of the received signal is insufficient to contain additional required fields.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

- 0000** No specific code applies.
- 0001** A BIND or RSP(BIND) was received that was too large to be extended. The BIND was rejected.
- 0002** An UNBIND was received that was too large to be extended. An UNBIND cleanup is sent on both session stages.

### Sense code 101E

Capabilities mismatch. Sent when the control point capabilities of the adjacent node are deemed unacceptable.

Bytes 2 and 3 following the sense code contain sense code specific information.

- nnnn** Bytes 2 and 3 contain a binary count that bit indexes (zero-origin) the first unacceptable subfield within the support indicators subfield of the X'12C1' CP capabilities GDS variable.

**VTAM Hint:** Refer to *SNA Formats* or *SNA Network Product Formats* for a description of the CP capabilities GDS variable.

## 20XX (state error)

This category indicates a sequence-number error, or an RH or RU that is not allowed for the receiver current session control or data flow control state. These errors prevent delivery of the request to the intended component.

Category and modifier (in hexadecimal):

### Sense code 2001

Sequence number: Sequence number received on normal-flow request was not one greater than the last.

### Sense code 2002

Chaining: Error in the sequence of the chain indicator settings (BCI, ECI), such as first, middle, first.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** The receiver received a middle or end-chain request when in the in-chain state.
- 0002** The receiver received a begin-chain request when in the in-chain state.

### **Sense code 2003**

Bracket: Error resulting from failure of sender to enforce bracket rules for session. (This error does not apply to contention or race conditions.)

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** The receiver received a begin-bracket request before receiving a response to its own previously sent begin-bracket request.
- 0002** The receiver received a begin-bracket request not specifying begin-bracket when in the between-bracket state.
- 0003** The receiver received an out-of-sequence LUSTAT command.

### **Sense code 2004**

Direction: Error resulting from a normal-flow request received while the half-duplex flip-flop state was not receive.

### **Sense code 2005**

Data traffic reset: An FMD or normal-flow DFC request received by a half-session whose session activation state was active, but whose data traffic state was not active.

### **Sense code 2006**

Data traffic quiesced: An FMD or DFC request received from a half-session that has sent QUIESCE COMPLETE or SHUTDOWN COMPLETE and has not responded to RELEASE QUIESCE.

### **Sense code 2007**

Data traffic not reset: A session control request (for example, STSN), allowed only while the data traffic state is reset, was received while the data traffic state was not reset.

### **Sense code 2008**

No begin bracket: An FMD request specifying BBI=BB was received after the receiver had previously received a BRACKET INITIATION STOPPED request.

### **Sense code 2009**

Session control protocol violation: An SC protocol has been violated; a request, allowed only after a successful exchange of an SC request and its associated positive response, has been received before such successful exchange has occurred (for example, an FMD request has preceded a required cryptography verification request). The request code of the particular SC request or response required, or X'00' if undetermined, appears in the fourth byte of the sense data.

### **Sense code 200A**

Immediate request mode error: The immediate request mode protocol has been violated by the request.

### **Sense code 200B**

Queued response error: The queued response protocol has been violated by a request; that is, QRI=¬QR when an outstanding request had QRI=QR.

### **Sense code 200C**

ERP sync event error: The ERP sync event protocol in DFC has been violated; for example, after receiving a negative response to a chain, a request other than a request soliciting a synchronization event response was sent to DFC\_SEND and rejected.

## State error sense code 200D

### Sense code 200D

Response owed before sending request: An attempt has been made in half-duplex (flip-flop or contention) send/receive mode to send a normal-flow request when a response to a previously received request has not yet been sent.

### Sense code 200E

Response correlation error: A response was received that cannot be correlated to a previously sent request.

### Sense code 200F

Response protocol error: A violation has occurred in the response protocol; for example, a +RSP to an RQE chain was generated.

### Sense code 2010

BIS protocol error: A BIS protocol error was detected; for example, a BIS request was received after a previous BIS was received and processed.

### Sense code 2011

Pacing protocol error.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** A normal-flow request was received by a half-session after the pacing count had been reduced to zero and before a pacing response had been sent.
- 0001** Unexpected isolated pacing message (IPM) received: An IPM was received when the receiver was in a state that did not allow it.
- 0002** Unexpected pacing request received: A request with the pacing indicator set was received when the receiver was in a state that did not allow it.
- 0003** Pacing response indicator incorrectly set: The pacing indicator was set in a non-IPM response received while adaptive pacing was being used.

### Sense code 2012

Sense code received not valid: A negative response was received that contains an SNA-defined sense code that cannot be used for the sent request.

### Sense code 2013

Decompression protocol error: A request containing compressed data was received in error.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** The decompressor received a compressed RU without an expected reset decompression control sequence. The compressor and the decompressor are not synchronized.
- 0002** The decompressor received a compressed RU containing a decompression control sequence that is not valid. The compressor and the decompressor are not synchronized.
- 0003** The length of the decompressed RU did not match the length given in the compression header.
- 0004** The decompressor has determined that the compression header indicates an illegal compression algorithm was used. The compression algorithm was not agreed to during the session-activation negotiation.

- 0005** The decompressor has detected that the decompressed RU size exceeds the maximum RU size.

## 40XX (RH usage error)

This category indicates that the value of a field or combination of fields in the RH violates architectural rules or previously selected BIND options. These errors prevent delivery of the request to the intended component and are independent of the current states of the session. They may result from the failure of the sender to enforce session rules. Detection by the receiver of each of these errors is optional.

Category and modifier (in hexadecimal):

- 4001** SC or NC RH not valid: The RH of a session control (SC) or network control (NC) request was not valid. For example, an SC RH with pacing request indicator set to one is not valid.
- 4003** BB not allowed: The begin bracket indicator (BBI) was specified incorrectly, for example, BBI=BB with BCI=-BC.
- 4004** CEB or EB not allowed: The conditional end bracket indicator (CEBI) or end bracket indicator (EBI) was specified incorrectly, for example, CEBI=CEB when ECI=-EC or EBI=EB with BCI=-BC, or by the primary half-session when only the secondary may send EB, or by the secondary when only the primary may send EB.
- 4005** Incomplete RH: Transmission shorter than full TH-RH.
- 4006** Exception response not allowed: Exception response was requested when not permitted.
- 4007** Definite response not allowed: Definite response was requested when not permitted.
- 4008** Pacing not supported: The pacing indicator was set on a request, but the receiving half-session or boundary function half-session does not support pacing for this session.
- 4009** CD not allowed: The change direction indicator (CDI) was specified incorrectly, for example, CDI=CD with ECI=-EC, or CDI=CD with EBI=EB.
- 400A** No-response not allowed: No-response was specified on a request when not permitted. (Used only on EXR.)
- 400B** Chaining not supported: The chaining indicators (BCI and ECI) were specified incorrectly, for example, chaining bits indicated other than (BC,EC), but multiple-request chains are not supported for the session or for the category specified in the request header.
- 400C** Brackets not supported: The bracket indicators (BBI, CEBI, and EBI) were specified incorrectly, for example, a bracket indicator was set (BBI=BB, CEBI=CEB, or EBI=EB), but brackets are not used for the session.
- 400D** CD not supported: The change-direction indicator was set, but is not supported.
- 400F** Incorrect use of format indicator: The format indicator (FI) was specified incorrectly, for example, FI was set with BCI=-BC, or FI was not set on a DFC request.
- 4010** Alternate code not supported: The code selection indicator (CSI) was set when not supported for the session.
- 4011** Incorrect specification of RU category: The RU Category indicator was

## Usage error sense codes 40XX

specified incorrectly, for example, an expedited-flow request or response was specified with RU Category indicator = FMD.

- 4012** Incorrect specification of request code: The request code on a response does not match the request code on its corresponding request.
- 4013** Incorrect specification of (SDI, RTI): The sense data included indicator (SDI) and the response type indicator (RTI) were not specified properly on a response. The proper value pairs are (SDI=SD, RTI=negative) and (SDI=-SD, RTI=positive).
- 4014** Incorrect use of (DR1I, DR2I, ERI): The definite response 1 indicator (DR1I), definite response 2 indicator (DR2I), and exception response indicator (ERI) were specified incorrectly, for example, a SIGNAL request was not specified with DR1I=DR1, DR2I=-DR2, and ERI=-ER.
- 4015** Incorrect use of QRI: The queued response indicator (QRI) was specified incorrectly, for example, QRI=QR on an expedited-flow request.
- 4016** Incorrect use of EDI: The enciphered data indicator (EDI) was specified incorrectly, for example, EDI=ED on a DFC request.
- 4017** Incorrect use of PDI: The padded data indicator (PDI) was specified incorrectly, for example, PDI=PD on a DFC request.
- 4018** Incorrect setting of QRI with bidder's BB: The first speaker half-session received a BB chain requesting use of a session [via LUSTAT(X'0006')], but the QRI was specified incorrectly; that is, QRI=-QR.
- 4019** Incorrect indicators with last-in-chain request: A last-in-chain request has specified incompatible RH settings, for example, RQE\*, CEBI=-CEB, and CDI=-CD.
- 4021** QRI setting in response different from that in request: The QRI setting in the response differs from the QRI setting in the corresponding request.

## 80XX (path error)

This category indicates that the request could not be delivered to the intended receiver, because of a path outage, a sequence of activation requests that is not valid, or one of the listed path information unit (PIU) errors. Some PIU errors fall into other categories; for example, sequence number errors are sense code category X'20'. A path error received while the session is active generally indicates that the path to the session partner has been lost.

Category and modifier (in hexadecimal):

### Sense code 8000

A path error occurred, but no further information about the error is available. Errors occurred because of an outstanding I/O request being purged. For example, an ACB for an application which has outstanding I/O requests received INOP, or an operator entered VARY INACT for resources that had outstanding I/O requests.

### Sense code 8001

Intermediate node failure: Machine or program check in a node providing intermediate routing function. A response may or may not be possible.

### Sense code 8002

Link failure: Data link failure.

**0000** No specific code applies.

### VTAM Hints:

## Path error sense code 8002

- If the IST1097I message group is displayed with this sense code, followed by a display of the IST1110I message group with sense code X'80140001', then the CP-CP session failed due to the loss of the last CP-capable connection with the adjacent control point.
- If 80020000 received for session using a switched PU that has DISCNT=YES and is in the process of inactivating because there are no more LU-LU sessions, this is a temporary condition and the session might be retried.
- If 80020000 received for session using a switched PU that is receiving simultaneous inbound and outbound calls, this is a temporary condition and the session might be retried.
- If this system is running on a 9221 processor, and if message IST446I indicates DEVICE NOT OPERATIONAL 00,00FE,00 has been received when activating a LAN major node, the problem might be caused by missing IODEVICE statements in the IOCCP GEN.

### Sense code 8003

NAU inoperative: The NAU is unable to process requests or responses; for example, the NAU has been disrupted by an abnormal termination.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**VTAM Hint:** A possible cause of this error is that the LU is inoperative.

**0001** Hierarchical reset: The identified LU-LU session is being deactivated; an ACTLU/ACTPU (Cold) or DACTLU/DACTPU was received, or the PU has failed.

**0003** Unrecoverable LU failure: The identified LU-LU session had to be deactivated because of an abnormal termination of the PLU or SLU; recovery from the failure was not possible.

**0004** Recoverable LU failure: The identified LU-LU session had to be deactivated because of an abnormal termination of one of the LUs of the session; recovery from the failure may be possible.

**0005** Hierarchical reset: Backup session reset resulted from a hierarchical reset.

### Sense code 8004

Unrecognized destination: A node in the path has no routing information for the destination specified either by the SLU name in a BIND request or by the TH.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- The destination address field (DAF) is not recognized.
- There may be a hardware problem with the PU.
- If the Anynet/MVS feature is installed and a session activation to an LU in a TCP/IP network fails with this sense code, the session may have failed because the LU in the TCP/IP network is not defined in an accessible TCP/IP domain name server.

**0001** A request received by a gateway function could not be rerouted because of routing information that is incomplete or not valid.

## Path error sense code 8005

### Sense code 8005

No session: No half-session is active in the receiving end node for the indicated origination-destination pair, or no boundary function session connector is active for the origin-destination pair in a node providing the boundary function. A session activation request is needed.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**VTAM Hint:** If this sense code is displayed in message IST1280I, take one of the following actions:

- Perform an operator activation of the CP-CP session by entering a VARY ACT,ID=*adjcpname* command at the end node.
- Modify the network node server list to include either an explicit entry for the desired network node or a nameless entry.

**0001** The receiver received a request other than a session control request when no LU-LU session was active.

**0002** The receiver received a request other than a session control request when no LU-SSCP session was active.

**0003** The receiver received a session control request other than BIND/UNBIND when no LU-LU session was active.

**0004** The receiver received an UNBIND when no LU-LU session was active.

**0005** The receiver received a session control request other than ACTLU/DACTLU for the LU-SSCP session when no LU-SSCP session was active.

**0006** The receiver received DACTLU when no LU-SSCP session was active.

**0007** Session not activated: A BIND was received for a dependent LU that has not received an ACTLU to activate the SSCP-LU session.

**0008** A request could not be forwarded to the destination node because an active session with that node did not exist. The name of the node that could not forward the request is indicated in the accompanying name list (X'06') subvector.

### Sense code 8006

FID not valid: FID is not valid for the receiving node.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0001** The FID-5 transmission header (TH) that was received contained errors that precluded further processing of the message.

### Sense code 8007

Segmenting error: First BIU segment had fewer than ten bytes; or mapping-field sequencing error, such as first, last, middle; or segmenting not supported and mapping field not set to BBIU, EBIU.

**Note:** If segmenting is not supported, a negative response is returned for the first segment only since this contains the RH. Subsequent segments are discarded.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** The node does not support receipt of segments, and a mapping field value other than BBIU, EBIU was received. Sent in UNBIND.
- 0002** Interleaved BIND segments not allowed: A BIND receiver that is in the middle of receiving segments of one BIND receives a segment from a different BIND; the receiver rejects both BINDs and disconnects all the links in the transmission group.

**Sense code 8008**

PU not active: The SSCP-PU secondary half-session in the receiving node has not been activated, and the request was not ACTPU for this half-session; for example, the request was ACTLU from an SSCP that does not have an active SSCP-PU session with the PU associated with the addressed LU.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0001** A physical unit name was specified for an independent LU session tail. The specified PU is either unknown or in a state that is not valid.
- 0002** No ALS (adjacent link station) list was provided for an independent LU. You must define an ALS for an independent LU if you want to use VARY LOGON and LOGAPPL for the independent LU. You can also use VTAM functions to dynamically determine an ALS.

**Sense code 8009**

LU not active: The destination address specifies an LU for which the SSCP-LU secondary half-session has not been activated and the request was not ACTLU.

**Sense code 800A**

Too-long PIU: Transmission was truncated by a receiving node because the PIU exceeded a maximum length or sufficient buffering was not available.

**VTAM Hint:** A possible cause of this error is that a session ended unexpectedly and either no message is received or an exception request (EXR) is generated with this sense code. When an application receives an exception request or response with this sense code, it usually ends the session. No VTAM message is issued, but the application might issue a message. This can occur when a path information unit (PIU) is too large to be passed from one node to another. See the information about common subarea network problems in the *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem or refer to APAR II03990.

**Sense code 800B**

Incomplete TH: Transmission received was shorter than a TH.

**Note:** It is generally not possible to send a response for this exception condition, since information (FID, addresses) required to generate a response is not available.

**Sense code 800C**

DCF error: Data count field inconsistent with transmission length.

**Sense code 800D**

Lost contact: Contact with the link station for which the transmission was intended has been lost, but the link has not failed. If the difference between link failure and loss of contact is not detectable, link failure (X'8002') is sent.

## Path error sense code 800E

### Sense code 800E

Unrecognized origin: The origin address specified in the TH was not recognized.

### Sense code 800F

The address combination is not valid.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** The (DAF',OAF') (FID2) combination or the LSID (FID3) specified a type of session that is not valid, for example, a PU-LU combination.

**0001** The FID2 ODAI setting in a received BIND is incorrect; the BIND is rejected.

### Sense code 8010

Segmented RU length error: An RU was found to exceed a maximum length, or required buffer allocation that might cause future buffer depletion.

### Sense code 8011

ER inoperative or undefined: A PIU was received from a subarea node that does not support ER and VR protocols, and the explicit route to the destination is inoperative or undefined.

### Sense code 8012

Subarea PU not active, or invalid virtual route: A session-activation request for a peripheral PU or LU cannot be satisfied because there is no active SSCP-PU session for the subarea node providing boundary function support, or the virtual route for the specified SSCP-PU (Type 1 or Type 2 nodes) or SSCP-LU session is not the same as that used for the SSCP-PU session of the Type 1 or Type 2 node's PU or the LU's subarea PU.

### Sense code 8013

Route not available: No route is available to connect the specified origin subarea (OSA) and destination subarea (DSA) for the specified COS.

**Note:** If none of the virtual routes specified in the VR identifier list or route specification for the session is active or can be activated, the reported reason is set based on a hierarchy of failure events. The "highest" of the failures that occurred within the set of virtual routes is returned on the response. For example, if the VR manager receives a negative response to an NC\_ACTVR request for a VR specified in the VR identifier list and for all other VRs in the list no VR to ER mapping is specified, reason X'nn06' is reported. The hierarchy of the failure reasons is in ascending numeric order; that is, reason X'nn02' is higher than reason X'nn01'.

Bytes 2 and 3 following the sense code indicate the environment in which the failure was detected and the reason for the failure.

**0000** No specific code applies: This means an error occurred, but none of the conditions listed below applies. This code is issued in a single network environment.

**VTAM Hint:** Possible causes for this error include, but are not limited to, the following:

- The subarea class of service is not known. Verify that the node issuing the sense code has a usable subarea class of service for the mode associated with the session request. This problem can occur when a

mode table is copied from one node to another, and the subarea classes of service specified by the table no longer map to valid COS names defined at that node.

- There is an error in the path definitions.

- 0001** No mapping specified: A session-activation request cannot be satisfied because for each VR in the VR identifier list for the session, no VR to ER mapping is specified.
- 0002** No explicit routes defined: A session-activation request cannot be satisfied because each VR in the VR identifier list for the session maps to a corresponding ER that is not defined. This code is issued in a single network environment.
- 0003** No VR resource available: A session-activation request cannot be satisfied because each VR specified in the VR identifier list for the session requires a node resource that is not available. This code is issued in a single network environment.
- 0004** No explicit routes operative: A session-activation request cannot be satisfied because no underlying ER is operative for any VR specified in the VR identifier list for the session. This code is issued in a single network environment.
- 0005** No explicit route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session mapped to a defined and operative ER that could be activated. This code is issued in a single network environment.
- 0006** No virtual route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session can be activated by the PU, though, for at least one VR, an underlying ER is defined, operative, and activated. This code is issued in a single network environment.
- 0007** No virtual route identifier list available: A session-activation request cannot be satisfied because a route specification is unavailable or incomplete. A valid route specification is either a VR identifier list or a route dynamics route specification control vector. This code is issued in a single network environment.
- 0100** No specific code applies: This means an error occurred, but none of the conditions listed below applies. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.
- 0101** No mapping specified: A session-activation request cannot be satisfied because for each VR in the VR identifier list for the session, no VR to ER mapping is specified. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.
- VTAM Hint:** Ensure that the PATH definition statement for the gateway NCP contains VRs coded for the networks in both directions.
- 0102** No explicit routes defined: A session-activation request cannot be satisfied because each VR in the VR identifier list for the session maps to a corresponding ER that is not defined. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.
- 0103** No VR resource available: A session-activation request cannot be satisfied

## Path error sense code 8013

because each VR specified in the VR identifier list for the session requires a node resource that is not available. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.

- 0104** No explicit routes operative: A session-activation request cannot be satisfied because no underlying ER is operative for any VR specified in the VR identifier list for the session. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.
- 0105** No explicit route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session mapped to a defined and operative ER that could be activated. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.
- 0106** No virtual route can be activated: A session-activation request cannot be satisfied because no VR specified in the VR identifier list for the session can be activated by the PU, though, for at least one VR, an underlying ER is defined, operative, and activated. This code is issued in an interconnected network. The failure was detected at a node in a subnetwork other than that of the NAU sending the activation request.
- 0107** No virtual route identifier list available: A session-activation request cannot be satisfied because a route specification is unavailable or incomplete. A valid route specification is either a VR identifier list or a route dynamics route specification control vector.

## Sense code 8014

No path exists to the destination node: Route selection services in the CP has determined from the topology database that no path exists to the destination node.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** No route to the destination node exists for the specified class of service.

**VTAM Hint:** Possible causes of this error include, but are not limited to, the following:

- If the IST1097I message group is displayed with the X'80020000' sense code, followed by a display of the IST1110I message group with this sense code, then the CP-CP session failed due to the loss of the last CP-capable connection with the adjacent control point.
- If there are multiple entry points to the subarea network, there must be a COS-acceptable route from the origin node to each interchange node that represents a possible subarea entry point to be used to reach the destination LU. A COS-acceptable route is a route that is acceptable for the class of service specified on the session request.

Examine your network configuration to determine if a valid path does exist. Use the DISPLAY TOPO command to verify that the topology database currently shows the links in the path as operational. If a valid APPN path exists, the characteristics of the nodes and links in the operational paths may not meet the requirements of the specified class of service. Check the following:

- Verify that the mode name specified on the request maps to the intended class of service.

## Path error sense code 8014

- Examine the LINEROWs and NODEROWs in the class of service definition to determine what the allowable ranges are for the link and node characteristics.
- Use the DISPLAY TOPO command to view the characteristics of the nodes and TGs in the likely paths. Look for the following problems:
  - Nodes in the path are congested or have route resistance values outside the limits set by the class of service.
  - The COS definition required secure links, but no path exists consisting exclusively of secure TGs.
  - High capacity (speed) was required by the COS definition, but no path exists in which all of the links are fast enough to meet the specified minimum capacity.

**0002** COS name received is not valid.

**VTAM Hint:** The most common reasons for this error are:

- The requested APPN class-of-service (COS) definition is not found in the COS database at the node issuing this sense code.
- The requested mode name for the session does not map to an APPN class of service known by this node.

Examine the mode definition to determine the APPN COS name. Verify that this definition exists in a VTAMLST member at the nodes which resolve the mode to an APPN class of service. Activate the member to ensure that the definition is active. If APPN COS substitution has been enabled by specifying the APPNCOS start option, verify that the COS it specifies has been activated.

**0003** The topology database indicates that the destination node is not available at this time; the node either has inconsistent data or is quiescing.

**0004** The topology database indicates that the endpoint resources are depleted; the node is out of either half-session control blocks or message buffers.

**0005** The length of the generated RSCV exceeds the maximum allowed.

**VTAM Hint:** This sense code indicates that the attempt to build the route selection control vector failed because the number of hops between the origin and destination nodes was too large.

Examine your network configuration to determine how many hops would be expected in the best route for the requested APPN class of service. If the number of hops within a single APPN subnetwork is greater than six, you may need to provide a more direct origin-to-destination path.

If you are using connection network routing, reducing the length of the connection network name reduces the length of the generated RSCV. The reduced RSCV might be shorter than the maximum length allowed.

**0006** No path using only HPR (high-performance routing) links exists to the destination node.

**0007** BIND RSCV consists of only an interchange TG.

**VTAM Hint:** An RSCV was calculated that consisted of only interchange TGs. APPN Locates will not be used to set up the session.

**0008** This node calculated an RSCV in which it does not own the boundary function.

## Path error sense code 8014

**VTAM Hint:** This node calculated an RSCV in which it doesn't own the boundary function.

### Sense code 8015

Path not available.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0004** The internetwork locate failed because an internetwork route did not exist that matched the requested class of service.

**VTAM Hint:** An error has occurred during COS mapping in a node supporting APPN multiple network connectivity. Whenever a search crosses an APPN subnetwork link, the node receiving the search must map the COS it received to an equivalent COS to be used in its subnet. The COS being mapped is defined by the user in the COSMAP definition deck. The error occurs when the user maps the original COS to a COS that has not been defined within this node.

### Sense code 8016

Not a proper ER.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

**0000** No specific code applies.

**0001** The ER is not in the proper state for routing a PIU, as indicated by the state of the dynamic routing table entry.

### Sense code 8017

PIU from adjacent pre-ER-VR subarea node rejected: A PIU that requires intermediate path-control routing was received by a subarea node from an adjacent subarea node that does not support ER-VR protocols, but the receiving subarea node does not support intermediate path-control routing for adjacent subarea nodes that do not support ER-VR protocols.

### Sense code 8018

Management services component is unable to find or recognize the name of the application transaction program specified in the request.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

Operations management is unable to route the MDS\_MU to the served application specified in the DAN field of the R and TI because the served application's subtask is not active.

**0001** The application transaction program specified in the request is not recognized by physical unit management services (PUMS).

### Sense code 8019

Routing exception: a node is unable to perform the required routing function for a request.

Bytes 2 and 3 following the sense code contain sense code specific information.

**0000** No specific code applies.

**0001** Unknown routing group name.

## Path error sense code 8019

- 0002** Unknown routing group name, routing element name combination.
- 0004** No connection is available for level of service required.
- 0005** The routing and targeting instructions GDS variable is required but is not present.
- 0006** The internetwork route selection subfield (IRSS) was required to be included in a BIND RSCV, but was either missing or had a format which was not valid.
- 0007** The internetwork route selection subfield (IRSS) was required to be included in a locate request or reply, but was either missing or had format that was not valid.
- 0008** The border node detected multiple instances of its own name in the internetwork route selection subfield (IRSS) in a locate request or reply or in a BIND, indicating a routing loop.
- 0009** An explicit route was not available to permit activation of a virtual route-based APPN TG.
- 000A** An activation request was received that was not valid for the current state of the specified virtual route-based APPN TG.
- 000B** Origin node not found. TRS received a route calculation request with no origin endpoint TG vectors and could not find a node entry for the origin node in the topology database.
- 000C** When the DLUS node received a locate request for a DLUS-served dependent LU, the DLUS node determined that at least one intersubnetwork TG on the path between DLUS and the PLU was not between two extended border nodes.  
**VTAM Hint:** The dependent LU server (DLUS) and the PLU node are in different APPN subnetworks, which requires that an extended border node be present in both the PLU subnetwork and the DLUS subnetwork. This session path does not have an extended border node in either the PLU subnetwork or the DLUS subnetwork.

### Sense code 801C

Hop count exhausted.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.
- 0001** The request has been forwarded by an excessive number of nodes (for example, the count has been decremented at each node and has reached zero) and, therefore, the request could not be delivered to one or more destinations. Typically, this exception indicates that one or more nodes have incorrectly routed or directed the request. The exception may also indicate that the routing/directing count was not appropriately initiated according to network size.

### Sense code 8020

Session reset: The LU-LU session identified in the UNBIND is being deactivated because of a reset condition.

Bytes 2 and 3 following the sense code contain sense code specific information.

- 0000** No specific code applies.

## Path error sense code 8020

- 0001** Virtual route inoperative: The virtual route used by the LU-LU session has become inoperative, thus forcing the deactivation of the identified LU-LU session.
- 0002** Hierarchical reset of both XRF-active and XRF-backup sessions: The XRF-backup session has failed; therefore, both the XRF-active and XRF-backup session are being reset.
- 0003** Virtual route deactivated: The identified LU-LU session had to be deactivated because of a forced deactivation of the virtual route being used by the LU-LU session.
- 0004** Route extension failure: The route extension used by the LU-LU session has become inoperative, thus forcing the deactivation of the identified LU-LU session.
- 0005** Route extension failure: The route extension used by the XRF-backup LU-LU session has become inoperative, thus forcing the deactivation of the identified XRF-backup LU-LU session.
- 0006** Virtual route inoperative: The virtual route used by the LU-LU session has become inoperative, thus forcing the deactivation via VR-INOP of the identified XRF-backup LU-LU session.
- 0007** An LU requested termination.
- 0008** BFTERM has been received with no indication of the cause of the reset.
- 0009** Termination was requested by the dependent SLU with a TERMINATE\_SELF or character coded LOGOFF.
- 000A** The identified LU-LU session had to be deactivated because its underlying RTP connection has become inoperative.
- 000B** The identified LU-LU session had to be deactivated because its underlying RTP connection was deactivated.
- 000D** The cross-domain resource session has been terminated.

### Sense code 8021

Path switch failure: The attempt to switch the path traversed by an RTP connection has failed.

Bytes 2 and 3 following the sense code contain sense code specific information. Settings allowed are:

- 0000** No specific code applies.
- 0001** The original path of the RTP connection is inoperative. Because the path switch failed, all sessions using the RTP connection will be terminated.
- 0002** The original path of the RTP connection is still operative. The RTP connection will continue operation over the original path.

## A0XX (RTP sense data)

This category indicates when an RTP machine detects a protocol violation and terminates the RTP connection.

Category and modifier (in hexadecimal):

**Sense code A001**

The RTP connection failed.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

- 0003** The setting of the start-of-message bit in a received packet was unexpected. One of the following error conditions was detected:
- During reassembly of a user message, the byte-sequence-number field of a received packet is set to the next expected sequence number of the user message, but the start-of-message bit is set to one.
  - The byte-sequence-number field of a received packet containing data is set to the expected starting sequence number of a user message, but the start-of-message bit is set to zero.
  - The byte-sequence-number field of a received packet is set to the expected starting sequence number of a user message. The end-of-message bit is set to one, but the start-of-message bit is set to zero.
  - Lower sequence-numbered data was received in an earlier packet with the last-message bit set to one, but the start-of-message bit is set to one in the newly received packet.
- 0004** The setting of the end-of-message (EOMI) bit in a received packet was unexpected. One of the following error conditions was detected:
- A packet containing data has the last-message bit (LMI) set to one, but the end-of-message bit is set to zero.
  - During reassembly of a user message, the byte-sequence-number field of a received packet is set to the next expected sequence number of the user message; the last-message bit is set to one, but the end-of-message bit is set to zero.
  - The byte-sequence-number field of a received packet is set to the expected starting sequence number of a user message. The start-of-message bit (SOMI) is set to one, the last-message bit is set to one, but the end-of-message bit is set to zero.
- 0008** The setting of the last-message bit in a received packet was unexpected. The following error condition was detected:
- The last-message bit is set to one in a retransmitted packet, but higher sequence-numbered data was received in an earlier packet.
- 000B** The setting of the “connection qualifier source identifier field present” bits in a received packet was unexpected. The following error condition was detected:
- The TCID-assignor bit is set to one, but the “connection qualifier/source identifier field present” bits are not set to 01.
- 000C** The setting of the “optional segments present” bit in a received packet was unexpected. The following error condition was detected:
- No active context is found, the setup-packet bit is set to one, but the “optional segments present” bit is set to zero.
- 000D** The setting of the DATA OFFSET/4 in the THDR field in a received packet was unexpected. One of the following error conditions was detected:
- The data-length field has a value greater than zero, but the payload-offset/4 field points to an offset beyond the end of the network layer packet.

## RTP sense data sense code A001

- The data-length field has a value greater than zero, but the setting of the DATA OFFSET/4 field is not consistent with the encodings of the connection-qualifier/source-identifier field and the optional segments.
- 000E** The setting of the DATA length field in the THDR of a received packet was unexpected. One of the following error conditions was detected:
- The data-length field has a value greater than zero, but the DATA OFFSET/4 field points to an offset from which there is insufficient remaining length for the data.
  - The packet contains data, but lower sequence-numbered data was received in an earlier packet with the last-message bit set to one.
- 000F** The setting of the byte sequence number field (BSN) in a received packet was unexpected. The following error condition was detected:
- The byte-sequence-number field of a received packet is higher than the next expected sequence number (that is, a new gap in the user data stream is detected), but the last-message bit was set to one in an earlier packet.
- 0014** The setting of the target resource identifier field present bit of the connection setup segment in a received packet was unexpected. The following error condition was detected:
- The target resource identifier field present bit in the connection setup segment is set to zero, but target resource identification is required by the receiver.
- 0016** The setting of the ARB flow congestion control used bit of the connection setup segment in a received packet was unexpected. The following error condition was detected:
- The ARB flow/congestion control used bit is set to zero, but the use of ARB flow/congestion control is required by the receiving RTP.
- 0017** A field setting in the topic identifier (X'28') control vector in the connection setup segment in a received packet was unexpected. One of the following error conditions was detected:
- The topic-identifier field within the topic-identifier (X'28') control vector is not correctly encoded.
  - The topic identifier specified in the topic-identifier (X'28') control vector is not supported.
- 0018** A field setting in the network identifier (X'03') control vector in a received packet was unexpected. One of the following error conditions was detected:
- The network-identifier field within the network-identifier (X'03') control vector is not correctly encoded.
  - The network-identifier specified in the network-identifier (X'03') control vector within the connection-setup segment is not the network identifier associated with the receiving RTP.
- 0019** A field setting in the node identifier (X'00') control vector in a received packet was unexpected. One of the following error conditions was detected:
- The node-identifier field within the node-identifier (X'00') control vector is not correctly encoded.
  - The node-identifier specified in the node-identifier (X'00') control vector within the connection-setup segment is not the node identifier associated with the receiving RTP.

## RTP sense data sense code A001

- 001E** The setting of the closed bit of the status segment in a received packet was unexpected. One of the following error conditions was detected:
- The closed bit in the status segment is set to one, but not all reliable data sent to the partner is acknowledged.
  - The closed bit in the status segment is set to one, but data is queued for transmission.
- 0022** The setting of the DSEQ field of the status segment in a received packet was unexpected. The following error condition was detected:
- RSEQ and DSEQ in the status segment are not consistent. The values indicate data not received has been delivered.
- 0032** The beginning and ending sequence numbers for an acknowledged byte-span pair (ABSP) in a status segment in a received packet were unexpected. The following error condition was detected:
- The beginning and ending sequence numbers for an ABSP are not consistent either with RSEQ or another ABSP. The sequence numbers overlap.
- 0033** A field setting in the HPR switching information (X'83') control vector in a received packet was unexpected. The following error condition was detected:
- The maximum packet size specified in the HPR switching information (X'83') control vector is fewer than 768 bytes.
- 0035** A field setting in the NCE identifier (X'26') control vector in a received packet was unexpected. The following error condition was detected:
- The NCE-identifier field within the NCE-identifier (X'26') control vector is not correctly encoded.
- 0037** Window flow control was requested by the calling RTP but is not supported by the listening RTP.
- 003A** The using layer terminated abnormally. (This error condition is associated with the RTP user interface and is implementation dependent.)

## Sense code A018

The RTP connection failed.

- 0000** An RTP control vector length error was detected. The value in the length field of the control vector added to the current byte offset within the embedding structure (either an optional segment or control vector) exceeds the actual length of the embedding structure, or the value in the length field is inconsistent with the format definition for the control vector. nn is the key of the control vector in error. mm is the key of the embedding control vector or optional segment. One of the following error conditions was detected:
- The length of the node identifier (X'00') control vector exceeds the remaining length of the network address (X'05') control vector, or the length of the node identifier control vector is inconsistent with its format definition — X'A0180500'.
  - The length of the network identifier (X'03') control vector exceeds the remaining length of the network address (X'05') control vector, or the length of the network identifier control vector is inconsistent with its format definition — X'A0180503'.

## RTP sense data sense code A018

- The length of the NCE identifier (X'26') control vector exceeds the remaining length of the network address (X'05') control vector, or the length of the NCE identifier control vector is inconsistent with its format definition — X'A0180526'.
- The length of an unrecognized control vector contained within the network address (X'05') control vector exceeds the remaining length of the network address control vector — X'A01805xx', where xx is the key of the unrecognized control vector.
- The length of the node identifier (X'00') control vector exceeds the remaining length of the connection setup segment, or the length of the control vector is inconsistent with its format definition — X'A0180D00'.
- The length of the network identifier (X'03') control vector exceeds the remaining length of the connection setup segment, or the length of the control vector is inconsistent with its format definition — X'A0180D03'.
- The length of the topic identifier (X'28') control vector exceeds the remaining length of the connection setup segment, or the length of the control vector is inconsistent with its format definition — X'A0180D28'.
- The length of the HPR switching information (X'83') control vector exceeds the remaining length of the switching information segment, or the length of the control vector is inconsistent with its format definition — X'A0181483'.
- The length of return ANR field specified in the HPR switching information (X'83') control vector is greater than the remaining length of the control vector — X'A0181483'.
- The length of the HPR return route TG descriptor (X'85') control vector exceeds the remaining length of the switching information segment, or the length of the control vector is inconsistent with its format definition — X'A0181485'.

**FF00** An RTP optional segment or control vector length error was detected. The value in the length field of the optional segment or control vector added to the current byte offset within the embedding structure, the RTP transport header, exceeds the actual length of the embedding structure, or the value in the length field is inconsistent with the format definition for the optional segment or control vector. 00 is the key of the optional segment or control vector in error. One of the following error conditions was detected:

- The length of the network address (X'05') control vector exceeds the remaining length of the network layer packet — X'A018FF05'.
- The length of the connection setup segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF0D'.
- The length of the status segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF0E'.
- The number of acknowledged byte span pairs specified in the status segment is inconsistent with the length of the segment — X'A018FF0E'.
- The length of the client out-of-band bits segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF0F'.
- The length of the connection identifier exchange segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF10'.

## RTP sense data sense code A018

- The length of the connection fault segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length (no connection fault segment is returned to the partner) — X'A018FF12'.
- The length of the switching information segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF14'.
- The length of the adaptive rate-based segment exceeds the remaining length of the network layer packet, or the length of the segment is shorter than its minimum length — X'A018FF22'.
- The length of an unrecognized optional segment exceeds the remaining length of the network layer packet — X'A018FFxx', where xx is the key of the unrecognized optional segment.

### Sense code A019

The RTP connection failed.

**FF00** RTP received an optional segment or control vector embedded within the RTP transport header, but the optional segment or control vector is not valid in the current state of the connection. 00 is the key of the unexpected optional segment or control vector. The following error condition was detected:

The packet was received from the listening partner, but it contained a Connection Setup segment — X'A019FF0D'.

### Sense code A01A

The RTP connection failed.

**FF00** RTP received two or more control vectors or optional segments with the same key embedded within the RTP transport header. The number of occurrences of the control vector or optional segment is more than is valid for the current state of the connection. 00 is the key of the duplicated optional segment or control vector. One of the following error conditions was detected:

- The packet contained multiple connection setup segments — X'A01AFF0D'.
- The packet contained multiple status segments — X'A01AFF0E'.
- The packet contained multiple client out-of-band bits segments — X'A01AFF0F'.
- The packet contained multiple connection identifier exchange segments — X'A01AFF10'.
- The packet contained multiple switching information segments — X'A01AFF14'.
- The packet contained multiple adaptive rate-based segments — X'A01AFF22'.

**FF80** RTP received two or more control vectors or optional segments with the same key embedded within the RTP transport header. The number of occurrences of the control vector or optional segment is more than is valid for the current state of the connection. 80 is the key of the duplicated optional segment or control vector. One of the following error conditions was detected:

- The packet contained multiple connection setup segments — X'A01AFF0D'.
- The packet contained multiple status segments — X'A01AFF0E'.

## RTP sense data sense code A01A

- The packet contained multiple client out-of-band bits segments — X'A01AFF0F'.
- The packet contained multiple connection identifier exchange segments — X'A01AFF10'.
- The packet contained multiple switching information segments — X'A01AFF14'.
- The packet contained multiple adaptive rate-based segments — X'A01AFF22'.

## Sense code A01B

The RTP connection failed.

**0000** RTP received an optional segment or control vector that did not contain a required control vector. 00 is the key of the missing control vector. 00 is the key of the embedding control vector or optional segment. One of the following error conditions was detected:

- The network address (X'05') control vector does not contain a node identifier (X'00') control vector — X'A01B0500'.
- The network address (X'05') control vector does not contain a network identifier (X'03') control vector — X'A01B0503'.
- The network address (X'05') control vector does not contain an NCE identifier (X'26') control vector — X'A01B0526'.

**0500** RTP received an optional segment or control vector that did not contain a required control vector. 00 is the key of the missing control vector. 05 is the key of the embedding control vector or optional segment. The following error condition was detected:

The network address (X'05') control vector does not contain a node identifier (X'00') control vector — X'A01B0500'.

**0503** RTP received an optional segment or control vector that did not contain a required control vector. 03 is the key of the missing control vector. 05 is the key of the embedding control vector or optional segment. The following error condition was detected:

The network address (X'05') control vector does not contain a network identifier (X'03') control vector — X'A01B0503'.

**0526** RTP received an optional segment or control vector that did not contain a required control vector. 26 is the key of the missing control vector. 05 is the key of the embedding control vector or optional segment. The following error condition was detected:

The network address (X'05') control vector does not contain an NCE identifier (X'26') control vector — X'A01B0526'.

**FF00** RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. 00 is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID assignor bit is set to one, the connection qualifier/source identifier field present bits are set to 01, but no network address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the setup packet bit is set to one, but no connection setup segment is found — X'A01BFF0D'.

**FF05** RTP received a packet in which the RTP transport header did not contain a

## RTP sense data sense code A01B

required optional segment or control vector. *nn* is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID Assignor bit is set to one, the connection qualifier/source identifier field present bits are set to 01, but no network address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the setup packet bit is set to one, but no connection setup segment is found — X'A01BFF0D'.

**FF0D** RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. *nn* is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID assignor bit is set to one, the connection qualifier/source identifier field present bits are set to 01, but no network address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the setup packet bit is set to one, but no connection setup segment is found — X'A01BFF0D'.

**FF14** RTP received a packet in which the RTP transport header did not contain a required optional segment or control vector. *nn* is the key of the missing optional segment or control vector. One of the following error conditions was detected:

- The TCID assignor bit is set to one, the connection qualifier/source identifier field present bits are set to 01, but no network address (X'05') control vector is present — X'A01BFF05'.
- No active context is found, the setup packet bit is set to one, but no connection setup segment is found — X'A01BFF0D'.

## FFXX (HPR sense data)

Category and modifier (in hexadecimal):

**FF00** HPR routing failed or not required.

Bytes 2 and 3 following the sense code contain sense-code-specific information.

**0001** HPR routing not required.

**0002** HPR routing failed.

**FF10** Values not defined.

**0001** Route values not defined.

**FF20** Problem with connection setup signal.

**0001** Connection setup signal not present.

**FF30** Route setup record not found or has an error.

**0001** Route setup record not found.

**0002** Route setup record found, but has an error.

**FF50** ADJCP not found.

**0001** ADJCP not found.

**0002** Survivable CV46 error set when CPNAME in CV46 is the same as CPNAME in CV44.

## FFXX (HPR sense data)

- 0003** VRBLK not found.
- FF60** DLC NCB not found.
- 0001** DLC NCB not found.
- FF70** RTP ALS not found or address failed.
- 0001** RTP ALS not found.
- 0002** RTP ALS network address in use.
- 0003** RTP ALS CIDCTL ADD HOSTNODE failed.
- 0004** RTP ALS state change in progress.
- 0005** RTP ALS CIDCTL ADD NEXTNODE failed.
- 0006** RDTADD new address failed.
- 0007** Our NCE Instance Identifier has changed.
- 0008** SLOCATE failed.
- FF80** RTP NCB not found or not valid.
- 0001** RTP NCB not found.
- 0002** RTP NCB state not valid.
- 0003** Route\_Setup RTP pending.
- 0004** Route\_Setup RTP not useable.
- 0005** Route\_Setup RTP not found.
- FF90** MNPS RECOVERY stop.
- 0001** MNPS RECOVERY stop.
- FFC8** HPR/IP (Enterprise Extender) gethostbyname error.
- 0001** Hostname not found.
- 0002** Try again-temporary error.
- 0003** Irrecoverable error occurred.
- 0004** HPR/IP (Enterprise Extender) addressing keys (LSAP, RSAP, IPADDR) duplicate those of a preexistent connection.
- VTAM Hint:** Check the SAPADDR statements. They must be unique for each connection. Refer to *z/OS Communications Server: SNA Network Implementation Guide* for more information about HPR/IP (Enterprise Extender) addressing.
- 0005** Hostname length error.
- 0006** GetHostByName timeout.

## SNA sense field values for RPL-based macroinstructions

When the application program or a logical unit receives an exception request, a negative response, or a logical unit status (LUSTAT) request, the associated sense data includes information regarding the reason for the exception condition. There are three types of information that describe the exception condition:

- System-sense information
- System-sense modifier information
- User-sense information

## SNA sense field values

System sense information indicates one of the five major classes of system-defined errors.

System-sense modifier information indicates one of many specific causes of the error indicated by the system-sense information. Like RTNCD and FDB2, the system-sense and its modifier information together form a specific type of error condition within a general class of error conditions.

User-sense information is generally used when the error condition is detected by the user-written program itself. In general, no particular codes or values are defined by IBM to indicate types of errors. The logical unit must generate its own user-sense information that is understood by other logical units.

The SNA defined values for the sense fields can be found in the *SNA Formats*. Additional information is contained in the *SNA Format and Protocol Reference Manual: Architectural Logic*, and the *SNA Sessions between Logical Units*.

These three types of sense information—system, system modifier, and user—are set in RPL fields. Three fields (one for each type of sense information) are set by the application program when it sends a negative response or LUSTAT request to the logical unit. Three other fields are set by VTAM when the application program receives an exception request, a negative response, or LUSTAT request from the logical unit. These are the names of the six fields, as they would be used on a manipulative or RPL macro:

Sense information	Received by the application program	Sent from the application program
System-sense information	SSENSEI	SSENSEO
System-sense modifier information	SSENSMI	SSENSMO
User-sense information	USENSEI	USENSEO

### System-sense information

The values that are set in the system-sense field are predefined by IBM. These values are as follows (the operands shown here are those used with a MODCB or TESTCB macro; the corresponding hexadecimal value is also shown in parentheses):

Table 2. Sense field values

System-sense values	Meaning
SSENSEI=PATH (X'80')	A path error occurred. The RU could not be delivered to the intended receiver because of a physical problem in the network path or an error in the system-supplied transmission header that accompanied the RU. If no recovery action is possible, terminate the session with the logical unit.
SSENSEI=CPM (X'40')	An unrecoverable request header error occurred.
SSENSEO=CPM (X'40')	The sender did not correctly enforce the current session protocols. Terminate the session with the logical unit.

## SNA sense field values

Table 2. Sense field values (continued)

System-sense values	Meaning
SSENSEI=STATE (X'20') SSENSEO=STATE (X'20')	A state error occurred in the application program's or logical unit's use of sequence numbers, chaining indicators, bracket indicators, or change-direction indicators. A state error can also occur when a data-flow-control request is issued, data is sent after a clear request, or when a session-control request is issued before a clear request. This type of error is recoverable; use clear, STSN, and SDT requests.
SSENSEI=FI (X'10') SSENSEO=FI (X'10')	A request error occurred. The application program or logical unit cannot handle the request because the request itself is not valid. This error might be recoverable.
SSENSEI=RR (X'08') SSENSEO=RR (X'08')	A request reject occurred. The request was delivered to the intended receiver; it was correctly interpreted, but not handled by the receiver. This might be a recoverable condition.

## 3270 SNA and non-SNA device sense fields

Table 3 and Table 4 on page 141 provide information on sense fields for a 3270 SNA or non-SNA device. See *z/OS Communications Server: SNA Programming for information about programming for the IBM 3270 Information Display System.*

Table 3. SNA sense information received at the application program

SNA sense	SNA definition	Cause for exception
80xyyyyy	Path error	Request could not be delivered <sup>1</sup>
400A0000	No-response not allowed	RESPOND=(NEX,NFME,NRRN)
400B0000	Chaining not supported	CHAIN=(FIRST or MIDDLE or LAST)
20030000	Bracket state error	BRACKET=NBB and no bracket currently exists <sup>2</sup>
20010000	Sequence number error	Session sequence number error
10030000	Function not supported	CONTROL=(DATA or CLEAR)
10000020	Request error	Command rejected
08210000	Session parameter not valid	Parameters not valid in BIND
08130000	Bracket bid reject—No RTR Forthcoming	BRACKET=BB and a bracket already exists <sup>2</sup>
0000zzzz	Other exception	Device exception—USENSEI values are defined in Table 4 on page 141
<b>Notes™:</b>		
<ol style="list-style-type: none"> <li>1. xx is defined in <i>SNA Formats</i>. For a PU type 1 3270 terminal, yyyy can be set to 0010 (intervention required). For a BSC 3270 terminal attached to a communication controller, yyyy represents the NCP system response byte and extended response byte returned for some path error conditions. For information on how these bytes are defined, refer to <i>NCP and EP Ref. Summary and Data Areas, Volumes I and II</i>.</li> <li>2. This sense code applies only if bracket protocols are being used in the session.</li> </ol>		

## 3270 SNA and non-SNA device sense fields

Table 4. Explanation of USENSEI Information

USENSEI Byte 0								USENSEI Byte 1								Meaning
0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	
.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	Device busy
.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	Unit specify
.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	Device end
.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	Transmission check
.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	Command rejected
.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	Intervention required
.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	Equipment check
.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	Data check or bus-out check
.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	Operation check
X	X	X	X	.	.	.	.	X	X	.	.	.	.	.	.	Reserved

**Note:** Transmission check is indicated for a channel-related error (such as PCI, channel program check, protection check, channel data check, channel control check, interface control check, or chaining check) for a channel-attached non-SNA 3270.

The application program can disobey the LU Type 0 protocols by attempting to send:

- A data-flow-control request
- A response
- A request indicating other than a single-request chain
- A request that does not ask for a definite or exception response Type 1 (FME)

If you attempt any of the preceding items, the following results occur, depending upon the actual type of terminal used in the session:

- The SEND macro is rejected with (RTNCD,FDB2)=(X'14',X'47').
- VTAM returns a negative response.
- VTAM ignores the protocol violation, and unpredictable results can occur.

## 3270 SNA and non-SNA device sense fields

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## Chapter 2. Return codes for VTAM macroinstructions

This chapter provides information about return codes for macros that are displayed in VTAM messages and contains the following sections:

- “ACB OPEN and CLOSE macroinstruction error fields”
- “RPL RTNCD and FDB2 return code combinations” on page 148
- “RTNCD and FDB2 information for LU 6.2” on page 171
- “RCPRI and RCSEC return codes for LU 6.2” on page 173.
- “LAN channel station error return codes” on page 213

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### ACB OPEN and CLOSE macroinstruction error fields

This section contains only error fields for the ACB OPEN and CLOSE macros. Refer to *z/OS Communications Server: SNA Programming* for a description of the OPEN and CLOSE macros or for information on other macros.

#### OPEN macroinstruction error fields

A list of the values that can be set in the ERROR field of an ACB follow (ACBERFLG is the actual field name). Refer to *z/OS Communications Server: SNA Programming* for a description of the OPEN macro.

**0 (X'00')**

OPEN successfully opened this ACB.

**4 (X'04')**

The ACB has been opened.

**20 (X'14')**

OPEN cannot be processed because of a temporary shortage of storage.

**36 (X'24')**

The OPEN ACB failed for one of the following reasons:

- The password specified by the ACB did not match the corresponding password in the APPL entry.
- The ACB did not specify a password and the APPL contains one.
- The security management product determined that the user is not authorized to open the ACB.

**70 (X'46')**

OPEN was issued in an exit routine.

**80 (X'50')**

VTAM has not been included as part of the operating system. The fault lies in the system definition procedures.

**82 (X'52')**

VTAM is included as part of the operating system, but the VTAM operator issued a HALT command, and VTAM has shut down. You cannot attempt to establish a session or communicate with any LUs.

**84 (X'54')**

Either the address supplied in the ACB's APPLID field lies beyond the addressable range of your application program, or no entry is found in the VTAM configuration tables that matches the name indicated by the ACB's APPLID field (or supplied by the operating system). If the OPEN macro is specified correctly, your system programmer might have:

## OPEN Macroinstruction Error Fields

- Failed to include your application program's symbolic name during VTAM definition
- Improperly handled the symbolic name

Refer to the description of the APPLID operand in the ACB macro.

### 86 (X'56')

A match for your application program's symbolic name is found, but it is for an entry other than an APPL. If you specified this name in the ACB's APPLID field, verify that you have the correct name and handled this name properly (see the APPLID operand of the ACB macro). If the symbolic name is supplied by the operating system, the supplied name is suspect.

### 88 (X'58')

Another ACB, already opened by VTAM, indicates the same application program symbolic name that this ACB does. The system programmer might have assigned the same symbolic name to two application programs. This is valid only if the programs are not open concurrently. Possibly the system operator initiated your program at the wrong time.

For multinode persistent session support, an MNPS takeover OPEN was rejected by the owning VTAM node.

### 90 (X'5A')

No entry is found in the VTAM configuration tables that matches the name indicated by the ACB APPLID field (or supplied by the operating system). This error might have occurred for one of the following reasons:

- The VTAM operator deactivated the APPL entry
- The APPL entry was never created
- VTAM is trying to recover for persistent sessions and the application is not in pending recovery state

### 92 (X'5C')

VTAM is included as part of the operating system but inactive.

### 94 (X'5E')

The address supplied in the ACB APPLID field lies beyond the addressable range of your application program.

### 95 (X'5F')

The VTAM transient being used by the application for an OPEN ACB does not match the level of VTAM. The correct level of VTAM is not in the LIBDEF search chain for the application.

### 96 (X'60')

An apparent system error occurred. Either there is a defect in VTAM logic, or there is an error in your use of OPEN or CLOSE that VTAM did not properly detect. Save all applicable program listings and storage dumps, and consult your IBM programming services representative.

### 98 (X'62')

The APPLID length byte is incorrectly specified.

### 100 (X'64')

The address supplied in the ACB's PASSWD field lies beyond the addressable range of your application program.

### 102 (X'66')

The PASSWD length byte is incorrectly specified.

### 104 (X'68')

The APPLID field in the ACB identifies an application program that is defined with AUTH=PPO in its APPL definition statement. Another program with the same authorization is active. Only one program defined with AUTH=PPO can be active at a time.

### 106 (X'6A')

The address supplied in the ACB's vector list field lies beyond the addressable range of your application program.

### 108 (X'6C')

The ACB vector list length byte is incorrectly specified.

### 112 (X'70')

You attempted to open an ACB that is in the process of being closed. This can occur when a VTAM application program job step or subtask is canceled or terminates abnormally. The process of closing the ACB can continue after the job step or subtask has actually terminated. Subsequently, if the job step is restarted or the subtask is reattached before the ACB closing process has been completed, an OPEN macro that is then issued for that ACB fails.

### 114 (X'72')

This code occurs from an open ACB failure for the VTAM CP when VERIFYCP is coded as a start option or for an OPEN ACB failure for an LU 6.2 application with VERIFY=OPTIONAL or VERIFY=REQUIRED for one of the following reasons:

- The security management product is not installed.
- The security management product is not active.
- The security management product resource class APPCLU is not active.
- The application represented by the ACB is not in the security management product Started Procedures Table.

### 116 (X'74')

VTAM rejected the takeover by an alternate application because the original application did not enable persistence, although it is capable of persistence.

### 118 (X'76')

OPEN failed for one of the following reasons:

- The specified application is in a recovery pending state and PERSIST=YES is not specified on the ACB that is being opened
- The application is in pending terminate state and an active CDRSC with the same name has been found in the sysplex

### 120 (X'78')

ACB or APPL statement option mismatch between original application and opening takeover or recovery application. One or more of the following can apply:

- APPC mismatch—both application APPL statements must specify either APPC=YES or APPC=NO; they cannot differ.
- ENCR or MAC mismatch—the recovering application APPL statement must specify a security level equal to or higher than the setting in effect for the original application.
- ENCRTYPE mismatch—the recovering application APPL statement must specify a minimum encryption level equal to or higher than the setting in effect for the original application.

## OPEN Macroinstruction Error Fields

- FDX mismatch—both applications must be specified as FDX=YES or FDX=NO; they cannot differ
- GNAME capability mismatch—the original application was supporting a generic name but the VTAM node of the recovering application is not connected to a generic resource structure or its structure name differs from the original structure name.
- ISTVAC81 vector mismatch—the application capabilities vector provided by the recovering application does not match that of the original application.
- LIMQSINT mismatch—both application APPL statements must agree in their specification of a LIMQSINT parameter; either both must specify a value or neither must specify a value. However, the actual timer values specified do not need to be identical.
- MACRF mismatch—both values must be either LOGON or NLOGON; they cannot differ.
- NQ NAMES mismatch—both applications must be specified as NQ NAMES=YES or NQ NAMES=NO; they cannot differ.
- PERSIST mismatch—both applications must be specified as PERSIST=YES or PERSIST=NO; they cannot differ.
- SECLVL mismatch—both application APPL statements must specify the same SECLVL setting values; they cannot differ.
- VERIFY mismatch—both application APPL statements must specify the same VERIFY setting values; they cannot differ.

### 188 (X'BC')

The ACB is in the process of being opened or closed by another request.

### 244 (X'F4')

The application program is not authorized for SRBEXIT=YES. A request to open an ACB whose corresponding APPL definition statement specifies SRBEXIT=YES is rejected unless the application program is APF authorized, or using key 0–7, or in supervisor state.

### 246 (X'F6')

NIB storage address not valid. A CNM authorized application program either failed to supply an NIB pointer in the NIB field of the ACB, or the NIB address supplied lies beyond the addressable range of the application program.

### 250 (X'FA')

NIB options not valid. Either an application program without CNM authorization (specified in its associated VTAM resource definition) supplied an NIB pointer in its ACB; or, if CNM authorized, the application program failed to supply valid NIB options on the NIB macro.

### 254 (X'FE')

Duplicate unsolicited RU routing requested. The CNM routing table indicated that this application program was to receive the same unsolicited formatted requests that were already being routed to another active CNM authorized application program. Only one application program can be actively receiving a particular type of RU (for example, RECFMS) at a time.

## CLOSE macroinstruction error fields

A list of the values that can be set in the ERROR field of an ACB follow (ACBERFLG is the actual field name). Refer to *z/OS Communications Server: SNA Programming* for a description of the CLOSE macro.

## CLOSE Macroinstruction Error Fields

**0 (X'00')**

CLOSE successfully closed the ACB.

**4 (X'04')**

A CLOSE macro has been successfully issued for this ACB (or the ACB has never been opened in the first place).

**20 (X'14')**

CLOSE cannot be processed because of a temporary shortage of storage.

**64 (X'40')**

Outstanding OPNDST OPTCD=ACQUIRE is not released.

**66 (X'42')**

The ACB has been closed, but an apparent system error has prevented the successful termination of one or more of the sessions that the application program has. It is VTAM fault; consult your IBM Program Support Representative. The LUs that have not had their sessions terminated are not available to other application programs, and LUs with which you were requesting a session when CLOSE was executed are likewise unavailable. You can notify the VTAM operator (during program execution) of the situation so that the operator can make the LUs available to other application programs.

**70 (X'46')**

CLOSE was not issued in the mainline program. OPEN and CLOSE cannot be issued in any exit routine.

**76 (X'4C')**

This application program is authorized to issue VTAM operator commands and receive VTAM messages. A CLOSE was issued, but messages are still queued for it, or VTAM is waiting for a reply, or both. Refer to *z/OS Communications Server: SNA Programming* for information about closing program operators.

**80 (X'50')**

VTAM is no longer included as part of the operating system.

**96 (X'60')**

An apparent system error occurred. Either there is a defect in VTAM logic, or there is an error in your use of OPEN or CLOSE that VTAM did not properly detect. Save all applicable program listings and storage dumps, and consult your IBM programming services representative.

**112 (X'70')**

CLOSE was issued while the program was in the process of terminating abnormally. The CLOSE is not necessary because the ACB is closed by VTAM when the task terminates.

**188 (X'BC')**

The ACB is in the process of being opened or is in the process of being closed by another request.

## RPL RTNCD and FDB2 return code combinations

This section describes all the RTNCD-FDB2 combinations that can be set in an RPL when it is posted complete. Refer to *z/OS Communications Server: SNA Programming* for information about return code posting.

RTNCD	FDB2	Explanation
0	0	Normal completion or request accepted

The operation has been completed normally or the request has been accepted.

RTNCD	FDB2	Explanation
0	5	Input area too small

You issued INQUIRE, INTRPRET, or OPNDST OPTCD=RESTORE and specified an input work area that is too small. VTAM has placed the required length (in bytes) in the RPL's RECLen field (for INQUIRE) or ARECLen (for INTRPRET). No data has been placed in the work area.

Obtain a work area that is at least as long as the value set in RECLen or ARECLen, place the length in the AREALen field (for INQUIRE) or AAREALN (for INTRPRET), and reissue INQUIRE or INTRPRET.

RTNCD	FDB2	Explanation
0	6	No input available

A RECEIVE OPTCD=NQ was issued and there was no input of the specified RTYPE available to satisfy the macroinstruction, or a RVCMD OPTCD=NQ was issued and there was no input available to satisfy the macroinstruction.

RTNCD	FDB2	Explanation
0	7	INQUIRE information not available

One of the following has occurred:

- You issued INQUIRE OPTCD=LOGONMSG to obtain user data (a logon message) from a queued CINIT and there is no queued CINIT.
- You issued INQUIRE OPTCD=SESSPARM to obtain session parameters from a queued CINIT and there is no queued CINIT.
- You issued INQUIRE OPTCD=SESSKEY to obtain the session cryptography key, and there is no session cryptography key.
- You issued INQUIRE OPTCD=DEVCHAR for a cross-domain resource.
- You issued INQUIRE OPTCD=TOPLOGON for queued CINITs, and there are no queued CINITs.
- You issued INQUIRE OPTCD=CIDXLATE for a session that has not been established.
- You issued an INQUIRE OPTCD=USERVAR and no USERVAR was defined.
- You issued an INQUIRE OPTCD=PERSESS, and no record application program interface sessions are pending recovery.

## RTNCD and FDB2 Return Code Combinations

The problem might be due to an incorrectly set NAME field in the NIB, an CID that is not valid in the NIB or RPL, a failure on the part of the system programmer to create the appropriate entry during VTAM definition, or a VARY command issued by the VTAM operator that deactivated the entry.

RTNCD	FDB2	Explanation
0	8	OPNDST OPTCD=ACQUIRE, SIMLOGON, or CLSDST OPTCD=PASS failed

An OPNDST OPTCD=ACQUIRE or SIMLOGON OPTCD=NQ failed for one of the following reasons: the requested logical unit is at its session limit or is not enabled for sessions in which it is to be the SLU. See *z/OS Communications Server: SNA Programming* for a description of OPNDST and SIMLOGON.

A SIMLOGON OPTCD=Q failed because the requested logical unit is at its session limit and at least one of its current sessions is with the application program that issued the SIMLOGON.

A CLSDST OPTCD=PASS failed for one of two reasons. There is already a queued session between the logical unit being passed and the target primary logical unit, or you attempted to initiate or pass the session to the same PLU APPL.

RTNCD	FDB2	Explanation
0	9	OPNDST OPTCD=ACCEPT denied (no queued CINITs) or OPNDST OPTCD=RESTORE denied (no sessions restored)

You attempted to accept a session and indicated that your request should be rejected if no pending active session is waiting to be accepted (OPTCD=NQ). The request is rejected because no CINIT is queued for your application program.

An OPNDST OPTCD=RESTORE failed because the sessions that are requested are not pending recovery. None of the sessions specified by the NIBLIST are restored.

RTNCD	FDB2	Explanation
0	10(X'0A')	Application program not connectable

You issued INQUIRE OPTCD=APPSTAT to check an application program's ability to establish sessions. The application program is in an inactive, non-connectable state because the VTAM operator deactivated it. Therefore, the application program is not available for sessions.

RTNCD	FDB2	Explanation
0	11(X'0B')	Conditional Completion for APPCCMD

Some type of error might have occurred on an APPCCMD macroinstruction. For further problem determination, refer to the primary and secondary return codes in the RPL extension. See the *z/OS Communications Server: SNA Programmer's LU 6.2 Reference* for further information.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
0	13(X'0D')	Additional sessions pending recovery

You have issued INQUIRE PERSESS and specified an input work area that is too small. VTAM fills the work area with as much information as possible and places the length used in the RPL's RECLen. The INQUIRE must be reissued to recover the remainder of the information.

RTNCD	FDB2	Explanation
4	3	Exception request received

An exception request has been received. The reason for the exception is contained in the RPL's SSENSEI, SSENSMI, and USENSEI fields. If a negative response has not been sent to a request of this chain and if this request (the exception request) requires a response, move the input sense fields to the output sense fields and send a negative response. All requests in the current chain that have been received by the application program should be discarded. If the current request did not end the chain, issue RECEIVE macroinstructions with OPTCD=TRUNC and AREALEN=0 until CHAIN=LAST or CONTROL=CANCEL is received. No responses should be sent for any request in the rest of the chain.

RTNCD	FDB2	Explanation
4	4	Negative response received

The logical unit (or some other node in the network) has sent a response indicating that an exception condition was detected for one of the requests that the application program sent on this session. The SEQNO field indicates the sequence number of the request to which the negative response applies. The SSENSEI, SSENSMI, and USENSEI fields indicate the reason for the exception condition. See *z/OS Communications Server: SNA Programming* for more information on the SEQNO field, and the SSENSEI, SSENSMI, and USENSEI fields.

If the request with which the negative response is associated is part of an incomplete chain currently being transmitted to the logical unit, the application program should terminate the chain by issuing a SEND STYPE=REQ, CONTROL=DATA, CHAIN=LAST or a SEND STYPE=REQ, CONTROL=CANCEL to indicate that the logical unit can stop discarding the requests it is receiving. Refer to *z/OS Communications Server: SNA Programming* for information about the use of STSN and CLEAR to alter sequence numbers. Also see the discussion of (RTNCD,FDB2)=(12,13) in this section.

RTNCD	FDB2	Explanation
4	5	Symbolic name known in this SSCP by its network-qualified name only

A real-to-symbolic translation request is made, and NIBNET is filled in with a network identifier, but VTAM cannot provide a symbolic name. VTAM knows this resource only by its network-qualified name; there is no symbolic name that represents this resource. Do one of the following:

- Use the network-qualified name
- Define a symbolic name to represent this resource.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
8	0	Temporary storage shortage

VTAM is temporarily unable to secure enough storage to process the request. The request can usually be reissued (with EXECRPL, for example). For applications running at a priority near to or higher than VTAM's priority, the application should wait a brief time before retrying this.

In certain cases, the macroinstruction processing has not gotten far enough to have done significant work, and the request can be reissued. In other cases, the processing might have gone beyond some irreversible point before failing; as a result, the request cannot simply be reissued. For example, if the LOGON exit routine has been scheduled with a CINIT request and OPNDST OPTCD=ACCEPT is issued, the OPNDST operation can fail before responding to the CINIT, in which case the OPNDST can simply be reissued. If the response to CINIT had been sent, however, and then storage could not be obtained, the OPNDST request could not be reissued as there would no longer be a CINIT to accept. In this case, the application program might wish to initiate another session between itself and the LU, perhaps by using SIMLOGON. These two cases can be distinguished by a bit in the NIB; when the OPNDST OPTCD=ACCEPT is posted, NIBNACLQ is 1 if the response to CINIT is sent; otherwise it is 0.

RTNCD	FDB2	Explanation
12(X'0C')	10(X'0A')	Request canceled by RESETSR

This RECEIVE operation has been canceled by a RESETSR macroinstruction issued by another part of your application program.

RTNCD	FDB2	Explanation
12(X'0C')	11(X'0B')	Request canceled because the session has been terminated

The request has been canceled because the session was terminated. Session termination always cancels any pending requests for the session, and returns this return code in the RPL. See *z/OS Communications Server: SNA Programming* for a list of the possible causes of session termination.

This return code is also used when an OPNDST OPTCD=(ACCEPT,SPEC,Q) is canceled by CLSDST.

RTNCD	FDB2	Explanation
12(X'0C')	12(X'0C')	Request canceled by CLEAR request

While the RPL-based request was being processed, a CLEAR request was sent or received on the session. This stops all data flow and cancels all pending communication requests on the session. The CLEAR request might have been sent by your application program (SESSIONC macroinstruction), or the request might have been sent on behalf of your application program by VTAM. The CLEAR request might also have been sent from the other end of the session.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
12(X'0C')	13(X'0D')	Prior exception in chain detected

A series of chained requests was being sent to the logical unit and a negative response was returned for one of them. All subsequent SEND macroinstructions for that chain are posted complete with this return code; however, for each such SEND, the associated request unit is sent on the session to the session partner where it should be discarded.

RTNCD	FDB2	Explanation
12(X'0C')	14(X'0E')	Request cancelled - POA queue limit exceeded

The POA issued a SENDCMD after it reached its queue limit (POAQLIM on the APPL definition statement). Subsequent SENDCMDs complete with this return code until you receive all of the messages in the queue. You can empty the message queue by issuing RCVCMD OPTCD=NQ (no queue) until an RCVCMD completes with a return code and feedback of X'0006'. A SENDCMD now returns successfully.

RTNCD	FDB2	Explanation
16(X'10')	0	Logical unit not available, application program status not available, queued BIND not available, or incorrect dial parameters

This code is set for one of the following reasons:

- You are attempting to establish a session with a logical unit that is not active.
- You are attempting to pass a logical unit to a primary logical unit that is not active (or is in the process of being deactivated).
- You are attempting to issue an OPNSEC macroinstruction and there is no queued BIND request to respond to.
- You are attempting to determine the status of an application program that is in another domain, the status is not available, and your application program has to proceed without it.
- You issued a SIMLOGON macroinstruction that specifies dial parameters for a nonswitched PU.
- The dial parameters specified in the SIMLOGON macroinstruction do not match the original dial parameters.
- You issued a macroinstruction and a resource, such as a network address or storage, was not available. A sense code is returned in the RPL containing specific information.

The RPL system-sense (SSENSEI), the system-sense modifier (SSENSMI), and the user-sense (USENSEI) can contain a more detailed explanation of the failure.

RTNCD	FDB2	Explanation
16(X'10')	1	OPNDST failed

OPNDST failed; if a session had been established by the OPNDST, it has now been terminated. Some reasons for OPNDST failure are as follows:

## RTNCD and FDB2 Return Code Combinations

- No network path could be obtained. For example, there might have been a failure of the virtual route or route extension, or the operator might have deactivated a network component along the path.
- A dial connection was not completed.
- A negative response to a CRV request was received.
- A request rejected response to a BIND request was received.
- The logical unit does not exist.
- A BIND response that is not valid was received; for example, a negotiable BIND response was received for a non-negotiable BIND request.
- OPNDST OPTCD=ACQUIRE specifies dial parameters for a nonswitched PU.
- The dial parameters specified in the OPNDST OPTCD=ACQUIRE do not match the original dial parameters.

The SSENSEI, SSENSMI, and USENSEI fields are set; these fields are described in “SNA sense field values for RPL-based macroinstructions” on page 138.

RTNCD	FDB2	Explanation
16(X'10')	2	Logical unit inhibited for sessions

You attempted to initiate a session and one of the logical units in the requested session is inhibited. For example, a VTAM application program is inhibited for sessions if it issues SETLOGON OPTCD=QUIESCE or has never issued SETLOGON OPTCD=START. Refer to *z/OS Communications Server: SNA Programming* for more information.

RTNCD	FDB2	Explanation
16(X'10')	3	HALT issued

The VTAM operator has issued a HALT command. Depending on the type of HALT, certain macroinstructions can no longer be issued by your application program. Refer to *z/OS Communications Server: SNA Programming* for more information.

RTNCD	FDB2	Explanation
16(X'10')	5	Request or response encryption failure

Encryption has failed while:

- Sending an FM data request
- Sending the BIND response during OPNSEC processing
- Sending the CRV request during OPNDST processing.

RTNCD	FDB2	Explanation
16(X'10')	7	Request canceled by VARY command

The communication operation has been canceled because the VTAM operator deactivated a necessary portion of the path while the macroinstruction was being processed. If a LOSTERM exit routine is available, it has been scheduled. You can no longer communicate with the LU, and you should issue CLSDST to terminate its session with your application program.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
16(X'10')	9	Unconditional Terminate or character-coded logoff received

The logical unit has sent an unconditional Terminate request or a character-coded logoff that is a request for unconditional session-termination. No further communication on the session is possible. CLSDST must be issued.

RTNCD	FDB2	Explanation
16(X'10')	10(X'0A')	VTAM error

An error occurred in VTAM itself. No further attempts to establish or terminate a session with the logical unit should be made.

RTNCD	FDB2	Explanation
16(X'10')	13(X'0D')	VTAM inactive for your ACB

The association between VTAM and your application program (ACB) that was established with OPEN has been broken; the ACB is in the process of being closed. This might have occurred because you have elsewhere issued a CLOSE that has not yet completed, or it might have occurred because VTAM has become inactive, or a VARY INACT was issued for your application program.

RTNCD	FDB2	Explanation
16(X'10')	14(X'0E')	Request abnormally terminated

VTAM has abnormally terminated a request because of an error detected while processing the request or because of an error in the associated session, task, or address space (for example, an abend). See *z/OS Communications Server: SNA Programming* for more information about error isolation and recovery.

RTNCD	FDB2	Explanation
16(X'10')	15(X'0F')	Buffers filled

Previously VTAM had received an RU; the application program did not have an appropriate EXLST exit routine or outstanding RECEIVE for the RU and there was no buffer space left for VTAM to queue the RU. Under these circumstances, VTAM discards that RU and any other RUs queued for the session and schedules the LOSTERM exit routine (if there is one) with reason code 36. If appropriate for the TS Profile for this session, a Clear is sent to the session partner. In all cases, the end of the session that experienced the buffer shortage is put into data-traffic-reset state (at least momentarily). Any SEND or RECEIVE issued while the session is in this state is rejected with (RTNCD,FDB2)=(X'10',X'0F'). This mode of operation continues until a Start Data Traffic response is processed (or until the Clear function completes, if SDT is not appropriate for the TS profile).

RTNCD	FDB2	Explanation
16(X'10')	17(X'11')	SDT failure on OPNDST

## RTNCD and FDB2 Return Code Combinations

A negative response was sent by a logical unit in reply to a Start Data Traffic (SDT) request. The OPNDST was not completed successfully. The SSENSEI, SSENSMI, and USENSEI fields are set; these fields are described in “SNA sense field values for RPL-based macroinstructions” on page 138.

RTNCD	FDB2	Explanation
16(X'10')	18(X'12')	Macroinstruction failure, sense included

A REQSESS, TERMSESS, or OPNSEC has failed. A sense code (SSENSEI, SSENSMI, and USENSEI field) is returned in the RPL for the failing macroinstruction.

RTNCD	FDB2	Explanation
16(X'10')	19(X'13')	Attempt to start LU 6.2 session request rejected

An LU 6.2 application has tried to start an LU 6.2 session independent of VTAM. No pending sessions have been disturbed. This occurs when an OPNDST is issued with an LU 6.2 user-specified BIND.

RTNCD	FDB2	Explanation
16(X'10')	20(X'14')	Attempt to start LU 6.2 session pending session terminated

An LU 6.2 application has tried to start an LU 6.2 session independent of VTAM. The pending session has been terminated. This occurs when the LOGMODE specified on an OPNDST resolves to an LU 6.2 BIND or when OPNSEC is issued for an LU 6.2 BIND.

RTNCD	FDB2	Explanation
16(X'10')	21(X'15')	An APPCCMD must be issued

An OPNDST or CLSDST has been issued for a pending LU 6.2 session. An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS or QUALIFY=DACTSESS macroinstruction must be issued for this session. See the *z/OS Communications Server: SNA Programmer's LU 6.2 Reference* for more information.

RTNCD	FDB2	Explanation
16(X'10')	22(X'16')	Specified LU is nonswitched

The application issues a SIMLOGON or OPNDST OPTCD=ACQUIRE macroinstruction using the application supplied dial-out function. The specified LU is nonswitched and the request failed.

RTNCD	FDB2	Explanation
16(X'10')	23(X'17')	Encryption not allowed

You attempted to request encryption on a send, but session does not support encryption.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
16(X'10')	24(X'18')	Sysplex is inaccessible

You attempted to use either the INQUIRE OPTCD=SESSNAME, SETLOGON OPTCD=GNAMEADD, SETLOGON OPTCD=GNAMEDEL, SETLOGON OPTCD=GNAME SUB, OPNDST, OPNSEC, or the CHANGE OPTCD=ENDAFFIN macroinstruction, but the coupling facility for this host is inaccessible.

RTNCD	FDB2	Explanation
16(X'10')	25(X'19')	Host is not member of Sysplex

The application issued either the INQUIRE OPTCD=SESSNAME, the CHANGE OPTCD=ENDAFFIN, or the SETLOGON OPTCD=GNAMEADDIGNAMEDELIGNAME SUB macroinstruction, but the coupling facility for this host is inaccessible. The coupling facility may be inaccessible because:

- A coupling facility does not exist.
- A CFRM policy for the required coupling facility structure was not active.
- VTAM is not defined as an APPN node.
- VTAM has lost connectivity to the required coupling facility structure.

RTNCD	FDB2	Explanation
16(X'10')	26(X'1A')	SUSPEND failed

VTAM attempted to SUSPEND an RPL request issued in either cross-memory mode or in synchronous SRB mode with OPTCD=KEEPSRB specified. The attempt failed.

RTNCD	FDB2	Explanation
16(X'10')	27(X'1B')	RESUME failed

VTAM attempted to RESUME an RPL request issued in either cross-memory mode or in synchronous SRB mode with OPTCD=KEEPSRB specified. The attempt failed. VTAM is unable to post the request complete. If the application has a LOSTERM exit, it will be scheduled with a reason code of 44. For more information about the LOSTERM exit, see the *z/OS Communications Server: SNA Programming*. The RPL is now available for reuse.

RTNCD	FDB2	Explanation
16(X'10')	28(X'1C')	OS level does not support requested function

A macroinstruction request required the use of an operating system service which is not supported by the active operating system level.

RTNCD	FDB2	Explanation
16(X'10')	29(X'1D')	Security Manager Error

## RTNCD and FDB2 Return Code Combinations

An error was encountered when attempting to invoke the security management program. The APPL definition statement for this application specifies VERIFY=REQD or VERIFY=OPTIONAL, indicating that the use of an installed security manager was required for APPC sessions by this application program. However, VTAM was unable to successfully invoke the security manager. The SETLOGON START macroinstruction is rejected.

RTNCD	FDB2	Explanation
20(X'14')	0	VSAM request

The RPL contains a VSAM or other non-VTAM request code. No ECB has been posted and no RPL exit routine has been scheduled.

RTNCD	FDB2	Explanation
20(X'14')	2	Zero EXIT field

The RPL indicates that the ECB-EXIT field is being used as an EXIT field, but the RPL exit routine address in it is 0. No RPL exit routine has been scheduled.

RTNCD	FDB2	Explanation
20(X'14')	3	Zero ECB field

The RPL indicates that the ECB-EXIT field is being used to point to an external ECB, but the address in the field is 0. No ECB has been posted.

RTNCD	FDB2	Explanation
20(X'14')	4	Inactive RPL checked

CHECK was issued for an inactive RPL (an RPL that had been posted complete and for which CHECK has already been issued successfully). All RPL-based macroinstructions must use an inactive RPL. All CHECK macroinstructions, however, must use an active RPL; an RPL cannot be checked twice.

RTNCD	FDB2	Explanation
20(X'14')	16(X'10')	Control block not valid

The RPL's ACB field does not contain the address of a valid ACB or the ACB is closed. This can mean that the ACB field of the RPL was incorrectly set or the ACB has been destroyed.

RTNCD	FDB2	Explanation
20(X'14')	17(X'11')	RTYPE not valid

A RECEIVE has been issued with the RTYPE field set to NDFSYN, NDFASY, and RESP.

RTNCD	FDB2	Explanation
20(X'14')	18(X'12')	CLSDST in progress

## RTNCD and FDB2 Return Code Combinations

At the time this macroinstruction was executed, a CLSDST request was pending for the session. The CLSDST request takes priority, and the request that received this return code cannot be honored.

RTNCD	FDB2	Explanation
20(X'14')	19(X'13')	CID not valid

The RPLARG field or the NIBCID field does not contain a valid CID, or a valid CID was issued with the wrong ACB, or INTRPRET is being used for a cross-domain LU.

You might have inadvertently modified the field, initially failed to set it, or used the CID of a session that no longer exists.

Another possibility is that you violated the following rule: when placing a CID into the RPLARG field, always use the ARG keyword (ARG=(6), for example), and when placing an NIB address into the RPL's NIB field, always use the NIB keyword (for example, NIB=(6)). Because these two fields occupy the same 4 bytes in the RPL, VTAM can distinguish between an NIB address and a CID only through your use of the ARG or NIB keyword. Thus, the presence of this return code could mean that you placed an NIB address in the RPL with the ARG keyword, and VTAM has rejected your CID as not valid.

This feedback information is also used when a CID is specified for INTRPRET, and the LU implied by the CID is in another domain.

RTNCD	FDB2	Explanation
20(X'14')	30(X'1E')	Data address or length not valid

A request was issued that specified a work area address that is beyond the addressable range of your application program. Here a work area is defined to be any storage area addressed by an RPL operand, for example, the areas referenced by AREA and AAREA.

Check the work area address and work area length fields in the RPL for an incorrect setting. See the RPL macroinstruction description in *z/OS Communications Server: SNA Programming* to determine which fields must point to valid work areas for each macroinstruction.

If your application program resides in an authorized library, check for correct load module characteristics.

RTNCD	FDB2	Explanation
20(X'14')	35(X'23')	Request type not valid

When an RPL-based macroinstruction is issued, VTAM sets the REQ field in the RPL to indicate the type of macroinstruction that is using the RPL. The presence of this return code indicates that you modified that code before the requested operation completed. To avoid this and other related errors, never modify an RPL while it is in use. Compare with VSAM request, (RTNCD,FDB2)=(X'14',X'00').

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
20(X'14')	36(X'24')	Request for address space not valid

You attempted to issue one of the following macroinstructions in other than the session address space: RECEIVE OPTCD=SPEC, RESETSR, SEND, or SESSIONC (except request rejected response to BIND).

RTNCD	FDB2	Explanation
20(X'14')	59(X'3B')	NFME-NRRN response

You attempted to send a response with the RESPOND field set to NFME and NRRN. A response must be identified as FME, RRN, or both; in effect, you have identified the response as neither.

RTNCD	FDB2	Explanation
20(X'14')	60(X'3C')	Previous macroinstruction outstanding

You issued a SEND POST=SCHED, a SEND for an expedited data-flow-control request, or a SESSIONC macroinstruction before a previous macroinstruction of the same type had been completed. Only one macroinstruction of the three preceding types can be outstanding on a session at a time. After the previous macroinstruction has been completed, this macroinstruction can be reissued.

RTNCD	FDB2	Explanation
20(X'14')	64(X'40')	CONTROL not valid

You modified the bits in the CONTROL field, or you used a CONTROL value for a SESSIONC macroinstruction that was not BIND, RQR, SDT, CLEAR, STSN, or SWITCH.

RTNCD	FDB2	Explanation
20(X'14')	65(X'41')	Data traffic not allowed

You attempted to communicate on a session for which no SDT request had been sent or for which a CLEAR is in progress. For certain TS profiles, until an SDT request/response exchange has occurred on the session, no traffic flow is possible; only SDT, Set and Test Sequence Numbers (STSN), Request Recovery (RQR), and Clear requests can be exchanged. Every time a Clear request is sent on a session, a new SDT request might be required before traffic flow can resume (this depends upon the transmission services profile used). For further information, refer to *z/OS Communications Server: SNA Programming*.

RTNCD	FDB2	Explanation
20(X'14')	66(X'42')	STYPE for SESSIONC not valid

STYPE=RESP has been specified for a SESSIONC CONTROL=CLEAR or a SESSIONC CONTROL=RQR macroinstruction. Only STYPE=REQ is valid. Also, if the NIB used to establish the session specified SDT=SYSTEM, then STYPE=RESP is not valid for SESSIONC CONTROL=SDT.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	Explanation
20(X'14')	68(X'44')	RESPLIM exceeded

The number of outstanding SEND POST=RESP macroinstructions for a session exceeds the RESPLIM value set in the NIB used to establish the session.

RTNCD	FDB2	Explanation
20(X'14')	71(X'47')	3270 SEND option not valid

The RPL specified by your LU type 0 3270 SEND macroinstruction had one or more of the following fields not valid: STYPE, RESPOND, CHAIN, or CONTROL. See *z/OS Communications Server: SNA Programming* for more information about exception conditions.

If the RPL was last used for a RECEIVE for the 3270, check the RESPOND field first; you might have failed to reset the field following the RECEIVE (RECEIVE sets the RESPOND field to (NEX,NFME,NRRN) in this case).

RTNCD	FDB2	Explanation
20(X'14')	72(X'48')	Session-control protocol violation

Protocol violations indicated are as follows:

- The PLU sent an SDT request while not in data-traffic-reset state, or the SDT sent was not allowed by the TS profile.
- The PLU sent a Clear request, and a previous Clear request has been sent and has not completed, or the Clear request was not allowed by the TS profile.
- The PLU sent an STSN request while not in data-traffic-reset state, or the STSN request was not allowed by the TS profile.
- The PLU sent an RQR request, and the RQR request was not allowed by the TS profile.
- The SLU sent an SDT response and any previously received SDT request had already been responded to, or an SDT request had not been received.

For more information, refer to *z/OS Communications Server: SNA Programming*.

RTNCD	FDB2	Explanation
20(X'14')	73(X'49')	STSN action/result code not valid

One of the following applies:

- You attempted to send a Set and Test Sequence Numbers (STSN) request and set the IBSQAC or OBSQAC fields (or both) to some value other than SET, TESTSET, IGNORE, or INVALID.
- You attempted to send an STSN response and set the IBSQAC or OBSQAC field (or both), to some value other than TESTPOS, TESTNEG, INVALID, or RESET.
- You attempted to send a result code that is not a valid response to the action code.

## RTNCD and FDB2 Return Code Combinations

Refer to *z/OS Communications Server: SNA Programming* for more information.

RTNCD	FDB2	Explanation
20(X'14')	74(X'4A')	Installation-wide exit routine was not available

You issued an INTRPRET macroinstruction; VTAM has located the appropriate entry in the interpret table, and found that the system programmer has specified a logon-interpret exit routine to do the interpret function. That routine, however, has not been loaded.

RTNCD	FDB2	Explanation
20(X'14')	75(X'4B')	INTRPRET sequence or LOGMODE not valid, or cryptographic incompatibility

You issued an INTRPRET macroinstruction—one of the following might apply:

- VTAM cannot locate an entry in the interpret table that corresponds to the sequence you provided.
- You might have inadvertently modified the sequence or the address in the RPL's AREA field that points to the sequence.
- The system programmer might have failed to properly define the entry in the interpret table.

After your application program has been tested and debugged and you have eliminated the possibility of the three situations listed above, you can assume that the terminal operator or program that initiated the logon must have passed an invalid logon sequence to your application program.

You issued an INQUIRE, OPNDST, SIMLOGON, REQSESS, or CLSDST OPTCD=PASS macroinstruction. Either the NIB for this request specified a logon mode name that could not be found in the logon mode table for the logical unit named in that NIB, or the SSCP discovered that cryptography had been specified for the requested session, but at least one of the logical units in the requested session did not support cryptography.

RTNCD	FDB2	Explanation
20(X'14')	76(X'4C')	Search argument for INQUIRE or INTRPRET not valid

You issued INQUIRE or INTRPRET, and failed to properly provide VTAM with the identity of the pending active session, logical unit, or application program:

- INTRPRET was issued and the name in the NIB was not that of a logical unit.
- INQUIRE (OPTCD=APPSTAT) was issued and one of the following conditions exists:
  - The name is not that of an application program.
  - The application program is a cross-domain resource, and the SSCP that owns the resource does not support INQUIRE (OPTCD=APPSTAT).
  - The application program is a cross-domain resource, and no active route exists to the host that owns the application program.
- INQUIRE OPTCD=TERMS was issued and the name was not that of a resource (such as an LU, PU, CLUSTER, or CDRSC) in the VTAM configuration tables.

## RTNCD and FDB2 Return Code Combinations

- INQUIRE OPTCD=DEVCHAR was issued and the device characteristics were not available (perhaps because the logical unit was in another domain and there was no appropriate CINIT queued for the application program).
- INQUIRE OPTCD=LOGONMSG was issued and there was no appropriate CINIT queued for the application program.
- INQUIRE OPTCD=SESSPARM was issued with LOGMODE=0 in the NIB, and there was no appropriate CINIT queued for the application program.
- INQUIRE OPTCD=NQN was issued and one of the following applies:
  - The resource does not exist.
  - The resource is cross-domain and there is no active route to it.

Refer to *z/OS Communications Server: SNA Programming* for a description of the INQUIRE macroinstruction.

Assuming that the system programmer properly defined the entry in the VTAM configuration tables for the logical unit, you have probably: (1) failed to set a valid symbolic name in the NIB's NAME field or (2) correctly issued INQUIRE OPTCD=SESSPARM or INQUIRE OPTCD=DEVCHAR but the session has been terminated.

RTNCD	FDB2	Explanation
20(X'14')	77(X'4D')	No interpret table

You issued an INTRPRET macroinstruction, but there is no interpret table for the logical unit. The system programmer might have failed to include an interpret table for this logical unit during the VTAM definition process or the logical unit might be in another domain.

RTNCD	FDB2	Explanation
20(X'14')	78(X'4E')	Use of an NIB list not valid

You issued OPNDST OPTCD=ACCEPT without setting the NIB's LISTEND field to YES, or you specified a NIB list in which more than one NIB indicated PROC=NEGBIND.

RTNCD	FDB2	Explanation
20(X'14')	79(X'4F')	OPTCD setting not valid

The OPNDST or INQUIRE request fails because bits in the OPTCD field have been incorrectly set. From the OPNDST and the INQUIRE option code settings, you must specify only one value for the mutually exclusive sets of option codes. Because you cannot cause the field to be incorrectly set by using VTAM macroinstructions, you might have inadvertently modified the OPTCD field with assembler instructions.

RTNCD	FDB2	Explanation
20(X'14')	80(X'50')	RPL field not valid

The OPNDST, CLSDST, SIMLOGON, or REQSESS failed because the bits in the RPL's OPTCD or AAREA field were found to be not valid.

## RTNCD and FDB2 Return Code Combinations

If an OPNDST or SIMLOGON failed, the particular bits that have been incorrectly set are those that form the CONANY-CONALL option code. This return code does not mean that the CONANY option was erroneously used in place of CONALL, or vice versa; it means that neither CONALL nor CONANY is indicated in the OPTCD field. Because you cannot cause the field to be incorrectly set in this manner by using VTAM macroinstructions, you might have inadvertently modified the OPTCD field with assembler instructions.

If a REQSESS failed, either OPTCD=NQ was not specified or the AAREA field of the RPL was not set to zero.

If a CLSDST failed, OPTCD=SENSE was specified and a zero sense was provided in the SSENSEO, SSENSMO, USENSEO fields of the RPL. A zero sense is not permitted for CLSDST OPTCD=SENSE.

RTNCD	FDB2	Explanation
20(X'14')	81(X'51')	OPNDST OPTCD=ACCEPT and SIMLOGON not allowed

You attempted to issue OPNDST OPTCD=ACCEPT to accept a CINIT for a session with a logical unit, or to issue SIMLOGON to initiate a session. However, these operations cannot be performed because of one of the following:

- The ACB was opened with MACRF=NLOGON.
- SETLOGON OPTCD=QUIESCE was issued and CINITs are pending.
- SETLOGON OPTCD=QUIESCE was issued and no matching CINIT was found.

RTNCD	FDB2	Explanation
20(X'14')	82(X'52')	NIB not valid

The request failed because there is no NIB at the location indicated in the RPL's NIB field.

RTNCD	FDB2	Explanation
20(X'14')	83(X'53')	Logical unit not found

The symbolic name you supplied in the NIB's NAME field or indicated by the RPL's AAREA field does not have a corresponding entry in the VTAM configuration tables. This can occur for one of the following reasons:

- You failed to set the NAME field correctly.
- The system programmer did not include the entry in the VTAM configuration tables during VTAM definition.
- The VTAM operator has not activated the major node containing the application program that issued the macroinstruction.
- The VTAM operator has not activated the major node containing the resource named in the NIB (in a cross-domain environment).
- A dynamically created definition for a cross-domain LU has been deleted after lack of use for a defined period of time.
- Contact with the resource was lost and the definition of the resource was subsequently deleted from the VTAM configuration tables.

## RTNCD and FDB2 Return Code Combinations

- You issued either SETLOGON OPTCD=GNAMEADD, SETLOGON OPTCD=GNAMESSUB, SETLOGON OPTCD=GNAMEDEL, INQUIRE OPTCD=SESSNAME, or CHANGE OPTCD=ENDAFFIN and one of the names you supplied is not valid.

If you were using an NIB list, no sessions have been established.

RTNCD	FDB2	Explanation
20(X'14')	85(X'55')	One of the following is true: <ul style="list-style-type: none"> <li>Application program is not authorized.</li> <li>Application program name is not available.</li> <li>Task association is not specified.</li> <li>Application is not authorized to supply dial parameters.</li> <li>PU is not authorized to accept dial parameters.</li> <li>You must issue a send RPL.</li> </ul>

- You attempted to acquire a logical unit (SIMLOGON or OPNDST), but the installation has denied you authorization to do so. The system programmer might have specified during VTAM definition that your application program is not authorized to acquire any logical units. If you are authorized to acquire logical units and you still receive this return code, this means that an authorization exit routine has been invoked and has determined that you cannot acquire the specific logical unit indicated in your request.
- You attempted to initiate a session, but the authorization exit routine has denied you authorization.
- You issued an INTRPRET macroinstruction; VTAM located the appropriate entry in the interpret table and found that the installation has specified an exit routine to convert the input sequence into an output sequence. That routine was loaded, but it failed to do the conversion.
- You issued one of the following macroinstructions in SRB mode without specifying the required task association: CLSDST, INQUIRE, INTRPRET, OPNDST, OPNSEC, REQSESS, RVCMD, SENDCMD, SETLOGON, SIMLOGON, TERMSESS.  
Refer to *z/OS Communications Server: SNA Programming* for more information.
- An application that is not authorized to supply dial parameters attempted to supply dial parameters, or a PU that is not authorized to accept dial parameters attempted to accept dial parameters.

Refer to the *z/OS Communications Server: SNA Resource Definition Reference* for information about coding an application program major node (the AUTH operand of the APPL definition statement).

RTNCD	FDB2	Explanation
20(X'14')	87(X'57')	MODE field not valid

You issued an OPNDST or OPNSEC macroinstruction and failed to set the NIB's MODE field to RECORD.

RTNCD	FDB2	Explanation
20(X'14')	94(X'5E')	CLSDST OPTCD=PASS not authorized

## RTNCD and FDB2 Return Code Combinations

CLSDST OPTCD=PASS is a function whose use is authorized by the installation. You attempted to use this function, but the installation has not authorized you to pass logical units to other primary logical units. This CLSDST macroinstruction should have been issued with RELEASE in effect, not PASS.

Refer to the *z/OS Communications Server: SNA Resource Definition Reference* for a description of the AUTH operand of the APPL definition statement.

RTNCD	FDB2	Explanation
20(X'14')	96(X'60')	LU name for CLSDST, SESSIONC, or OPNSEC not valid

You attempted to terminate a session with a logical unit that is not in session with your application program, or had no CINIT queued for your application program. This return code applies to CLSDST used with a logical unit's symbolic name.

You issued a SESSIONC macroinstruction to send a request rejected response to BIND, but the LU name field in the NIB does not match any BIND currently queued for the application program.

You issued an OPNSEC macroinstruction and a queued BIND could not be found for the LU name passed in the NIB.

RTNCD	FDB2	Explanation
20(X'14')	97(X'61')	SETLOGON not valid

Either you opened the ACB with its MACRF field set to NLOGON, or you issued SETLOGON OPTCD=QUIESCE and permanently closed the CINIT queue. Because you attempted to either open a CINIT queue that cannot be opened or close a CINIT queue that is closed, SETLOGON START, STOP, and QUIESCE are not valid.

You might have issued a SETLOGON OPTCD=PERSIST or NPERSIST with a PSTIMER value that is greater than the allowed value (86400 seconds).

**Note:** You can successfully issue SETLOGON OPTCD=PERSIST or SETLOGON OPTCD=NPERSIST with the MACRF field set to NLOGON or after a QUIESCE.

RTNCD	FDB2	Explanation
20(X'14')	108(X'6C')	Exceeded limit on outstanding RCVCMDS requests

You attempted to issue an RCVCMDS macroinstruction while a previous RCVCMDS was outstanding. The limit on outstanding RCVCMDS requests is one.

RTNCD	FDB2	Explanation
20(X'14')	109(X'6D')	Application program not authorized

Your application program is not authorized to issue the SENDCMD and RCVCMDS macroinstructions, or your CNM application program attempted to send something other than a formatted Forward RU to the SSCP.

## RTNCD and FDB2 Return Code Combinations

Refer to the *z/OS Communications Server: SNA Resource Definition Reference* for a description of the AUTH operand of the APPL definition statement.

RTNCD	FDB2	Explanation
20(X'14')	110(X'6E')	Syntax error in reply to VTAM operator message

In reply to a VTAM operator message, you issued a SENDCMD macroinstruction that contained a syntax error in the REPLY command.

RTNCD	FDB2	Explanation
20(X'14')	111(X'6F')	SENDCMD/RCVCMD processor inactive

The portion of VTAM that processes SENDCMD and RCVCMD macroinstructions is currently inactive for your application program, and the application program issued a SENDCMD or RCVCMD macroinstruction. The request cannot be processed because an ACB has not been opened for the portion of the application program that issued the SENDCMD or RCVCMD, or because a final CLOSE has been issued for this ACB but has not yet completed.

RTNCD	FDB2	Explanation
20(X'14')	112(X'70')	Program operator closing ACB with requests outstanding

Your application program is in the process of closing its ACB, and you (1) issued a SENDCMD macroinstruction for a command other than REPLY or (2) issued a RCVCMD OPTCD=Q and there were no VTAM messages available to satisfy the request.

RTNCD	FDB2	Explanation
20(X'14')	113(X'71')	Operator command not valid

You attempted to send a VTAM operator command to VTAM using the SENDCMD macroinstruction; however, the command was not recognized by VTAM, or it was a command (START or HALT) that cannot be sent by the application program.

RTNCD	FDB2	Explanation
20(X'14')	115(X'73')	SEND parameters for CNM not valid

You issued a SEND macroinstruction when using a CNM application program and you have specified a parameter that is not valid.

RTNCD	FDB2	Explanation
20(X'14')	116(X'74')	Negotiable response to non-negotiable BIND

You attempted to issue an OPNSEC PROC=NEGBIND to a non-negotiable BIND request. A request-rejected response to the BIND is sent with a sense code indicating resource unavailable (X'08010000').

RTNCD	FDB2	Explanation
20(X'14')	117(X'75')	Negotiable BIND response parameters not valid

## RTNCD and FDB2 Return Code Combinations

You specified negotiable BIND parameters on an OPNSEC macroinstruction that are not valid. A request rejected response to the BIND is sent with a sense code indicating resource unavailable (X'0801000').

RTNCD	FDB2	Explanation
20(X'14')	118(X'76')	Negotiable BIND response size not valid

You specified a negotiable BIND response on OPNSEC that was greater than 256 bytes. A request rejected response to the BIND is sent with a sense code indicating resource unavailable (X'08010000').

RTNCD	FDB2	Explanation
20(X'14')	119(X'77')	FMD request unit required

You issued a SEND OPTCD=BUFFLST or a SEND OPTCD=LMPEO and the RU specified was not an FMD request unit.

RTNCD	FDB2	Explanation
20(X'14')	120(X'78')	Chain specification not valid

You issued a SEND OPTCD=(BUFFLST,USERRH) in which multiple chains or multiple partial chains were specified in the buffer list. Only requests from a single chain might be specified in a buffer list.

RTNCD	FDB2	Explanation
20(X'14')	121(X'79')	Buffer list length not valid

You issued a SEND OPTCD=BUFFLST, and RECLEN did not contain a nonzero multiple of 16.

RTNCD	FDB2	Explanation
20(X'14')	123(X'7B')	User RH not valid

One of the following conditions was detected for a SEND OPTCD=USERRH:

- The settings of the CONTROL operand and of the RU category field in the user RH were inconsistent. If CONTROL=DATA, then the RU category must be FMD. If CONTROL is not DATA, then the RU category must be DFC. See also (RTNCD,FDB2)=(X'14',X'77').
- A sense indicator in the user RH field was found to be on with zero sense provided. For a non LUO session, zero sense is architecturally incorrect.

RTNCD	FDB2	Explanation
20(X'14')	124(X'7C')	OPTCD=USERRH for SESSIONC not valid

## RTNCD and FDB2 Return Code Combinations

You specified a SESSIONC macroinstruction with OPTCD=USERRH.

RTNCD	FDB2	Explanation
20(X'14')	125(X'7D')	XRF protocol error

A protocol error has occurred during the processing of a SIMLOGON or OPNDST macroinstruction.

SIMLOGON for a backup XRF request is processed by setting the "backup XRF session request" indicator in the INITIATE RU. This indicator is set based on the setting of the RPL bit indicating OPTCD=BACKUP (RPLBCKUP). If an Initiate is received specifying a backup XRF session and queue, it is rejected.

The RPL system-sense (SSENSEI), the system-sense modifier (SSENSMI), and the user-sense (USENSEI) can contain a more detailed explanation of the failure.

RTNCD	FDB2	Explanation
20(X'14')	126(X'7E')	Conflicting OPTCD on a macroinstruction request

One of the following conditions was detected:

- A TERMSESS macroinstruction has been issued with none or more than one of the following OPTCDs specified: COND, UNCOND, and UNBIND.
- A SETLOGON request has been issued with none or more than one of the following OPTCDs specified: HOLD, NPERSIST, PERSIST, QUIESCE, GNAMEADD, GNAMEDEL, GNAME SUB, START, and STOP.
- A SIMLOGON request has been issued with more than one of the following OPTCDs specified: QALL, QSESSLIM, and QNOTENAB.

RTNCD	FDB2	Explanation
20(X'14')	127(X'7F')	Policing error - non-APPC macroinstruction

An application program issued a non-APPCCMD macroinstruction to establish an LU 6.2 session, or issued a non-APPCCMD macroinstruction against a current LU 6.2 session.

RTNCD	FDB2	Explanation
20(X'14')	128(X'80')	SETLOGON not valid

You specified SETLOGON OPTCD=NPERSIST or PERSIST for an application that is not capable of persistence.

RTNCD	FDB2	Explanation
20(X'14')	129(X'81')	TERMSESS without OPTCD=UNBIND with session in a pending state

A TERMSESS macroinstruction is issued for a pending active session without specifying OPTCD=UNBIND.

RTNCD	FDB2	Explanation
20(X'14')	130(X'82')	Parameter length not valid

## RTNCD and FDB2 Return Code Combinations

The length of an application-supplied dial parameter is not valid. Refer to *z/OS Communications Server: SNA Programming* for a description of the valid lengths.

RTNCD	FDB2	Explanation
20(X'14')	131(X'83')	Subfield error

Either a subfield is not supported, or a combination of subfields that is not valid is specified. Refer to *z/OS Communications Server: SNA Programming* for information about the valid subfields that can be specified.

RTNCD	FDB2	Explanation
20(X'14')	132(X'84')	NIBASDPA = 0

The value of NIBASDPA is 0. The NIBASDP indicator was on, indicating that the application is providing dial parameters; however, no address for the control block was given. This probably resulted from the application program passing an address that is not valid to the NIB.

RTNCD	FDB2	Explanation
20(X'14')	133(X'85')	Session must be restored

A SEND, RECEIVE, RESETSR, or SESSIONC request is rejected because it is issued for a session that is pending recovery. Use OPNDST OPTCD=RESTORE to restore the session and reissue the request.

RTNCD	FDB2	Explanation
20(X'14')	134(X'86')	Existing session prevents successful completion of this operation

One of the following applies:

- You issued CHANGE OPTCD=ENDAFFIN to terminate the association between your application program and the specified LU. At least one session exists between the specified LU and the application program; all sessions with the partner LU must be ended before the association can be terminated.
- You issued SETLOGON OPTCD=GNAMEADD to register your application as a generic resource, but a session exists already.

RTNCD	FDB2	Explanation
20(X'14')	135(X'87')	Resource name and generic name are the same

You attempted to issue either SETLOGON OPTCD=GNAMEADD, SETLOGON OPTCD=GNAME SUB, or SETLOGON OPTCD=GNAMEDEL using a generic name that was the same as the application network name; they must be different.

RTNCD	FDB2	Explanation
20(X'14')	136(X'88')	No association matching the given criteria exists.

## RTNCD and FDB2 Return Code Combinations

You issued either CHANGE OPTCD=ENDAFFIN or INQUIRE OPTCD=SESSNAME, but the values specified in the NIB do not correspond to any known association.

RTNCD	FDB2	Explanation
20(X'14')	137(X'89')	Generic name not authorized

The generic name has not been authorized using a security management product such as RACF.

RTNCD	FDB2	Explanation
20(X'14')	138(X'8A')	Application program already registered

The application program is registered already as a generic resource, but with a different name.

RTNCD	FDB2	Explanation
20(X'14')	139(X'8B')	SETLOGON OPTCD=GNAMEDEL not valid

You used SETLOGON OPTCD=GNAMEDEL to deregister generic resources but VTAM determined that generic mapping does not exist; no VTAM message is issued.

RTNCD	FDB2	Explanation
20(X'14')	140(X'8C')	Network identifiers conflict for this generic resource.

This generic resource exists already with another network identifier.

RTNCD	FDB2	Explanation
20(X'14')	141(X'8D')	Simultaneous generic resource registration in progress

Two applications with the same application network name are simultaneously attempting to register a generic name.

RTNCD	FDB2	Explanation
20(X'14')	142(X'8E')	APPC capabilities conflict

All applications registering as generic resources must have the same APPC capabilities specified on their APPL statements.

RTNCD	FDB2	Explanation
20(X'14')	143(X'8F')	Deletion of VTAM affinity rejected

VTAM owns the affinity. Your application cannot delete it.

RTNCD	FDB2	Explanation
20(X'14')	144(X'90')	USERVAR conflict while registering generic resources

## RTNCD and FDB2 Return Code Combinations

You issued SETLOGON OPTCD=GNAMEADD to register generic resources. VTAM detected a conflict (the generic resource exists already as a USERVAR name).

RTNCD	FDB2	Explanation
20(X'14')	145(X'91')	TSO GENERIC NAME CONFLICT

Either a non-TSO application is attempting to use the generic name already being used by TSO, or TSO is attempting to use the generic name already being used by a non-TSO application.

RTNCD	FDB2	Explanation
20(X'14')	146(X'92')	SETLOGON G NAMESUB FAILURE

A SETLOGON OPTCD=G NAMESUB macroinstruction failed for one of the following reasons:

- SETLOGON OPTCD=GNAMEADD was previously issued for this ACB.
- SETLOGON OPTCD=G NAMESUB was previously issued for this ACB.
- The application program network name specified in the VTAM node identification block (NIB) either was not found or was not an instance of the generic name specified in the NIB.

RTNCD	FDB2	Explanation
20(X'14')	147(X'93')	STOKEN not valid.

PROC=STOKEN is specified and the NIBSTKN field contains zeros or blanks. NIBSTKN must contain a valid STOKEN.

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## RTNCD and FDB2 information for LU 6.2

While most of the LU 6.2 feedback information from errors is found in the RCPRI and RCSEC fields, some error return codes in the RPL RTNCD and FDB2 fields are meaningful for LU 6.2 applications. The X'00', X'0B' combination in the RPL indicates some problem might have occurred while the macro was executing. RCPRI and RCSEC should be used for further diagnosis. The other RTNCD, FDB2 combinations refer to attempts to start an LU 6.2 session independent of VTAM or attempts to use non-APPCCMD macros for APPCCMD functions. Following are the relevant codes.

RTNCD	FDB2	ISTUSFBC EQU label	Meaning
X'00'	X'0B'	USF6APPC	CONDITIONAL COMPLETION FOR APPCCMD

Some type of error might have occurred on an APPCCMD macro. For further problem determination, refer to the primary and secondary return codes in the RPL extension. These fields are RPL6RCPR and RPL6RCSC.

## RTNCD and FDB2 Return Code Combinations

RTNCD	FDB2	ISTUSFBC EQU label	Meaning
X'04'	X'05'	USFNQN	SYMBOLIC NAME KNOWN BY NETWORK-QUALIFIED NAME ONLY

A real-to-symbolic translation request is made, and NIBNET is filled in with a network identifier, but VTAM cannot provide a symbolic name. VTAM knows this resource only by its network-qualified name. No symbolic name represents this resource. Do one of the following:

- Use the network-qualified name.
- Define a symbolic name to represent this resource.

RTNCD	FDB2	ISTUSFBC EQU label	Meaning
X'10'	X'13'	USF6APRJ	ATTEMPT TO START 6.2 SESSION: REQUEST REJECTED

An LU 6.2 application program has tried to start an LU 6.2 session independent of VTAM. No pending sessions have been disturbed. This occurs when an OPNDST is issued with an LU 6.2 user-specified BIND.

RTNCD	FDB2	ISTUSFBC EQU label	Meaning
X'10'	X'14'	USF6APST	ATTEMPT TO START 6.2 SESSION: PENDING SESSION TERMINATED

An LU 6.2 application program has tried to start an LU 6.2 session independent of VTAM. The pending session has been terminated. This occurs when the LOGMODE specified on an OPNDST resolves to an LU 6.2 BIND or when OPNSEC is issued for an LU 6.2 BIND.

RTNCD	FDB2	ISTUSFBC EQU label	Meaning
X'10'	X'15'	USF6APIS	AN APPCCMD MUST BE ISSUED

An OPNDST or CLSDST has been issued for a pending LU 6.2 session. An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS or QUALIFY=DACTSESS macro must be issued for this session.

RTNCD	FDB2	ISTUSFBC EQU label	Meaning
X'14'	X'7F'	USF6PENA	POLICING ERROR — NON-APPC MACRO

An application program issued a non-APPCCMD macro to establish an LU 6.2 session, or issued a non-APPCCMD macro against a current LU 6.2 session.

## RCPRI and RCSEC return codes for LU 6.2

VTAM passes feedback return codes to the LU 6.2 application program in a variety of ways. The principal feedback mechanism is the RCPRI and RCSEC return code fields in the RPL extension. These fields have meaning only when Register 15 is set to X'00' and Register 0 is set to X'0B'. These values are also the values of the RPL RTNCD and FDB2 fields, respectively.

For a general discussion of how register contents relate to RPL feedback fields, see *z/OS Communications Server: SNA Programmer's LU 6.2 Guide*.

The RPL extension contains two fields in which return code information is passed to the application program at the completion of an APPCCMD macroinstruction execution. The two fields are RPL6RCPRI and RPL6RCSEC, and together they indicate the result of the macroinstruction execution, including any state changes to the specified conversation. The RCPRI field returns a primary return code to the application; the RCSEC field returns a secondary return code to the application. Some RCPRI codes do not have associated RCSEC subcodes. For these RCPRI codes, the RCSEC field is set to X'0000'.

Some of the (RCPRI, RCSEC) return codes indicate the results of the local VTAM's processing of the macroinstruction; these return codes are returned on the APPCCMD that invoked the local processing. Other (RCPRI, RCSEC) return codes indicate the results of processing invoked at the remote end of the conversation and, depending upon the CONTROL and QUALIFY settings of the APPCCMD, can be returned on the APPCCMD that invoked the remote processing or on a subsequent APPCCMD. Still other return codes report events that originate at the remote end of the conversation.

The RCPRI and RCSEC codes are described below. Each description includes the meaning of the code, the reason for the condition indicated by the code, when the code can be reported to the application program, and the state of the conversation (if applicable) when the function of the APPCCMD completes. Actions taken by the local application program are discussed in the following return code descriptions in terms of APPCCMD macroinstructions; actions taken by the remote LU or transaction program are described more generically using the architected protocol boundary verbs documented in the LU 6.2 architecture.

**Note:** Some application programs change the hexadecimal values from the RCPRI, RCSEC fields to decimal values. You may need to convert these back to hexadecimal values for problem determination.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	(all)	USF6OK	OK

The local application program issued an APPCCMD macroinstruction that executed without error. The function defined for the APPCCMD was performed as specified.

The OK RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the application; the RCSEC subcode provides additional information.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0000'	USF6OKSC	OK

The APPCCMD completed successfully and no additional information is defined for the APPCCMD. If a conversation-related macroinstruction is issued, the conversation state can be found in the CONSTATE field. Whenever this RCPRI,RCSEC combination is present, registers 15 and 0 are also set to 0.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0001'	USF6ASSP	AS SPECIFIED

The CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction were accepted by the partner LU as specified, without negotiation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0002'	USF6ASNG	AS NEGOTIATED

One or more of the CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was changed by negotiation with the partner LU. The values are returned to the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction. (The macroinstruction description defines which values can be negotiated.)

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0003'	USF6RCVR	RECEIVE SPECIFIC REJECTED

An APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC or APPCCMD CONTROL=RECEIVE, QUALIFY=ISPEC macroinstruction was rejected because an APPCCMD CONTROL=RECEIVE, QUALIFY=ANY or APPCCMD CONTROL=RECEIVE, QUALIFY=IANY macroinstruction is currently being processed on this conversation. There is no state change. See the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide* for more information on the APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC|ISPEC and APPCCMD CONTROL=RECEIVE, QUALIFY=ANY|IANY macroinstructions.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0004'	USF6SNGL	PARTNER LU SUPPORTS SINGLE SESSION

VTAM has determined that the partner LU supports only single sessions. If the session limit you specified was greater than 1, or if you did not specify a session limit, then the default values of 1, 0, 0 were used for your CNOS request.

## RCPRI and RCSEC Return Codes for LU 6.2

If the partner LU indicated single-session capability using a negative BIND response, the partner LU's name will be missing from the Userdata subfield of the BIND. When the application program issues an APPCCMD CONTROL=OPRCNTL, QUALIFY=DISPLAY macroinstruction, it should verify the presence of the partner LU's fully qualified name. If the FQNLLEN field is 0, the partner LU's name is not available. Check the FQNLLEN field before checking the FQNAME field.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0005'	USF61NER	INTERNAL VTAM ERROR

VTAM rejected the APPCCMD CONTROL=REJECT, QUALIFY=SESSION macroinstruction because of an internal error other than a storage shortage condition.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0006'	USF6RSUN	RESTORE_UNNECESSARY— NO_MODES_TO_RESTORE

The APPCCMD CONTROL=OPRCNTL,QUALIFY=RESTORE macroinstruction is unnecessary. The associated mode (or modes) has been restored already, or nothing existed to restore.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0007'	USF6RSIN	RESTORE_INCOMPLETE— INPUT_WORK_AREA_TOO_SMALL

The APPCCMD CONTROL=OPRCNTL,QUALIFY=RESTORE macroinstruction is incomplete. The AREA supplied is too small to hold all the information that needs to be returned. Reissue the macroinstruction one or more times to obtain all the restore information and to complete the restore.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0008'	USF6NINA	NO IMMEDIATELY AVAILABLE INFORMATION

An APPCCMD that requested the immediate return of available information was issued. However, no information that could satisfy the request was available.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'0009'	USF6RTEC	REQUEST TERMINATED BY END OF CONVERSATION

An APPCCMD was awaiting processing or awaiting the arrival of information or a response on a specific conversation. The command has terminated because the conversation ended before the requested information became available or before it could be processed.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'000A'	USF6ANMS	SESSIONS WILL USE APPL NAME, GENERIC NAME REQUESTED

Use of the generic resource name was requested but the application network name is required.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'000B'	USF6GNMS	SESSIONS WILL USE GENERIC NAME, APPL NAME WAS REQUESTED

Use of the application network name was requested but the generic resource name is required.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'000C'	USF6NAM1	AS SPECIFIED, PARTNER LU KNOWN BY DIFFERENT NAME

The CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction were acceptable by the partner LU as specified, without negotiation. Furthermore, the CNOS operation caused an LU entry of type RCVD\_NAME to be changed to a VARIANT\_NAME entry in the LU-mode table. For more information, see the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide*.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0000'	X'000D'	USF6NAM2	AS NEGOTIATED, PARTNER LU KNOWN BY DIFFERENT NAME

One or more of the CNOS values supplied by the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was changed by negotiation with the partner LU. The values are returned to the application program on the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction. (The macroinstruction description defines which values can be negotiated.) Furthermore, the CNOS operation caused an LU entry of type RCVD\_NAME to be changed to a VARIANT\_NAME entry in the LU-mode table. For more information, see the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide*.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	(all)	USF6ALLC	ALLOCATION ERROR

The application program issued APPCCMD CONTROL=ALLOC and allocation of the specified conversation could not be completed. When the

## RCPRI and RCSEC Return Codes for LU 6.2

ALLOCATION\_ERROR RCPRI code is used with one of the following RCSEC subcodes (X'0000'–X'000F'), they form the complete return code that is returned to the program. The RCSEC subcode identifies the specific error. (The partner LU and remote transaction program referred to in the following RCSEC definitions are the LU named in the LUNAME field of the APPCCMD, and the transaction program named in the FMH-5 supplied through the AREA field of the APPCCMD, respectively.)

If the partner LU detects the error that causes an ALLOCATION\_ERROR RCPRI code to be returned to the application, the error indicator sent by the partner LU can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If an ALLOCATION\_ERROR RCPRI code is returned to the application along with LOGRCV=YES, the conversation should issue APPCCMD CONTROL=RECEIVE, QUALIFY=SPEC to receive the error log data. When the error log data is received, the conversation is over.

If an ALLOCATION\_ERROR RCPRI code is returned to the application along with LOGRCV=NO, the conversation is in END\_CONV state.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0000'	USF6ALNR	ALLOCATION FAILURE NO RETRY

The conversation cannot be allocated on a session because of a permanent condition. For example, the session to be used for the conversation cannot be activated for one of the following reasons:

- The mode is closed; the current session limit is 0.
  - CNOS has not been negotiated and no entry has been created for the mode.
  - A previous CNOS request has set limits to 0.
- A system definition error.
- A session-activation protocol error.

The session also might be deactivated because of a session protocol error before the conversation could be allocated. The application program should not retry the allocation request until the condition is corrected. The application should check the returned SENSE field in the RPL extension for an indication of the exact error.

If this code occurs when issuing a DISPLAY APING operator command, the session may have been deactivated as a result of processing a received APING request for the same mode. Reissue the operator command.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0001'	USF6ALR	ALLOCATION FAILURE RETRY

The conversation cannot be allocated on a session because of a temporary condition. For example, the session to be used for the conversation cannot be activated because of a temporary lack of resources at the remote LU; or the session was deactivated because of session outage before the conversation could be allocated. The condition is temporary, and the program can retry the allocation request.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0002'	USF6ALCM	CONVERSATION TYPE MISMATCH

The partner LU rejected the allocation request because the remote transaction program does not support the respective mapped or basic protocol boundary. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0003'	USF6ALPI	PIP NOT ALLOWED

The partner LU rejected the allocation request because the local application program provided program initialization parameter (PIP) data (along with the FMH-5) and either the partner LU does not support PIP data, or the remote transaction program has no PIP variables defined. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0004'	USF6ALPP	PIP NOT SPECIFIED CORRECTLY

The partner LU rejected the allocation request because the remote transaction program has one or more PIP variables defined and the local application program provided no program initialization parameters, or the local application program specified program initialization parameters (along with the FMH-5) that do not correspond in number to those defined for the remote transaction program. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0005'	USF6ALSC	SECURITY NOT VALID

The partner LU rejected the allocation request because the access security information supplied by the local application (in the FMH-5) is not valid. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0006'	USF6ALSY	SYNC LEVEL NOT SUPPORTED BY LU

The partner LU rejected the allocation request because the synchronization level specified in the allocation request is not supported by both the local and partner LU. The local LU specifies its level of synchronization support on its APPL statement. The partner LU has returned the negotiated level between the two LUs in the BIND response. This return code is returned on the APPCCMD CONTROL=ALLOC

## RCPRI and RCSEC Return Codes for LU 6.2

macroinstruction for the local LU.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0007'	USF6ALSL	SYNC LEVEL NOT SUPPORTED BY PROGRAM

The partner LU rejected the allocation request because the local application program specified a synchronization level (in the FMH-5) that the remote transaction program does not support. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0008'	USF6ALTP	TPN NOT RECOGNIZED

The partner LU rejected the allocation request because the local application program specified a remote transaction program name (TPN) that the partner LU does not recognize. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0009'	USF6ALTN	TRANSACTION PROGRAM NOT AVAILABLE, NO RETRY

The partner LU rejected the allocation request because the local application program specified a remote transaction program that the partner LU recognizes but cannot start. The condition is not temporary, and the application should not retry the allocation request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'000A'	USF6ALTR	TRANSACTION PROGRAM NOT AVAILABLE, RETRY

The partner LU rejected the allocation request because the local application specified a remote program that the remote LU recognizes but currently cannot start. The condition is temporary, and the application can retry the allocation request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'000B'	USF6ALRN	CANNOT RECONNECT TRANSACTION PROGRAM, NO RETRY

The partner LU rejected the reconnection request because it does not recognize the conversation correlator. The condition is not temporary, and the application should not retry the reconnection request. This return code is returned on an APPCCMD

## RCPRI and RCSEC Return Codes for LU 6.2

subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'000C'	USF6ALRR	CANNOT RECONNECT TRANSACTION PROGRAM, RETRY

The partner LU rejected the reconnection request because it currently cannot reconnect the remote transaction program implied by the conversation correlator. The condition is temporary, however, and the application can retry the reconnection request. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'000D'	USF6ALNS	RECONNECT NOT SUPPORTED BY PROGRAM

The partner LU rejected the allocation request because the local application program specified a recovery level of program reconnect (in the FMH-5) and the remote transaction program does not support program reconnect. This return code is returned on an APPCCMD subsequent to APPCCMD CONTROL=ALLOC.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'000E'	USF6SPMA	MODE MUST BE RESTORED BEFORE USING

The APPCCMD CONTROL=ALLOC macroinstruction is rejected because the specified mode name is pending recovery for persistent LU-LU sessions. Restore the mode by issuing APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'000F'	USF6DARQ	DEALLOCATION REQUESTED

The allocation request has been cancelled before its normal processing could be completed. The local application program issued a request for abnormal deallocation of the pending conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0010'	USF6ALSF	ALLOCATION ERROR - SYNCH LEVEL NOT VALID FOR FULL-DUPLEX

The allocation request has been rejected because it specifies a full-duplex conversation with a sync point level not allowed for a full-duplex conversation.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0004'	X'0011'	USF6LNSF	ALLOCATION ERROR - LU PAIR NOT SUPPORTING FDX CONVERSATION

The allocation request has been rejected because it specifies a full-duplex conversation and the negotiated level of support between the local application and the partner LU does not allow full-duplex conversations.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	(all)	USF6CNSA	CNOS FAILURE

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not process successfully. The CNOS\_ALLOCATION\_ERROR RCPRI code together with one of the following RCSEC subcodes (X'0000'–X'0006') form the complete return code that is returned to the transaction program. The RCSEC subcode identifies the specific error. The local and partner LUs' CNOS parameters are not changed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0000'	USF6CANR	ALLOCATION FAILURE NO RETRY

The control operator conversation cannot be allocated because of a condition that is not temporary. For example, the session to be used for the control operator conversation cannot be activated because the session limit for the specified partner LU and SNASVCMG mode name is currently 0 at either the local LU or partner LU; or because of a system definition error or a session-activation protocol error; or because a session protocol error caused the session to be deactivated before the conversation could be allocated. The CNOS will not be able to complete successfully until the condition is corrected. This code can also be returned if a partner LU rejects a SNASVCMG mode name BIND.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0001'	USF6CAR	ALLOCATION FAILURE RETRY

The control operator conversation cannot be allocated because of a temporary condition. For example, the session to be used for the control operator conversation cannot be activated because of a temporary lack of resources at the local LU or partner LU, or the session was deactivated because of session outage before the conversation could be allocated. The condition is temporary, and the control operator can retry the transaction later.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0002'	USF6CATR	TRANSACTION PROGRAM NOT AVAILABLE, RETRY

## RCPRI and RCSEC Return Codes for LU 6.2

The partner LU is currently unable to start the transaction program identified as hex 06F1, which is the SNA service transaction program for the control operator. For example, there can be a temporary lack of resources the partner LU needs to start the transaction program. The condition is temporary, and the control operator can retry the transaction later.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0003'	USF6CATN	TRANSACTION PROGRAM NOT AVAILABLE, NO RETRY

The partner LU is unable to start the transaction program identified as X'06F1', which is the SNA service transaction program for the control operator. The condition is not temporary, and the application should not retry the CNOS request.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0004'	USF6CACM	CONVERSATION TYPE MISMATCH

The partner LU rejected the CNOS conversation allocation request because the remote transaction program does not support the respective mapped or basic protocol boundary.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0005'	USF6CASC	SECURITY NOT VALID

The partner LU rejected the CNOS conversation allocation request because the access security information supplied by VTAM (in the FMH-5) is invalid.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0006'	USF6SPMC	MODE MUST BE RESTORED BEFORE USING

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction is rejected because the specified mode name is pending recovery for persistent LU-LU sessions. Restore the mode by issuing APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE. New modes can be added once the SNASVCMG mode for an LU has been restored, but any mode that exists when the failure (or takeover) occurs cannot be used until that mode has been restored.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0008'	X'0007'	USF6NQNM	NETWORK QUALIFIED NAME MISMATCH

The name on an APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was an ACB name. The ACB name is not identical to the network resource name. ACB names cannot be used in cross-domain, cross-network, or network qualified. For information on coding the ACBNAME operand, see the z/OS

## RCPRI and RCSEC Return Codes for LU 6.2

*Communications Server: SNA Resource Definition Reference.*

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'000C'	X'0000'	USF6CNSN	CNOS RESOURCE FAILURE, NO RETRY

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because of a failure that caused the control operator conversation to be deallocated prematurely. For example, the session being used for the control operator conversation was deactivated for one of the following reasons:

- A session protocol error
- A session outage from which the control operator component of the LU could not recover.

The conversation also might be deallocated because of a protocol error between the control operator components of the LUs. The condition is not temporary, and the control operator should not retry the transaction until the condition is corrected. The CNOS parameters remain unchanged at the local LU, or both the local and partner LUs, depending on when the failure occurred.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0010'	(all)	USF6CRRJ	COMMAND RACE REJECT

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because two CNOS operations caused contention for the needed resources.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0010'	X'0000'	USF6CRPR	PARTNER GRANTED RETRY

Both LUs initiated a CNOS negotiation for the same mode at the same time. The partner LU will retry the CNOS request. VTAM fails the CNOS request from the local LU.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0010'	X'0001'	USF6CRLR	CONTROL OPERATOR FOR LOCAL LU RETRIED

Both LUs initiated CNOS processing for the same mode at the same time. VTAM failed the partner's CNOS attempt, and the local LU was given permission to retry the CNOS request. VTAM attempted CNOS processing again but the subsequent CNOS negotiation failed as well. VTAM was forced to fail the local LU's CNOS request.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0010'	X'0002'	USF6PCIP	PARTNER CNOS IN PROGRESS

## RCPRI and RCSEC Return Codes for LU 6.2

The partner LU has already begun processing a CNOS for the same mode name, and its processing will continue uninterrupted. The application program must reissue this APPCCMD for it to be processed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0010'	X'0003'	USF6LPSS	LU IN PENDING SINGLE STATE

The CNOS negotiation cannot be attempted at this time because the partner LU has initiated a CNOS request for the same mode. The partner LU might be a single-session-capable LU. The local LU cannot issue a CNOS request until the CNOS request initiated by the partner LU completes.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0010'	X'0004'	USF6PLSS	PARTNER LU STARTING SESSION

A partner LU that provides only single-session support is currently initiating a session. Because only one session can be active at a time, the application program's CNOS request is rejected. The application program can retry the CNOS command later.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0014'	X'0000'	USF6DABP	DEALLOCATE ABEND PROGRAM

The remote transaction program issued a DEALLOCATE verb, as defined in the LU 6.2 architecture, specifying the TYPE(ABEND\_PROG) parameter, or the remote LU did so because of a remote transaction program abend condition. If the conversation for the remote transaction program was in a state in which information can be received when the DEALLOCATE was issued, information sent by the local application and not yet received by the remote transaction program was purged. This return code can be reported to the local application on any APPCCMD macroinstruction that can process the error notification on a half-duplex conversation. This return code can only be reported on an APPCCMD CONTROL=RECEIVE on a full-duplex conversation. The error indicator sent by the partner LU to specify the DEALLOCATE\_ABEND\_PROGRAM condition can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If a DEALLOCATE\_ABEND\_PROGRAM RCPRI code is returned to the application along with LOGRCV=YES, the conversation should issue APPCCMD CONTROL=RECEIVE, QUALIFY=SPECISPEC to receive the error log data. The conversation is then ended. If a DEALLOCATE\_ABEND\_PROGRAM RCPRI code is returned to the application along with LOGRCV=NO, the conversation is ended.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0018'	X'0000'	USF6DABS	DEALLOCATE ABEND SERVICE

The remote transaction program issued a DEALLOCATE verb, as described in the LU 6.2 architecture, specifying the TYPE(ABEND\_SVC) parameter. If the

## RCPRI and RCSEC Return Codes for LU 6.2

conversation for the remote transaction program was in a state in which information can be received when the DEALLOCATE was issued, information sent by the local application and not yet received by the remote transaction program was purged. This return code can be reported to the local application on any APPCCMD macroinstruction that can process the error notification on a half-duplex conversation. This return code can only be reported on an APPCCMD CONTROL=RECEIVE on a full-duplex conversation. The error indicator sent by the partner LU to specify the DEALLOCATE\_ABEND\_SERVICE condition can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If a DEALLOCATE\_ABEND\_SERVICE RCPRI code is returned to the application along with LOGRCV=YES, the conversation is in PEND\_END\_CONV\_LOG or PEND\_RESET\_LOG state. If a DEALLOCATE\_ABEND\_SERVICE RCPRI code is returned to the application along with LOGRCV=NO, the conversation is in END\_CONV or FDX\_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'001C'	X'0000'	USF6DABT	DEALLOCATE ABEND TIMER

The remote transaction program issued a DEALLOCATE verb, as described in the LU 6.2 architecture, specifying the TYPE(ABEND\_TIMER) parameter. If the conversation for the remote program was in a state in which information can be received when the DEALLOCATE was issued, information sent by the local application program and not yet received by the remote transaction program was purged. This return code can be reported to the local program on any APPCCMD macroinstruction that can process the error notification on a half-duplex conversation. This return code can only be reported on an APPCCMD CONTROL=RECEIVE on a full-duplex conversation. The error indicator sent by the partner LU to specify the DEALLOCATE\_ABEND\_TIMER condition can specify that error log data follows the error indicator. The error log data indicator is returned to the application program in the LOGRCV field of the completed macroinstruction. If a DEALLOCATE\_ABEND\_TIMER RCPRI code is returned to the application along with LOGRCV=YES, the conversation is in PEND\_END\_CONV\_LOG or PEND\_RESET\_LOG state. If a DEALLOCATE\_ABEND\_TIMER RCPRI code is returned to the application along with LOGRCV=NO, the conversation is in END\_CONV or FDX\_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0020'	X'0000'	USF6CNSR	CNOS FAILURE, RETRY

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued and a conversation was begun with the partner LU. However, a failure occurred that caused the conversation to be prematurely terminated. For example, the session being used for the conversation was deactivated because of a session outage, such as a line failure or a modem failure. The condition is temporary, and the application can retry the transaction.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0024'	X'0000'	USF6LRBE	LOGICAL RECORD BOUNDARY ERROR

## RCPRI and RCSEC Return Codes for LU 6.2

The application program began sending a logical record before the previous logical record was sent in its entirety. The conversation state does not change.

For macroinstructions that use the QUALIFY=DATAON keyword, the data that was to be sent with the confirmation request is held. The application program must either furnish more data to finish the logical record, or truncate the incomplete record. The application cannot immediately send more data to complete the logical record, but must explicitly flush the send buffer and then send data to complete the logical record.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0028'	X'0000'	USF6SLCL	LU MODE SESSION LIMIT CLOSED

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because the partner LU currently will not allow the session limit for the specified mode name to be raised above 0. The session limit remains at 0. This condition is not necessarily permanent; the control operator can retry the CNOS transaction later.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	(all)	USF6PARAM	PARAMETER ERROR

VTAM rejected the APPCCMD because one of the RPL, RPL extension, or session limits structure fields specified in the APPCCMD contained a value that was not valid. The PARAMETER\_ERROR RCPRI code together with the following RCSEC subcodes (X'0000'–X'002D') form the complete return code that is returned to the application. The subcode identifies the specific error. This RCPRI code is returned on the APPCCMD that contained the parameter that was not valid. When this RCPRI code is returned on a conversation APPCCMD macroinstruction (that is, a macroinstruction that does not specify CONTROL=OPRCNTL), the state of the conversation remains unchanged. When this RCPRI code is returned on an APPCCMD CONTROL=OPRCNTL macroinstruction, the local and partner LUs' CNOS parameters are not changed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0000'	USF6IVLU	INVALID LU NAME OR NETWORK IDENTIFIER

The APPCCMD specified an unrecognized partner LU name or network identifier.

This combination of return codes might result if VTAM does not find the LU name for a partner in the LU-mode table. The partner LU name and the (logon) mode name are added to the dynamically built LU-mode table during CNOS negotiation. To initiate CNOS negotiation, the application program issues the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction and specifies the LU name and logon mode (LOGMODE) name to be used during communication.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0001'	USF6IVMD	INVALID MODE

The APPCCMD specified an unrecognized logmode name, or the logmode name is not allowed for the LU-LU pair.

This combination of return codes might occur if the LU name specified for a conversation allocation request is present in the LU-mode table but the (logon) mode name is not present. The partner LU name and the (logon) mode name are added to the dynamically built LU-mode table during CNOS negotiation. To initiate CNOS negotiation, the application program issues the APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction and specifies the LU name and logon mode (LOGMODE) name to be used during communication.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0002'	USF6IVCI	INVALID CONVERSATION

The APPCCMD specified an unassigned conversation ID, or the RPL used for the request specified an ACB other than the one associated with the conversation assigned that CONVID. The value specified might have been a valid CONVID, but the conversation might not be active.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0003'	USF6IVLL	INVALID LL

The data provided by the application program on an APPCCMD CONTROL=SEND, an APPCCMD CONTROL=PREPRCV, or an APPCCMD CONTROL=DEALLOC macroinstruction contained an invalid logical record length (LL) value of X'0000', X'0001', X'8000', or X'8001'. An LL value of hex 0001, which indicates that the data contains a presentation services (PS) header for sync point, is allowed only on conversations with a synchronization level of sync point.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0004'	USF6IVSV	INVALID VALUES FOR SNASVCMG MODE

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued and the values specified for the SESSLIM, MINWINL, and MINWINR do not specify (2,1,1) or (0,0,0), respectively.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0005'	USF6IVDL	INVALID DRAINL CHANGE

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued, NBRMODE=ONE and DRAINL=YES were specified, the session limit in effect when the APPCCMD was issued was 0, and DRAINL=NO was in effect when

## RCPRI and RCSEC Return Codes for LU 6.2

the APPCCMD was issued. (The application program attempted to change DRAINL from NO to YES on an APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction when session limits were 0.)

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0006'	USF6SNAR	SNASVCMG MODE CANNOT CURRENTLY BE RESET

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction is issued, the SNASVCMG mode name is specified, and either one or more session limits for the mode name group for the partner LU is not 0; or one or more session limits for the mode name group for the partner LU is 0, but draining is enabled.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0007'	USF6MMEX	MINWINL PLUS MINWINR EXCEEDS SESSLIM

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS or QUALIFY=DEFINE macroinstruction was issued and either the sum of MINWINL plus MINWINR is greater than the SESSLIM value specified, or the sum of DMINWNL plus DMINWNR is greater than the DSESLIM value specified.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0008'	USF6LNIN	SUPPLIED LENGTH INSUFFICIENT

The application issued one of the following macroinstructions:

- APPCCMD CONTROL=RCVEXPD
- APPCCMD CONTROL=RCVFMH5
- APPCCMD CONTROL=RECEIVE,OPTCD=XBUFLST
- APPCCMD CONTROL=OPRCNTL,QUALIFY=ACTSESS
- APPCCMD CONTROL=OPRCNTL,QUALIFY=DISPLAY
- APPCCMD CONTROL=OPRCNTL,QUALIFY=RESTORE
- APPCCMD CONTROL=TESTSTAT.

The data area or data length was not suitable as indicated in the following:

### RECEIVE,OPTCD=XBUFLST

The area specified is not large enough to hold one extended buffer list entry.

### RCVEXPD

Data area is too small to contain all the expedited data.

### RCVFMH5

Data area is too small to contain the next available FMH-5

### QUALIFY=ACTSESS

Data length indicated in the supplied session parameters was larger than the amount of data provided or exceeds the maximum size allowed

### QUALIFY=DISPLAY

Data area is too small to contain the DEFINE/DISPLAY (ISTSLD) structure

## RCPRI and RCSEC Return Codes for LU 6.2

### QUALIFY=RESTORE

Data area is too small to contain the RESTORE (ISTREST) structure

### TESTSTAT

Data area is too small to contain the status data structure (ISTSTATD).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0009'	USF6INSL	INCOMPLETE STRUCTURE SUPPLIED

The application program issued one of the following macroinstructions:

- APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS
- APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS
- APPCCMD CONTROL=OPRCNTL, QUALIFY=DEFINE.

The data length was not suitable as indicated in the following:

### QUALIFY=ACTSESS

Data length provided was less than the minimum size for the session parameters

### QUALIFY=CNOS

Data length provided was less than the minimum size for the session limits structure (ISTSLCNS)

### QUALIFY=DEFINE

Data length provided was less than the minimum size for the DEFINE/DISPLAY (ISTSLD) structure

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'000A'	USF6INFM	INCOMPLETE FMH5 SUPPLIED

The application program issued APPCCMD CONTROL=ALLOC, but did not supply an entire FMH-5.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'000B'	USF6INGD	INCOMPLETE GDS VARIABLE SUPPLIED

The application program issued an abnormal termination APPCCMD deallocation macroinstruction, but did not supply an entire GDS variable.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'000C'	USF60EXT	ZERO EXIT FIELD

The RPL specified that the ECB-EXIT field is being used as an EXIT field, but the RPL exit routine address in the field is zero. No RPL exit routine has been scheduled.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'000D'	USF60ECB	ZERO ECB FIELD

The RPL specified that the ECB-EXIT field is being used to point to an external ECB, but the address in the field is zero. No ECB has been posted.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'000E'	USF6RIAS	REQUEST INVALID FOR ADDRESS SPACE

A macroinstruction was issued in other than the ACB address space.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'000F'	USF6CBIN	CONTROL BLOCK INVALID

The RPL's ACB field does not contain the address of a valid ACB or the ACB is closed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0010'	USF6INDL	INVALID DATA ADDRESS OR LENGTH

An APPCCMD was issued that specified a work area address that is beyond the addressable range of the application program.

If using a buffer list or extended buffer list to send data, check entries to ensure that the length field does not contain any negative values.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0011'	USF6PRVO	PREVIOUS MACROINSTRUCTION OUTSTANDING

An APPCCMD is issued that specifies a conversation resource while an outstanding macroinstruction that targets the same conversation and processes on the same conversation queue is pending completion, or an APPCCMD CONTROL=OPRCNTL is issued while an outstanding operator control APPCCMD that targets the same LU is pending completion. Wait until the first macroinstruction completes or coordinate this request with the one that is outstanding. For additional information on conversation queues, see the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide*.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0012'	USF6BLIV	BUFFER LIST LENGTH INVALID

## RCPRI and RCSEC Return Codes for LU 6.2

The RECLLEN field of the RPL was not valid.

For the following macroinstructions, the RECLLEN field must be a nonzero multiple of 16:

- APPCCMD CONTROL=DEALLOC, OPTCD=BUFFLST
- APPCCMD CONTROL=PREPRCV, OPTCD=BUFFLST
- APPCCMD CONTROL=SEND, OPTCD=BUFFLST
- APPCCMD CONTROL=SENDEXPD, OPTCD=BUFFLST
- APPCCMD CONTROL=SENDRCV, OPTCD=BUFFLST.

For the following macroinstructions, the RECLLEN field must be a nonzero multiple of 48:

- APPCCMD CONTROL=DEALLOC, OPTCD=XBUFLST
- APPCCMD CONTROL=PREPRCV, OPTCD=XBUFLST
- APPCCMD CONTROL=SEND, OPTCD=XBUFLST

For the APPCCMD CONTROL=SENDRCV, OPTCD=XBUFLST macroinstruction, the value for RECLLEN minus 16 must be a nonzero multiple of 48.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0013'	USF6NOMD	NO CORRESPONDING MODE IN LM TABLE

The application program issued one of the following macroinstructions:

- APPCCMD CONTROL=OPRCNTL, QUALIFY=DISPLAY
- APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE.

The application program also specified a mode name for which no corresponding entry exists in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0014'	USF6IVBP	INVALID BIND PARAMETERS

The application program issued an APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS and specified a set of BIND parameters that were not valid, or the parameters in the BIND that was received were not valid.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0015'	USF6IVTP	INVALID TPN

The application program issued an APPCCMD CONTROL=ALLOC with an FMH-5 that contained a transaction program name that was reserved or not valid, such as X'06F1', which is the SNA service transaction program for the control operator.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0016'	USF6NOLU	NO CORRESPONDING LU IN LM TABLE

## RCPRI and RCSEC Return Codes for LU 6.2

The application program issued one of the following macroinstructions:

- APPCCMD CONTROL=OPRCNTL, QUALIFY=DISPLAY
- APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE.

The application program also specified an LU name for which no corresponding entry exists in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0017'	USF6IMDF	INVALID MODE SPECIFIED

The application program issued an APPCCMD CONTROL=OPRCNTL, QUALIFY=DEFINE macroinstruction and specified mode name SNASVCMG.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0018'	USF6LSP	INVALID LIMIT SPECIFIED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued and one of the session limit fields was an incorrect value.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0019'	USF6SMAI	SNASVCMG MODE ALREADY INITIALIZED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued in order to initialize the SNASVCMG mode. However, it is already initialized, and no action was taken.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'001A'	USF6ALLS	ALL MODES SPECIFIED ON SINGLE SESSION LU

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued against all the mode names of the LU specified. However, the partner LU is single-session capable. Therefore, an APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction must be issued against a specific mode name.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'001B'	USF6SMSS	SNASVCMG OR CPSVCMG MODE FOR SINGLE SESSION LU

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued for the SNASVCMG or CPSVCMG mode name. However, the partner LU is single-session capable, and the SNASVCMG or CPSVCMG is not allowed.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'001C'	USF6SSMI	SINGLE SESSION, MODE ALREADY INITIALIZED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction was issued for a partner LU that is single-session capable. However, another of the LU's mode names is already initialized to nonzero session limits, and only one mode name can have nonzero session limits at a time.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'001E'	USF6CIDI	CID INVALID

The RPL's ARG field does not contain a valid session identifier (CID). You might have inadvertently modified the field or failed to set it in the first place, or you might have used the CID of a session that no longer exists.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'001F'	USF6APNA	APPCCMD ISSUED FOR NON-APPC

The application issued an APPCCMD against a non-LU 6.2 session or resource. The APPCCMD is rejected.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0020'	USF6PRRO	PREVIOUS REJECT REQUEST OUTSTANDING

An APPCCMD CONTROL=REJECT request was issued. However, a previous APPCCMD CONTROL=REJECT request has already been issued for the same resource. The later APPCCMD CONTROL=REJECT was rejected.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0021'	USF6DARJ	ABNORMAL DEALLOCATE REJECTED, RETRY

One of the following macroinstructions was issued:

- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDPROG
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDSERV
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDTIME
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDUSER.

However, a prior macroinstruction that cannot be cancelled is outstanding. The command is not allowed in this case and is rejected. This command also is not allowed to be issued when the conversation is in RECEIVE state and no data has been received for the conversation. APPCCMD CONTROL=REJECT, QUALIFY=CONV can be issued to terminate the conversation and session in this case.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0022'	USF6IVCQ	INVALID CONTROL OR QUALIFY VALUE

An undefined value for the CONTROL or QUALIFY keyword was specified, or a QUALIFY value is not valid to use with the specified CONTROL value. For CONTROL types that do not use a QUALIFY value, RPL6QUAL must be set to zero.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0023'	USF6INSI	INVALID SESSION INSTANCE IDENTIFIER

VTAM rejected an APPCCMD CONTROL=REJECT, QUALIFY=SESSION request or an APPCCMD CONTROL=SETSESS, QUALIFY=SUSPEND request or an APPCCMD CONTROL=SETSESS, QUALIFY=RESUME request because the local application specified:

- A session instance identifier for a session that was not active at the time of the request
- A session ID length that was not valid.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0024'	USF6PSHI	PS HEADER NOT SUPPLIED

VTAM rejected the APPCCMD CONTROL=SEND request because the local application did not supply a complete PS header. (For example, the PS header length and data following are missing.)

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0025'	USF6PSLI	PS HEADER LENGTH IS INSUFFICIENT

VTAM rejected the APPCCMD CONTROL=SEND request because the local application specified an insufficient PS header length (the length equals 0).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0026'	USF6NMSC	SESSION INSTANCE IDENTIFIER AND CONVERSATION IDENTIFIER MISMATCH

VTAM rejected the APPCCMD CONTROL=SETSESS, QUALIFY=SUSPEND request because the application program requested a session with APPCCMD CONTROL=SETSESS, QUALIFY=SUSPEND, but the conversation identified by CONVID was not currently assigned to the session identified by SESSID. VTAM rejected the request and nothing was suspended.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0027'	USF6IDET	INVALID DEACTIVATION TYPE CODE

VTAM rejected the APPCCMD CONTROL=REJECT, QUALIFY=SESSION request because the local application program omitted the DEACTYP parameter or specified an UNBIND deactivation type code value other than cleanup (X'0F') or protocol violation (X'FE'). The session has been successfully deactivated with UNBIND (X'0F').

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0028'	USF6NCRY	CRYPTOGRAPHY NOT ALLOWED ON MODE

An APPCCMD CONTROL=SEND, an APPCCMD CONTROL=PREPRCV, or an APPCCMD CONTROL=DEALLOC macroinstruction is rejected because CRYPT=YES is specified, and the mode does not support encryption.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0029'	USF6INLI	INVALID LIST VALUE SPECIFIED ON APPCCMD FOR RESTORE

The value for the LIST field in the RPL is not equal to NONE, ALL, or NOSESS. The keyword LIST=ALL, LIST=NONE, or LIST=NOSESS can be specified on the APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE macroinstruction.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002A'	USF6INCG	INVALID CGID VALUE SPECIFIED

A macroinstruction was issued specifying CONVGRP, but the conversation group ID (CGID) was not valid. You might have unintentionally modified the field, failed to set it correctly, or used a CGID that corresponds to a session that no longer exists.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002B'	USF6NONI	NETWORK-QUALIFIED NAME REQUIRED

NETID was not coded on the APPCCMD although PARM=(NQ NAMES=YES) was coded on the ACB macroinstruction.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002C'	USF6INEL	PARAMETER ERROR - INVALID EXPEDITED DATA LENGTH

## RCPRI and RCSEC Return Codes for LU 6.2

An APPCCMD CONTROL=SENDEXPD was issued that specified an expedited data length of zero or an expedited data length greater than the allowed maximum. The largest expedited data size that can be sent with one macroinstruction invocation is 86 bytes.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002D'	USF6INSC	PARAMETER ERROR - INVALID SENSE CODE VALUE SPECIFIED

An APPCCMD CONTROL=DEALLOCIDEALLOCQ,QUALIFY=ABNDUSER was specified with a sense code that was not an allocation or abnormal deallocation sense code value.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002E'	USF6VANV	VECTOR AREA NOT VALID

The application supplied VTAM with a vector area address that is not valid or is write-protected.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'002F'	USF6VALI	VECTOR AREA LENGTH INSUFFICIENT

The application supplied VTAM with a vector area which is smaller than the minimum required size.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0030'	USF6STNV	PARAMETER_ERROR— STORAGE_TYPE_NOT_VALID

A storage type indication was not supplied or is invalid. Storage type is required to be specified via the ISTAPC82 mapping DSECT which is mapped within the ISTAPCVL mapping DSECT.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0031'	USF6VALS	PARAMETER_ERROR— SENDRCV_SPECIFIED_WITHOUT_ OPTCD=BUFFLSTIXBUFLST

The APPCCMD CONTROL=SENDRCV was issued without specifying a buffer. OPTCD=BUFFLSTIXBUFLST is required for this macroinstruction.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0032'	USF6UNXV	PARAMETER_ERROR— UNEXPECTED_VECTOR_PROVIDED_ ON_APPCCMD

## RCPRI and RCSEC Return Codes for LU 6.2

An unexpected vector was provided on an APPCCMD request. An input vector is not defined for the APPCCMD.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0033'	USF6VNPV	PARAMETER_ERROR— A_REQUIRED_VECTOR_WAS_ NOT_PROVIDED_ OR_SPECIFIED_INCORRECTLY

A required input vector was either not provided or specified incorrectly on an APPCCMD request.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'002C'	X'0034'	USF6LNSP	PASSWORD_SUBSTITUTION_VALUE_ SET_IN_ERROR

The FMH-5 received from the application indicated password substitution in byte 4, bit 3. The session established with the partner does not support password substitution. Reissue the macroinstruction with this bit setting off.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0030'	X'0000'	USF6PENT	PROGRAM ERROR NO TRUNCATION

The remote transaction program issued an LU 6.2 SEND\_ERROR verb specifying the TYPE(PROG) parameter; the conversation for the remote program was in a sending state; and the LU 6.2 SEND\_ERROR verb did not truncate a logical record. No truncation occurs when a transaction program issues the LU 6.2 SEND\_ERROR verb before sending any logical records or after sending a complete logical record. This return code is reported to the local application program when it issues an APPCCMD CONTROL=RECEIVE macroinstruction prior to receiving any logical records or after receiving one or more complete logical records.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0034'	X'0000'	USF6PEPU	PROGRAM ERROR PURGING

The remote transaction program issued an LU 6.2 SEND\_ERROR verb, specifying the TYPE(PROG) parameter, and the conversation for the remote transaction program was in RECEIVE state. The LU 6.2 SEND\_ERROR verb might have caused information to be purged. Purging occurs when a transaction program issues the LU 6.2 SEND\_ERROR verb in RECEIVE state before receiving all the information sent by the local application, that is, all the information sent prior to the reporting of the PROGRAM\_ERROR\_PURGING return code to the local application. The purging can occur at the local LU, the remote LU, or both. No purging occurs when a transaction program issues the LU 6.2 SEND\_ERROR verb in a CONFIRM state, or in RECEIVE state after receiving all the information sent by the local application. This RCPRI code is normally reported to the local application

## RCPRI and RCSEC Return Codes for LU 6.2

on an APPCCMD it issues after sending some information to the remote transaction program. However, the RCPRI code can be reported on an APPCCMD the application issues prior to sending any information, depending on the CONTROL and QUALIFY fields of the APPCCMD and when it is issued. The conversation is in RECEIVE state.

**Note:** This code is never reported on an APPCCMD issued on a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0038'	X'0000'	USF6PETR	PROGRAM ERROR TRUNCATING

The remote transaction program issued an LU 6.2 SEND\_ERROR verb, specifying the TYPE(PROG) parameter; the conversation for the remote transaction program was in a sending state; and the LU 6.2 SEND\_ERROR verb truncated a logical record. Truncation occurs when a transaction program begins sending a logical record and then issues the LU 6.2 SEND\_ERROR verb before sending the complete logical record. This return code is reported to the local application on an APPCCMD CONTROL=RECEIVE macroinstruction issued after receiving the truncated logical record. The conversation state is unchanged.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'003C'	X'0000'	USF6SENT	SERVICE ERROR NO TRUNCATION

The remote transaction program issued an LU 6.2 SEND\_ERROR verb, specifying the TYPE(SVC) parameter; the conversation for the remote transaction program was in a sending state; and the LU 6.2 SEND\_ERROR verb did not truncate a logical record. No truncation occurs when a transaction program issues the LU 6.2 SEND\_ERROR verb before sending any logical records or after sending a complete logical record. This return code is reported to the local application on an APPCCMD CONTROL=RECEIVE macroinstruction it issues prior to receiving any logical records or after receiving one or more complete logical records. The conversation state is unchanged.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0040'	X'0000'	USF6SEPU	SERVICE ERROR PURGING

The remote transaction program issued an LU 6.2 SEND\_ERROR verb, specifying the TYPE(SVC) parameter, and the conversation for the remote transaction program was in RECEIVE state. The LU 6.2 SEND\_ERROR verb might have caused information to be purged. Purging occurs when a transaction program issues the LU 6.2 SEND\_ERROR verb in RECEIVE state before receiving all the information sent by the local application, that is, all the information sent prior to the reporting of the SERVICE\_ERROR\_PURGING return code to the local application. The purging can occur at the local LU, the remote LU, or both. No purging occurs when a transaction program issues the LU 6.2 SEND\_ERROR verb in a CONFIRM state, or in RECEIVE state after receiving all the information sent by the local application. This return code is normally reported to the local application on an APPCCMD it issues after sending some information to the remote transaction

## RCPRI and RCSEC Return Codes for LU 6.2

program. However, the return code can be reported on an APPCCMD the application issues prior to sending any information, depending on the CONTROL and QUALIFY fields of the APPCCMD and when it is issued. The conversation is in RECEIVE state.

**Note:** This code is never reported on an APPCCMD issued on a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0044'	X'0000'	USF6SETR	SERVICE ERROR TRUNCATING

The remote transaction program issued an LU 6.2 SEND\_ERROR verb, specifying the TYPE(SVC) parameter; the conversation for the remote transaction program was in a sending state; and the LU 6.2 SEND\_ERROR verb truncated a logical record. Truncation occurs when a program begins sending a logical record and then issues the LU 6.2 SEND\_ERROR verb before sending the complete logical record. This return code is reported to the local application on an APPCCMD CONTROL=RECEIVE macroinstruction issued after receiving the truncated logical record. The conversation state is unchanged.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0048'	X'0000'	USF6RFNR	RESOURCE FAILURE, NO RETRY

A failure occurred that caused the conversation to be prematurely terminated. For example, the session being used for the conversation was deactivated because of a session protocol error. The condition is not temporary, and the application should not retry the transaction until the condition is corrected. The conversation is in END\_CONV or FDX\_RESET state if no log data is present. If log data is present, the conversation is in PEND\_END\_CONV\_LOG or PEND\_RESET\_LOG state.

Two common failures are:

1. Local LU sends unexpected control information.  
For example, the conversation can be in PENDING\_DEALLOCATE state, but something other than a deallocate is received, or an FMH-7 is not received when it is expected.
2. Local LU sends unexpected data on the conversation.  
For example, a logical record that is not valid, PS header or FMH-7, might have been received, or a logical record is truncated by something other than an FMH-7.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'004C'	X'0000'	USF6RFRE	RESOURCE FAILURE, RETRY

A failure occurred that caused the conversation to be prematurely terminated. For example, the session being used for the conversation was deactivated because of a session outage, such as a line failure or a modem failure. The application can retry the transaction when the error that caused the session outage has been corrected. The conversation is in END\_CONV or FDX\_RESET state.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0050'	X'0000'	USF6STER	STATE ERROR

The specified conversation was not in an appropriate state to issue the specified APPCCMD. For example, the application program issued APPCCMD CONTROL=SEND, QUALIFY=DATA, but the conversation was in RECEIVE state. The state of the conversation remains unchanged.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0054'	X'0000'	USF6URMD	UNRECOGNIZED MODE NAME

The APPCCMD CONTROL=OPRCNTL, QUALIFY=CNOS macroinstruction did not execute successfully because the partner LU does not recognize the specified mode name. The local and partner LUs' CNOS parameters are not changed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0058'	X'0000'	USF6UNSC	UNSUCCESSFUL, SESSION NOT AVAILABLE

The APPCCMD CONTROL=ALLOC, QUALIFY=IMMED macroinstruction issued by the local application program did not execute successfully because there was not a contention-winner session available for use by a new conversation request. This RCPRI code is returned on the unsuccessful APPCCMD.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'005C'	(all)	USF6UECR	USER ERROR CODE RECEIVED

An FMH-7 was received that contained a sense code not interpreted by VTAM. The unrecognized sense code is passed to the application program through the SENSE field in the RPL extension. The application program must determine whether the sense code is a valid user-supplied sense code or a code that is not valid. The USER\_ERROR\_CODE\_RECEIVED RCPRI code together with the following RCSEC subcodes (X'0000' X'0001') form the complete return code that is returned to the application. The subcode specifies whether a negative response preceded the FMH-7 containing the unrecognized sense code. The conversation is in a receiving state.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'005C'	X'0000'	USF6FNDR	FOLLOWING NEGATIVE RESPONSE

The FMH-7 containing the unrecognized sense code was received by VTAM following the receipt of a negative response.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'005C'	X'0001'	USF6WNGR	WITHOUT NEGATIVE RESPONSE

The FMH-7 containing the unrecognized sense code was not preceded by a negative response.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0060'	X'0000'	USF6NOFM	NO FMH5 AVAILABLE

The application issued an APPCCMD CONTROL=RCVFMH5, but there is currently no FMH-5 waiting to be received by the application program.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0064'	X'0000'	USF6ACFL	ACTIVATION FAILURE

An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS macroinstruction did not execute successfully because activation for the pending active session failed. For example, the path between the application and the other LU could have been lost.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0068'	X'0000'	USF6SLEX	LU MODE SESSION LIMIT EXCEEDED

An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS macroinstruction did not execute successfully because activating the pending active session would have caused the session limits for the mode name group to be exceeded.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'006C'	X'0000'	USF6SACT	SESSION NOT PENDING

An APPCCMD CONTROL=OPRCNTL, QUALIFY=ACTSESS or QUALIFY=DACTSESS macroinstruction was issued for a session that is no longer pending. The CID for the session is valid but a BIND or CINIT is no longer queued, or the session is being deactivated due to a previous error or request.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0070'	X'0000'	USF6STOR	TEMPORARY STORAGE SHORTAGE OR RESOURCE SHORTAGE

VTAM is unable to process the request because of a temporary storage shortage, a resource shortage, or other shortage.

- If a sense code is not provided, a temporary storage shortage has occurred.

## RCPRI and RCSEC Return Codes for LU 6.2

- If a sense code is provided indicating insufficient resources, then a storage shortage or other resource shortage has occurred. In either of these cases, the request can be reissued (with EXECRPL, for example.) There is no state change. This return code is reported to the application program to allow time for the problem to diminish or disappear. If VTAM attempts to retry the request, the additional storage might not be available immediately, and the problem might occur again.
- If a sense code is provided other than one for insufficient resources, examine the sense code explanation to determine the action required. In this situation, whether the request can be reissued depends on the information contained in the sense code.
- If this return code is received at the completion of an APPCCMD with CONTROL=RECEIVE, OPTCD=(,XBUFLST), then a CSM buffer that meets the storage type specified in the XBUFLST-receive vector could not be obtained to receive the data, or other VTAM internal resources required to receive the data could not be obtained. The system is storage constrained. No data is received. The application can take several possible actions:
  - Reissue the APPCCMD several times as a temporary retry recovery action.
  - Issue a receive without the XBUFLST specification so the data can be copied into application private storage.
  - Explicitly deallocate the conversation via APPCCMD services.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0074'	X'0000'	USF6HALT	HALT ISSUED

The operator has issued a HALT command. Depending on the type of HALT, the application program can no longer issue certain macroinstructions. See the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide* for more information on the effect of HALT upon the application.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0078'	X'0000'	USF6VIYA	VTAM INACTIVE FOR YOUR ACB

The association between VTAM and the application program (ACB) that was established with the OPEN macroinstruction has been broken (the ACB is in the process of being closed). This might have occurred because:

- The application program has elsewhere issued a CLOSE that has not yet completed
- VTAM has become inactive
- A VARY NET,INACT command was issued for the application program.

Any active conversations are placed in END\_CONV or FDX\_RESET state.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'007C'	X'0000'	USF6RQAB	REQUEST ABORTED

VTAM has rejected a request because of an error detected while processing the request or because of an error in the associated session, task, or address space.

## RCPRI and RCSEC Return Codes for LU 6.2

For example, an abend. If an abend code is available, see Chapter 6, “VTAM abend codes” on page 285 to interpret the code. An abend might or might not be retried.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0080'	X'0000'	USF6DLNR	DEALLOCATE NORMAL

The remote transaction program issued an LU 6.2 DEALLOCATE TYPE(FLUSH) verb. This return code is reported to the application program on an APPCCMD CONTROL=SEND, QUALIFY=ERROR macroinstruction issued when the conversation is in RECEIVE state. The conversation is in END\_CONV state. The conversation can be in RECEIVE state or in PEND\_RCV\_LOG state. This return code applies only to half-duplex conversations.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0084'	X'0000'	USF6STSH	STORAGE SHORTAGE

Indicates VTAM has encountered a storage shortage when attempting to satisfy an APPCCMD CONTROL=RECEIVE or an APPCCMD CONTROL=RCVFMH5, either while storing incoming data or sending a pacing response. There is no state change.

This return code can also be issued when a storage failure occurs while processing an internal DEALLOC FLUSH request. VTAM does internal DEALLOC FLUSH processing when it receives an indication that the partner has issued an abnormal deallocation request on the full-duplex conversation.

The application should issue one of the abnormal termination APPCCMD CONTROL=DEALLOCIDEALLOQ macroinstructions to end the conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0088'	X'0000'	USF6CREJ	CANCELED BY REJECT OR ABNORMAL DEALLOCATE

The request, while in progress, was canceled by the issuance of an APPCCMD CONTROL=REJECT or abnormal deallocation APPCCMD, which has requested the termination of the current conversation and, possibly, the session.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'008C'	X'0000'	USF6PROE	PARTNER COMMITTED PROTOCOL VIOLATION

The partner LU has violated conversation protocols during the execution of this command. Notification of conversation failure will be received on a subsequent APPCCMD command. There is no state change.

Two common protocol violations are:

- Partner LU sends unexpected control information.

## RCPRI and RCSEC Return Codes for LU 6.2

For example, the conversation can be in PENDING\_DEALLOCATE state, but something other than a deallocate is received, or an FMH-7 is not received when it is expected.

- Partner LU sends unexpected data on the conversation.

For example, a logical record that is not valid, PS header or FMH-7, might have been received, or a logical record is truncated by something other than an FMH-7.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0090'	X'0000'	USF6NOTA	APPLICATION NOT APPC CAPABLE

The application program issued an APPCCMD, but the application program has APPC=NO coded on its APPL definition statement. The APPL definition statement must have APPC=YES coded before the application program can issue APPCCMD macroinstructions.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0094'	X'0000'	USF6SDRJ	INVALID CONDITION FOR SENDING DATA

This indicates that the application program issued an APPCCMD that provided data to be sent following an error on a previous QUALIFY=DATAFLU or QUALIFY=DATACON type of send (either CONTROL=SEND, CONTROL=PREPRCV or CONTROL=DEALLOC). However, data remains, held by VTAM, from the error on the previous DATAFLU or DATACON macroinstruction.

Before sending more data, issue a macroinstruction that flushes VTAM's buffers. An APPCCMD CONTROL=SEND, QUALIFY=FLUSH macroinstruction, an APPCCMD CONTROL=SEND, QUALIFY=ERROR macroinstruction, or one of the abnormal termination CONTROL=DEALLOC macroinstructions will flush the send data queue so that processing can continue.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'0098'	X'0000'	USF6STGS	TEMPORARY STORAGE SHORTAGE WHILE SENDING DATA

This indicates a temporary storage shortage has occurred while sending data. This RCPRI, RCSEC combination might be returned for one of the following macroinstructions:

- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDPROG
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDSERV
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDTIME
- APPCCMD CONTROL=DEALLOC, QUALIFY=ABNDUSER
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDPROG
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDSERV
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDTIME
- APPCCMD CONTROL=DEALLOCQ, QUALIFY=ABNDUSER
- APPCCMD CONTROL=DEALLOC, QUALIFY=DATACON

## RCPRI and RCSEC Return Codes for LU 6.2

- APPCCMD CONTROL=DEALLOC, QUALIFY=DATAFLU
- APPCCMD CONTROL=PREPRCV, QUALIFY=DATAACON
- APPCCMD CONTROL=PREPRCV, QUALIFY=DATAFLU
- APPCCMD CONTROL=SEND, QUALIFY=DATA
- APPCCMD CONTROL=SEND, QUALIFY=DATAACON
- APPCCMD CONTROL=SEND, QUALIFY=DATAFLU
- APPCCMD CONTROL=SEND, QUALIFY=ERROR
- APPCCMD CONTROL=SENDRCV, QUALIFY=DATAFLU

The current position in the application-supplied data buffer (the area pointed to by the AREA field of the RPL) is returned in RPL6STBF (the current buffer) and RPL6STDS (displacement in the data). All data prior to this buffer or buffer list entry has been sent.

The user has two alternatives when this return code is received.

- Attempt to continue sending data on the conversation by issuing an APPCCMD macroinstruction with the data pointers and length set to reflect the values returned in RPL6STBF and RPL6STDS. The subsequent macroinstruction must be issued with the AREA field set with the RPL6STBF value plus the RPL6STDS value to avoid duplicating any data already sent. The data length (the RECLN field in the RPL) must also be adjusted to indicate the amount of remaining data. Once the subsequent macroinstruction with the updated data location completes successfully, the conversation can be continued as if the storage shortage did not occur.

For more information on how to process the remaining data, see the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide*.

- Deactivate the conversation by issuing one of the abnormal termination CONTROL=DEALLOC macroinstructions, or APPCCMD CONTROL=REJECT macroinstructions. Note that REJECT must be issued to deactivate a conversation if the abnormal termination CONTROL=DEALLOC macroinstructions are unsuccessful.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'009C'	X'0001'	USF6RSTF	RESTORE REJECTED—RESTORE ISSUED BEFORE SETLOGON START

The APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE macroinstruction is issued before the SETLOGON START macroinstruction is issued.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	(all)	USF6RNAL	REQUEST NOT ALLOWED

VTAM rejected the APPCCMD because the macroinstruction request conflicts in some way with the capabilities of the session or conversation to which it applies. The REQUEST\_NOT\_ALLOWED RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the transaction program.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0001'	USF6LNSE	LU PAIR DOES NOT SUPPORT SENDING EXPEDITED DATA

VTAM rejected the APPCCMD CONTROL=SENDEXPD because the negotiated support level of the current session does not support protocols needed to transmit expedited data.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0002'	USF6RQBL	REQUEST BLOCKED

VTAM rejected the APPCCMD because the conversation with which it is associated is in the process of being deallocated or terminated.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0003'	USF6RNEX	EXECUTION OF REQUEST TERMINATED

VTAM rejected an APPCCMD CONTROL=RCVEXPD, QUALIFY=SPEC on a half-duplex conversation because the partner LU is awaiting a change-direction or end-of-chain indicator before sending error information. No expedited information was available to be received.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0004'	USF6VNVF	CONTROL/QUALIFY VALUE INVALID FOR FULL-DUPLEX CONVERSATION

VTAM rejected the APPCCMD because the CONTROL= and QUALIFY= value combination specified is not allowed for a full-duplex conversation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0005'	USF6EXRO	RSP HAS NOT BEEN RECEIVED FOR A PREVIOUS SENDEXPD REQUEST

VTAM rejected a APPCCMD CONTROL=SENDEXPD,QUALIFY=DATA or an APPCCMD CONTROL=SEND, QUALIFY=RQSEND because the response to a previously issued APPCCMD CONTROL=SENDEXPD,QUALIFY=DATA had not been received from the partner LU.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0006'	USF6NAUT	PROGRAM_NOT_AUTHORIZED_FOR_REQUESTED_FUNCTION

## RCPRI and RCSEC Return Codes for LU 6.2

An application not using VTAM authorized path attempted to use the HPDT interface. The request is disallowed.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A0'	X'0008'	USF6ENEL	NAMED RESOURCE NOT ELIGIBLE FOR REQUESTED ALTERATION

A MODIFY DEFINE command with DELETE=UNUSE was issued for an entry in the LU-mode table, but the entry type is not UNUSABLE.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A4'	X'0000'	USF6SPMD	MODE MUST BE RESTORED BEFORE USING

An APPCCMD macroinstruction is issued with a mode name that is pending recovery for persistent LU-LU sessions. Issue the APPCCMD CONTROL=OPRCNTL, QUALIFY=RESTORE macroinstruction to restore the mode.

**Note:** For more information on which macroinstructions can be issued for modes that are pending recovery for persistent LU-LU sessions, see the *z/OS Communications Server: SNA Programmer's LU 6.2 Guide*.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A8'	(all)	USF6ENVE	ENVIRONMENT ERROR

A macroinstruction has failed for some reason related to the system environment in which the request was processed. The RCSEC subcode identifies the specific error.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A8'	X'0000'	USF6OSLV	OS LEVEL DOES NOT SUPPORT REQUESTED FUNCTION

A macroinstruction request required the use of an operating system service which is not supported by the active operating system level.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A8'	X'0001'	USF6XMES	SUSPEND FAILURE

VTAM attempted to suspend processing of an APPCCMD macroinstruction issued in either cross-memory mode or in synchronous SRB-mode with OPTCD=KEEPSRB specified. The attempt failed, probably due to conditions in the operation system environment. The application may reissue the request.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00A8'	X'0002'	USF6XMER	RESUME FAILURE

VTAM attempted to resume processing of an APPCCMD macroinstruction issued in either cross-memory mode or in synchronous SRB-mode with OPTCD=KEEPSRB specified. The attempt failed. VTAM is unable to post the request complete. If the application has a LOSTERM exit, it will be scheduled with a reason code of 44. For more information about the LOSTERM exit, see the *z/OS Communications Server: SNA Programming*. The RPL is now available for reuse.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	(all)	USF6ERIN	ERROR INDICATION RECEIVED

VTAM's processing of an APPCCMD request stored on the SEND queue of a full-duplex conversation was ended because the remote transaction program or LU issued an LU 6.2 architecture verb that cancelled further processing of the request. An associated Secondary Return Code value indicates the type of operation that caused the request to be ended.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0001'	USF6EIAS	DEALLOCATE ABEND PROGRAM

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that the remote transaction program issued a DEALLOCATE verb with TYPE(ABEND\_PROG).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0002'	USF6ERAS	DEALLOCATE ABEND SERVICE

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that the remote transaction program issued a DEALLOCATE verb with TYPE(ABEND\_SVC).

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0003'	USF6EIAT	DEALLOCATE ABEND TIME

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that the remote transaction program issued a DEALLOCATE verb with TYPE(ABEND\_TIMER).

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0004'	USF6EIAT	ALLOCATION ERROR

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code indicating that an Allocation request was rejected by the remote transaction program.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0005'	USF6EIUN	UNKNOWN ERROR CODE

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because an abnormal deallocation request was issued by the remote transaction program. The FMH-7 received from the partner LU carried a sense code other than the Deallocate ABEND, Allocation Error, or Resource Failure codes. The application program must determine whether the sense code is a valid user-supplied sense code or is an invalid code.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0006'	USF6EIRR	RESOURCE FAILURE, RETRY

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because a failure occurred that caused the conversation to be prematurely terminated. The application can retry the transaction when the error that caused the session outage has been corrected.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00AC'	X'0007'	USF6EIRN	RESOURCE FAILURE, NO RETRY

An APPCCMD that processes on the SEND queue of a full-duplex conversation was terminated because a failure occurred that caused the conversation to be prematurely terminated. The condition is not temporary, and the application should not retry the transaction until the condition is corrected.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'(all)'	USF6NRER	NAME RESOLUTION ERROR

VTAM rejected an APPCCMD because there was an inappropriate name translation. The NAME\_RESOLUTION\_ERROR RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the transaction program.

## RCPRI and RCSEC Return Codes for LU 6.2

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0001'	USF6NRRE	LUNAME FOUND IN A VARIANT NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME specified on the macroinstruction was found in a VARIANT\_NAME entry in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0002'	USF6NRRD	NAME RETURNED DIFFERS FROM ASSOCIATED NAME

VTAM rejected an APPCCMD because the BIND RSP contained an LUNAME that is different from the associated name in the SUPPLIED\_NAME entry in the LU-mode table. The association of names for the partner LU had previously occurred.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0003'	USF6NRRR	NAME RETURNED FOUND IN VARIANT_NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME returned in the BIND RSP was found in a VARIANT\_NAME entry in the LU-mode table. The association of names for the partner LU has not occurred.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0004'	USF6NRAP	NAME RETURNED FOUND IN SUPPLIED_NAME ENTRY

VTAM rejected an APPCCMD because the LUNAME contained in the BIND RSP was found in a SUPPLIED\_NAME entry in the LU-mode table. The SUPPLIED\_NAME entry was different than the entry used in the session initiation.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0005'	USF6NRNM	PARTNER NETWORK NAME MISMATCH

VTAM rejected an APPCCMD because the NETID contained in the BIND RSP was different than that previously saved in the LU-mode table for that LUNAME.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0006'	USF6NRAV	LUNAME FOUND IN AN UNUSABLE_NAME ENTRY

## RCPRI and RCSEC Return Codes for LU 6.2

VTAM rejected an APPCCMD because the LUNAME specified on the macroinstruction was found in an UNUSABLE\_NAME entry in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0007'	USF6NRRE	NAME RETURNED FOUND IN AN UNUSABLE_NAME ENTRY

VTAM rejected an APPCCMD because the partner LU returned an LUNAME in the BIND response that was found in an UNUSABLE\_NAME entry in the LU-mode table.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B0'	X'0008'	USF6NRDN	LU NAME FOUND IN A DISASSOCIATED_NAME ENTRY

VTAM rejected an APPCCMD macroinstruction request or an operator command because the LU name specified is a DISASSOCIATED\_NAME entry. This type of entry has no mode values and thus has no sessions. The LU name was previously a VARIANT\_NAME entry but is no longer associated with a SUPPLIED\_NAME entry.

If the request or operator command was to display information about the LU, reissue the request with a with LOGMODE=0 and any LU-specific information will be returned.

If the request was for an allocate, a CNOS must be issued to establish mode information before the allocate can be retried.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B4'	(all)	USF6CSME	CSM_DETECTED_ERROR

CSM detected an error. The CSM\_DETECTED\_ERROR RCPRI code together with one of the following RCSEC subcodes form the complete return code that is returned to the transaction program.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B4'	X'0001'	USF6NSPC	CSM_DETECTED_ERROR-NOT_SPECIFIED

CSM detected a problem during APPCCMD processing of the request. The specific reason for the error is not passed back to the APPCCMD application.

Upon receipt of this return code the application can:

- Optionally consider the error temporary and retry the request several times.  
Note that it is possible that the error may not recur. This temporary error condition could occur in the case where a VTAM-built parameter list to CSM is randomly corrupted on a particular request, but not on a subsequent request.
- Consider the error permanent and terminate the conversation.

## RCPRI and RCSEC Return Codes for LU 6.2

See the *z/OS Communications Server: CSM Guide* for more information about these CSM errors.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B4'	X'0002'	USF6IBTK	CSM_DETECTED_ERROR— INVALID_BUFFER_TOKEN_SPECIFIED

The communications storage manager (CSM) detected a problem during APPCCMD processing of the request. The specific reason for the error is that CSM detected that the CSM buffer token being used for the APPCCMD is not a valid CSM buffer token.

Upon receipt of this return code the application can:

- Check the current buffer pointer (RPL6STBF) in the RPL extension to determine the address of the buffer list entry that was processed when the error occurred.
- Optionally consider the error temporary and retry the request several times.  
Note that it is possible that the error may not recur. This temporary error condition could occur in the case where a VTAM-built parameter list to CSM is randomly corrupted on a particular request, but not on a subsequent request.
- Consider the error permanent and terminate the conversation.
- Continue using the conversation with a different CSM buffer.

See the *z/OS Communications Server: CSM Guide* for more information about these CSM errors.

RCPRI	RCSEC	ISTUSFBC EQU label	Meaning
X'00B4'	X'0003'	USF6IIID	CSM_DETECTED_ERROR— INVALID_INSTANCE_ID_SPECIFIED

The communications storage manager (CSM) detected a problem during APPCCMD processing of the request. The specific reason for the error is that CSM detected that the instance ID portion of the CSM buffer token being used for the APPCCMD is not a valid CSM instance ID. Since the instance ID is invalid, it is possible that the CSM buffer being specified on the APPCCMD has been previously freed and a new instance ID has been assigned to the storage by CSM.

Upon receipt of this return code the application can:

- Check the current buffer pointer (RPL6STBF) in the RPL extension to determine the address of the buffer list entry that was processed when the error occurred.
- Optionally consider the error temporary and retry the request several times.  
Note that it is possible that the error may not recur. This temporary error condition could occur in the case where a VTAM-built parameter list to CSM is randomly corrupted on a particular request, but not on a subsequent request.
- Consider the error permanent and terminate the conversation.
- Continue using the conversation with a different CSM buffer.

See the *z/OS Communications Server: CSM Guide* for more information about these CSM errors.

## LAN channel station error return codes

The LAN channel station error return codes provide a consistent platform to report the status of user requests or abnormal conditions detected by the service provider. The error return codes are used on the following occasions.

- If an error or exceptional condition is detected during the execution of a request, the error code is carried as the completion codes in the corresponding response.
- If an error or exception condition is asynchronously detected by the service provider while no related request from the service user is outstanding, the error code is reported as a part of the common status in a provider-initiated request, such as `Close_Station_Indication`.

The following list contains frequently used abbreviations.

**802.2** IEEE LAN Standard 802.2

**802.3** IEEE LAN Standard 802.3

**802.4** IEEE LAN Standard 802.4

**802.5** IEEE LAN Standard 802.5

**IEEE** Institute of Electrical and Electronic Engineers

**LAN** Local area network

**LLC** Logical link control

**MAC** Medium access control

**SAP** Service access point

The two-byte LAN return codes are based on the architectural layer that detected the error. Byte 0 is the general classification, and Byte 1 is the specific completion code.

### Byte 0—LAN general classifications

- X'20' MAC generic  
This value is used for all MAC-level protocols, including high-level link control (HDLC) as well as LANs.
- X'22' MAC LAN specific  
This value is used for LAN MAC-level protocols.
- X'70' LLC generic  
This value is used for all LLC-level protocols.
- X'76' LLC LAN specific  
This value is used for LLC MAC-level protocols.

The following tables contain all the completion codes currently supported by link service architecture (LSA) for the LAN environment.

#### MAC generic codes

Table 5. MAC generic codes

Code	Meaning	Explanation
2000	Done	The MAC command was successfully completed.

## MAC Generic Codes

Table 5. MAC generic codes (continued)

Code	Meaning	Explanation
2001	Identifier not valid	The MAC detected that the data in the identifier field was blank, syntactically incorrect, or otherwise unrecognizable.
2002	State error	The MAC received a primitive that was illogical for the current MAC state.
2003	ID type not valid	The MAC detected that the data in the ID type field was blank, syntactically incorrect, or otherwise unrecognizable.
2004	Primitive code not valid	The MAC received a request with a primitive code that was not valid or a primitive code for an unsupported request.
2005	Control information length not valid	The MAC received a primitive in which the control information length was incorrect for the primitive type.
2006	Length-of-data area not valid	The MAC received a request that specified a length-of-data area that was not valid.
2007	Interface data not valid	The MAC detected that the data in the interface data field was missing, blank, syntactically incorrect, or otherwise unrecognizable.
2008	No resource	During initialization the MAC layer was unable to obtain a required resource. Processing cannot continue until the resource is available.
2009	MAC receive error	An error occurred while receiving a frame.
200A	Transmit error	An error occurred during the transmission of the information in a MAC_DATA request. As a result, the transmission was terminated.
200B	MAC unexpected interrupt	The MAC layer detected an unexpected (not valid) interrupt.
200C	Frame check sequence (FCS) threshold reached	The link threshold counter for the number of FCS errors reached its limit.
200D	Aborted by MAC_DEACTIVATE_SAP	The MAC issued a MAC_DEACTIVATE_SAP indication, requesting closing of the station.
200E	Path error	The MAC layer reported a path error, including hardware errors.
200F	Resource not available	A request for an unavailable resource was received.
2010	Layer already enabled	A request to enable a MAC layer was received for a layer that is already enabled. This code does not signify an error condition.
2011	Maximum MSDU size too large	MAC_ENABLE request received in which the size specified for the MAC service data unit is larger than the capabilities of the MAC layer.
2012	MSDU size not valid	The size of the MAC service data unit in a MAC_DATA request is not valid.
2013	MAC instance not valid	The MAC instance name specified is not valid.
2014	MAC layer not enabled	A request was made of the MAC layer, but the layer is not enabled.
2015	Port ID not valid	The port identifier specified in the corresponding request is not valid. The request is rejected.
2016	Invalid MAC address	The MAC address specified in the request is invalid.

Table 5. MAC generic codes (continued)

Code	Meaning	Explanation
2017	SAP already activated	The SAP requested to be activated in the ACTIVATE_SAP request is already active. The request is rejected.
2018	Adapter disabled	The request is rejected because the MAC layer is not active.
2019	SAP ID not found SAP not activated	The provider SAP specified in the request could not be found or is not active.
201A	Service type not valid	Service type requested on the MAC_ACTIVATE_SAP request was not a type known to the MAC layer.
201B	Service already activated (user identified)	Service type requested in the MAC_ACTIVATE_SAP has already been specified by another user. The request is rejected.
201C	Service not previously activated	Service type to be deactivated in a MAC_DEACTIVATE_SAP request was not previously active.
201D	MAC disabled SAPs deactivated	MAC disabled and SAPs successfully deactivated.
201E	Layer enabled successfully	MAC_ENABLE request successfully completed.
201F	SAP deactivated	MAC_DEACTIVATE_SAP request successfully completed.

### MAC LAN specific codes

Table 6. MAC LAN specific codes

Code	Meaning	Explanation
2201	Ether_type (802.3) not valid	Type field specified for ethernet was not valid. This is a completion code common to all primitives when Ethernet or IEEE 802.3 service is requested.
2202	Force_IMPL_enable (802.5) not valid	This completion code is returned in response to a MAC_ENABLE request. A request to force a program load was not valid, possibly because the station has not allowed a remote program load.
2204	Initialize options (802.5) not valid	The parameters requested to initialize the token-ring MAC layer are not valid.
2205	Open options (802.5) not valid	Some of the parameters on the MAC_ENABLE request are not valid. The request is rejected.
2206	Rx_burst_size (802.5) not valid	When data was being received or repeated, a sequence of four or more half-bit times were received without transition. This occurrence is not valid in the token-ring protocol.
2207	Group address not valid	The group address specified in the MAC_ACTIVATE_SAP request is not valid. See the <i>IBM Token-Ring Network Architecture Reference</i> for the format of a group address.
2208	Functional address (802.5) not valid	This completion code applies only to token ring. The functional address specified in the MAC_ACTIVATE_SAP request is not valid or has the wrong format. See the <i>IBM Token-Ring Network Architecture Reference</i> for the format of the defined functional addresses.

## MAC Specific Codes

Table 6. MAC LAN specific codes (continued)

Code	Meaning	Explanation
2209	Group/logical address conflict	The group address specified in the MAC_ACTIVATE_SAP request is in conflict with previously assigned MAC group addresses.
220A	Function class conflict (802.5)	The functional address specified in the MAC_ACTIVATE_SAP request is in conflict with previously assigned MAC functional addresses. See the <i>IBM Token-Ring Network Architecture Reference</i> for more information.
220B	Duplicate MAC address	The MAC address specified in the MAC_ENABLE request is already present in the ring. The request is rejected in order to prevent duplicate addresses.
220C	Attribute type not valid	This completion code is returned in response to a RTV_ATTRIB request. It indicates that the attribute type specified in the primitive is not valid.
220D	Frame priority not valid	This completion code is returned in response to a MAC_DATA request. It indicates that the requested priority of the frame is not valid.
220E	Function class vector length (802.5) not valid	This completion code is returned in response to a MAC_ACTIVATE_SAP request. It indicates that the length specified in the request for the function class vector is not valid.
220F	Function class (802.5) not valid	This completion code is returned in response to a MAC_ACTIVATE_SAP request. It indicates that a function class specified in the request was not valid. See the <i>IBM Token-Ring Network Architecture Reference</i> for the valid function classes.
2210	Destination address not valid	This completion code is returned in response to a MAC_DATA request. It indicates that the destination address specified in the request is not valid.
2211	Frame type not valid	This completion code is returned in response to a MAC_DATA request. It indicates that the frame type specified in the request is not valid. See the <i>IBM Token-Ring Network Architecture Reference</i> for a definition of the valid frame types.
2212	Frame control not valid	This completion code is returned in response to a MAC_DATA request. It indicates that the frame control field specified in the request is not valid. See the <i>IBM Token-Ring Network Architecture Reference</i> for a definition of the valid frame control fields.
2213	Unauthorized access priority	This completion code is returned in response to a MAC_DATA request. It indicates that the ring access priority requested for the frame is not valid. See the <i>IBM Token-Ring Network Architecture Reference</i> for a description of the priorities.
2214	Unauthorized MAC frame	This completion code is returned in response to a MAC_DATA request. It indicates that the MAC frame requested to be transmitted is not authorized. See the <i>IBM Token-Ring Network Architecture Reference</i> for a list of the various MAC frames and the authorization needed to transmit them.

Table 6. MAC LAN specific codes (continued)

Code	Meaning	Explanation
2215	Address not recognized	This completion code is returned in response to a MAC_DATA request. It indicates that the MAC address specified in the frame was not recognized by any station on the local ring. Specifically, the address-recognized (A) bits were not set in the frame status field in the returned frame. See the <i>IBM Token-Ring Network Architecture Reference</i> for the format of the frame status field and the use of the A bits.
2216	Frame not copied	This completion code is returned in response to a MAC_DATA request. It indicates that the MAC address specified in the frame was recognized by a station on the ring, but the station was unable to copy the frame. Specifically, the address-recognized (A) bit was set, but the frame-copied (C) bits were not set in the returned frame. See the <i>IBM Token-Ring Network Architecture Reference</i> for format of the frame status field and the use of the A and C bits.
2217	Ring status error (802.5)	An error occurred on the ring during the processing of the request.
2218	Adapter check error	An adapter check occurred when processing the corresponding request.
2219	Force IMPL enable (802.5) not valid	A program load was requested but was invalid.
221A	Open error (802.5)	This completion code is returned in response to a MAC_ENABLE request. It indicates that an error occurred when attempting to enable the MAC layer.
221B	Mode (802.3/4) not valid	This completion code is returned in response to a MAC_ENABLE request. It indicates that a copy was requested but was not valid.
221C	Net type (802.3) not valid	This completion code indicates that the net type specified in the request is not valid.
221D	In_ring_desired (802.4) not valid	This completion code is returned in response to a MAC_ENABLE request. It indicates that the value specified for the In_ring_desired parameter is not one of the defined values.
221E	Min_Post_Silence_Preamble_Length (802.4) not valid	This completion code is returned in response to a MAC_ENABLE request. It indicates that the value specified for the minimum time the station must idle after silence is not valid.
221F	Maximum Number of SAPs exceeded	This completion code is returned in response to a MAC_ACTIVATE_SAP request. It indicates that the maximum number of SAPs have been activated. The request is rejected.
2220	Field length not valid	This completion code is returned in response to a MAC_DATA request. It indicates that the length of the routing information field is larger than this MAC can handle.
2221	MSDU length not valid	This completion code is returned in response to a MAC_DATA request. It indicates that the value specified as the length of the MAC service data unit is not valid.

## MAC Specific Codes

Table 6. MAC LAN specific codes (continued)

Code	Meaning	Explanation
2222	Retries exhausted	This completion code is returned in response to a request-with-response on a MAC_DATA request. It indicates that the protocol data unit (PDU) was transmitted such that the retries were exhausted, but no response was received. It is used in conjunction with LLC Type 3 service.

## LLC LAN generic codes

Table 7. LLC LAN generic codes

Code	Meaning	Explanation
7000	Done	The LLC command was successfully completed.
7001	ID not valid	The LLC detected that the data in the ID field was blank, syntactically incorrect, or otherwise unrecognizable.
7002	State error	The LLC received a primitive that was illogical for the current LLC state.
7003	ID type not valid	The LLC detected that the data in the ID type field was blank, syntactically incorrect, or otherwise unrecognizable.
7004	Primitive not valid	The LLC received a request with a primitive code that was not valid or a primitive code for an unsupported request.
7005	Control information length not valid	The LLC received a primitive in which the control information length was incorrect for the primitive type.
7006	Length-of-data area not valid	The LLC received a request that specified a length-of-data area that was not valid.
7007	Interface data not valid	The LLC detected that the data in the interface data field was missing, blank, syntactically incorrect, or otherwise unrecognizable.
7008	Primitive not recognized	The primitive code in the request received by LLC is not one of the recognized primitives. This return code indicates a LLC user error.
700B	Unsupported service type	An N_ACTIVATE_SAP or N_DEACTIVATE_SAP request was received, specifying an invalid service type.
700C	Service type not activated	An N_DEACTIVATE_SAP request was received, but the particular manager was not active. Either an N_ACTIVATE_SAP request was not issued or an N_DEACTIVATE_SAP request was issued prior to LLC receiving this request. This code usually indicates an LLC user error.
7010	Service type already activated	An N_ACTIVATE_SAP request was received, but the service was already active. This code usually indicates an LLC user error.
7012	Requestor not manager of service	An N_DEACTIVATE_SAP request was received on a CID (connection ID) other than that of the manager of the service. This code usually indicates an LLC user error.

LLC LAN specific codes

Table 8. LLC LAN specific codes

Code	Meaning	Explanation
7603	Layer instance program check	The instance of the LLC receiving the primitive encountered a program check. As a result the LLC layer was unable to process the request. This completion code can be used in response to any of the LLC primitives.
7604	System error	The system in which the LLC is running encountered an error. As a result, the LLC layer was unable to process the request. This completion code can be used in response to any of the LLC primitives.
7605	MAC instance not active or not running	A request has been made of the LLC layer, but the MAC instance is not active and running. As a result, the LLC layer is unable to process the request. This completion code can be returned for any of the LLC primitives.
7606	SAPs still active	This completion code is returned on the DL_ENABLE confirm primitive. The LLC layer received a request to disable the layer, but all the SAPs have not been closed.
7607	Layer enabled successfully	This completion code is returned in response to a DL_ENABLE request that completes successfully. This completion code is returned by LLC when the LLC layer is successfully enabled. It implies that the MAC layer was successfully enabled.
7608	Layer already enabled	This completion code is returned in response to a DL_ENABLE request, and does not indicate an error situation. The LLC received an ENABLE request, but the layer was already enabled.
7609	Station already opened	This completion code is returned in response to a DL_OPEN_STN request. It indicates that the station requested to be open has already been opened.
760A	New route for station	This completion code is returned in response to a DL_OPEN_STN request, DL_REQ_OPNSTN request, and DL_CONNECT request.
760B	Link disconnected; transmission retry count, N2, exceeded	This completion code is returned in response to a DL_DISCONNECT request. It indicates that the LLC layer tried to disconnect the link in an orderly fashion but could not get a response from the remote station. See the <i>IBM Token-Ring Network Architecture Reference</i> for information on the maximum number of transmissions, N2.
760C	Remote station in busy state	This completion code is returned in response to a DL_DATA request. It informs the user to temporarily stop sending data to the remote station until the busy condition is removed.
760D	Remote station in ready state	This completion code is returned in response to a DL_DATA request. It informs the user that the remote station is no longer in a busy state and that data may now be forwarded to the station.
760E	Mismatched XID type	This completion code is returned in response to a DL_ID request. It indicates that the XID returned in response to the request is of a different type. The XID data received in response is returned with this code in the DL_ID confirm.

## LLC LAN Specific Codes

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
760F	Link disconnected, DISCONNECT received	This completion code is returned in response to a DL_DATA request. It indicates that a DISCONNECT command was received from the remote station when the local station was processing the DL_DATA request. The receipt of the frame associated with the DL_DATA request is not guaranteed.
7610	Link disconnected, Disconnected Mode Response received	This completion code is returned in response to either a DL_CONNECT request or a DL_DATA request. It indicates, respectively, that the remote station has rejected the DL_CONNECT request or that the remote station is in disconnected mode, respectively.
7611	SAP deactivated	This completion code is returned in response to a DL_DEACTIVATE_SAP request. It indicates that the SAP was successfully deactivated.
7612	MAC_type not valid	This completion code is returned in response to a DL_ENABLE request. It indicates that the MAC_type specified in the primitive does not match any of the defined MAC types.
7613	LLC_instance name not valid	This completion code is returned in response to a DL_ENABLE request. It indicates that the LLC_instance name specified in the primitive is not valid.
7614	Maximum LPDU size too large	This completion code is returned in response to a DL_ENABLE request. It indicates that the LPDU size requested is larger than the LLC or MAC can support.
7615	LLC layer not enabled	This completion code is returned in response to a DL_DISABLE or DL_ACTIVATE_SAP request. For the DL_DISABLE request it indicates that the LLC layer was not enabled when the request was received. For the DL_ACTIVATE_SAP request, it indicates that the LLC layer was not enabled as is necessary before activating a SAP.
7616	LSAP already in use	This completion code is returned in response to a DL_ACTIVATE_SAP request. The request is rejected because the SAP is already activated.
7617	Aborted by DL_DEACTIVATE_SAP	This completion code is returned in response to DL_ACTIVATE_SAP, DL_MODIFY_SAP, DL_OPEN_STN, DL_CLOSE_STN, DL_REQ_OPNSTN, DL_ID, DL_CONNECT, DL_DISCONNECT, DL_DATA, and DL_MSG requests. It indicates that the request could not be processed before the receipt of a DL_DEACTIVATE_SAP requesting the deactivation of the SAP on which the request was being processed.
7618	LLC_SAP_name not valid	This completion code is returned in response to a DL_ACTIVATE_SAP request. It indicates that the LLC_SAP_name in the request was not valid.
7619	SAP ID not found SAP not activated	This completion code is returned in response to DL_MODIFY_SAP, DL_DEACTIVATE_SAP, DL_OPEN_STN, DL_CLOSE_STN, DL_REQ_OPNSTN, and DL_MSG requests.
761A	LSAP address not valid	This completion code is returned in response to a DL_ACTIVATE_SAP request. It indicates that the request was rejected because the LSAP address provided with the primitive was not valid.

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
761B	SAP ID not found	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, DL_CLOSE_STN, DL_REQ_OPNSTN, DL_RTV_ATTRIB, DL_ID, DL_CONNECT, DL_DISCONNECT, DL_DATA, and DL_FLOW requests. It indicates that the SAP referenced in the request was not found. As a result, the request is rejected.
761C	Station_name not valid	This completion code is returned in response to DL_OPEN_STATION and DL_REQ_OPNSTN requests. It indicates that the station name specified in the primitive is not valid.
761D	DSAP not valid	This completion code is returned in response to DL_OPEN_STN, DL_REQ_OPNSTN, and DL_MSG requests. It indicates that the DSAP specified in the primitive is not valid.
761E	Class_of_service not valid	This completion code is returned in response to DL_ENABLE and DL_ACTIVATE_SAP requests. It indicates that the class of service requested in the primitive was not valid.
761F	MAC SAP name not valid	This completion code is returned in response to a DL_ENABLE request. It indicates that the MAC SAP name specified in the primitive is not valid.
7620	MAC_instance name not valid	This completion code is returned in response to a DL_ENABLE request. It indicates that the MAC instance name specified in the primitive is not valid.
7621	MAC enable parameter not valid	This completion code is returned in response to a DL_ENABLE request. It indicates that one of the MAC enable parameters is not valid.
7622	MAC SAP parameter not valid	This completion code is returned in response to DL_ENABLE, DL_ACTIVATE_SAP, and DL_MODIFY_SAP requests. It indicates that the one of the MAC SAP parameters is not valid.
7623	LSAP_type not valid	This completion code is returned in response to a DL_ACTIVATE_SAP request. It indicates that the LSAP type is not valid because it is not type 802.2, SNA, or IMPL server.
7624	Aborted by DL_DISCONNECT	This completion code is returned in response to a DL_DATA request. It indicates that the connection was disconnected prior to completion of the request to send data.
7625	Data_length exceeded maximum LPDU size	This completion code is returned in response to DL_DATA and DL_MSG requests. It indicates that the PDU size request is larger than the maximum LPDU size. The request is rejected.
7626	Link station not in connected state	This completion code is returned in response to DL_DATA and DL_FLOW requests. These requests require an established link station and a virtual link to the remote station. The request is rejected.

## LLC LAN Specific Codes

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
7627	Link_Error_Recovery_Option not valid	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the link-error-recovery option specified in the primitive is not valid.
7628	Send_Window_Size not valid	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the send-window size specified in the primitive is not valid.
7629	ACK frequency, N3 not valid	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the send value specified for N3 in the primitive is not valid. See the <i>IBM Token-Ring Network Architecture Reference</i> for information on acknowledgement frequency, N3.
762A	Dynamic window option not valid	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the value for the dynamic-window option specified in the primitive is not valid.
762B	Window step not valid	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the value of the window-step parameter specified in the primitive is not valid.
762C	Length-of-route field not valid	This completion code is returned in response to DL_OPEN_STN, DL_MODIFY_STN, and DL_REQ_OPNSTN requests. It indicates that the length specified for the routing information field is not valid.
762D	Route not modified (station in connected state)	This completion code is returned in response to a DL_MODIFY_STN request. It indicates that because the station has a Type 2 connection established with a remote station, the route cannot be changed. The request to change the route is rejected.
762E	Station of specified SAP ID not found	This completion code is returned in response to a DL_CLOSE_STN request. It indicates that the SAP identifier requested to be closed does not exist according to the LLC layer.
762F	XID type not valid	This completion code is returned in response to a DL_ID request. It indicates that the XID type specified in the request was not known to the LLC layer.
7630	DL_CONNECT outstanding	DL_DISCONNECT request cannot be processed at this time because the connect request is still in process. The disconnect command is rejected.
7631	DL_DISCONNECT outstanding	DL_CONNECT request cannot be processed at this time because a disconnect request is still in process. The connect command is rejected.
7632	DL_SIM outstanding	DL_CONNECT request or DL_DISCONNECT request cannot be processed at this time because the SIM request is still in process.

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
7633	Previous XID request outstanding	This completion code is returned in response to a DL_ID request. It indicates that a request to send an XID has not yet been completed. Only one XID request may be in process at a time.
7634	Requested class of service not supported	This completion code is returned in response to DL_ENABLE and DL_ACTIVATE_SAP requests. It indicates that the class of service specified is not supported by the LLC entity. The request is rejected.
7635	Class_of_service not valid	This completion code is returned in response to DL_ENABLE and DL_ACTIVATE_SAP requests. It indicates that the class of service requested in the primitive was not valid.
7636	Aborted by DL_CLOSE_STN	This completion code is returned in response to DL_OPEN_STN, DL_REQ_OPNSTN, DL_ID, DL_CONNECT, DL_DISCONNECT, and DL_DATA requests. It indicates that a Close Station was received before completing the processing of the request. The request is aborted.
7637	Failure to disable MAC instance	This completion code is returned in response to a DL_DISABLE request. In order to disable the LLC layer, the MAC layer must be disabled. This code indicates that there was a problem in disabling the MAC layer.
7638	MAC_ENABLE failed, no resource	This completion code is returned in response to a DL_ENABLE request. A MAC_ENABLE request was passed to MAC by LLC as a result of the DL_ENABLE request. The MAC_ENABLE request failed due to a lack of resource.
7639	MAC_ACTIVATE_SAP failed, no resource	This completion code is returned in response to a DL_ENABLE request. A MAC_ACTIVATE_SAP request was passed to MAC by LLC as a result of the DL_ACTIVATE_SAP request. The MAC_ACTIVATE_SAP request failed due to a lack of resource.
763A	Resource not available	This completion code is returned in response to a DL_ENABLE, DL_ACTIVATE_SAP, DL_OPEN_STN, and DL_REQ_OPNSTN requests. This code indicates that a resource needed to complete the request was not available.
763B	Route_Resolve failed	This completion code is returned in response to DL_OPEN_STN and DL_REQ_OPNSTN requests. This code indicates that the LLC layer was unable to determine a route through the network to the remote station.
763C	Link disconnected; transmission retry count, N2, exceeded	This completion code is returned in response to DL_CONNECT and DL_DATA requests. It indicates that the LLC layer tried to send the necessary PDU for the request but exhausted the retries. See the <i>IBM Token-Ring Network Architecture Reference</i> for information on the maximum number of transmissions, N2.
763D	Link resetting (FRMR sent out)	This completion code is returned in response to a DL_DATA request. The LLC layer detected a need to reset the link and sent a frame-reject to the remote station. The request is rejected.

## LLC LAN Specific Codes

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
763E	Link resetting (FRMR received, SABME being sent)	This completion code is returned in response to a DL_DATA request. The remote LLC detected a need to reset the link and sent a frame-reject. The local LLC responded with a SABME to reset the link. The request is rejected.
763F	Link resetting (FRMR received, DISC being sent)	This completion code is returned in response to a DL_DATA request. The remote LLC detected a need to reset the link and sent a frame-reject. The local LLC responded with a DISC to terminate the link. The request is rejected.
7641	Required parameter(s) not provided	This completion code is returned if one or more of the required parameters for this primitive for which no default is available is coded as zero.
7642	Option(s) not valid or incompatible	The options specified in the parameter data field are not a valid combination, for example, an attempt is made to open a SAP that has an XID handling option different from that of the group SAP with which it is associated.
7643	Command canceled due to unrecoverable failure	This completion code is returned when a command causes an unrecoverable failure of the adapter.
7644	Unauthorized access priority	This completion code is returned if an incorrect access priority was requested from an activate_SAP or modify_SAP request.
7645	Command canceled, adapter was not enabled	This completion code is returned if the adapter specified in the command was never enabled.
7646	Command canceled, adapter closed while command in process	This completion code is returned if the adapter was closed while the command was in process. This could be due to an error condition, or to the receipt of a deactivate_subsystem request being received.
7647	Adapter already enabled	This completion code is returned on the adapter_enable confirm when the target adapter has already been enabled by another user. This code does not indicate an error situation.
7648	Adapter already enabled	This completion code is returned on the adapter_enable confirm when the target adapter has already been enabled by this user. This code indicates an error.
7649	Adapter already disabled	This completion code is returned on the adapter_disable confirm when the target adapter has already been disabled by this user. This code indicates an error.
764A	Adapter not enabled	This completion code is returned on the adapter_enable confirm when the target adapter cannot be enabled due to either a load failure or a hardware failure. This code indicates an error situation.
764B	Adapter value not valid	This completion code is returned if any primitive is received for an adapter that is not present.
764B	Invalid adapter value	This completion code is returned on any command targeted for an adapter that was not explicitly enabled by this user.
764D	Error on frame transmission	This completion code is returned on a Type I data transmission confirm if the receiving adapter did not copy the data frame from the token-ring network.

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
764F	Error in frame transmit or strip process	This completion code is returned on a Type I data transmission confirm if an error was detected by the adapter either during frame transmission or when the frame was read back and checked.
7650	FRMR response received	Upon receipt of the FRMR response, the local LLC service provider has sent a RESET indication (local) to the LLC user.
7651	Timer expired and retry exhausted	A time-out condition has occurred, and the retry count is exhausted. The local LLC service provider has sent a RESET indication (local) to the LLC user.
7652	SABME received	The remote LLC has sent a SABME to the local LLC. The local LLC service provider has sent a RESET indication (remote) to the LLC user. etable.
7653	Link not transmitting I-frames State changed from link-opened	This completion code is returned on a LLC_DATA request if the link station leaves the link-opened state due to a received frame (such as DISC) or a timeout.
7655	Disconnected Mode Response received	This completion code is returned on the close_station_indication. It indicates the reason the LLC service provider issued the request.
7656	DISC received	This completion code is returned on the close_station_indication and provides the reason the LLC service provider issued the request. For example, this code is returned when a 3172 receives a Disconnect from a PC.
7657	Link connection INOP	This completion code is returned on the close_station_indication and provides the reason the LLC service provider issued the request.
7658	Parameter exceeded maximum allowed	This completion code is a returned when a required parameter in the primitive data field exceeded the maximum allowed value. Retry with a valid value.
7659	Requested membership in non-existent group SAP	This completion code is returned if an activate_SAP or modify_SAP request is received, requesting membership in a group SAP that does not exist. See the <i>IBM Token-Ring Network Architecture Reference</i> information on the group SAP.
765C	Group SAP has reached maximum membership	This completion code is returned if an activate_SAP or modify_SAP request is received, requesting membership in a group SAP that has reached its maximum membership. The command completes up to the point at which the error was encountered. Other parameters have been changed if the request was modify_SAP. See the <i>IBM Token-Ring Network Architecture Reference</i> for information on the group SAP.
765E	Member SAP not found in group SAP list	This completion code is returned if a Modify_SAP request is received, requesting deletion of the member SAP from a group SAP of which it was not a member. The command completes up to the point at which the adapter encountered the error. Other parameters have been modified as requested. See the <i>IBM Token-Ring Network Architecture Reference</i> for information on the group SAP.

## LLC LAN Specific Codes

Table 8. LLC LAN specific codes (continued)

Code	Meaning	Explanation
FF02	Duplicate command	This completion code is returned if a connect request is received for a link station, while a previous connect request is still in process.
FF0C	Command cancelled, version number not valid	This completion code is returned if the primitive contained a version number that was not valid.
FF28	Duplicate LLC request	This completion code is returned on a DL_DATA or DL_REPLY when a duplicate request with the same source SAP, destination MAC, and priority is received by the LLC service provider.
FF48	Group SAP cannot close, all member SAPs not closed	This completion code is returned if a deactivate_SAP request is received for a group SAP while members of that group SAP are still open. Close the members and retry the deactivate_SAP request.
FF4C	Sequence error	This completion code is returned if a deactivate_SAP or close request is received while other SAP or link commands are still in process. Wait for the commands to complete and re-issue the close request.
FF4F	Invalid remote address	This completion code is returned if an OPEN_STATION request is received with the remote MAC address parameter high bit of the high byte set to one. This indicates a group address. A group address is not allowed to be specified for this command.  <b>VTAM Hint:</b> A possible cause of code FF4F is that DLCADDR is specified in the definition for a 3172. The 3172 does not currently support DLCADDR. DLCADDR is a parameter on the PATH definition statement for a switched major node.
FF50	Attribute value; no values set not valid	This completion code is returned indicating that none of the requested attribute modifications were made.
FF51	Attributes values; one or more values set not valid	This completion code is returned indicating partial completion of the requested attribute modifications.
FF52	One or more requested attributes not available	This completion code is returned indicating some of the requested attribute values were not available.
FF53	DL_Flow option not valid	This completion code is returned if the user specifies flow off when it is already off or flow on when it is already on.
FF76	A frame reject (FRMR) was sent to the DSPU	The FRMR sent is the result of one of the following: <ul style="list-style-type: none"> <li>• MAC frame control field not valid</li> <li>• I-field contains data that is not valid for that control field included in a SABME</li> <li>• The received I-field length exceeds the buffer</li> <li>• LPDU control field sequence number error</li> <li>• The FRMR response I-field is not five bytes in length</li> </ul>

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## Chapter 3. Data link control (DLC) status codes

DLC status codes provide information about errors encountered during the use of high performance data transfer (HPDT) services. They are displayed in some messages and in the IUTx VIT entry.

DLC status codes are four bytes long. The bytes contain the following information:

Byte	Contents
0	Category
1	Reporting layer identifier and location
2 and 3	Completion code

This chapter shows the possible values that can appear in each byte and their meaning.

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### Byte 0 — Category

Hexadecimal Value	Meaning
X'00'	Request successful  <b>Explanation:</b> The specific primitive has been processed with no error. The receiver of this primitive has successfully forwarded or replied to this primitive successfully. <b>Note:</b> The completion code could have informational errors.
X'08'	Request rejected  <b>Explanation:</b> All aspects of the primitive were well understood but a transitory system or network error occurred which prevented the execution of this request. An example of this could be storage shortage. <b>Note:</b> This category is one that an upper layer protocol (ULP) might choose to retry the failed primitive.
X'10'	Request error  <b>Explanation:</b> This primitive was rejected due to inaccurate information in the primitive (for example, incorrect token, incorrect information element).
X'20'	State error  <b>Explanation:</b> A primitive was received "out of order."
X'40'	Usage error  <b>Explanation:</b> Primitive rejected due to incorrect use of either the primitive itself or a parameter associated with the primitive.
X'80'	Permanent error  <b>Explanation:</b> Request rejected due to failure of either a system or network function.

## Byte 1 — Reporting layer identifier and location

Hexadecimal Value	Meaning
X'10'	<p>LLC layer local error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the local VTAM.</p>
X'20'	<p>LLC layer path error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the local VTAM while trying to send a primitive out on an MPC group.</p>
X'30'	<p>LLC layer remote error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the remote VTAM. This value should be used when a remote VTAM is sending common status back to an adjacent host.</p>
X'12'	<p>Port Control Manager (PCM) local error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the IBM Open System Adapter's PCM.</p>
X'22'	<p>Port Control Manager path-related error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the IBM Open System Adapter's PCM while trying to send a primitive out on an MPC group or sending a primitive to the ATM network.</p>
X'32'	<p>Port Control Manager remote error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the remote node; for example, the local ATM switch experienced a failure.</p>
X'1C'	<p>Service-specific component local error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by a service-specific component part of the ATM adaptation layer (AAL) sublayer.</p>
X'2C'	<p>Service-specific component path-related error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by a service-specific component part of the AAL sublayer, while trying to send a primitive to the ATM network.</p>
X'3C'	<p>Service-specific component remote error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by the remote node; for example, the local ATM switch experienced a failure.</p>
X'1A'	<p>Common-part component local error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by a common-part component that includes the ATM layer function and non-service-specific sublayers of the AAL layer.</p>
X'2A'	<p>Common-part component path-related error</p> <p><b>Explanation:</b> A primitive was processed and an error was found by a common-part component that includes the ATM layer function and non-service-specific sublayers of the AAL layer while trying to send a primitive to the ATM network.</p>

Hexadecimal Value	Meaning
X'3A'	Common-part component remote error  <b>Explanation:</b> A primitive was processed and an error was found by a remote partner in its common-part component that includes the ATM layer function and non-service-specific sublayers of the AAL layer.

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## Bytes 2 and 3 — Completion code

Hexadecimal Code	Meaning
X'00nn'	n/a  <b>Explanation:</b> Codes starting with X'00' are specific to the VTAM product implementation.
X'0000'	Successful  <b>Explanation:</b> The primitive completed successfully.
X'0001'	Initialization failure  <b>Explanation:</b> A failure occurred during the initialization of support code. Notify VTAM operator to determine cause of failure.
X'0018'	VTAM is no longer available  <b>Explanation:</b> Request returned as a result of VTAM termination. Termination might have been normal due to an operator initiated action or due to some abnormal condition.
X'0021'	Connection constructor error  <b>Explanation:</b> Failure occurred during the construction of the connection object. Notify the VTAM operator of the failure to determine cause and possible corrective actions.
X'0022'	State error  <b>Explanation:</b> Failure occurred during the execution of the request due to a state error indicating a protocol violation. Notify the VTAM operator of the failure to determine cause of inconsistency and possible corrective actions.
X'0023'	TRLE activation/deactivation state error  <b>Explanation:</b> User issued an activate or deactivation request and an internal state error was encountered.
X'0024'	Provider ID error  <b>Explanation:</b> Provider ID supplied on the primitive is either incorrect or cannot be found. Condition indicates an interface inconsistency. Notify the VTAM operator of the failure to determine cause of inconsistency and possible corrective actions.
X'0025'	Selective Retransmit Not Supported  <b>Explanation:</b> A request to set up a connection was received, and Selective Retransmit service was requested for that connection. Selective Retransmit is not supported at this time, so the request was rejected. Condition indicates that the remote partner expects Selective Retransmit, which may be a configuration mismatch. Notify the VTAM operator of the failure to determine cause of inconsistency and possible corrective actions.

Hexadecimal Code	Meaning
X'0027'	<p>OpenPathReq error</p> <p><b>Explanation:</b> Internal command OPENPATH_request, which causes the initial activation of the channel paths and either the XID or IDX exchange, failed. Failure might be due to a channel problem or an error condition discovered during the initial activation sequence. Notify the VTAM operator of the failure to determine cause and possible corrective actions. It might also be necessary to notify the operator of the platform containing the remote MPC instance.</p>
X'0029'	<p>DactPathReq error</p> <p><b>Explanation:</b> Internal command DACTPATH_request, which causes the termination of an MPC group, has failed for some reason. MPC will complete system takedown of the group but user should notify the VTAM operator of the failure to determine cause and possible corrective actions. Failure to take corrective action might lead to the inability to reactivate the path.</p>
X'002A'	<p>ActPathRsp error</p> <p><b>Explanation:</b> Internal command ACTPATH_response, which causes the allocation of devices and the construction of the MPC environment, failed. Notify the VTAM operator of the failure to determine cause and possible corrective actions.</p>
X'002B'	<p>OpenPathRsp error</p> <p><b>Explanation:</b> Internal command OPENPATH_response, which causes the initial activation of the channel paths and either the XID or IDX exchange, failed. Failure might be due to a channel problem or an error condition discovered during the initial activation sequence. Notify the VTAM operator of the failure to determine cause and possible corrective actions. It might also be necessary to notify the operator of the platform containing the remote MPC instance.</p>
X'002F'	<p>MPC connection does not support high performance data transfer.</p> <p><b>Explanation:</b> Either the local definitions or the remote partner does not support high performance data transfer data interface. Check Hardware Configuration Definition (HCD) and VTAM definitions for possible mismatch.</p>
X'0030'	<p>Storage error</p> <p><b>Explanation:</b> Storage incorrect or not obtainable.</p>
X'0040'	<p>INOP-deact SAP</p> <p><b>Explanation:</b> SAP has become inoperative.</p>
X'0041'	<p>INOP-connection</p> <p><b>Explanation:</b> Data connection has become inoperative.</p>
X'0042'	<p>INOP-signaling connection</p> <p><b>Explanation:</b> Signaling connection has become inoperative.</p>
X'0043'	<p>INOP-device</p> <p><b>Explanation:</b> Local device has become inoperative.</p>

Hexadecimal Code	Meaning
X'0044'	INOP-soft <b>Explanation:</b> The connection or MPC group is inoperative; however, recovery of the connection is possible.
X'0045'	INOP-hard <b>Explanation:</b> The connection or MPC group is inoperative, and is not expected to recover without intervention.
X'0046'	Incorrect token <b>Explanation:</b> User specified an incorrect token on a data connection.
X'0047'	Incorrect token <b>Explanation:</b> Internally specified token incorrect.
X'0048'	Duplicate data activation request <b>Explanation:</b> ULP has sent multiple data activation requests for a single connection.
X'0049'	Selector value error <b>Explanation:</b> A primitive was processed that specified a selector that did not match the selector of the provider token that was received.
X'004A'	Protocol value error <b>Explanation:</b> A primitive was processed that did not specify a known protocol value.
X'004B'	VCNAME value error <b>Explanation:</b> A primitive was processed that did not specify a known virtual circuit value.
X'0050'	Multiple TCP/IP instances trying to register filters for incoming calls <b>Explanation:</b> Multiple TCP/IPs have requested identical filter values.
X'0051'	Buffer size error <b>Explanation:</b> An activation SAP request was issued with an incorrect bufsize, or an incorrect combination of buffer size and buffer number for a TCP/IP read or write device.
X'0052'	Missing XBFL <b>Explanation:</b> An attempt was made to execute a data primitive and an XBFL (extended buffer list) was not provided. An XBFL is required for data primitives.
X'0053'	Empty XBFL <b>Explanation:</b> An XBFL was provided for a data primitive that has no entries within the list; for example, XBFLBEGN=0.
X'0054'	Incorrect XBFL entry <b>Explanation:</b> An XBFL was provided for a data primitive that has an incorrect entry within the list (for example, XBFLAREA=0).

Hexadecimal Code	Meaning
X'0055'	Packet and XBFL length mismatch  <b>Explanation:</b> An XBFL was provided for a data primitive where the total length of all entries does not match the packet length.
X'0056'	XBFL free option not specified  <b>Explanation:</b> An XBFL was provided for a data primitive where the XBFL free option (XBFL_FREE_OPT) was not specified. The free option is required for all data primitives.
X'0057'	Incorrect packet length  <b>Explanation:</b> The packet length was 0 or too large; for example, exceeds the defined values for the device.
X'0058'	Incorrect parameter list version  <b>Explanation:</b> The parameter list version is incorrect.
X'0060'	Connection not active  <b>Explanation:</b> The data activation request for a specific connection was received before the connection was active.
X'0061'	Data not enabled with data activation request  <b>Explanation:</b> Data activation request has not been received so data cannot be processed.
X'0062'	Class value error  <b>Explanation:</b> A primitive was processed that does not specify a known class value.
X'0063'	Control value error  <b>Explanation:</b> A primitive was processed that does not specify a known control value which is permitted for this primitive.
X'0064'	MPC Group in Use  <b>Explanation:</b> An MPC group is defined as EXCLUSIVE USE (MPCUSAGE = EXC on TRLE), and is already in use. Activation is rejected.
X'0065'	iQDIO Prohibited  <b>Explanation:</b> iQDIO activation is prohibited by VTAM start option IQDCHPID = NONE.
X'0066'	iQDIO CHPID Ambiguous  <b>Explanation:</b> iQDIO activation is not allowed due to an ambiguous configuration with specifying IQDCHPID = ANY (default), and configuring (HCD/IOCDS) multiple IQD CHPIDs to this logical partition (LPAR). When IQDCHPID = ANY is specified (or defaulted) only one IQD CHPID can be configured for this LPAR.  If multiple IQD CHPIDs must be configured to this LPAR, then define IQDCHPID = 'HEXCHPID' (the specific hex IQDCHPID that this LPAR should use).

Hexadecimal Code	Meaning
X'0067'	iQDIO Devices Not Available  <b>Explanation:</b> An attempt was made to build the iQDIO MPC group, but VTAM could not find 3 (the minimum number required) subchannel devices (CUAs) defined as iQDIO associated with the same IQD CHPID. Verify the HCD or IOCDs configuration for accuracy for this logical partition (LPAR).
X'0068'	iQDIO CHPID Conflict  <b>Explanation:</b> The user defined an iQDIO device CHPID and it conflicts with the sysplex IQD CHPID (either in use for dynamic XCF or defined using IQDCHPID start option).
X'0069'	Processor not iQDIO capable  <b>Explanation:</b> The user attempted to activate an iQDIO device and the processor does not support iQDIO devices.
X'30nn'	n/a  <b>Explanation:</b> Codes starting with X'30' are typically specific to the interface between VTAM and the IBM Open Systems Adapter's PCM. These errors result from either a software or definitional problem. Use the specific return code to identify incorrect parameter.
X'3001'	Incorrect control information field  <b>Explanation:</b> The control information field of the primitive contains data that is blank, in an incorrect format, or can not be recognized.
X'3002'	Incorrect identifier  <b>Explanation:</b> The value specified in the identifier/token parameter of the control information field is blank, in an incorrect format, or cannot be recognized.
X'3003'	Incorrect identifier type  <b>Explanation:</b> The value specified in the identifier type parameter of the control information field is incorrect; for example, the ID type says it is a SAP but the identifier is a filter.
X'3004'	Incorrect primitive  <b>Explanation:</b> The value specified in the primitive code parameter of the control information field is incorrect.
X'3005'	State error  <b>Explanation:</b> An illogical or incorrect primitive was received for the current SAP or the call instance state of the Port Connection Manager.
X'3007'	Incorrect information data  <b>Explanation:</b> Either the primitive's data information field is missing data, or it contains blank, syntactically incorrect, or unrecognizable data.
X'3008'	Resource not available  <b>Explanation:</b> The requested resource is not available.
X'300A'	Task ABEND  <b>Explanation:</b> An error has occurred that prevents the processing of the primitive.

Hexadecimal Code	Meaning
X'300E'	<p>Incorrect service type</p> <p><b>Explanation:</b> The ServiceType parameter in the primitive's Control Information field is either blank, syntactically incorrect, or unrecognizable. Service Type is REQ/CNF/IND/RSP.</p>
X'3011'	<p>IBM Open Systems Adapter disabled</p> <p><b>Explanation:</b> The IBM Open Systems Adapter has been disabled by user command.</p>
X'3012'	<p>PVC removed from IBM Open Systems Adapter</p> <p><b>Explanation:</b> A PVC definition has been removed from IBM Open Systems Adapter while that PVC connection was active. The PVC connection is being inactivated.</p>
X'3013'	<p>PCM signaling virtual channel is not active</p> <p><b>Explanation:</b> The signaling virtual channel (VCI=5, VPCI=0) between the IBM Open Systems Adapter and the ATM switch that carries signaling requests is not active.</p>
X'3014'	<p>Incorrect entry point</p> <p><b>Explanation:</b> The entry point/interpret routine indicated contains a null character or incorrect value.</p>
X'3016'	<p>Incorrect Port Control Manager name</p> <p><b>Explanation:</b> The value specified in the Port Control Manager name parameter is blank, in an incorrect format, or cannot be recognized.</p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1. The port name is specified in multiple places and <b>MUST</b> be the same in the IBM Open Systems Adapter/SF configuration file, on the PORTNAME operand on the TRLE definition statement in the TRL major node, and (in the case of APPN communication) on the PORTNAME operand on the PORT definition statement in the XCA major node. The port name must be the same in all places that it is specified. If it is not, correct the mismatches.</li> <li>2. The user request is failed if the requested TRLE cannot be activated because of one of the following conditions. <ul style="list-style-type: none"> <li>• TRL major node has not been activated.</li> <li>• The TRLE entry is missing from the activated TRL major node.</li> <li>• The TRLE entry has an error that does not allow it to be defined.</li> <li>• The TRLE has been activated but it is inoperative.</li> </ul> </li> </ol>
X'3017'	<p>Incorrect user call instance identifier</p> <p><b>Explanation:</b> The value specified in the user call instance identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.</p>
X'3018'	<p>Incorrect provider call instance identifier</p> <p><b>Explanation:</b> The value specified in the provider call instance identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.</p>

Hexadecimal Code	Meaning
X'3019'	<p>Incorrect user SAP identifier</p> <p><b>Explanation:</b> The value specified in the user SAP identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.</p>
X'301A'	<p>Incorrect provider SAP identifier</p> <p><b>Explanation:</b> The value specified in the provider SAP identifier parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.</p>
X'301B'	<p>Incorrect provider call enabling identifier</p> <p><b>Explanation:</b> The value specified in the P_CE_ID parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.</p>
X'301C'	<p>Incorrect user call enabling identifier</p> <p><b>Explanation:</b> The value specified in the U_CE_ID parameter of the control information field is missing, blank, in an incorrect format, or cannot be recognized.</p>
X'3022'	<p>Incorrect control information field length</p> <p><b>Explanation:</b> The value specified in the control information field length parameter contains an incorrect value.</p> <p><b>Note:</b> Each primitive has a unique fixed control information field.</p>
X'3023'	<p>Incorrect data information field length</p> <p><b>Explanation:</b> The value specified in the data information field length parameter contains a value that is incorrect or unrecognized.</p>
X'3024'	<p>Incorrect action code</p> <p><b>Explanation:</b> The value specified in the action code specified in the control information on the Call_Setup response field is missing, blank, in an incorrect format, or cannot be recognized.</p>
X'3025'	<p>Missing data information field</p> <p><b>Explanation:</b> The data information field must be complete for the primitive to work.</p>
X'3026'	<p>Incorrect logical link value</p> <p><b>Explanation:</b> The value specified in the logical link identifier parameter is outside the valid range of 0–31, decimal.</p>
X'3027'	<p>PCM TRLE cannot support selector</p> <p><b>Explanation:</b> The user issued an activate request that specified a selector that is not valid for the TRLE found by RNAME.</p>
X'3028'	<p>Datapath device activation failed</p> <p><b>Explanation:</b> A storage error occurred during early processing of a datapath channel address for a QDIO device.</p>
X'3029'	<p>Datapath device activation negative</p> <p><b>Explanation:</b> An error occurred attempting to allocate or activate a datapath channel address for a QDIO device.</p>

Hexadecimal Code	Meaning
X'302A'	Datapath device Open failed  <b>Explanation:</b> An error occurred attempting to start a connection across a datapath channel address for a QDIO device.
X'302B'	Datapath Device Start Data failed  <b>Explanation:</b> An error occurred attempting to start data flow on a connection across a datapath channel address for a QDIO device.
X'302C'	Enable Incoming connections for Port failed  <b>Explanation:</b> A QDIO device rejected an attempt to allow connections to be enabled on this device.
X'302D'	No datapath devices available  <b>Explanation:</b> A ULP cannot use a QDIO device because there are no datapath channel addresses available.
X'302E'	Activation failed to complete  <b>Explanation:</b> A QDIO or iQDIO device failed to complete activation or properly register its HOME IP Address within 5 minutes.
X'32nn'	n/a  <b>Explanation:</b> Codes starting with X'32' are specific to ATM connection establishment. In particular, they relate to the inability of the IBM Open Systems Adapter to establish a reserved bandwidth connection because of lack of available resources.
X'3201'	Bytes per second exceeded  <b>Explanation:</b> The IBM Open Systems Adapter received a request for a reserved bandwidth circuit. The number of bytes per second that were requested cannot be honored because the IBM Open Systems Adapter's capacity for bytes per second for reserved bandwidth connections would be exceeded.
X'3202'	Receive packets per second exceeded  <b>Explanation:</b> The IBM Open Systems Adapter received a request for a reserved bandwidth circuit. The number of packets per second that were requested in the receive direction (to the IBM Open Systems adapter) cannot be honored because the IBM Open Systems Adapter's capacity for receive packets per second for reserved bandwidth connections would be exceeded.
X'3203'	Transmit packets per second exceeded  <b>Explanation:</b> The IBM Open Systems Adapter received a request for a reserved bandwidth circuit. The number of packets per second that were requested in the transmit direction (from the IBM Open Systems Adapter) cannot be honored because the IBM Open Systems Adapter's capacity for transmit packets per second for reserved bandwidth connections would be exceeded.
X'3204'	No packet buffers available  <b>Explanation:</b> The IBM Open Systems Adapter received a request for a reserved bandwidth circuit. The number of bytes per second that were requested cannot be honored because the IBM Open Systems Adapter's capacity for packet buffers for reserved bandwidth connections would be exceeded.

Hexadecimal Code	Meaning
X'3205'	Bandwidth unavailable  <b>Explanation:</b> The IBM Open Systems Adapter received a request for a reserved bandwidth circuit. The number of ATM cells per second that were requested cannot be honored because the total number of cells per second would exceed the physical capacity of the ATM link.
X'3210'	Network down  <b>Explanation:</b> The IBM Open Systems Adapter has lost communications to the ATM switch to which it is attached. The OSA lost communication with the attached ATM network, or an attempt was made to activate an XCA while the OSA had lost communication with the network (a missing cable or a switch registration failure, for example.)
X'33nn'	n/a  <b>Explanation:</b> Codes starting with X'33' are specific to ATM signaling or data transfer. Generally they are the result of either a ULP software or definitional problem in constructing an ATM primitive. Use the specific return code to identify incorrect parameter, termed an information element (IE), to perform diagnostics.
X'330B'	Call does not exist  <b>Explanation:</b> The Port Control Manager received a primitive associated with a call that no longer or never existed.
X'330D'	Endpoint does not exist  <b>Explanation:</b> The value of the endpoint reference identifier in the endpoint reference subfield is not currently assigned to a call endpoint.
X'3312'	Service access point not activated  <b>Explanation:</b> The primitive is incorrect because the SAP is not activated or recognized.
X'3315'	User subfields too large  <b>Explanation:</b> The subfields specified in the primitive exceed the number of allowable octets.
X'331B'	Subfields not allowed  <b>Explanation:</b> The subfields contained in the specified primitive are not allowed.
X'331D'	Mandatory subfield missing  <b>Explanation:</b> A required subfield not present.
X'3323'	Selected channel busy  <b>Explanation:</b> The specified permanent virtual channel (PVC) is busy or allocated to another call.
X'3324'	Maximum calls exceeded  <b>Explanation:</b> The call setup request was not executed because the required resource could not be allocated.
X'3329'	Maximum requests exceed  <b>Explanation:</b> The limit on outstanding primitives was reached.

Hexadecimal Code	Meaning
X'332A'	Call clear indication pending  <b>Explanation:</b> A call clear indicate has been issued to the user. The user should respond. The call instance is cleared when the call clear response is received from the user.
X'332D'	Timeout on call  <b>Explanation:</b> The call could not be processed within the time constraints of the network.
X'332F'	Lack of resources  <b>Explanation:</b> The resources requested from the system (for example, memory errors) could not be obtained.
X'3330'	Operating system error  <b>Explanation:</b> An operating system error was encountered.
X'3331'	Incorrect bearer capability  <b>Explanation:</b> The length or the parameter information in the bearer capability subfield is incorrect.
X'3332'	Incorrect channel identification  <b>Explanation:</b> The length or the parameter information in the channel identification subfield is incorrect or the channel not varied online properly by operator.
X'3333'	Incorrect calling party number  <b>Explanation:</b> The length or the parameter information in the calling party number subfield is incorrect.
X'3334'	Incorrect called party number  <b>Explanation:</b> The length or the parameter information in the called party number subfield is incorrect.
X'3335'	Incorrect calling party subaddress  <b>Explanation:</b> The length or the parameter information in the calling party subaddress subfield is incorrect.
X'3336'	Incorrect called party subaddress  <b>Explanation:</b> The length or the parameter information in the called party subaddress subfield is incorrect.
X'3337'	Incorrect low-layer compatibility  <b>Explanation:</b> The length or the parameter information in the low-layer compatibility subfield is incorrect.
X'3338'	Incorrect high-layer compatibility  <b>Explanation:</b> The length or the parameter information in the high-layer compatibility subfield is incorrect.
X'3339'	Incorrect transit network selection  <b>Explanation:</b> The length or the parameter information in the transit network selection subfield is incorrect.

Hexadecimal Code	Meaning
X'333A'	Incorrect cause <b>Explanation:</b> The length or the parameter information in the cause subfield is incorrect.
X'333B'	Incorrect call status <b>Explanation:</b> The length or the parameter information in the call status subfield is incorrect.
X'333C'	No cause code specified <b>Explanation:</b> The incoming call clearing message from the network did not contain a cause code indicating why the call was being cleared.
X'3340'	Incorrect AAL parameters <b>Explanation:</b> The length or parameter values in the AAL parameters subfield is incorrect.
X'3341'	Duplicate AAL parameters <b>Explanation:</b> The AAL parameters subfield is specified more than once.
X'3342'	Incorrect endpoint identifier <b>Explanation:</b> The length or parameter value in the endpoint reference subfield is incorrect.
X'3343'	Duplicate endpoint reference <b>Explanation:</b> The endpoint reference is specified more than once.
X'3344'	Incorrect endpoint state <b>Explanation:</b> The length or parameter value in the endpoint status subfield is incorrect.
X'3346'	Incorrect QoS <b>Explanation:</b> The length or parameter values in the quality of service subfield is incorrect.
X'3347'	Duplicate QoS <b>Explanation:</b> The quality of service subfield is specified more than once.
X'3348'	Incorrect PCI <b>Explanation:</b> The length or the parameter value in the permanent connection identifier subfield is incorrect.
X'3349'	Duplicate PCI <b>Explanation:</b> The permanent connection identifier subfield is specified more than once.
X'334A'	Incorrect traffic descriptor <b>Explanation:</b> The length or the parameter value in the traffic descriptor subfield is incorrect.
X'334B'	Duplicate traffic descriptor <b>Explanation:</b> The traffic descriptor subfield is specified more than once.

Hexadecimal Code	Meaning
X'3351'	Duplicate bearer capability <b>Explanation:</b> The bearer capability subfield was specified more than one time.
X'3352'	Duplicate channel identification <b>Explanation:</b> The channel identification subfield was specified more than one time.
X'3353'	Duplicate calling party number <b>Explanation:</b> The calling party number subfield was specified more than one time.
X'3354'	Duplicate called party number <b>Explanation:</b> The called party number subfield was specified more than one time.
X'3355'	Duplicate calling party subaddress <b>Explanation:</b> The calling party subaddress subfield was specified more than one time.
X'3356'	Duplicate called party subaddress <b>Explanation:</b> The called party subaddress subfield was specified more than one time.
X'3357'	Too many instances of low-layer information <b>Explanation:</b> More instances of low-layer information subfield are present than are allowed.
X'3358'	Duplicate high-layer compatibility <b>Explanation:</b> The high-layer compatibility subfield was specified more than one time.
X'3359'	Duplicate Transit network selection <b>Explanation:</b> The transit network selection subfield was specified more than one time.
X'335A'	Duplicate cause <b>Explanation:</b> The cause subfield was specified more than one time.
X'335B'	Duplicate call status <b>Explanation:</b> The call status subfield was specified more than one time.
X'335D'	Duplicate PCI <b>Explanation:</b> The permanent connection identifier subfield was specified more than one time.
X'3360'	Subfield of length zero present <b>Explanation:</b> One of the subfields in the data information field has a length of zero.

Hexadecimal Code	Meaning
X'3361'	<p>Incorrect calling party number length</p> <p><b>Explanation:</b> In the calling party number subfield, the value specified in the SFNumberLength parameter disagrees with the length of the subfield contained in the SFLength parameter.</p>
X'3362'	<p>Incorrect called party number length</p> <p><b>Explanation:</b> In the called party number subfield, the value specified in the SFNumberLength parameter disagrees with the length of the subfield contained in the SFLength parameter.</p>
X'3363'	<p>Incorrect calling party subaddress length</p> <p><b>Explanation:</b> In the calling party subaddress subfield, the value specified in the SFSubaddrLength parameter disagrees with the length of the subfield contained in the SFLength parameter.</p>
X'3364'	<p>Incorrect called party subaddress length</p> <p><b>Explanation:</b> In the called party subaddress subfield, the value specified in the SFSubaddrLength parameter disagrees with the length of the subfield contained in the SFLength parameter.</p>
X'3366'	<p>Incorrect call status value</p> <p><b>Explanation:</b> In the call status subfield, the SFCallStatus parameter specifies a value that is incorrect.</p>
X'3367'	<p>Call status subfield missing</p> <p><b>Explanation:</b> The call status subfield information is missing. This is required information for this primitive.</p>
X'336A'	<p>Subfields of the same type are not the same</p> <p><b>Explanation:</b> Two or more subfields of the same type are specified in the data information field; however they are not contiguous.</p>
X'336B'	<p>Entry not unique</p> <p><b>Explanation:</b> The filter registration request is rejected because the call routing information and subfield specifications indicated in the data information field do not make the entry unique. An entry exists in the Port Control Manager incoming call routing table that has the same “must match” information as this request.</p>
X'336C'	<p>First subfield is not primitive specific</p> <p><b>Explanation:</b> The first subfield you specified in the data information field is not the primitive-specific subfield.</p>
X'3371'	<p>Path Control Manager internal error</p> <p><b>Explanation:</b> The Path Control Manager associated with the call detected an internal error.</p>
X'3374'	<p>Permanent connection not defined</p> <p><b>Explanation:</b> The permanent connection that was requested in the call setup request is not defined.</p>
X'3375'	<p>Incorrect ID type in current state</p> <p><b>Explanation:</b> In the current state of the call instance, the identifier type is incorrect.</p>

Hexadecimal Code	Meaning
X'3376'	Call setup confirm for unsuccessful call queued  <b>Explanation:</b> The Path Control Manager will not process this call clear request because the call that the user requested to be cleared has failed.
X'337A'	Prior call control request outstanding  <b>Explanation:</b> A call control request previously issued by the user has not been confirmed by the Path Control Manager. The user should try the request again after the confirmation is received from the Path Control Manager.
X'3380'	User software error  <b>Explanation:</b> The user discovered an unexpected software error.
X'3393'	Incorrect usage indicator in primitive-specific subfield  <b>Explanation:</b> The usage indicator provided in the primitive specific subfield on the filter registration request primitive is incorrect. Either the first primitive-specific subfield specified must meet the "must not match" criteria, or the second primitive-specific subfield specified must meet the "must match" criteria.
X'3394'	Incorrect called party address in filter registration request or data transmission flow control state is blocked.  <b>Explanation:</b> If this error occurs during device activation, the called party number on the filter registration request is incorrect; either it was not supplied, or does not match an address registered to the Path Control Manager. Otherwise a halt data flow request has been sent so data is not flowing.
X'3395'	Connection state incorrect for data transfer  <b>Explanation:</b> Data cannot be accepted until the data SAP has been processed.
X'3396'	Data transmit flow control blocked for pacing.  <b>Explanation:</b> The connection over which this data flows is an ATM reserved bandwidth connection. More data has been requested to be sent than has been reserved. The data flow will be blocked for an interval of time to ensure data is not dropped by the ATM network. Data flow will be reopened when the interval of time passes.
X'3397'	Data transmit flow control blocked for remote  <b>Explanation:</b> The connection over which this data flows is an ATM connection. The IBM Open Systems Adapter has reached a level of congestion and has requested that no more data be sent on this connection until the congestion is relieved. Data flow will be reopened by IBM Open Systems Adapter when the congestion condition has passed.
X'34nn'	n/a  <b>Explanation:</b> Codes starting with X'34' are specific to the OSA-Express data path. These codes represent errors reported by the OSA-Express adapter relating to the read or write Storage Block Address List Entries (SBALEs).
X'3400'	Error reason unknown  <b>Explanation:</b> The specific cause of the error can not be determined.

Hexadecimal Code	Meaning
X'3401'	Invalid buffer contents  <b>Explanation:</b> The contents of the storage pointed to by the SBALE does not contain a valid OSA-Express header or IP header.
X'3402'	Block crosses 4k boundary  <b>Explanation:</b> The last byte of the storage represented by the SBALE is not contained in the same 4K storage frame as the first byte.
X'3403'	Invalid fragment type  <b>Explanation:</b> The SBALE fragment type does not correlate with the fragment type of the previous SBALE.
X'3404'	Real address invalid  <b>Explanation:</b> The SBALE storage address exceeds the size of central storage.
X'40nn'	n/a  <b>Explanation:</b> Codes starting with X'40' are specific to the VTAM/IBM Open Systems Adapter IDX channel interface.
X'4001'	VTAM/IBM Open Systems Adapter function level mismatch  <b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating request failed due to function mismatch between VTAM and the IBM Open Systems Adapter; for example, incompatible versions of the two products. Contact system operator to determine cause of the incompatibility.
X'4002'	Incorrect or no header size specified  <b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating request failed during IDX exchange due to MPC specifying an improper header size. Contact VTAM operator to determine cause of the incorrect size.
X'4003'	Incorrect or no block size specified  <b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating request failed during IDX exchange due to MPC specifying an improper I/O buffer size. Contact VTAM operator to determine cause of the incorrect size.
X'4004'	Channel path read write polarity mismatch  <b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating request failed during IDX exchange due to incorrect channel path polarity; for example, read defined as write or write defined as read. The paths were defined incorrectly in either the TRL entry for the device or during IBM Open Systems Adapter configuration. Contact VTAM operator to determine cause of the incorrect size.
X'4005'	VTAM name mismatch  <b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating request failed during IDX exchange because the same VTAM name was not received over both channel paths. This indicates a condition where two different VTAM instances are configured such that one is trying to use the Read path, the other the Write. Contact VTAM operator to determine correct definition of channel paths.

Hexadecimal Code	Meaning
X'4010'	<p>Channel path pair quiesced</p> <p><b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating that channel paths will be halted due to the failure of some internal IBM Open Systems Adapter process. Contact system operator to determine reason for the IBM Open System Adapter's action.</p>
X'4011'	<p>Incorrect data message size</p> <p><b>Explanation:</b> The IBM Open Systems Adapter returned this code indicating an incorrect message size, normally too large. Channel operation is quiesced and the channel path to the IBM Open Systems Adapter becomes inoperative. Contact VTAM operator or system operator to determine correct maximum message size.</p>
X'4080'	<p>Normal termination</p> <p><b>Explanation:</b> MPC uses this code to inform the IBM Open Systems Adapter that normal channel termination is required. It is not normally exposed to the ULP but might appear in the IBM Open Systems Adapter tracing facilities.</p>
X'4081'	<p>VTAM/IBM Open Systems Adapter level mismatch</p> <p><b>Explanation:</b> MPC returned this code indicating initialization request failed due to function mismatch between VTAM and the IBM Open Systems Adapter; for example, incompatible versions of the two products. Contact VTAM operator or system operator to determine cause of the incompatibility.</p>
X'4082'	<p>Channel path read/write polarity error</p> <p><b>Explanation:</b> MPC returned this code indicating initialization request failed due to the IBM Open Systems Adapter specifying an incorrect read or write channel address; the read channel address must be an "even" address and the associated write channel address must be the read address + 1.</p>
X'4083'	<p>Incorrect or no header size specified</p> <p><b>Explanation:</b> MPC returned this code indicating initialization request failed due to the IBM Open Systems Adapter specifying an incorrect header segment size. Contact VTAM operator or system operator to determine cause of the incorrect size.</p>
X'4084'	<p>Incorrect or no buffer size</p> <p><b>Explanation:</b> MPC returned this code indicating initialization request failed due to the IBM Open Systems Adapter specifying an incorrect I/O buffer size. Contact VTAM operator or system operator to determine cause of the I/O buffer size.</p>
X'4085'	<p>Data path failure</p> <p><b>Explanation:</b> MPC returned this code indicating the channel paths to the IBM Open Systems Adapter are now inoperative due to a failure of the data path. Note, this is not a channel failure; it is the failure of a software component that processes data. Failure is normally due to an incorrect data primitive or the occurrence of a VTAM-detected processing error. Contact VTAM operator to perform problem diagnosis.</p>

Hexadecimal Code	Meaning
X'4086'	System failure  <b>Explanation:</b> MPC returned this code indicating the failure of a process has caused an ABEND within MPC processing components. Failure might be due to an MPC software problem or an underlying system failure. Contact VTAM operator to perform problem diagnosis.
X'4087'	Channel path failure  <b>Explanation:</b> MPC returned this code indicating the failure of the channel path between itself and the IBM Open Systems Adapter. Failure has been recorded as a long OBR record in the system log. Contact VTAM operator or the system operator to determine cause of failure.
X'4088'	Token failure  <b>Explanation:</b> MPC uses this code to indicate that the IBM Open Systems Adapter has returned inconsistent token values over the two channel paths. The tokens returned must contain identical bit strings. Contact the system operator to determine cause of inconsistency.
X'4089'	State mismatch  <b>Explanation:</b> MPC uses this code to indicate that an inconsistency in processing states exists between MPC and the IBM Open Systems Adapter. Contact the VTAM operator to determine cause of inconsistency.
X'408A'	Event Notification Facility offline signal  <b>Explanation:</b> MPC uses this code to indicate that an Event Notification Signal (ENF) has been received indicating the channel paths have been varied offline. Contact the system operator to determine reason the paths were put offline.
X'408B'	No storage for I/O buffer  <b>Explanation:</b> MPC uses this code to indicate that storage was not available for it to build the required channel I/O buffers for the data and header segments. System storage might be constrained due to competing requests for storage. Contact the VTAM operator to determine VTAM's current storage usage and the system operator to determine cause of storage scarcity.
X'408C'	Incorrect IBM Open Systems Adapter name  <b>Explanation:</b> The name used to activate the IBM Open Systems Adapter does not match the defined value. Check your definitions.
X'408D'	Channel control failure  <b>Explanation:</b> MPC uses this code to indicate a failure in its channel control (CC) component. The failure might have been caused by a software failure in the CC component or an underlying system failure. Contact the VTAM operator to determine failure cause. If a system failure, notify the system operator.
X'408E'	Signaling plane failure  <b>Explanation:</b> MPC uses this code to indicate a failure in the signaling plane. Contact the VTAM operator to determine failure cause. If a system failure, notify the system operator.



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## Chapter 4. VTAM status codes

This chapter includes the following resource and session status information:

- “Resource status codes and modifiers”
  - “Resource state code categories”
  - “Resource state code values” on page 248
  - “Resource status modifiers (positions 4 and 5)” on page 263
  - “Resource status field information (positions 6–10)” on page 263
- “Session states and modifiers” on page 264
  - “Session state modifiers and suffixes” on page 264
  - “Session initiation states” on page 265
  - “Session termination states” on page 270
  - “Session status modifiers (positions 6–8)” on page 271

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### Resource status codes and modifiers

VTAM provides detailed information on the status of a resource. This status is defined by a state code that contains as many as 10 characters.

**Note:** The resource state code abbreviation might be truncated if optional status information is displayed in positions 4–10. For example, ACTIV is displayed if an LU is in an active state. If a session is queued, pending active, or active for this LU, the resource status modifier /S appears in positions 4 and 5, and ACTIV is truncated (ACT/S).

See “Resource status modifiers (positions 4 and 5)” on page 263 and “Resource status field information (positions 6–10)” on page 263 for additional information.

The status code abbreviation appears in some VTAM messages in response to a DISPLAY ID command. Refer to *z/OS Communications Server: SNA Operation* for more information about the DISPLAY ID command and the messages issued by VTAM in response to this command.

### Resource state code categories

The classification of states into the following major categories may aid in deciding if a problem exists. If problem determination is needed, refer to *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures*.

#### Category

#### Meaning

**Final** VTAM has no further processing to do for the node.

#### Short transient (Short)

The node is awaiting completion of an operation (such as I/O) that will take a relatively short time. If the node remains in this state for a long period of time, there is probably a hardware or software error.

#### Long transient (Long)

The node is awaiting completion of an operation that will take a relatively long time. If the node remains in this state for an unreasonable length of time, there is probably a hardware or software error.

#### Suspended (Susp)

This node is awaiting processing of another node. When the awaited

## Resource Status Codes and Modifiers

processing is completed, the status of this node should change. If the awaited processing is completed and this node remains in this state, there is probably a software problem.

### Internal (Int)

This state is used within VTAM to direct processing. It should never be displayed. If it is, there is probably a software problem.

## Resource state code values

The first byte represents the resource-status categories:

Value (hex)	Current state category	Desired state category
00	Inactive	Inactive
01	Pending inactive	Not used
02	Connectable	Connectable
03	Reactivate	Reactivate
04	Pending active	Not used
05	Active	Active
06	Routable	Routable

The second byte of RPRCURST and RPRDESST gives the specific resource status. The following table shows the two bytes in combination (for example, value hexadecimal 0001 indicates a category of zero-zero and a specific code of zero-one).

Notes on Table 9.

### Notes:

1. The state abbreviations are listed in alphabetical sequence.
2. An asterisk (\*) is used to denote state values that may appear in a 1-byte field containing a load status. These values describe the progress of a load requested by the physical unit on an ACTPU response.
3. A double asterisk (\*\*) is used to denote state values that may appear in a 1-byte field containing the line trace, GPT trace, or SIT trace status.

Table 9. Resource state code values

Resource state	Value (hex)	Category	Resource status
ACTIV	0505	Final	The resource is in the active state.
APEER	0501	Final	Attach PU Type 4 or 5 (peer): The node is the backup link station to which a PU Type 4 or 5 in another domain is attached.
CONCT	0200	Final	Connectable: A VARY ACT command has completed for a switched physical or logical unit, or for an application program. <ol style="list-style-type: none"> <li>1. For switched resources, a dial-in or dial-out request will be honored, but the resource is not in use at this time.</li> <li>2. For application programs, an OPEN ACB has not yet been issued.</li> </ol>

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
CTDER	041D	Susp	Contacted error: A node, such as a link station or physical unit, was being activated and the contacted request was received indicating the contacted error state. For a physical unit, a request to deactivate the resource has been scheduled. For a link station, if the NCP it is trying to contact is being activated, the link station activation will be suspended until the activation is completed; then the link station will be contacted again. A second CTDER causes deactivation of the link station.
CTD1	043D	Susp	Contacted(1): A link station was being activated, and received a contacted request from the appropriate PU services. Because the communication controller contacted is being activated, the activation of the link station is suspended until the communication controller has been activated. Activation processing for the link station is redriven after the communication controller has been activated.
CTRQI	043A	Susp	Contacted(2) request IPL: A node, such as a link station or a physical unit, is being activated, and the contacted request indicates that reload is required. For a physical unit, a request to deactivate the resource has been scheduled. For a link station, if the NCP it is trying to contact is being activated, the link station activation will be suspended until the communication controller has been activated. The link station will then be contacted again. A second CTRQI deactivates the link station.
CT1NS	040F	Susp	Contact(1) not sent: A link station reached the point in its activation where a contact request should be sent, but the NCP to be contacted is not in a suitable state. The link station activation is suspended and will be redriven when the NCP activation reaches the point where it can be contacted (when its state is PAPU2).
DALUC	011E	Susp	DACTLU complete: A DACTLU request was sent and the response was received, but some higher-level node recovery processing has started. This node will remain in this state until the higher-level process redrives it.
DAPUC	011F	Int	DACTPU complete: A DACTPU request was sent as the result of a force deactivate or force reactivate command, and either the response was received or, in the case of a communication controller, a route failed and a DACTPU request was received.
DEFND	0001	Short	Defined: A VARY ACT command is being processed for a major node. The major node and its subnodes are known to VTAM. The activation has been suspended while the processing of the command moves from one internal VTAM PAB to another.
DLLDD	05	Final	Loaded: The physical unit requested a load and that load has been successfully completed.
DLPAB	04	Short	Pending load abort: The physical unit requested load cannot be completed; a request to cancel the load has been sent to the physical unit.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
DLPLD	03	Long	Pending load: The physical unit is currently being loaded.
DLPRP	02	Short	Pending ACTPU response: An ACTPU request unit was sent to the physical unit, and VTAM is waiting for the ACTPU response by which the physical unit will indicate whether it needs to be loaded.
DLRST	01	Final	Reset: The physical unit is not being loaded.
DUMPC	011B	Susp	Dump complete: A link station was used to dump an NCP and the dump is complete, but the recovery or deactivation of the NCP has not reached the point where link stations connected to that NCP are processed. For recovery, that point is reached when the NCP load or dump procedure status is RESET. For a deactivation, that point is reached when the NCP status is PRSET.
FDSCC	0445	Int	Force Discontact completed: A discontact has been sent as a result of a force deactivate or force reactivate command, and the response to the discontact has been received.
HLACF	0409	Int	Higher-level activate failed: A node was being activated, and activation of its higher-level node failed. For example, a channel-attached physical unit or logical unit was being activated, and PUB allocation failed for its associated channel. A deactivate request was scheduled for the channel-attached physical unit or logical unit.
HLACT	042D	Int	Higher-level activate complete: A node is being activated and its higher-level node has completed activation. For example, a channel-attached physical unit or logical unit is being activated, and the activation of the associated channel has been completed. The activation of the resource is about to begin.
IINOP	0005	Final	Inactive (Inoperative): The resource has been deactivated by an INOP request or a forced deactivate request.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
INACS	0006	Final	<p>Inactive with sessions: If the resource is a logical unit, the node is in the inactive state but may have active sessions. There is no LU-SSCP session, but the logical unit may have active LU-LU sessions. This state can occur when a cross-domain resource is made a same-domain resource as part of the takeover of the resources of an SSCP that failed.</p> <p>If the resource is a CDRM, the node is in an inactive state, but it supports active cross-domain LU-LU sessions. In this state, there is no SSCP-SSCP session, but the CDRM may be supporting active cross-domain LU-LU sessions. This state can occur when (1) the virtual route used by the SSCP-SSCP session is inoperative or has been deactivated by a DACTVR (FORCE), (2) activate CDRM contention has occurred, or (3) an unrecoverable error has been detected for the SSCP-SSCP session. The cross-domain active session, which used the SSCP-SSCP session to set up, remains intact.</p>
INACT	0003	Final	Inactive: The resource has been deactivated.
INACX	0007	Final	Inactive with address transforms: An external CDRM could not be activated. A gateway NCP along the path to the CDRM did not have enough information to support a cross-network session with the CDRM.
INOP	0441	Susp	Inoperative: An INOP request, route failure, or force reactivate command is being processed. Active user sessions have been terminated. The resource is about to be reactivated, but must wait for a higher-level node to activate it.
INVAP	0417	Int	Activate PU response not valid: A node, such as a communication controller or physical unit, is being activated. The ACTPU request was sent, but the response is not valid. Two examples of responses that are not valid are (1) the response unit has a format that is not valid or indicates the physical unit is not in COLD or ERP state and (2) the resource has been loaded and the contents ID is not the expected value. A request to deactivate the resource was scheduled.
LLQED	043B	Susp	Lower-level queued: A VARY ACT command is being processed for a communication controller, and the RDT segment has just been built. The network names of both the major node and its subnodes are known to VTAM. At least one of the subnode link stations has been queued on another link station queue, because it is an operand of the RNAME= <i>keyword</i> on the second communication controller VARY ACT command. The activation of the communication controller has been suspended while the processing of the command moves from one internal VTAM PAB to another.
NACDR	042F	Int	Negative Activate CDRM response: A CDRM is being activated and the activate CDRM request was sent, but the response was negative (the request failed). A request to deactivate the CDRM has been scheduled.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
NACTL	0410	Int	Negative activate LU response: A node, such as an application program or other logical unit was being activated, and the activate LU request was sent, but the response was negative (the request failed). A request to deactivate the resource was scheduled.
NACTP	0412	Int	Negative activate PU response: A node, such as a communication controller or physical unit, was being activated and the activate PU request was sent, but the response was negative, and the request failed. A request to deactivate the resource was scheduled.
NADLK	0423	Int	Negative add link response: A channel link was being activated and an add link request was sent to the appropriate PU services. However, the response was negative and the request failed. A request to deactivate the resource was scheduled.
NADST	0420	Int	Negative add link station response: A channel link station was being activated and an add link station request was sent to the appropriate PU services. However, the response was negative and the request failed. A request to deactivate the resource was scheduled.
NALNK	0415	Int	Negative activate link response: A line was being activated, and the activate link request was sent, but the response was negative (the request failed). A request to deactivate the line has been scheduled.
NANNA	0431	Int	Negative allocate node network address: A node, such as a dynamically added physical unit or logical unit, was being activated, and the request network address assignment request was sent to the appropriate PU services, but the response was negative and the request failed. A request to deactivate the resource was scheduled.
NASNA	0426	Int	Negative allocate subnode network addresses: A node, such as a channel-attached or switched physical unit, is being connected and the request network address assignment request has been sent to the appropriate PU services. However, the response was negative and the request failed. A request to disconnect the resource was scheduled.
NCONO	0400	Int	Negative connect out response: A node, such as a channel-attached or switched physical unit, was being connected and the connect out request was sent to the appropriate physical unit services, but the response was negative and the request failed. A request to disconnect the resource was scheduled.
NCONT	041C	Int	Negative contact response: A node, such as a link station or physical unit, was being activated and the contact request was sent, but the response was negative (the request failed). A request to deactivate the resource has been scheduled.
NEVAC	0004	Final	Never activated: The resource has never been activated.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
NFRSV	0407	Int	Negative FRS control vector: All the frame relay physical units in a particular frame relay switching equipment set (FRSESET) were being activated, and the FRS control vector request was sent to the appropriate PU services. However, the response was negative, and the request failed. Requests to deactivate all the frame relay physical units in the FRSESET have been scheduled.
NLOAD	043C	Int	Negative load response: A communication controller was being activated and a load request was sent to the appropriate physical unit services, but the response was negative and the request failed. A request to deactivate the communication controller was scheduled.
NNAUV	0403	Int	Negative set NAU control vector: A node, such as a switched or dynamically added logical unit, was being connected and the set NAU control vector request was sent to the appropriate physical unit services, but the response was negative and the request failed. A request to disconnect the resource was scheduled.
NSARV	041A	Int	Negative set SAR control vector: A node, such as a link station, was being activated and the set SAR control vector request was sent to the appropriate PU services, but the response was negative and the request failed. A request to deactivate the resource was scheduled.
NSDT	0428	Int	Negative SDT response: A communication controller was being activated and the start data traffic request was sent, but the response was negative and the request failed. A request to deactivate the communication controller was scheduled.
NSNCP	042E	Int	Negative switch to NCP response: A PEP link was being activated, and the switch to NCP request was sent, but the response was negative and the request failed. A request to deactivate the PEP link was scheduled.
NSSSV	0405	Int	Negative set SSS control vector: A node, such as a DR-added physical unit added by dynamic reconfiguration, or a switched physical unit, was being connected, and the set SSS control vector request was sent to the appropriate PU services, but the response was negative, and the request failed. A request to disconnect the node was scheduled.
NSTD	042A	Int	Negative set time and date response: A node, such as a communication controller, was being activated and the set time and date request was sent, but the response was negative and the request failed. A request to deactivate the node was scheduled.
NVYLM	0436	Int	Negative operator query (VFYLM) response: The resource was being activated and the response to the VTAM message IST361A was to terminate the NCP activation. A request to deactivate the resource has been scheduled.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PABCN	010B	Short	Pending abandon connection response: A node, such as a channel-attached or switched physical unit, is about to become disconnected. The abandon connection request has been sent to the appropriate PU services, but the response has not been received.
PABCO	0116	Short	Pending abandon connection out response: A node, such as a channel-attached or switched physical unit, is being disconnected and the abandon connect out request has been sent to the appropriate physical unit services, but the response has not been received.
PACDR	0430	Long	Pending activate CDRM response: A CDRM is being activated and the activate CDRM request has been sent, but the response has not been received.
PACTL	0411	Short	Pending activate LU response: A node, such as an application program or other logical unit, is being activated and the activate LU request has been sent, but the response has not been received.
PADLK	0421	Short	Pending add link response: A channel link is being activated and an add link request was sent to the appropriate PU services, but the response has not been received.
PADST	0419	Short	Pending add link station response: A channel-link station is being activated and an add link station request was sent to the appropriate PU services, but the response has not been received.
PALNK	0416	Short	Pending activate link response: A line is being activated, and the activate link request has been sent, but the response has not been received.
PALUC	0434	Short	Pending activate LU cleanup response: An active logical unit is undergoing recovery processing. An ACTLU request has been sent, but the response has not been received.
PANNA	0432	Short	Pending allocate node network address: A node, such as a dynamically added physical unit or logical unit, is being activated and the request network address assignment request has been sent to the appropriate PU services, but the response was not received.
PAPU1	0413	Short or Long	Pending activate PU(1) response: A communication controller is being activated, and may not need to be loaded. The ACTPU request was sent, but the response was not received. The sending of this request may have to wait for the availability of a virtual route. If one or more explicit routes are operative, this should be a short transient state while route activation proceeds. If no routes are operative, this may be a long transient state while VTAM waits for connectivity to be established along the route.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PAPU2	0425	Short or Long	Pending activate PU(2) response: A physical unit is being activated, did not need to be loaded or has been loaded, and the activate PU request has been sent, but the response has not been received. For a communication controller, the sending of this request may have to wait for the availability of a virtual route. If one or more explicit routes are operative, this should effectively be a short transient state while route activation proceeds. If no routes are operative, this may be a long transient state while VTAM waits for connectivity to be established along the route.
PASNA	0427	Short	Pending allocate subnode network addresses: A node, such as a channel-attached or switched physical unit, is being connected. The assign network address or request network address assignment request has been sent to the appropriate PU services, but the response was not received.
PBFSI	0448	Short	Pending BFSESSINFO: Takeover processing is in progress for an LU, and active sessions have not been completely reported to the SSCP.
PCDLA	0121	Short	Pending cleanup DACTLINK active: A VARY INACT,TYPE=FORCE command was entered for an NCP-attached line whose status is active, pending active, or pending inactive. The lower level nodes are being deactivated, and a DACTLINK (cleanup) request was sent for the line, but the response has not yet been received.
PCDLI	0122	Short	Pending cleanup DACTLINK inactive: A VARY INACT,TYPE=FORCE command was entered for an NCP-attached line whose status is not active, pending active, or pending inactive. A DACTLINK (cleanup) request was sent for the line, but the response has not yet been received.
PCONO	0401	Short	Pending connect out response: A node, such as a channel-attached or switched physical unit, is being connected and the connect out request has been sent to the appropriate PU services, but the response was not received.
PCON1	041E	Short	Pending contact(1) response: A node, such as a link station, is being activated, and the first contact request was sent to the appropriate PU services, but the response was not received.
PCON2	0422	Short	Pending contact(2) response: A node, such as a physical unit or link station, is being activated and the contact request (second attempt for link station) has been sent to the appropriate physical unit services, but the response has not been received.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PCTD1	041F	Long	Pending contacted(1) request: A node, such as a link station, is being activated, and the first contact response was received as a positive response, but the contacted request was not received. A communication controller will also be found in this state during activation while waiting for a link station connected to it to be activated. For CTC, if both sides are hung in PCTD1, enter VARY INACT,TYPE=FORCE then VARY ACT on one side only to bypass the problem.
PCTD2	0424	Long	<p>Pending contacted(2) request:</p> <p>A node, for example, a link station or a physical unit, is being activated. The final contact request was sent by VTAM to the appropriate PU services and the response was received from the NCP, but the contacted request has not been received from the remote device. A communication controller will also be found in this state (it is a suspended state in this case) during activation while waiting for a link station connected to it to be activated. The difference between PCTD2 and PCTD1 is that a communication controller in the PCTD1 state may be loaded if a link station receives a contacted request indicating the NCP needs to be loaded, whereas in the PCTD2 state, both the link station and the NCP would be deactivated.</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. When the remote device is a 3274, the most likely cause is the NRZI definition parameter. The NCP defaults to NRZI. If the NRZI definition parameter in the 3274 differs from that specified in the NCP, PCTD2 will result.</li> <li>2. If a token-ring device connected to a SNA 3174 channel-attached controller is not logically and physically attached to the token ring at activation time, the device will remain in PCTD2 status until the device is made available.</li> <li>3. A status of PCTD2 can be caused by an illegal cross-network activation attempt.</li> <li>4. A status of PCTD2 can be caused by a bad cable at the local or remote device. Run the complete set of cable wrap tests at each location.</li> </ol>
PDACL	010F	Short	Pending DACTLU response: A node, such as an application program or a logical unit, is being disconnected or deactivated. The DACTLU request has been sent, but the response has not been received.
PDACP	0110	Short	Pending DACTPU response: A node, such as a communication controller or physical unit, is being disconnected or deactivated. The DACTPU request has been sent, but the response has not been received.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PDANC	0442	Short	Pending DACTPU ANSC: A DACTPU request was sent to the resource, but the response has not been received. The resource was being activated when the automatic network shutdown complete (ANSC) RU was received from the NCP. This request causes the SSCP to reset the SSCP-PU session and then resume the activation procedure.
PDANS	0104	Short	The abandon connect in request unit has been sent for a node such as a switched link.
PDELR	010E	Short	Pending delete network resource response: A node, such as an application program, is being disconnected. The delete network resource request has been sent to the appropriate PU services, but the response has not been received.
PDGBK	0123	Short	Pending DACTLINK giveback: Records were lost when the VTAM subtask VTMTRACE was restarted. A VARY INACT,TYPE=GIVEBACK command was entered for an NCP attached line. A DACTLINK (giveback) request was sent for the line, but the response has not yet been received.
PDISC	010D	Short	Pending discontact response: A node, such as a link station or physical unit, is being deactivated or disconnected. The discontact request has been sent to the appropriate PU services, but the response has not been received.
PDLNK	0112	Short	Pending DACTLINK response: A line or channel-attached device is being deactivated, and the DACTLINK request has been sent to the appropriate PU services, but the response has not been received.
PDLUC	011D	Short	Pending Deactivate LU cleanup: An active logical unit is undergoing error-recovery processing and the DACTLU request has been sent, but the response has not been received.
PDMPC	0439	Long	Pending dump contention: VTAM is waiting for an indication from the communication controller to resume operation.
PDPA1	0443	Short	Pending DACTPU (ACT1): A DACTPU request was sent to the resource, but the response has not been received. The communication controller was being activated and was found already loaded. When the DACTPU response is received, this state is exited and processing continues from the beginning. Another attempt to load is allowed.
PDPA2	0444	Short	Pending DACTPU (ACT2): A DACTPU has been sent to the resource, but the response has not been received. If the resource is a physical unit Type 4, it was being activated and a load was performed. Once the DACTPU response is received, the activation of the communication controller will proceed. If the resource is a BSC 3270 physical unit, a general poll failure occurred and the DACTPU was sent to clean up internal control blocks. When the response is received, an ACTPU will be sent.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PFDPCP	0440	Short	Pending force DACTPU response: A DACTPU has been sent as a result of a force-reactivate or force-deactivate command against a node, such as a communication controller. The response has not been received.
PFDLU	0120	Short	Pending force DACTLU response: A DACTLU has been sent as a result of a force-deactivate command for the logical unit, but the response has not yet been received.
PFDMP	0119	Short	Pending dump response: A dump is being performed on a communication controller over a link station, and it has not yet completed processing.
PFDSC	042C	Short	Pending force discontact response: A physical unit is being forced to deactivate or forced to reactivate and the discontact request has been sent to the appropriate PU services, but the response has not been received.
PFNNA	011C	Short	Pending free node network address: A node, such as a switched or dynamically added physical unit or logical unit, is being deactivated. The free network address request has been sent to the appropriate PU services, but the response has not been received.
PFRSV	042F	Susp	Pending FRS control vector response: A frame relay physical unit is being activated and one of the following has occurred: <ul style="list-style-type: none"> <li>The other physical units in the frame relay switching equipment set (FRSESET) have not received positive RNAA responses.</li> <li>The FRS control vector request has been sent to the appropriate PU services, but the response has not been received.</li> </ul>
PFSNA	010C	Short	Pending free subnode network addresses: A node, such as a channel-attached or switched physical unit, is being disconnected. The free network address request has been sent to the appropriate PU services, but the response has not been received.
PHLAC	040A	Susp	Pending higher-level activation: A node is awaiting activation of its higher-level node. For example, a channel-attached physical unit or logical unit is being activated, and the request to activate the associated channel (that is, the associated PUB) has not completed.
PHLIN	0102	Susp	Pending higher-level deactivation: A node is inactive and its higher-level node is being deactivated. For example, a channel-attached physical unit is inactive and the associated channel PUB is being deallocated.
PINAC	0100	Long	Pending inactive: CDRM is being deactivated.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PLOAD	040E	Long	Pending load: Either an NCP is being activated and a load operation has begun, or a peripheral physical unit, such as an 8775, is being activated, the physical unit has requested a load, and the SSCP sent the load request to an application program defined in the CNM routing tables. The physical unit has not received a response.
PLODC	043E	Long	Pending load contention: VTAM is waiting for an indication from the communication controller to resume operation.
PLSTC	043F	Long	Pending load station conditional: Activation processing for a communication controller is waiting for the link station over which the communication controller will be loaded to become available. When the link station is capable of being used for loading, if the link station is a channel link station, VTAM determines if the communication controller is loaded. If it is, a load is not done and activation proceeds. If it is not a channel link station, or if the communication controller is not loaded, a load is performed.
PLSTU	040D	Long	Pending load station unconditional: Activation processing for a communication controller will be loaded to become available. When the link station is capable of being used for loading, a load of the NCP will be done.
PMALD	0446	Long	Pending migration ACTPU load or dump procedure: An NCP session recovery loop has been suspended because of an ongoing load or dump operation.
PMATM	0447	Long	Pending migration ACTPU timer: An NCP is waiting for the expiration of a time interval before retrying session activation.
PNAUV	0404	Short	Pending set NAU control vector response: A node, such as a switched or dynamically added logical unit, is being connected, and the set NAU control vector request has been sent to the appropriate PU services, but the response has not been received.
PNFY1	0113	Long	Pending notify(1): A node, such as a logical unit, is being deactivated or disconnected. The request to terminate user sessions has been scheduled, but the notify request indicating that the user sessions have ended has not yet been received. For example, the application program did not issue CLSDST.
PNFY2	0108	Long	Pending notify(2): A node, such as a logical unit, is about to become connectable and the request to terminate any queued user sessions has been scheduled. However, the notify request indicating that the user sessions have ended has not yet been received.
PNFY3	0105	Long	Pending notify(3): A node is about to become inactive and the request to terminate queued user sessions has been scheduled. However, the notify request indicating that the user sessions have ended has not yet been received.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
POAS1	0437	Long	Pending operator query (AUTOSYN1) response: A communication controller is being activated, and message IST183A, which asks if the communication controller should be reloaded or resynchronized, has been entered. The message was sent after the communication controller was contacted but before an SSCP-PU session was established. The reply was not received.
POAS2	0438	Long	Pending operator query (AUTOSYN2) response: A communication controller is being activated, and message IST183A, which asks if the communication controller should be reloaded or resynchronized, has been issued. The message was sent after an SSCP-PU session was established with the communication controller. The reply was not received.
PREQC	0402	Long	Pending request contact request: A node, such as a channel-attached or switched physical unit, is being connected and the connect out response has been received, but the request contact request has not been received.
PRMPO	0103	Short	Pending RMPO response: A remote power off request has been sent over a link station and the response has not been received.
PRSET	0101	Short	Pending reset: The resource is inactive, but the network name is still known to VTAM.
PSARV	041B	Short	Pending set SAR control vector response: A node, such as a link station, is being activated and the set SAR control vector request has been sent to the appropriate PU services, but the response has not been received.
PSDT	0429	Short	Pending start data traffic response: A node, such as a communication controller, was being activated, and the start data traffic request was sent, but the response was not received.
PSNCP	0414	Short	Pending switch to NCP response: A PEP link is being activated, and the switch to NCP request was sent, but the response has not been received.
PSSSV	0406	Short	Pending set SSS control vector response: A switched physical unit is being connected, or a dynamically added physical unit is being activated, and the set SSS control vector request has been sent to the appropriate PU services, but the response has not been received.
PSTD	042B	Short	Pending set time and date response: A communication controller was being activated, and the set time and date request was sent, but the response was not received.
PSUBD	0502	Susp	Pending subnode definition: The resource is active but is waiting for dynamic subnodes to be defined. If a switched line is in this state it cannot be used for dial out.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
PSUBR	0504	Susp	Pending subnode release: An acquired communication controller that was activated before it was acquired is being released; that is, a request to release the subnodes in the unowned portion of the communication controller is in progress.
PSUB1	0115	Susp	Pending subnode deactivate(1): A node supporting subnodes, for example, an application program, communication controller, link, or physical unit, is being deactivated or disconnected. Terminate requests for user sessions for application programs or LUs are being performed.
PSUB2	010A	Susp	Pending subnode deactivate(2): A node supporting subnodes, for example, an application program, communication controller, link, or physical unit, is about to become connectable. Terminate requests for queued user sessions for application programs or LUs are being performed.
PSUB3	0107	Susp	Pending subnode deactivate(3): A node supporting subnodes, for example, an application program, communication controller, link, or physical unit, is about to become inactive. Terminate requests for queued user sessions that apply to application programs or LUs are being performed.
PSWEP	0111	Short	Pending switch to EP mode response: A PEP link has been deactivated. The switch to EP mode request has been sent to the appropriate PU services, but the response has not been received.
PTRM1	0114	Short	Pending terminate(1) response: A node, such as a logical unit, is being deactivated or disconnected. The request to terminate user sessions has been scheduled, but the response has not yet been received.
PTRM2	0109	Short	Pending terminate(2): A node, such as a logical unit, is about to become connectable, and the request to terminate queued user sessions has been scheduled. However, the response has not yet been received.
PTRM3	0106	Short	Pending terminate(3) response: A logical unit is about to become inactive and the request to terminate queued user sessions has been scheduled, but the response has not yet been received.
PVYLM	0435	Long	Pending operator query (VFYLM) response: The resource is being activated and the VTAM operator message IST361A or IST937A has been issued, but the reply has not yet been received. Message IST361A asked the operator if he wanted to load the NCP or terminate the NCP activation. Message IST937A asked the operator if he wanted to reload the NCP, inactivate the NCP, or ignore the correlator mismatch.
P095A	0118	Long	Pending operator query response: An ERP has issued message IST095A asking whether an ERP dump is desired. The reply has not been received.

## Resource Status Codes and Modifiers

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
P284A	0408	Long	Pending operator query response: A communication controller is being recovered and message IST284A, asking whether the communication controller should be reloaded, has been issued. The reply has not been received.
RACTH	0301		Reactivate at higher level: The resource is being deactivated and, once inactive, will wait for its reactivation to be driven by a higher-level node. (This is a desired state only.)
RACTN	0300		Reactivate at this level: The resource is being deactivated and will then be reactivated at this level. (This is a desired state only.)
RADDF	0433	Int	RDTADD failed: A node was being activated and the request to add the associated network address to the VTAM RDTADD data base has failed. A request to deactivate the resource has been scheduled.
RDIAL	0201		Redial: A switched physical unit is being disconnected and an attempt to redial the physical unit will be made once disconnection is complete. (This is a desired state only.)
RDRSP	0124	Long	Pending RTP_deallocation response.
RELSD	0002	Final	Released: A physical unit has been released, or it exists in the unowned portion of an activated-before-acquired communication controller and has not yet been acquired.
RESET	0000	Final	Reset: VTAM built a control block to represent the resource, but the resource has not been added to the symbol table. The resource is not usable by VTAM. You may have a duplicate resource name. For NCP resources, you may need to enter a VTAM VARY ACQ command to acquire the resource before using it.
RINAC	0600	Long	Routable, inactive: A MODIFY LL2 command is being processed for an inactive, dynamically added physical unit. In order to process the command, a network address had to be obtained for the physical unit. When the LL2 test is terminated, the physical unit will be returned to the inactive state.
RRLSD	0601	Long	Routable, released: A MODIFY LL2 command is being processed for a released, dynamically added physical unit. In order to process the command, a network address had to be obtained for the physical unit. When the LL2 test is terminated, the physical unit will be returned to the released state.
TRACT	03	Final	Active: The trace indicated is active.
TRPAR	02	Short	Pending ACT TRACE: The trace is being activated and the ACTTRACE request has been sent to the appropriate PU services, but the response has not been received.
TRPDR	01	Short	Pending DACTTRACE: The trace is being deactivated and the DACTTRACE request has been sent.
TRRES	00	Final	Reset: The trace indicated is not active.

Table 9. Resource state code values (continued)

Resource state	Value (hex)	Category	Resource status
183AF	0418	Int	Operator query (AUTOSYNCH) failed: A request to issue message IST183A was scheduled, but the message could not be issued. Processing continues as if the reply were negative.
284AF	0407	Int	Operator query failed: A request to issue message IST284A has been scheduled, but the message could not be issued. Processing continues as if the reply were negative.

### Resource status modifiers (positions 4 and 5)

The following status modifiers can appear in positions 4 and 5 of the state field. Only one modifier will be present at a time.

Table 10. Resource status modifiers

Modifier	Meaning
/I	Persistent session recovery is in progress. This status modifier is used only for application resources.
/R	Persistent session recovery is pending. This status modifier is used only for application resources.
/S	A session is queued, pending active, or active for this logical unit, terminal, or application. See "Session states and modifiers" on page 264 for a description of these session initiation states.

**Note:** Because the abbreviation of the state code is truncated to three characters prior to adding the two-character status modifier, the characters that make the state code unique (the fourth and fifth characters) might be lost. For example, if the /I modifier is appended to PNFY1, PNFY2, or PNFY3, the new state code is PNF/I. It is not possible to determine the original state code in this situation.

### Resource status field information (positions 6–10)

The following resource status information can appear in character positions 6–10 in the resource status field in VTAM messages.

If a character position is not used, a hyphen (-) is displayed. For example, **ACTIV--S--** is displayed if the logical unit or cross-domain resource (CDRSC) is in an active state and defined as a shadow resource.

Table 11. Resource status field information

Resource information	Character position	Meaning
B	10	The link station is functioning as a backup for another link station (in certain migration situations).
D	10	The resource has been added or moved using dynamic reconfiguration.
E	10	The link station or cross-subarea link has been explicitly activated.
F	10	The link station was implicitly activated as a backup.

## Resource Status Codes and Modifiers

Table 11. Resource status field information (continued)

Resource information	Character position	Meaning
G	10	The resource is a logical line.
I	10	The link station or cross-subarea link has been implicitly (or automatically) activated, as a result of activating a resource to which this link or link station is subordinate or adjacent. See <i>z/OS Communications Server: SNA Operation</i> for an explanation of using the RNAME operand or the U operand to automatically activate link stations.
L	8	An independent LU is using this PU as an adjacent link station.
M	6	Takeover is in progress for the PU.
N	7	The resource was not originally owned by the host processing the DISPLAY command.
R	9	A test-resolve retry condition exists for a local area network active leased line. This condition indicates that VTAM LAN support is sending test LPDUs to a station to resolve a route and will continue to do so until either the station is active or the operator deactivates the line.
S	8	The logical unit or cross-domain resource (CDRSC) is defined as a shadow resource. See <i>z/OS Communications Server: SNA Network Implementation Guide</i> for more information.
T	10	The resource (link, physical unit, or logical unit) is attached through the programmed resource capability (NTO) of the NCP.
X	9	The resource was dynamically created.
Y	10	The cross-domain resource (CDRSC) was created dynamically.

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## Session states and modifiers

This section lists all session states and session status modifiers issued in DISPLAY SESSIONS and DISPLAY ID commands.

### Session state modifiers and suffixes

Session states can be followed by one or more session status modifiers or by a session state suffix of -P or -S.

#### Session status modifiers

Session status modifiers appear in positions 6–8 of the session state.

**Note:** Part of the session state might be truncated if a modifier is present. For example, if code PDSRLST is issued with status modifier /C, VTAM displays **PDSRL/C**. Because the first five characters of session states are unique, it is still possible to identify the original session state.

See “Session status modifiers (positions 6–8)” on page 271 for a listing of possible session status modifiers.

**Session state suffixes (-P and -S)**

If the session state is displayed with a suffix of -P, for example ACTIV-P, the resource is the primary LU.

If the session state is displayed with a suffix of -S, for example ACTIV-S, the resource is the secondary LU.

**Session initiation states**

A session state can be classified into one of the following three groups:

**Q (Queued)**

- If the session state is preceded by **A-**, the session is traversing the APPN portion of the network. The session is considered queued when the session request has been received at a node performing only APPN functions for this session.

**Note:** The VARY TERM command cannot be used to terminate sessions in any state that is preceded by **A-**.

- For all other states, the session is considered queued under the following circumstances:
  - A session request has been received, but session establishment has not located the resources required for the session.
  - The resources required for the session have been located; however, the resources are temporarily unavailable for sessions. Further session establishment procedures have been suspended until the resource is available. The session is in a reallocation-pending state.

**P/A (Pending Active)**

A session is considered to be pending active when both resources required for session setup have been successfully located and are available for sessions. Session establishment proceeds.

**ACT (Active)**

A session is considered active (ACT) when all session start signals have been received, and a session has been successfully established.

The following table lists possible session states.

**Note:** If the session state is preceded by **A-**, the session is traversing the APPN portion of the network. See “Session initiation states” for more information about these queued session states.

Table 12. Session initiation states

Session state	Status	Meaning
A-PCOS	Q	Pending COS reply.
A-PCRYPT	Q	Pending cryptographic keys.
A-PDS	Q	VTAM has an APPN locate chain for the session. A search may be in progress or completed, but the session is not fully active yet. To determine the complete status of the session, use the SID and LU names from the message to find the LUs and session in this and other hosts.
A-PNCOSM	Q	Pending entry COS mapping.
A-PRSCV	Q	Pending RSCV reply.
A-PSACF	Q	Pending subarea chain flow.

## Session States and Modifiers

Table 12. Session initiation states (continued)

Session state	Status	Meaning
A-PSAR	Q	Pending Subarea reply.
A-PTGVS	Q	Pending TG reply.
A-PXCOSM	Q	Pending exit COS mapping.
A-QUEUE	Q	This LU-LU session is queued. One of the LUs is at its session limit or is not available. If this VTAM is functioning as an APPN network node server and is not doing any subarea routing, this state is the only queued state that is displayed. If this VTAM does subarea routing, in either a pure subarea or mixed APPN/subarea network, one of the other queued session states listed in this table will be displayed.
A-RESET	Q	The session is reset.
A-TERM	P/A	The session is pending termination.
ACTIV	ACT	The session is active. A session has been successfully established.
ADIALIP	P/A	Dial in progress for APPN LU.
CDPRIP	Q	CDINIT pending cross-domain routing completion. Another request is pending for the specified LU, and this session will wait for routing to complete.
DDIALIP	Q	Dial in progress for DLU. A session will stay in DDIALIP until the DIAL START process completes. This process includes completing the connection and activating the PU and its subordinate resources. The length of time a session stays in DDIALIP is dependent upon the network configuration.
DLUCOMP	Q	DLU direction processing complete.
DLUPROR	Q	DLU direction processing required.
DLURNAA	Q	DLU direction RNAA processing needed.
DNOTFYNN	Q	Destination notification not necessary
DRNASUS	Q	DLU direction RNAA processing suspended pending termination using same PLU network address.
DSSPD	Q	DSRLST pending cross-domain routing in progress. The DSRLST will be sent when routing is complete for the previous request.
INITC	Q	The SIB has been initialized.
INITSENT	Q	INIT or CDINIT response has been sent.
NULL	Q	Initial state of session.
ODIALIP	Q	Dial in progress for the OLU.
OLUEC	Q	OLU endpoint processing complete.
OLUCOMP	Q	OLU direction processing complete.
OLUEN	Q	OLU endpoint domain processing needed.
OLUPROR	Q	OLU direction processing required.
OLURNAA	Q	OLU direction RNAA processing needed.

## Session States and Modifiers

Table 12. Session initiation states (continued)

Session state	Status	Meaning
ORNASUS	Q	OLU direction RNAA processing suspended pending termination of a session using same PLU network address.
PADIAL	P/A	Pending dial response for APPN LU.
PARAMRU	P/A	Pending APPN LU address assignment. A network address was needed for one of the LUs. VTAM has either sent an RNAA to the boundary function that owns the adjacent link station for one of the LUs or has sent a CDINIT format 5 to the SSCP at the end of a VRTG and is waiting a response.
PARSCV	P/A	Pending APPN RSCV calculation for SLU initiated sessions.
PBFCINIT	P/A	Pending BFCINIT response.
PBIPLUBF	P/A	Pending receipt of the BFINIT from the boundary function of the APPN PLU.
PBISLUBF	P/A	Pending receipt of the BFINIT from the boundary function of the APPN SLU.
PCDCQ	Q	Pending CDCINIT request. This state is set when the SSCP(PLU) has sent or received CDINIT response and is waiting for the SSCP(SLU) to send CDCINIT. If a CDCINIT arrives before this state is reached, the CDCINIT is queued with no state change.
PCDCS	P/A	Pending CDCINIT response.
PCDDQ	Q	Pending CDINITDQ response. This state is set when the session was reallocated and a CDCINIT DQ request was sent.
PCDINIT	Q	Pending CDINIT response.
PCFRES	Q	Pending generic resource resolution for destination LU (DLU).
PCFUPD	Q	Pending coupling facility update for origination LU (OLU).
PCINIT	P/A	Pending CINIT or BFCINIT response.
PCIST	P/A	Pending CINIT or BFCINIT response and session start has already been received.
PCRCQ	Q	Pending cryptographic response for CDINIT request.
PCRCS	Q	Pending session cryptographic key for CINIT response.
PCRDQ	Q	Pending session cryptographic key for DEQUEUE request.
PCRDS	Q	Pending session cryptographic key for DEQUEUE response.
PCRYPK	Q	Pending cryptographic keys.
PDDIAL	Q	Pending dial response for the DLU.
PDLUIO	Q	Pending USS message response in DLU direction. The DLU device must respond to the USS message or no sessions will be initialized.

## Session States and Modifiers

Table 12. Session initiation states (continued)

Session state	Status	Meaning
PDNETDET	Q	Pending DSRLST response for determination of the network identifier of the destination LU. A DSRLST has been sent for another session.
PDRAMRU	Q	DLU pending response from address manager for a request.
PDRDS	Q	Pending resource discovery search (RDS) completion.
PDRNAAD	Q	DLU RNAA response pending from the gateway NCP in the OLU direction.
PDSRHPR	Q	Pending DSRLST response with the outbound PU address for a VRTG connection.
PDSRLST	Q	Pending direct search list Type 01 and 02 response. These types of direct search are sent from the SSCP (OLU) when an autologon session establishment is in progress between a dial SLU and a cross domain PLU, or when a DSRLST is sent for NETID determination.
PNOTIFYV	P/A	Pending NOTIFY(A) for VRTG.
PODIAL	Q	Pending dial response for OLU.
POLUIO	Q	Pending USS message response in OLU direction. The OLU device must respond to the USS message or no sessions will be initialized.
PORAMRU	Q	OLU pending response from address manager for a request.
PORNAAO	Q	An RNAA response is pending from gateway NCP in the OLU direction.
POSACOM	Q	Pending override session address (OSA) completion. This state is set when a session is initiated to a non-SNA SLU, and a previous session with the SLU is terminated.
PPCQRPY	Q	Pending PCID_QUERY_REPLY IPS from the APPN side of the node.
PRAV1	Q	Pending resource available. A resource was found during OLU processing that was unavailable. Session setup will continue when the LU becomes available.
PRAV2	Q	Pending resource available. A resource was found during DLU processing that was unavailable. Session setup will continue when the LU becomes available.
PRAV3	P/A	Status checking found an APPN logical unit PU temporarily unavailable. Session setup will wait on the PU to become available.
PREALC	Q	Pending reallocation. A session has been queued.
PRECOVRY	P/A	Pending completion of multinode persistent session recovery processing.
PRMRC	Q	Pending request multiple routes inter-process signal (IPS) for CDINIT.

## Session States and Modifiers

Table 12. Session initiation states (continued)

Session state	Status	Meaning
PRMRD	Q	Pending request multiple routes inter-process signal (IPS) for DSRLST.
PRSCDPRE	Q	Pending RSCV precalculation for the DLU.
PRSCOPRE	Q	Pending RSCV precalculation for the OLU.
PRSCVD	Q	Pending RSCV in the DLU direction.
PRTPSTR	P/A	Pending RTP start.
PSCRYP	Q	Pending send of the cryptographic control vector by the primary XRF session.
PSEST	P/A	Pending SESSST or BFSESSST request. The session can be expecting any of several signals. Use D NET,SESSIONS,SID= command to see specific signals needed. <b>Note:</b> In storage situations, if you do not receive the started signal, it might be because the session is already active.
PSETCVR	Q	Pending SETCV response.
PSHRP	Q	Pending request single hop route reply.
PSLUIO	Q	Pending USS message response in SLU direction. The SLU device must respond to the USS message or no sessions will be initialized.
PSSADR	Q	Pending set session address (SSA) response. SSA is sent as part of initiation when the SLU is a non-SNA LU and not in the same domain.
PSWAP	P/A	Pending swap from hidden CDRSC to real CDRSC.
PTAKOVER	Q	Pending SSCP takeover is complete.
PTCRXCRS	Q	Pending translation of cryptographic keys for the CDINIT response for an XRF backup session.
PTCRYP	Q	Pending translation of cryptographic keys for the backup XRF session.
PXASL	Q	Pending associated LU name translation
PXDA1CDI	Q	Pending DLU alias to real translation. This SSCP located a USERVAR for the DLU and is attempting to translate the DLU real name into an alias name.
PXDA2CDT	Q	Pending DLU alias to real translation. Another SSCP located a USERVAR for the DLU and returned the value as a real name to this SSCP. VTAM is attempting to translate this real name into an alias name.
PXDA3DSL	Q	Pending DLU alias to real translation. During DSRLST response processing, VTAM is attempting to translate the DLU real name into an alias name.
PXDGC	Q	Pending DLU direction COS translation.
PXDLO	Q	Pending DLU logon mode translation.
PXDRD	Q	Pending DLU real name translation.
PXOGC	Q	Pending OLU direction COS translation.

## Session States and Modifiers

Table 12. Session initiation states (continued)

Session state	Status	Meaning
REALCOM	Q	Reallocation complete.
REALIP	Q	Reallocation in progress. The session is currently being reallocated.
SETCVCOM	Q	SETCV complete.
SEIPRT	Q	SESSEND in progress during routing. Routing will continue when the previous session completes termination.
SEOIP	Q	SESSEND processing in progress in OLU domain. A duplicate session exists, and this session will be suspended until termination processing has completed for the duplicate session.
UNKNOWN	Q	The session state could not be determined.

## Session termination states

Termination states that follow are set during termination processing of a session:

**NULL** The initial state. Termination is not in progress.

**OSARECV**

OSA response received.

**PBFCLN**

Pending BFCLEANUP response.

**PCDTM**

Pending CDTERM response. This is CDTERM sent for termination.

**PCLNP**

Pending CLEANUP response.

**PCTMR**

Pending CTERM response.

**PINITO**

Pending initiation I/O completion.

**PLUIO**

Pending USSMSG response from the SLU. A USSMSG was sent to the SLU and VTAM is waiting for a response. The termination of this session will complete when the device responds.

**PLUCIO**

USSMSG response from the SLU has been received and the session termination is continuing.

**PMRCVTRM**

Pending multinode persistent session recovery termination signal.

**PSESEND**

Pending SESSEND or BFSESEND. The session can expect any of several session end signals. Use D NET,SESSIONS,SID command to see specific signals needed.

## Session States and Modifiers

**Note:** Pending session end can also occur as a result of session outage notification processing when pre-V3R2 SSCPs are involved in the session setup even though the session may not currently be in termination.

### **PSESF**

Pending CDSESSSF response.

### **PSETF**

Pending CDSESSTF response.

### **POSAR**

Pending override session address (OSA) response. An OSA request was sent to the non-SNA SLU requesting termination.

### **UNKNOWN**

The session state could not be determined.

## Session status modifiers (positions 6–8)

The following session status modifiers can appear in positions 6–8 of the session state. These can occur in any order.

### **Status Modifier**

#### **Meaning**

<b>/B</b>	A session establishment request is pending.
<b>/C</b>	One of the session partners is a controlling LU. Modifier /C is displayed only by the SLU (that is, the host which entered the VARY LOGON).
<b>/D</b>	Session performing DES encryption.
<b>/I</b>	Persistent session recovery is in progress.
<b>/M</b>	The session is capable of being recovered through multinode persistent session support.
<b>/P</b>	The session is a primary XRF session.
<b>/R</b>	Persistent session recovery is pending.
<b>/T</b>	Session performing Triple-DES encryption.
<b>/U</b>	A session termination request is pending.
<b>/X</b>	The session is a backup XRF session.
<b>/CI</b>	One of the session partners is a controlling LU and persistent session recovery is in progress. Modifier /CI is displayed only by the SLU (the host that issued the VARY LOGON).
<b>/CP</b>	The session is a CP-CP session.
<b>/CR</b>	One of the session partners is a controlling LU and persistent session recovery is pending. Modifier /CR is displayed only by the SLU (the host that issued the VARY LOGON).
<b>/DI</b>	Persistent session recovery is in progress, and the session uses DES encryption.
<b>/DL</b>	The session is a CP-SVR session.
<b>/DR</b>	Persistent session recovery is pending, and the session uses DES encryption.
<b>/MD</b>	Multinode persistent session uses DES encryption.

## Session Status Modifiers

- /MI** Multinode persistent session recovery is in progress.
- /MR** Multinode persistent session recovery is pending.
- /MT** Multinode persistent session uses Triple-DES encryption.
- /PB** The session is a primary XRF session, and a session establishment request is pending.
- /PC** The session is primary XRF session, and one of the session partners is a controlling LU.
- /PD** Primary XRF session using DES encryption.
- /PI** The session is a primary XRF session, and persistent session recovery is in progress.
- /PR** The session is a primary XRF session, and persistent session recovery is pending.
- /PT** Primary XRF session using Triple-DES encryption.
- /PU** The session is a primary XRF session, and a session termination request is pending.
- /SV** The session is a SNA Service Manager session.
- /TI** Persistent session recovery is in progress, and the session uses Triple-DES encryption.
- /TR** Persistent session recovery is pending, and the session uses Triple-DES encryption.
- /XB** The session is a backup XRF session, and a session establishment request is pending.
- /XC** The session is a backup XRF session, and one of the session partners is a controlling LU.
- /XD** Backup XRF session using DES encryption.
- /XI** The session is a backup XRF session, and persistent session recovery is in progress.
- /XR** The session is a backup XRF session, and persistent session recovery is pending.
- /XT** Backup XRF session using Triple-DES encryption.
- /XU** The session is a backup XRF session, and a session termination request is pending.

---

## Chapter 5. VTAM wait state event codes and IDs

Wait state event codes and IDs are used to determine why VTAM is in a wait state.

SSCP, PU services, LU services, and network operator services processes that are in wait states are represented by a waiting request element (WRE) queued off the LQAB of the subcomponent that controls the waiting process. The WRE for a process contains a 2-byte event code that identifies the event so you do not have to look at the event ID itself.

See *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for an overview of the wait procedure.

---

### Codes 0102–010A (configuration services LQAB group)

Wait state event codes and IDs associated with the configuration services miscellaneous command LQAB group and their meanings are as follows:

---

#### Event Code 0102

**Explanation:** Configuration services is waiting for an NCP to become active. Parameter xxx...xxx is the 6-byte NCP network address.

**Event ID:**

EIDCNACT

**Event Format:**

xxxxxxxxxxxx

---

#### Event Code 0103

**Explanation:** Configuration services is waiting for a link to become active. Parameter xxx...xxx is the 6-byte NCP network address, parameter yyy...yyy is the 6-byte link network address.

**Event ID:**

EIDCLACT

**Event Format:**

xxxxxxxxxxxx yyyyyyyyyyyy 0000

---

#### Event Code 0104

**Explanation:** Configuration services is waiting for the response to an activate or deactivate connect in request (for a VARY ANS command). Parameter xxx...xxx is the 6-byte NCP network address. Parameter yyy...yyy is the 6-byte link network address.

**Event ID:**

EIDCCIRS

**Event Format:**

xxxxxxxxxxxx yyyyyyyyyyyy 0001

---

#### Event Code 0105

**Explanation:** Configuration services is waiting for the response to an activate generalized PIU trace or a deactivate generalized PIU trace request. Parameter xxx...xxx is the 6-byte NCP network address; Parameter yyy...yyy is the 6-byte trace-resource network address (a PU, LU, Line, or NCP for GPT); Parameter zzzzzz is the 3-byte SNA request code of the activate/deactivate trace RU; Parameter aa is the 1-byte trace RU type byte.

**Event ID:**

EIDCTRRS

## Event Code 0106 • Event Code 0201

### Event Format:

xxxxxxxxxxxxx yyyyyyyyyyyy zzzzzz aa

---

### Event Code 0106

**Explanation:** Session services is waiting for an LU to become stable (for example, for error recovery to be completed) so that a session may be set up. Parameter xxx...xxx is the 8-byte network name of the LU.

### Event ID:

EIDCSTBL

### Event Format:

0000 xxxxxxxxxxxxxxxx

---

### Event Code 0107

**Explanation:** Configuration services is waiting for the response to an activate or deactivate NETCTLR request. Parameter xxx...xxx is the 16-byte activate or deactivate trace ID (EIDCTRRS). Parameter yyy...yyy is the 8-byte name of the line.

### Event ID:

EIDCTNRS

### Event Format:

xx yyyyyyyyyyyy

---

### Event Code 0108

**Explanation:** Configuration services is waiting for the response to an RNAA for an independent LU when processing and ACT trace command. Parameter xxx...xxx is the 8-byte name of the LU resource. Parameter yyyyyy is the 3-byte SNA request code for RNAA.

### Event ID:

EIDCTRNA

### Event Format:

xxxxxxxxxxxxxxxxx yyyyyy

---

### Event Code 010A

**Explanation:** Checkpoint datasets are waiting for ISTDCLU close to complete.

### Event ID:

EIDCCKPT

### Event Format:

CHKPT

---

## Codes 0201–020D (I/O LQAB group)

Wait state event codes and IDs associated with the I/O LQAB group and their meanings are as follows:

---

### Event Code 0201

**Explanation:** The requester (with 6-byte network address xxx...xxx) is waiting for the response to a normal-flow request unit sent to the resource having the 6-byte network address yyy...yyy. Parameter aaaaaaa is the 4-byte CPCB operation code corresponding to the RU type. Parameter zzzz is the 2-byte sequence number of the request unit.

### Event ID:

EIDINFRS

### Event Format:

xxxxxxxxxxxxx yyyyyyyyyyyy 0201 aaaaaaa zzzz

---

**Event Code 0202**

**Explanation:** The requester (with 6-byte network address xxx...xxx) is waiting for the response to an expedited-flow request unit sent to the resource having the 6-byte network address yyy...yyy. Parameter aaaaaaaa is the 4-byte CPCB operation code corresponding to the RU type. Parameter zzzz is the 2-byte sequence number of the request unit.

**Event ID:**

EIDIEFRS

**Event Format:**

xxxxxxxxxxxx yyyyyyyyyyyy 0202 aaaaaaaa zzzz

---

**Event Code 0203**

**Explanation:** Management services is waiting for a record storage request from an NCP as part of the DISPLAY STORE command. Parameter xxx...xxx is the 6-byte SSCP network address. Parameter yyy...yyy is the 6-byte NCP network address. Parameter zzzz is the 2-byte procedure relation ID (PRID).

**Event ID:**

EIDIRCRU

**Event Format:**

xxxxxxxxxxxx yyyyyyyyyyyy 0203 zzzz

---

**Event Code 0204**

**Explanation:** Logical unit services is waiting for the response to an UNBIND request unit. Parameter xxx...xxx is the 6-byte network address of the LU sending the request. Parameter yyy...yyy is the 6-byte network address of the LU to which the request was sent.

**Event ID:**

EIDIURSP

**Event Format:**

xxxxxxxxxxxx yyyyyyyyyyyy 0204

---

**Event Code 0206**

**Explanation:** Configuration services (with 6-byte SSCP network address xxx...xxx) is waiting for a RECSTOR RU from the NCP (with 6-byte network address yyy...yyy) as part of MODIFY DUMP processing. Parameters aaaaaaaa and llll are the address and the length of the NCP storage being requested.

A vv of:

- 04 indicates a dynamic NCP dump
- 05 indicates a MOSS dump
- 06 indicates a CSP dump
- 07 transfer NCP dump header
- 08 transfer NCP dump main storage
- 09 indicates display disk

**Event ID:**

EIDIRSTO

**Event Format:**

xxxxxxxxxxxx yyyyyyyyyyyy 0206 vv aaaaaaaa llll

---

**Event Code 0208**

**Explanation:** Session services (with 6-byte SSCP network address xxx...xxx) is waiting for SESSEND to be received from an LU (with 6-byte network address yyy...yyy) or for CDSESEND to be received from a CDRM (network address yyy...yyy) so that the control blocks associated with the session may be freed and the LUs may be reallocated. Parameter aaa...aaa is the 8-byte name of the network in which the address is known. Parameter zzz...zzz is the 8-byte PCID associated with the session.

## Event Code 0209 • Event Code 0301

**Event ID:**  
EIDISEND

**Event Format:**  
*xxxxxxxxxxxxx yyyyyyyyyyyy 0208 aaaaaaaaaaaaaaaaa zzzzzzzzzzzzzzz*

---

### Event Code 0209

**Explanation:** The PVI subcomponent is waiting to be posted by TSC when an I/O operation has been scheduled. The 6-byte fields, *xxx...xxx* and *yyy...yyy*, are the network addresses of the originator and destination of the request unit. Parameter *aaaaaaaa* is the 4-byte CPCB operation code corresponding to the RU type. Parameter *zzzzzzzz* is the address of the TSCB for the to-be-posted operation.

**Event ID:**  
EIDIOSC

**Event Format:**  
*xxxxxxxxxxxxx yyyyyyyyyyyy 0209 aaaaaaaa zzzzzzzz*

---

### Event Code 020B

**Explanation:** Session services (SSCP network address *xxx...xxx*) is waiting for an override session address (OSA) RU for the non-SNA logical unit (6-byte network address *yyy...yyy*) to be completed.

**Event ID:**  
EIDIOSAR

**Event Format:**  
*xxxxxxxxxxxxx yyyyyyyyyyyy 020B*

---

### Event Code 020C

**Explanation:** Session services is waiting for a response from a device LU. Parameter *xxx...xxx* is the 6-byte SSCP network address. Parameter *yyy...yyy* is the 6-byte network address for the device LU.

**Event ID:**  
EIDIOREQ

**Event Format:**  
*xxxxxxxxxxxxx yyyyyyyyyyyy 020C*

---

### Event Code 020D

**Explanation:** Configuration services is waiting for a response to a SETCV(FRS) request.

**Event ID:**  
EIDIFRSE

**Event Format:**  
*xxxxxxxxxxxxx yyyyyyyyyyyy 020D aaaaaaaaaaaaaaaaa*

---

## Codes 0301–0306 (logical unit services LQAB group)

Wait state event codes and IDs associated with the logical unit services service manager LQAB group and their meanings are as follows:

---

### Event Code 0301

**Explanation:** Logical unit services is waiting for a CINIT RU from the SSCP to satisfy an OPNDST ACCEPT request. Parameter *xxx...xxx* is an 8-byte primary LU name and parameter *yyy...yyy* is either an 8-byte secondary LU name (for OPNDST ACCEPT SPECIFIC) or is binary zeros (for OPNDST ACCEPT ANY).

Parameter *z* is either **Y** or **N**.

- **Y** indicates the request specified a bind-image override.
- **N** indicates the request did not specify a bind-image override.

Parameter *www...www* is the 8-byte network identifier for the SLU.

**Event ID:**

EIDLACPT

**Event Format:**

*xxxxxxxxxxxxxxxx 0301 ACCEPT yyyyyyyyyyyyyyy wwwwwwwwwwwwwwwww z*

**Event Code 0302**

**Explanation:** LU services is waiting for a CINIT RU from the SSCP to satisfy an OPNDST ACQUIRE request. Parameter *xxx...xxx* is an 8-byte primary LU name and parameter *yyy...yyy* is the nine-byte user-request correlator used to correlate the CINIT to the particular OPNDST ACQUIRE request.

**Event ID:**

EIDLAQIR

**Event Format:**

*xxxxxxxxxxxxxxxx 0302 ACQUIRE yyyyyyyyyyyyyyy*

**Event Code 0304**

**Explanation:** Logical unit services is waiting for a VTAM operator message to be received so that a queued RCVCMO from a programmed operator application request can be completed. Parameter *xxx...xxx* is the 8-byte network name of the application program.

**Event ID:**

EIDLRCVC

**Event Format:**

*xxxxxxxxxxxxxxxx 0304 RCVCMO*

**Event Code 0305**

**Explanation:** Logical unit services (for a secondary logical unit with 6-byte network address *xxx...xxx*) is awaiting the receipt of a CRV request unit from the primary logical unit (with 6-byte network address *yyy...yyy*) so that OPNSEC macro processing can be completed. Parameter *bbbbbbbb* is a 5-byte field of blanks (X'40404040').

**Event ID:**

EIDLCRV

**Event Format:**

*CRVbbbbbbbb 0305 xxxxxxxxxxxx yyyyyyyyyyy*

**Event Code 0306**

**Explanation:** Logical unit services is waiting for a CRYPTO key translation during OPNSEC processing. Parameter *xxx...xxx* is the 8-byte application name. Parameter *yyy...yyy* is the 6-byte primary network address and parameter *zzz...zzz* is the 6-byte secondary network address.

**Event ID:**

EIDLTRK

**Event Format:**

*xxxxxxxxxxxxxxxx 0306 TRKEY yyyyyyyyyyy zzzzzzzzzzz*

## Codes 0401–0409 (physical unit services LQAB group)

Wait state event codes and IDs associated with the physical unit services LQAB group and their meanings are as follows:

## Event Code 0401 • Event Code 0406

---

### Event Code 0401

**Explanation:** Physical unit services is waiting for an ongoing process to be completed so that another request may be processed. Parameter xxxx is the 2-byte element address of the (channel) link.

**Event ID:**

EIDPPCMP

**Event Format:**

0000 xxxx

---

### Event Code 0402

**Explanation:** Physical unit services is waiting for the LUCB associated with an application program to be freed so that close ACB processing can complete. Parameter xxxx is the 2-byte element address of the application program.

**Event ID:**

EIDPFLUC

**Event Format:**

xxxx FREELUCB

---

### Event Code 0403

**Explanation:** The OPEN/CLOSE subcomponent is waiting for the pending and queued active sessions to be terminated during a persistent close. Parameter xxxx is the 2-byte element address of the application program.

**Event ID:**

EIDPTERM

**Event Format:**

xxxx PENDTERM

---

### Event Code 0404

**Explanation:** Physical unit services is waiting for CLOSE ACB processing for all application programs to be completed so that HALT processing for VTAM can be completed.

**Event ID:**

EIDPVHLT

**Event Format:**

VTAM HALT

---

### Event Code 0405

**Explanation:** Physical unit services is waiting for ACTLU to be received from the SSCP so that OPEN ACB processing can be completed for an application program. Parameter xxx...xxx is the 8-byte network name of the application program.

**Event ID:**

EIDFACT

**Event Format:**

xxxxxxxxxxxxxxxxx ACTIVATE

---

### Event Code 0406

**Explanation:** Physical unit services is waiting for DACTLU to be received from the SSCP so that CLOSE ACB processing can be completed for an application program. Parameter xxx...xxx is the 8-byte network name of the application program.

**Event ID:**

EIDPDACT

**Event Format:**

xxxxxxxxxxxxxxxxx DEACTIVATE

---

**Event Code 0407**

**Explanation:** Physical unit services is waiting for allocation or deallocation of a link to complete so that DACTLINK processing may complete. Parameter *xxxx* is the 2-byte element address of the link being allocated or deallocated.

**Event ID:**

EIDPADDV

**Event Format:**

xxxx LK AL DEAL

---

**Event Code 0408**

**Explanation:** The OPEN/CLOSE subcomponent is waiting for physical unit services to resume processing a delete network resource (DELETENR) request before continuing with a CLOSE ACB request. Parameter *xxxxxxx* is the 4-byte LUCB storage address for which a CLOSE ACB is in progress.

**Event ID:**

EIDPDNRR

**Event Format:**

xxxxxxx DELETENR RESUME

---

**Event Code 0409**

**Explanation:** Physical unit services is waiting for disabled transmission subsystem component (TSC) code to finish processing a logical unit control block (LUCB) before deleting it. Parameter *xxxxxxx* is the 4-byte LUCB storage address TSC is processing.

**Event ID:**

EIDPCDER

**Event Format:**

xxxxxxx CIDCTL DELETE

---

**Codes 0501–0503 (network operator services LQAB group)**

Wait state event codes and IDs associated with the network operator services LQAB group and their meanings are as follows:

---

**Event Code 0501**

**Explanation:** Network operator services is waiting for a RECSTOR RU to be received from an NCP as a part of D NCPSTOR or D DISK command processing. Parameter *xxx...xxx* is the 8-byte network name of the NCP and parameters *aaa...aaa* and *llll* are the address and the length of the NCP storage being displayed. Parameter *tt* is the 1-byte event ID type code.

**Event ID:**

EIDNNORS

**Event Format:**

xxxxxxxxxxxxxxxxx 000000 aaaaaaaaa llll tt

---

**Event Code 0502**

**Explanation:** Network operator services is waiting for a RECTRD RU to be received from an NCP as a part of MODIFY LL2 command processing. Parameter *xxx...xxx* is the 8-byte network name of the NCP, and parameter *yyyy* is the 2-byte procedure relation ID (PRID) associated with the request.

**Event ID:**

EIDNRTR

## Event Code 0503 • Event Code 0603

### Event Format:

xxxxxxxxxxxxxxxxxxx yyyy

---

### Event Code 0503

**Explanation:** Network operator services is waiting for the operator to reply to a WTOR (IST1660A) with the password required for a DISPLAY APING command to complete. Parameter xxx...xxx is the 8-byte resource name entered on the ID parameter on the DISPLAY APING command and parameter yyy...yyy is the 8-byte NETID of that resource. Parameter zzz...zzz is the hexadecimal time message IST1660A was issued.

### Event ID:

EIDNPING

### Event Format:

xxxxxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyy 08 zzzzzzzzzzzzzzzz

---

## Codes 0601–060F (session services LQAB group)

The wait state event codes and IDs associated with the session services miscellaneous LQAB group and their meanings are as follows:

---

### Event Code 0601

**Explanation:** Session services has suspended processing of an RU pending completion of another event. When the other event is completed, the RU will be processed.

This can occur for one of the following reasons:

- A CDCINIT has been received in a gateway SSCP, and SETCV processing has not completed.
- A CDCINIT was received, and cryptographic processing has not completed.
- A duplicate session information block (SIB) or direct search list SIB (DSSIB) was found having a lower PCID procedure resubmit number than the input request.
- A CDINIT DQ was received before the response to CDINIT QUEUED.
- A CDESST was received before the CDCINIT response.

Parameter xxx...xxx is the 8-byte PCID associated with the session.

### Event ID:

EIDSIDEQ

### Event Format:

0601 xxxxxxxxxxxxxxxxxxxx

---

### Event Code 0602

**Explanation:** Session services is waiting for a CDINIT RU to be routed to the next SSCP in the session initiation path. Parameter xxx...xxx is the eight-character network ID of the next SSCP, and parameter yyy...yyy is the eight-character name of the LU.

### Event ID:

EIDSINIT

### Event Format:

0602 xxxxxxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyy

---

### Event Code 0603

**Explanation:** Session services is waiting for the completion of CDRM activation. Parameter xxx...xxx is the 8-byte name of the CDRM.

### Event ID:

EIDECDIN

**Event Format:**

0603 xxxxxxxxxxxxxxxxx

---

**Event Code 0604**

**Explanation:** Session services is waiting for a previous dial to complete. Parameter xxx...xxx is the 8-byte symbolic name of the PU. Parameter zzz...zzz is an 8-byte hexadecimal procedure correlation ID (PCID) associated with the LU-LU session.

**Event ID:**

EIDCDIAL

**Event Format:**

0604 DIAL xxxxxxxxxxxxxxxxx zzzzzzzzzzzzzzz

---

**Event Code 0605**

**Explanation:** CDTAKEDOWN Complete RU will be sent to notify the SSCP when all sessions using the specified SSCP have been terminated. Parameter xxx...xxx is the 8-byte name of an external SSCP.

**Event ID:**

EIDCDTAK

**Event Format:**

0605 xxxxxxxxxxxxxxxxx

---

**Event Code 0606**

**Explanation:** Session services is waiting for CDSESEND because a PLU that initiated a session request has duplicated the network address pair of a terminating session. Parameter xxx...xxx is the 8-byte network identifier for the PLU and parameter yyy...yyy the 6-byte network address for the PLU. Parameter zzz...zzz is the 8-byte PCID associated with the terminating session.

**Event ID:**

EIDICDSE

**Event Format:**

0606 xxxxxxxxxxxxxxxxx yyyyyyyyyyyy zzzzzzzzzzzzzzz

---

**Event Code 0607**

**Explanation:** Session services is waiting to obtain a cryptographic key for the session. Parameter xxx...xxx is the 8-byte PCID associated with the session.

**Event ID:**

EIDCRYPY

**Event Format:**

0607 xxxxxxxxxxxxxxxxx

---

**Event Code 0608**

**Explanation:** Session services is waiting for a SESSST for an XRF primary session with cryptographic information so that XRF backup session initiation is resumed. Parameter xxx...xxx is the 8-byte XRF SLU name.

**Event ID:**

EIDSXRCS

**Event Format:**

0608 xxxxxxxxxxxxxxxxx

## Event Code 0609 • Event Code 060E

---

### Event Code 0609

**Explanation:** Session services is waiting to obtain a cryptographic key for an XRF backup session. Parameter xxx...xxx is the 8-byte PCID for the session.

**Event ID:**  
EIDSXCRT

**Event Format:**  
0609 xxxxxxxxxxxxxxxxxxxx

---

### Event Code 060A

**Explanation:** Session services is waiting for a direct search list (DSRLST) response with the SLU destination for an INIT OTHER CD. Parameter xxx...xxx is the 8-byte PCID associated with the session.

**Event ID:**  
EIDSIOCD

**Event Format:**  
060A xxxxxxxxxxxxxxxxxxxx

---

### Event Code 060B

**Explanation:** Session services is waiting for a DSRLST response to determine the network ID of the DLU. The DSRLST was sent for another session and the same DLU.

**Event ID:**  
EIDSDNTS

**Event Format:**  
060B xxxxxxxxxxxxxxxxxxxx yyyyyyyyyyyyyyyyyy

---

### Event Code 060C

**Explanation:** Session services is waiting to obtain a cryptographic key for the session during CDINIT request or response processing.

**Event ID:**  
EIDSCDCR

**Event Format:**  
060C xxxxxxxxxxxxxxxxxxxx

---

### Event Code 060D

**Explanation:** Session services is waiting to obtain a cryptographic key for the session during DSRLST processing.

**Event ID:**  
EIDSDESCR

**Event Format:**  
060D xxxxxxxxxxxxxxxxxxxx

---

### Event Code 060E

**Explanation:** Session services is waiting to obtain a cryptographic key for the session during DEQUEUE request processing.

**Event ID:**  
EIDSQRQ

**Event Format:**  
060E xxxxxxxxxxxxxxxxxxxx

---

**Event Code 060F**

**Explanation:** Session services is waiting to obtain a cryptographic key for the session during DEQUEUE response processing.

**Event ID:**

EIDSDQRS

**Event Format:**060F xxxxxxxxxxxxxxxx

---

**Code 0701 (session services LQAB 2 group)**

The wait state event code and ID associated with the session services miscellaneous LQAB 2 group and its meaning is as follows:

---

**Event Code 0701**

**Explanation:** Session services is waiting for a session setup attempt to succeed or fail so that the session initiator may be notified. Parameter xxx...xxx is an 8-byte hexadecimal procedure correlation ID (PCID). Parameter yyy...yyy is the 8-byte name of the SSCP in the OLU direction. Parameter zzz...zzz is the 8-byte name of the logical unit.

**Event ID:**

EIDINTFY

**Event Format:**

0701 xxxxxxxxxxxxxxxx yyyyyyyyyyyyyyy zzzzzzzzzzzzzz



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## Chapter 6. VTAM abend codes

This chapter contains the abend codes related to VTAM. For more information about system codes, refer to the system code manual for your operating system.

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### Abend codes

Abend codes indicate that the control program has determined that a task cannot continue processing reliably. For example, an error may have occurred during the execution of a user application program and been detected by VTAM. In such a case, the task is terminated. A completion code indicates the reason for the termination.

Refer to *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for information about the abend procedure and TSO/VTAM abends.

### Code descriptions

#### Abend code 0A7

**Explanation:** During VTAM HALT QUICK, VTAM HALT, VTAM HALT CANCEL, or VTAM abnormal termination processing, VTAM found that no storage was available to schedule a TPEND exit for an access method control block (ACB) opened by a user application program or VTAM subtask.

This abend code is also issued during VTAM HALT CANCEL or VTAM abnormal termination processing if a TPEND exit for an ACB does not exist, the ACB was not valid, or the ACB storage was freed.

**System action:** The user application is abnormally terminated.

#### Abend code 0A8

**Explanation:** VTAM detected an error that occurred during the execution of a user application program. The contents of the two low-order bytes of Register 15 indicate the cause of the error.

#### Register 15 contents (in hex)

	Explanation
2101	A VTAM validity check of the user request parameter list (RPL) failed because the RPL does not have the same protection key as the application program task control block (TCB).
7001	The user's event control block (ECB) is not valid.
7002	A VTAM request for storage failed.
7003	The pointer to the request parameter list (RPL) is not valid.
7004	An ACB OPEN failed due to an access method control block (ACB) address that is not valid.
7005	Storage pointed to by RPLAREA is not valid.
7006	Storage pointed to by RPLAAREA is not valid.
7007	The request parameter list (RPL) is not valid. Unable to find ACB.
7008	RPL6 pointed to by RPLAAREA is not valid.

## Abend code 0A8

- 7009** Node initialization block(s) (NIB) pointed to by the request parameter list (RPL) is not valid.
- 700A** Model terminal support (MTS) data pointed to by node initialization block (NIB) is not valid.
- 700B** Restore parameter list pointed to by node initialization block (NIB) is not valid.
- 700C** Application-supplied dial parameters storage pointed to by node initialization block (NIB) is not valid.
- 700D** Bind area pointed to by node initialization block (NIB) is not valid.
- FC01** Network management interface abend.
- FC02** VTAM agent user read queue PAB had a storage failure.
- FF01** A session awareness (SAW) data buffer that is not valid was passed to VTAM data space services release routine.

**System action:** The task abnormally terminates.

**Programmer response:** This is probably a user error.

- For reason codes 2101, 7001, 7003, 7005, 7006, 7007, 7008, 7009, 700A, 700B, and 700C, verify that the RPL and ECB pointers are correct, and execute the job step again.
- For reason code 7004, verify that the ACB pointer is valid and check the storage to be sure it resides in the application storage protection key.
- For reason code 7002, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the new start option.

- Refer to *z/OS Communications Server: SNA Migration* to determine the storage requirements for VTAM.
- Refer to *z/OS Communications Server: SNA Resource Definition Reference* for a description of VTAM start options.
- Refer to *z/OS Communications Server: SNA Operation* for information about the DISPLAY BFRUSE Command, the DISPLAY STORUSE Command, and the MODIFY VTAMOPTS Command.
- Refer to *z/OS Communications Server: SNA Network Implementation Guide* for an explanation and description of buffer pools, and for general information about buffer pool specification and allocation.
- Refer to *z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT* for information about analyzing dumps and for information about analyzing storage using the VIT analysis tool if external trace is active.
- For reason code 700D, check the application program.
- For reason code FC01, save the dump for problem determination.
- For reason code FF01:
  - If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the electronic technical report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, report the problem to the IBM software support center.

**Problem Determination:**

- If MSGLEVEL=(1,1) was not specified in the JOB statement, specify it and rerun the job.
- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the job stream associated with the job.
- Make sure that the failing job step includes the SYSABEND DD statement.
- Save all the associated output.
- Save the program listing associated with the job.
- Save the dump.
- Have the linkage editor/loader map available.

**Abend code 0A9**

**Explanation:** When accompanied by a zero value in Register 15, a VTAM HALT command has been successfully completed. If Register 15 is not zero, an error has occurred during the execution of a VTAM module. The contents of the two low-order bytes of Register 15 indicate the cause of the error.

**Register 15 contents (in hex)**

<b>Explanation</b>
<b>0000</b> A VTAM HALT CANCEL command has been successfully completed.
<b>10F1</b> The ABEND was issued by VTAM retry functional recovery routine (FRR) to pass the original abend to the next recovery routine (if any) associated with the task control block (TCB). See the original abend, which was recorded in SYS1.LOGREC and appears just prior to the supervisor call (SVC) dump that was generated and indicated by reason code 10F1.
<b>6901</b> Error in CP-CP sessions processing. Missing element on list pointed to by AND_BOTH_CP_STATUS_STORAGE_PTR.
<b>6902</b> Error in CP-CP sessions processing. Missing element on list pointed to by AND_CW_CP_STATUS_STORAGE_PTR.
<b>6903</b> Error in CP-CP sessions processing. Missing element on list pointed to by AND_CL_CP_STATUS_STORAGE_PTR.
<b>7002</b> Storage was not available to drive a user exit.
<b>7005</b> VTAM was unable to restore its registers from the RPH after a user exit routine returned to VTAM.
<b>7006</b> CPPROC was unable to obtain adequate storage from the vary work area (VWA).
<b>7007</b> TPEXIT code was entered while VTAM was holding a lock.
<b>7008</b> A CPWAIT was attempted with an event ID length greater than EIDMAX.
<b>7009</b> A message module needs more vary work area (VWA) storage within the component recovery area (CRA) than is currently available.
<b>700F</b> Encountered a session awareness block (SAB) that was not valid.
<b>7010</b> A GETRDTE or RDTFIND for a resource failed because the resource definition table entry (RDTE) chain has been corrupted.
<b>7012</b> A lock's count shows no user is holding the lock, but the lock is held.
<b>7013</b> Lock hierarchy violation.

## Abend code 0A9

- 7014** TSLINK found the component recovery area (CRA) too small to hold all of the data.
- 7015** A transmission subsystem control block (TSCB) was encountered that is not valid.
- 7071** A RELSTORE was issued for a previously freed buffer.
- 7072** A VTFREE was issued for a previously freed area.
- 7074** A VTFREE was issued for a buffer that is not valid.
- 7075** A FREEBLK was issued for a previously freed storage area.
- 7076** C code ran out of ISA storage for autodata.
- 7077** Storage management header has been overlaid.
- 7078** The last word in the buffer being RELSTOREd is not BFPPCBA (fence corrupted).
- 7079** Header in REQSTORE buffer being allocated is not valid (no match on fence word).
- 707A** A FREESTOR was issued for a previously freed storage area.
- 707B** ISTORMMG detected an overlaid storage management header.
- CD01** CDRM error detected.
- CF01** An error was found and corrected in a CDRM minor node during CDRM major node deactivation.
- FA01** DS process error.
- FA02** The DS disk I/O subtask has abended due to insufficient storage. The checkpoint has been disabled.
- FA09** Initialization error.
- FE02** A pool has been defined by the POOLDEF macro with an unacceptable length or the lengths in a variable-length pool were not defined in ascending order.
- FE03** The GETSTOR pool was defined with an unacceptable length or lengths not ascending.
- FF02** A FREEBLK macro returned a nonzero return code.
- FF03** A utility module detected a function code that is not valid.
- FF04** A request, response, or vector was not defined to the RU information table.
- FF05** The main entry for the extended router was invoked but processing was already occurring within a CALLSSCP environment.
- FF06** No sense code was set, but one should have been.
- FF07** The CPCBURC field contained no format, but the response has a format.
- FF08** The limit of topology elements (SWBVDCVD) has been exceeded. D3/D4 vectors for elements exceeding limit were not built.
- FF09** The VWA area in use is too small to satisfy this request.
- FF10** A request was made to queue a response to a process anchor block (PAB).
- FF11** A suspend code that is not valid was passed to suspend.
- FF12** A SENDER invocation that is not valid was made.

- FF13** An unexpected value was received. The value may be valid in another context.
- FF14** An unexpected finite state machine (FSM) state was encountered.
- FF15** An unexpected field value was encountered for an enumerated type.
- FF16** An unexpected control block was received as input.
- FF17** A session information block (SIB) or SIB address that is not valid was passed to FREESIB.
- FF18** The SENDER buffer area is not large enough.
- FF19** The DETERMINER routine returned results that are not valid.
- FF20** The BUILD routine returned results that are not valid.
- FF22** SRTDEL failed.
- FF23** A VR out-of-sequence error has occurred. The ABEND has been initiated by VTAM (no dump) to initiate VR recovery.
- FF24** VTAM agent user read queue PAB dispatched with incorrect application work element.
- FF25** HPRCTL was issued with the TOKEN option and the value passed was not valid.
- FF26** Secondary Access Point (SAP) table overflow.
- FF99** Indicates that a FFST™ probe was tripped. Console messages with prefix EPW will be issued by FFST to provide information about the probe trip. Refer to *z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT* for a description of FFST probes.

**System action:** The task that initiated the VTAM request abnormally terminates.

**Problem Determination:**

- If MSGLEVEL=(1,1) was not specified in the JOB statement, specify it and rerun the job.
- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the job stream associated with the job.
- Make sure that the failing job step includes the:
  1. SYSABEND DD statement.
  2. SYSUDUMP DD statement.
- Save all the associated output.
- Save the dump.
- Execute the EREP service aid to dump the LOGREC file, and save the resulting output. For MSS, execute the following program to dump the LOGREC file:
  1. Service aid IFCISDA0
  2. Program ISDASDAO with the DETAIL(ALL) parameter
- If Register 15 is 7015, take the following actions to try to determine the cause of the TSCB integrity loss:
  1. Save the dump.
  2. If VTAM internal trace is running MODE=EXT, save this trace.

## Abend code 0A9

**Note:** The default trace internal options may not be enough to resolve this problem. All options but LOCK, with a trace table of at least SIZE=200, may be required.

### Abend code 0AA

**Explanation:** An abend condition occurred during execution of VTAM. VTAM functional recovery routines (FRRs) were unable to associate the failure with any particular task control block (TCB) in the address space.

**System action:** All the tasks in the address space are abnormally terminated.

#### Problem Determination:

- If MSGLEVEL=(1,1) was not specified in the JOB statement, specify it and rerun the job.
- Save the console log from the primary console. For systems with remote consoles, save the remote console log. In systems with multiple-console support (MCS), save a copy of the hard copy log.
- Make sure that the failing job step includes the SYSABEND DD statement.
- Save all the associated output.
- Save the dump.
- Have the linkage editor/loader map available.

### Abend code 0AB

**Explanation:** An error occurred while TSO/VTAM was in operation and a VTIOC module was executing a VTAM macro. The contents of the two low-order bytes of Register 15 indicate the cause of the error.

This error is usually due to a storage problem with the LPBUF or CRPL buffers.

#### Register 15 contents (in hex)

##### Explanation

- |             |  |
|-------------|--|
| <b>0101</b> | The terminal-input manager for LU1 (for example, IBM 3767 and IBM 3770 terminals) encountered an unrecoverable error while executing a VTAM macro that uses a request parameter list (RPL).  |
| <b>0102</b> | The terminal-output manager for LU1 (for example, IBM 3767 and IBM 3770 terminals) encountered an unrecoverable error while executing a VTAM macro that uses an RPL.   |
| <b>0103</b> | The terminal-input manager for LU0 and LU2 (for example, IBM 3270 SNA terminals) encountered an unrecoverable error while executing a VTAM macro that uses an RPL.   |
| <b>0104</b> | The terminal-output manager for LU0 and LU2 (for example, IBM 3270 SNA terminals) encountered an unrecoverable error while executing a VTAM macro that uses an RPL.  |
| <b>0105</b> | The VTIOC LOSTERM exit routine encountered an error during execution of a SNA BIND or UNBIND command that used an RPL.   |
| <b>0201</b> | An application ID problem was encountered during execution of a VTAM OPEN macro. The error occurred during initialization of a TSO/VTAM user-address space.  |
| <b>0202</b> | An error occurred during execution of a VTAM OPEN macro. The ERROR field of the ACB indicates the problem. The values that can be set in the ERROR field are listed in "ACB OPEN and CLOSE macroinstruction error fields" on page 143. |

## Abend code 0AB

**0203** An error occurred during execution of a VTAM CLOSE macro. The code in the ERROR field of the ACB is X'42', indicating that the ACB has been closed, but a VTAM error has prevented the successful disconnection of one or more TSO terminals.

**System action:** The terminal session in which the error occurred terminates.

### Problem Determination:

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save all the associated output.
- Save the dump.
- Execute the EREP service aid to dump the LOGREC file, and save the resulting output. For MSS, execute the following program to dump the LOGREC file:
  1. Service aid IFCISDA0
  2. Program ISDASDAO with the DETAIL(ALL) parameter
- Have the linkage editor/loader map available.

## Abend code 0AC

**Explanation:** The terminal control address space (TCAS) was unable to continue its normal processing because of an error. The low-order bytes of Register 15 and the TCAS work area (TWAR) field TWARSON both contain the reason code that indicates the cause of the error.

### Reason code in hexadecimal

	Explanation
<b>00</b>	A STOP command was entered.
<b>04</b>	A START command that is not valid was entered.
<b>10</b>	The TCAS main task was unable to attach the VTAM interface subtask.
<b>14</b>	The TCAS main task was unable to attach the user-interface subtask.
<b>18</b>	The TCAS main task was unable to attach the console-communication subtask.
<b>1C</b>	TCAS was unable to obtain storage for the TCAS table (TCAST) in the common service area (CSA).
<b>20</b>	The TCAS main task abnormally terminated and was unable to recover.
<b>30</b>	The VTAM interface subtask abnormally terminated and was unable to recover.
<b>34</b>	The user-interface subtask abnormally terminated and was unable to recover.
<b>38</b>	The console-communication subtask abnormally terminated and was unable to recover.

**System action:** TCAS abnormally terminates.

**Operator Response:** Reply 'DUMP' to TCAS termination message IKT012D to obtain a dump.

### Problem Determination:

## Abend code 0AC

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. For systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the system output (SYSOUT) associated with the job.
- Save all the associated output.
- Save the dump.
- Print the associated SVC dump data set, using IPCS. Refer to *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for information about IPCS.

## Abend code 0AD

**Explanation:** An error occurred while TSO/VTAM was in operation and VTIOC queue manager was executing a GETCELL or FREECELL macro. The contents of the two low-order bytes of Register 15 indicate the cause of the error.

### Register 15 contents (in hex)

#### Explanation

- |             |  |
|-------------|--|
| <b>0108</b> | The cell address supplied to the FREECELL macro is not valid.            |
| <b>010C</b> | No cell pool existed for the FREECELL request.                           |
| <b>0110</b> | A cell pool ID that is not valid was specified for the FREECELL request. |
| <b>020C</b> | No cell pool existed for the GETCELL request.                            |
| <b>0210</b> | A cell pool ID that is not valid was specified for the GETCELL request.  |

**System action:** The queue manager abnormally terminates, and the terminal session in which the error occurred terminates.

### Problem Determination:

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. In systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the program listing associated with the job.
- Execute the EREP service aid to dump the LOGREC file, and save the resulting output. For MSS, execute the following program to dump the LOGREC file:
  1. Service aid IFCISDA0
  2. Program ISDASDAO with the DETAIL(ALL) parameter
- Have the linkage editor/loader map available.
- Print the associated SVC dump data set, using IPCS. Refer to *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for information about IPCS.

## Abend code CC5

**Explanation:** CC5 is the abend completion code for abends issued from sockets-over-SNA. The contents of the two low-order bytes of Register 15 indicate the cause of the error.

### Register 15 Contents in Hexadecimal

#### Explanation

- |             |   |
|-------------|---|
| <b>0830</b> | Indicates an ALESERV ADD macro failure. |
| <b>0847</b> | A name or token has been created.       |
| <b>0850</b> | Unable to obtain storage.               |
| <b>0851</b> | Unable to establish ESTAE.              |

**0852** Bad parameters passed to abending module.

**0853** OSI\_SETUP failed.

**0854** Latch create failed.

**0855** Queue post failed.

**0856** Trace failure.

**0857** A user thread SRB was cancelled.

**System action:** The system abends and takes an ABEND dump.

**Operator Response:** None.

**Problem Determination:**

- Save the console log from the primary console. For systems with remote consoles, save the remote console log. In systems with multiple-console support (MCS), save a copy of the hard copy log.
- Save the program listing associated with the job. Refer to *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information.

**Abend code CC5**

---

## Chapter 7. ATM network-generated cause and diagnostic codes

ATM network-generated cause and diagnostic codes are issued in some messages when a request for activation of a native ATM permanent virtual channel (PVC) or a switched virtual channel (SVC) fails. These codes provide information about the cause of a failure detected by the ATM network.

This chapter shows possible codes and their meaning.

**Note:** The codes included in this chapter are those defined by the International Telecommunication Union–Telecommunication Standardization Sector (ITU-T), as specified in the *ATM User-Network Interface Specification, Version 3.1*, published by the ATM Forum. If you cannot find a particular code in this chapter, refer to the following ITU-T recommendations or consult your ATM network provider.

- Q.850, *Usage of Cause and Location in DSS 1 and the SS 7 User Part*
- Q.2610, *Broadband Integrated Services Digital Network (B-ISDN) Usage of Cause and Location in B-ISDN User Part and DSS 2*

**VTAM Hint:** A possible cause of many errors indicated by ATM network-generated cause and diagnostic codes is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

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### ATM network-generated cause codes

This section describes the cause codes that can be displayed.

Table 13. ATM network-generated cause codes

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
1	1	Unassigned number  <b>Explanation:</b> The number requested by the calling user cannot be reached because it is not currently assigned to any user by the network.	See “Diagnostic code for cause codes 1, 2, and 49” on page 303.

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
2	2	No route to specified transit network  <b>Explanation:</b> The equipment issuing this cause received a request to route the call through a transit network that it does not recognize. The equipment issuing this cause does not recognize the transit network because the network does not exist, or the network exists but does not serve the equipment that is sending this cause. This message is network dependent.	None available
3	3	No route to destination  <b>Explanation:</b> The called user cannot be reached because the network that serves the called user is inaccessible.	See "Diagnostic code for cause codes 1, 2, and 49" on page 303.
10	A	VPCI/VCI unacceptable	None available
16	10	Normal call clearing  <b>Explanation:</b> The call is being cleared because one of the users involved in the call has requested that the call be cleared.	None available
17	11	User busy  <b>Explanation:</b> The called user has indicated an inability to accept another call, although the called user equipment is compatible with the call.	None available
18	12	No user responding  <b>Explanation:</b> The user did not respond to a call establishment message with a connect indication within the time allocated.	None available
21	15	Call rejected  <b>Explanation:</b> The called user did not accept this call, although it could have been accepted because the called user was neither busy nor incompatible.	See "Diagnostic code for cause code 21" on page 304.

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
22	16	Number changed  <b>Explanation:</b> The called party number indicated by the calling user is no longer assigned.	New destination  New destination is formatted as the called party number information element, including the information element identifier. Transit network selection might also be included.
23	17	User rejects CLIR  <b>Explanation:</b> The user rejects all calls with calling line identification restriction (CLIR).	None available
26	1A	Not-selected user clearing  <b>Explanation:</b> The user has not been routed the incoming call.	None available
27	1B	Destination out of order  <b>Explanation:</b> The destination cannot be reached because a signaling message could not be delivered to the called user.	None available
28	1C	Incorrect number format (address incomplete)  <b>Explanation:</b> The called user cannot be reached because the called party number is not a valid format or is not complete.	None available
30	1E	Response to status inquiry  <b>Explanation:</b> This value is included in the status message after the prior receipt of a status inquiry message.	None available
31	1F	Normal, unspecified  <b>Explanation:</b> A normal event occurred and no other cause in the normal event class applies.	None available
35	23	Requested VPCI/VCI not available	None available
36	24	VPCI/VCI assignment failure	None available
37	25	User cell rate not available	None available

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
38	26	Network out of order  <b>Explanation:</b> The network is not functioning correctly, and the condition is likely to last a long time. Immediately retrying a call is not likely to be successful.	None available
41	29	Temporary failure  <b>Explanation:</b> The network is not functioning correctly, but the condition is not likely to last a long time. Another call attempt can be tried almost immediately.	None available
43	2B	Access information discarded  <b>Explanation:</b> The network could not deliver access information to the called user as requested. Access information includes low-layer compatibility and high-layer information.	See "Information element identifier" on page 305.  Multiple information element identifiers might be included.
45	2D	No VPCI/VCI available	None available
47	2F	Resource unavailable, unspecified  <b>Explanation:</b> A resource unavailable event occurred and no other cause in the resource unavailable class applies.	None available
49	31	Quality of service not available  <b>Explanation:</b> The requested quality of service cannot be provided.	See "Diagnostic code for cause codes 1, 2, and 49" on page 303.
51	33	User cell rate not available	See "ATM user cell rate subfield identifier" on page 306.  Multiple ATM user cell rate subfield identifiers might be included.
57	39	Bearer capability not authorized	None available

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
58	3A	Bearer capability not presently available  <b>Explanation:</b> The requested bearer service is implemented by the equipment, but it is not available at this time.	None available
63	3F	Service or option not available, unspecified  <b>Explanation:</b> A service or option is unavailable and no other cause in the service or option-not-available class applies.	None available
65	41	Bearer capability not implemented  <b>Explanation:</b> The equipment issuing this cause does not support the requested bearer capability.	None available
73	49	Unsupported combination of traffic parameters	None available
78	4E	AAL parameters cannot be supported	None available
79	4F	Service or option not implemented, unspecified  <b>Explanation:</b> A service or option is not implemented and no other cause in the service or option-not-implemented class applies.	None available
81	51	Incorrect call reference value  <b>Explanation:</b> The equipment sending the cause received a message with a call reference that is not currently in use on the user-network interface.	None available

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
82	52	Identified channel does not exist  <b>Explanation:</b> The equipment issuing this cause received a request to establish a call that has low-layer compatibility, high-layer compatibility, or other compatibility attributes that it cannot accommodate.	See "Virtual path connection identifier (VPCI) and virtual channel identifier (VCI)" on page 307.
88	58	Incompatible destination  <b>Explanation:</b> The equipment issuing this cause received a request to establish a call that has low-layer compatibility, high-layer compatibility, or other compatibility attributes that it cannot accommodate.	See "Information element identifier" on page 305.  Multiple information element identifiers might be included.
89	59	Incorrect endpoint reference	None available
91	5B	Incorrect transit network selection  <b>Explanation:</b> An incorrectly formatted transit network identifier was received.	None available
92	5C	Too many pending add party requests	None available
93	5D	AAL parameters cannot be supported	None available
95	5F	Incorrect message, unspecified  <b>Explanation:</b> A message event occurred and no other cause in the incorrect message class applies.	None available
96	60	Mandatory information element is missing  <b>Explanation:</b> The equipment sending this cause received a message that is missing an information element required to process the message.	See "Information element identifier" on page 305.  Multiple information element identifiers might be included.

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
97	61	<p>Message type does not exist or is not implemented</p> <p><b>Explanation:</b> The equipment sending this cause received a message that it does not recognize because the message is not defined or it is defined but not implemented by the equipment sending the cause.</p>	See "Message type" on page 307.
99	63	<p>Information element does not exist or is not implemented</p> <p><b>Explanation:</b> The equipment sending this cause received a message that included an information element that is not recognized because the identifier is not defined or it is defined but not implemented by the equipment sending the cause. However, the equipment issuing the cause does not require the information element to be present in the message for processing.</p>	<p>See "Information element identifier" on page 305.</p> <p>Multiple information element identifiers might be included.</p>
100	64	<p>Incorrect information element contents</p> <p><b>Explanation:</b> The equipment sending this cause received an information element that it has implemented, but one or more of the parameters in the information element are coded incorrectly or not implemented.</p>	<p>See "Information element identifier" on page 305.</p> <p>Multiple information element identifiers might be included.</p>
101	65	<p>Message not compatible with call state</p> <p><b>Explanation:</b> A message has been received that is incompatible with the call state.</p>	See "Message type" on page 307.
102	66	<p>Recovery on timer expiration</p> <p><b>Explanation:</b> A procedure has been initiated by the expiration of a time in association with Q.2931 error handling procedures.</p>	See "Timer number" on page 309.

## ATM network-generated cause and diagnostic codes

Table 13. ATM network-generated cause codes (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
104	68	Incorrect message length	None available
111	6F	Protocol error, unspecified <b>Explanation:</b> A protocol error event occurred and no other cause in the protocol error class applies.	None available
121	79	Interworking, unspecified <b>Explanation:</b> Interworking occurred with a network that does not provide causes for actions that it takes. The precise cause for a message that is being sent cannot be ascertained.	None available

---

## ATM network-generated coding standard

This section describes the coding standard that can be displayed.

Table 14. ATM network-generated coding standard

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
0	0	ITU-TS (CCITT) standardized	None available
3	3	Standard defined for the network (either public or private) present on the network side of the interface.	None available

---

## ATM network-generated cause location

This section describes the cause location that can be displayed.

Table 15. ATM network-generated cause location

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
0	0	user	None available
1	1	Private network serving the local user	None available
2	2	Public network serving the local user	None available
3	3	Transit network	None available
4	4	Public network serving the remote user	None available
5	5	Private network serving the remote user	None available
7	7	International network	None available

## ATM network-generated cause and diagnostic codes

Table 15. ATM network-generated cause location (continued)

Decimal code	Hexadecimal code	Meaning	Additional diagnostic information
10	A	Network beyond interworking point	None available

### ATM network-generated diagnostic codes

This section describes the diagnostic codes that can be displayed.

#### Diagnostic code for cause codes 1, 2, and 49

B'	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8
Byte 7	1	0			Network Service	Type	Condition	

Table 16 on page 304 describes the contents of the diagnostic code for cause codes 1, 2, and 49.

## ATM network-generated cause and diagnostic codes

Table 16. Diagnostic code for cause codes 1, 2, and 49

Byte	Description
7	<p><b>Bit 1 — Extension</b>  <b>B'1... ....'</b>                      Extension</p> <p><b>Bits 2–4 — Spare</b>  <b>B'.0.. ....'</b>                      Spare  <b>B'..0. ....'</b>                      Spare  <b>B'...0 ....'</b>                      Spare</p> <p><b>Bit 5 — Network Service</b>  <b>B'.... 0...'</b>                      Provider  <b>B'.... 1...'</b>                      User</p> <p><b>Bit 6 — Type of Failure</b>  <b>B'.... .0..'</b>                      Normal  <b>B'.... .1..'</b>                      Abnormal</p> <p><b>Bits 7 and 8 — Condition</b>  <b>B'.... ..00'</b>                      Unknown  <b>B'.... ..01'</b>                      Permanent  <b>B'.... ..10'</b>                      Transient</p>

## Diagnostic code for cause code 21

	B'	X	X	X	X	X	X	X	X
		1	2	3	4	5	6	7	8
Byte 7	1	Rejection Reason						Condition	
Byte 8	Additional Information								

Table 17 on page 305 describes the contents of the diagnostic code for cause codes 21.

## ATM network-generated cause and diagnostic codes

Table 17. Diagnostic code for cause code 21

Byte	Description
7	<p><b>Bit 1 — Extension</b></p> <p><b>B'1... ....'</b> Extension</p> <p><b>Bits 2–6 — Rejection Reason</b></p> <p><b>B'.000 00..'</b> User specific</p> <p><b>B'.000 01..'</b> Information element missing</p> <p><b>B'.000 10..'</b> Information element contents are not sufficient</p> <p><b>Bits 7 and 8 — Condition</b></p> <p><b>B'.... ..00'</b> Unknown</p> <p><b>B'.... ..01'</b> Permanent</p> <p><b>B'.... ..10'</b> Transient</p>
8	<p>If the rejection reason in Byte 7 indicates user specific, Byte 8 is coded to the user specification, subject to the maximum length of the cause information element.</p> <p>If the rejection reason in Byte 7 indicates information element missing or information element contents are not sufficient, byte 8 contains the information element identifier of the missing or insufficient information element.</p>

### Information element identifier

**VTAM Hint:** A possible cause of many errors indicated by an ATM network-generated information element identifier cause code is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

Hexadecimal code	Meaning
X'08'	Cause
X'14'	Call state
X'54'	Endpoint reference
X'55'	Endpoint state
X'58'	ATM adaptation layer parameters
X'59'	ATM user cell rate
X'5A'	Connection identifier
X'5C'	Quality of service parameter

## ATM network-generated cause and diagnostic codes

Hexadecimal code	Meaning
X'5D'	Broadband high layer information
X'5E'	Broadband bearer capability
X'5F'	Broadband low-layer information
X'60'	Broadband locking shift
X'61'	Broadband non-locking shift
X'62'	Broadband sending complete
X'63'	Broadband repeat indicator
X'6C'	Calling party number
X'6D'	Calling party subaddress
X'70'	Called party number
X'71'	Called party subaddress
X'78'	Transit network selection
X'79'	Restart indicator

## ATM user cell rate subfield identifier

**VTAM Hint:** A possible cause of many errors indicated by an ATM network-generated ATM user cell rate subfield identifier cause code is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

Hexadecimal code	Meaning
X'82'	Forward peak cell rate identifier (CLP=0)
X'83'	Backward peak cell rate identifier (CLP=0)
X'84'	Forward peak cell rate identifier (CLP=0+1)
X'85'	Backward peak cell rate identifier (CLP=0+1)
X'88'	Forward sustainable cell rate identifier (CLP=0)
X'89'	Backward sustainable cell rate identifier (CLP=0)
X'90'	Forward sustainable cell rate identifier (CLP=0+1)
X'91'	Backward sustainable cell rate identifier (CLP=0+1)
X'A0'	Forward maximum burst size identifier (CLP=0)
X'A1'	Backward maximum burst size identifier (CLP=0)
X'B0'	Forward maximum burst size identifier (CLP=0+1)
X'B1'	Backward maximum burst size identifier (CLP=0+1)
X'BE'	Best effort indicator
X'BF'	Traffic management options identifier

## Virtual path connection identifier (VPCI) and virtual channel identifier (VCI)

**VTAM Hint:** A possible cause of many errors indicated by an ATM network-generated VPCI/VCI cause code is an incorrectly coded DLCADDR operand on a GROUP definition statement in the XCA major node or on the PATH definition statement in the switched major node. Refer to *z/OS Communications Server: SNA Resource Definition Reference* for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node and for information about how to code the DLCADDR operand on the PATH definition statement in the switched major node.

B'	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8
Byte 7	Virtual Path Connection Identifier (VPCI)							
Byte 8	VPCI (continued)							
Byte 9	Virtual Channel Identifier (VCI)							
Byte 10	VCI (continued)							

Table 18 describes the contents of the VPCI/VCI diagnostic code.

Table 18. Virtual path connection identifier and virtual channel identifier

Byte	Description
7	Virtual path connection identifier (VPCI)
8	VPCI (continued)
9	Virtual channel identifier (VCI)
10	VCI (continued)

## Message type

B'	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8
Byte 7	Message Type							
Byte 8	1	Spare	Flag	Spare	Spare	Action Indicator		

## ATM network-generated cause and diagnostic codes

Table 19 describes the contents of the message type diagnostic code.

Table 19. Message type

Byte	Description
7	<b>Call Establishment Messages</b>
	X'02' CALL PROCEEDING
	X'07' CONNECT
	X'0F' CONNECT ACKNOWLEDGE
	X'05' SETUP
	<b>Call Clearing Messages</b>
	X'4D' RELEASE
	X'5A' RELEASE COMPLETE
	X'46' RESTART
	X'4E' RESTART ACKNOWLEDGE
	<b>Point-to-Multipoint Messages</b>
	X'80' ADD PARTY
	X'81' ADD PARTY ACKNOWLEDGE
	X'82' ADD PARTY REJECT
	X'83' DROP PARTY
	X'84' DROP PARTY ACKNOWLEDGE
	<b>Miscellaneous Messages</b>
	X'7D' STATUS
	X'75' STATUS ENQUIRY

## ATM network-generated cause and diagnostic codes

Table 19. Message type (continued)

Byte	Description
8	<p><b>Bit 1 — Extension</b></p> <p><b>B'1... ....'</b> Extension</p> <p><b>Bits 2 and 3 — Spare</b></p> <p><b>B'.0.. ....'</b> Spare</p> <p><b>B'..0. ....'</b> Spare</p> <p><b>Bit 4 — Flag</b></p> <p><b>B'...0 ....'</b> Message instruction field is not significant. Regular error handling procedures apply. Ignore action indicator field.</p> <p><b>B'...1 ....'</b> Follow explicit instructions in the action indicator field that supersedes regular error handling procedures.</p> <p><b>Bit 5 — Spare</b></p> <p><b>B'.... .0..'</b> Spare</p> <p><b>Bit 6 — Spare</b></p> <p><b>B'.... .0..'</b> Spare</p> <p><b>Bits 7 and 8 — Action Indicator</b></p> <p><b>B'.... ..00'</b> Clear call</p> <p><b>B'.... ..01'</b> Discard and ignore</p> <p><b>B'.... ..10'</b> Discard and report status</p> <p><b>B'.... ..11'</b> Reserved</p>

### Timer number

B'	X	X	X	X	X	X	X	X	X	'
	1	2	3	4	5	6	7	8		
Byte 7	0	IA5 Character								
Byte 8	0	IA5 Character								
Byte 9	0	IA5 Character								

## ATM network-generated cause and diagnostic codes

Table 20 describes the contents of the timer number diagnostic code.

*Table 20. Timer number*

Byte	Description
7	<b>Bit 1 — Spare</b> <b>B'0... ..'</b> Spare <b>Bits 2–7 — IA5 Character</b>

---

## Chapter 8. SNA coupling facility user reason codes

This chapter describes the MVS Coupling Facility user reason codes.

---

### Rebuild start reason codes

This section describes the connector specific reason codes for starting a rebuild. These codes will appear in the MVS message IXC526I.

#### 00000108x storage shortage

VTAM detected a shortage of either storage entries or data elements in a coupling facility structure. VTAM was unable to adjust the number of entries or elements using the structure alter process, so a rebuild is started to adjust the number of entries or elements.

#### 00000112x loss of connectivity

VTAM lost connectivity to a coupling facility structure. Since the sysplex failure management (SFM) policy is not in effect, VTAM is starting a rebuild to attempt to reestablish connectivity.

#### 00000114x list number expansion

All list headers in the coupling facility structure are being used. VTAM is starting a rebuild to expand the number of list headers allocated in the structure.

---

### Rebuild stop reason codes

This section describes the connector specific reason codes for stopping a rebuild. These codes will appear in the MVS message IXC527I.

#### 00000100x response failure

VTAM was unable to respond to an event during a rebuild. The rebuild is stopped to avoid a hang situation in the rebuild state.

**VTAM Hint:** This is caused by an unexpected return code from the IXLEERSP programming interface that VTAM uses to respond to particular events received from MVS. Attempt the rebuild again. If the rebuild continues to be stopped with this code, contact IBM Service.

#### 00000104x local repopulation failure

VTAM was unable to complete repopulating the data in the rebuild structure from the local data.

**VTAM Hint:** This is a result of an unexpected failure during the repopulation phase of the rebuild. Contact IBM Service.



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## Chapter 9. TCP/IP codes

This chapter contains the GDDMXD/MVS, MVP, SMTP, and SNALU6.2 codes.

---

### GDDMXD/MVS abend codes

The following are GDDMXD/MVS abend codes.

---

102

**Suppression Level:** Recoverable error.

**Explanation:** Either of the load modules GDXLIOX0 or GDXADML1 could not be found.

**System Action:** The GDDM<sup>®</sup> application is terminated.

**User Response:** Check that the load library for GDDMXD/MVS is allocated in STEPLIB.

**System Programmer Response:** None.

**Source Data Set:** N/A

**Procedure Name:** N/A

---

103

**Suppression Level:** Recoverable error.

**Explanation:** The X Window System was unable to connect to the workstation at the internet address specified in the *user\_id.XWINDOWS.DISPLAY* data set.

**System Action:** The GDDM application is terminated.

**User Response:** Correct the address in *user\_id.XWINDOWS.DISPLAY* data set, and try again.

**System Programmer Response:** None.

**Source Data Set:** GDXLINX0

**Procedure Name:** gdxlinx0

---

104

**Suppression Level:** Recoverable error.

**Explanation:** The X Window System has detected an error and is unable to continue. This abend is generally preceded by an X Window System message.

**System Action:** The GDDM application is terminated.

**User Response:** Try again. If the error continues to occur, contact the IBM Software Support Center.

**System Programmer Response:** None.

**Source Data Set:** GDXLANX0, GDXLDSX0, GDXLINX0, GDXLRDX0

**Procedure Name:** N/A

---

105

**Suppression Level:** Recoverable error.

**Explanation:** An unexpected condition has occurred. This can be caused by some previous error condition or incomplete program termination.

**System Action:** The GDDM application is terminated.

**User Response:** Issue the TSO LOGON command. If the error persists, contact the IBM Software Support Center.

**System Programmer Response:** None.

**Source Data Set:** N/A

**Procedure Name:** N/A

## MVS platform (MVPMAIN) completion codes

This section contains MVPMAIN completion codes

The following return codes are issued from the MVPMAIN module, which is the MVS platform module responsible for establishing the execution environment for many of the tasks started to support TCP/IP services. These return codes or task completion codes appear in the job log for the started task (within message IEF142I). They also appear as part of a task completion message written to the operator console.

### 1xx

**Explanation:** An attempt to obtain virtual storage for the MVPCOMM (common) table using the GETMAIN macro interface was unsuccessful. The xx portion of the completion code is the GETMAIN return code.

**System Action:** The system terminates the task.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Increase the region size in the catalogued procedure used to start the task. If region size is not the problem, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

### 200

**Explanation:** A subtask of MVPMAIN abended.

**System Action:** The system ends the task.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check the job log to identify the failing task. Use the dump from the abend to determine the cause of the failure in the subtask. See the *z/OS MVS Diagnosis: Reference* for more information about debugging abends.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

### 316

**Explanation:** An attempt to load the message data set MVPMSGs was unsuccessful.

**System Action:** The system terminates the task.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check that the identified module resides in a library that is accessible to the MVS platform code. Refer to *z/OS Communications Server: IP Configuration Reference* for information about required library residence for TCPIP components. If residency requirements are met, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

---

**516**

**Explanation:** An attempt to load module MVPTASK was unsuccessful. This module is responsible for attaching all subtasks of the MVS platform.

**System Action:** The system terminates the task.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check that the identified module resides in a library that is accessible to the MVS platform code. Refer to *z/OS Communications Server: IP Configuration Reference* for information about required library residence for TCPIP components. If residency requirements are met, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

---

**600**

**Explanation:** Module MVPMAIN could not find the entry for the VMCF subsystem address space during a scan of SSCVT (SubSystems Communications Vector Table).

**System Action:** The system terminates the task.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check that the VMCF subsystem is being created and initialized during system initialization. The subsystems should be defined to MVS using the SYS1.PARMLIB member IEFSSNxx. For information about this process, refer to *z/OS Communications Server: IP Configuration Reference*, the *z/OS MVS Initialization and Tuning Guide*, and the *z/OS MVS Initialization and Tuning Reference*. Make corrections to the definitions as necessary. Check for previous operator messages indicating why the VMCF subsystem failed to initialize if the definitions are accurate. For information about possible error messages from subsystem processing, see one of the system messages manuals. Subsystem processing error messages usually occur because of a programming error. If the problem cannot be remedied by modifying subsystem definitions, gather all available documentation and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

---

**7xx**

**Explanation:** An error occurred attempting to return virtual storage for the MVPCOMM (common) table using the FREEMAIN macro interface. The xx portion of the completion code is the FREEMAIN return code. This error occurred during task termination processing.

**System Action:** The system terminates the task.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** This error usually occurs because of corruption of the storage used to anchor the MVPCOMM control block. Determine if any previous operator messages were issued that might indicate contributing error conditions within the MVS platform. Gather all available documentation and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

---

**8xx**

**Explanation:** An attempt to obtain virtual storage for I/O completion and attention work areas using the GETMAIN macro interface was unsuccessful. The xx portion of the completion code is the GETMAIN return code.

**System Action:** The system terminates the task.

**Operator Response:** Tell the system programmer about the error.

## 9xx • 3016

**System Programmer Response:** Increase the region size in the catalogued procedure used to start the task. If region size is not the problem, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

---

### 9xx

**Explanation:** An ENQ macro was issued with a resource name of TCPIPSYS.task\_name, requesting exclusive use. The ENQ invocation failed, with the xx portion of the completion code being the ENQ return code.

**System Action:** The system ends the task.

**Operator Response:** If the error was an unintentional attempt to start a TCPIP task that was already active, then no actions are required. Otherwise, tell the system programmer about the error.

**System Programmer Response:** If the error was not because of an unintentional attempt to start a duplicate TCPIP task, examine the task completion code. For information about interpreting the return code, see the *z/OS MVS Programming: Assembler Services Reference ABE-HSP*. Follow recommended problem resolution procedures indicated by the appropriate MVS diagnostics manual.

**Note:** The ENQ was issued with the RET=USE parameter.

If problem determination indicates that the MVS platform is in error, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPMAIN

**Procedure Name:** mainline code

---

## MVS platform (MVPXVI) completion codes

This section contains MVPXVI completion codes.

The following return codes are issued from the MVPXVI, which is the module responsible for initializing the address space that provides VMCF/DLC emulation services.

---

### 52

**Explanation:** An attempt to establish the interface to the VMCF subsystem through program calls (PCs) was unsuccessful. Module MVPXGPC returned a nonzero return code from its invocation to create a PC entry table.

**System Action:** The system terminates the VMCF subsystem.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** This error usually occurs because of a programming error in generating the macros responsible for defining the PC entry table. Determine if a refresh of module MVPXGPC resolves the problem. Otherwise, report the error to the IBM Software Support Center.

**Source Data Set:** MVPXVI

**Procedure Name:** mainline code

---

### 3016

**Explanation:** An attempt to load the message data set MVPMSGs was unsuccessful.

**System Action:** The system terminates the VMCF subsystem.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check that the identified module resides in a library that is accessible to the MVS platform code. For information about the required library residence for TCPIP components, refer to *z/OS*

*Communications Server: IP Configuration Reference.* If residency requirements are met, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPXVI

**Procedure Name:** mainline code

---

#### 4000

**Explanation:** During VMCF address space initialization, either module MVPXVI was unable to find the entry for the VMCF subsystem address space during a scan of subsystems communications vector table (SSCVT), or the entry was successfully located, but the pointer to the VMCF communications vector table (CVT) contained a value of zero.

**System Action:** The system terminates the VMCF subsystem.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check that the VMCF subsystem is being created and initialized during system initialization. The subsystems should be defined to MVS using the SYS1.PARMLIB member IEFSSNxx. Refer to *z/OS Communications Server: IP Configuration Reference*, *z/OS MVS Initialization and Tuning Guide*, and the *z/OS MVS Initialization and Tuning Reference*. Make corrections to the definitions as necessary. Check for previous operator messages indicating why the VMCF subsystem failed to initialize if the definitions are accurate. For information about possible error messages from subsystem processing, see *System Messages*. Subsystem processing error messages usually occur because of a programming error. If the problem cannot be remedied by modifying subsystem definitions, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPXVI

**Procedure Name:** mainline code

---

#### 5000

**Explanation:** During VMCF address space initialization, either module MVPXVI was unable to find the entry for the Termination Notification Facility (TNF) subsystem address space during a scan of SSCVT (subsystems communications vector table), or the entry was successfully located, but the pointer to the TNF communications vector table (CVT) contained a value of zero.

**System Action:** The system terminates the VMCF subsystem.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** Check that the TNF subsystem is being created and initialized during system initialization. The subsystems should be defined to MVS using the SYS1.PARMLIB member IEFSSNxx. Refer to *z/OS Communications Server: IP Configuration Reference*, *z/OS MVS Initialization and Tuning Guide*, and the *z/OS MVS Initialization and Tuning Reference*. Make corrections to the definitions as necessary. Check for previous operator messages indicating why the TNF subsystem failed to initialize if the definitions are accurate. For information about possible error messages from subsystem processing, see *System Messages Subsystem*. Processing error messages usually occur because of a programming error. If the problem cannot be remedied by modifying subsystem definitions, gather all available documentation, and report the error to the IBM Software Support Center.

**Source Data Set:** MVPXVI

**Procedure Name:** mainline code

---

#### 70xx

**Explanation:** An error occurred attempting to return virtual storage for the VMCF common tables using the FREEMAIN macro interface. The xx portion of the completion code is the FREEMAIN return code. This error occurred during subsystem termination processing.

**System Action:** The system terminates the VMCF subsystem.

**Operator Response:** Tell the system programmer about the error.

**System Programmer Response:** This error usually occurs because of corruption of the storage used to anchor the VMCF common control blocks. Determine if any previous operator messages were issued that indicate contributing error conditions within the VMCF subsystem. Gather all available documentation and report the error to the IBM Software Support Center.

**Source Data Set:** MVPXVI

**Procedure Name:** mainline code

## SMTP reply code messages

The following are SMTP reply code messages.

### 451 Local error in processing

**Suppression Level:** Recoverable error.

**Explanation:** This message is returned to the mail sender from the local host when the sender's mail was not successfully delivered. SMTP cannot write a mail data set to its disk because the disk is full.

**System Action:** SMTP continues.

**System Programmer Response:** Check the SMTP console for additional error messages. If the disk is full, remove unnecessary files, such as old SMTP LOGs, or increase the size of the disk.

**Source Data Set:** SMTPEVNT

**Procedure Name:** StoreData

### 451 Pacing problem detected by server

**Suppression Level:** Recoverable error.

**Explanation:** This message is returned to the mail client from the local host when the mail server has detected a pacing problem and the mail cannot be delivered. SMTP protocol dictates that the SMTP client should wait for a reply from the SMTP server before sending the next SMTP command (for example, RCPT). Pacing problems cause the client and server communications to get out of synchronization.

**System Action:** SMTP continues.

**System Programmer Response:** Notify the owner of remote SMTP client of the problem.

**Source Data Set:** SMTPCMDS

**Procedure Name:** StoreData

### 500 Command Line too long

**Suppression Level:** Warning.

**Explanation:** A command line was entered that exceeds the maximum allowable argument string-length of 512 characters.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the syntax, and resubmit the command. If necessary, you can request online help by entering HELP.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoCommand

### 500 Unknown command, *command*

**Suppression Level:** Recoverable error.

**Explanation:** An unidentifiable command is received on the server. The following are the valid or known commands:

- DATA
- EXPN
- HELO
- HELP
- MAIL
- NOOP
- QUEU
- QUIT
- RCPT
- RSET
- SAML
- SEND
- SOML
- TICK
- TURN
- VERB
- VRFY

The unidentifiable command is indicated at the end of the message.

**System Action:** SMTP continues.

**System Programmer Response:** The sender issues a correct and supported SMTP command. If necessary, the user can request online help by entering HELP.

**Source Data Set:** SMTPCMDS

**Procedure Name:** NoSuchCommand

#### 501 Syntax Error. <CR> and <LF> not permitted in Quoted Text

**Suppression Level:** Recoverable error.

**Explanation:** A carriage return character or a line feed character was found in a quoted string of text. Carriage returns and line feeds are not allowed in quoted strings, as defined in RFC 821. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the quoted string so that it does not contain carriage returns or line feeds.

**Source Data Set:** SMTPPARSE

**Procedure Name:** QText

#### 501 Syntax Error. *message*

**Suppression Level:** Recoverable error.

**Explanation:** This message is the prefix for all syntax errors returned to the SMTP client machine.

**System Action:** SMTP continues.

**System Programmer Response:** Check the incorrect command and additional errors to determine the problem with the command.

**Source Data Set:** SMTPPARSE

**Procedure Name:** ReplySyntaxError

#### 501 Syntax Error. *address* expected

**Suppression Level:** Recoverable error.

**Explanation:** The SMTP server was expecting a valid IP address.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the syntax to specify a valid IP address in dotted-decimal notation.

**Source Data Set:** SMTPPARSE

**Procedure Name:** DotNum

## 501

---

### 501 Syntax Error. *address must be in range 0..255*

**Suppression Level:** Recoverable error.

**Explanation:** An integer value, in the range 0–255, was expected in an IP address. The IP address should be a valid address in dotted-decimal notation.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the syntax to specify a valid IP address in dotted-decimal notation.

**Source Data Set:** SMTPPARSE

**Procedure Name:** DotNum

---

### 501 Syntax Error. *address too long*

**Suppression Level:** Recoverable error.

**Explanation:** SMTP was expecting an IP address, for example 4 octets long. The IP address should be a valid address in dotted-decimal notation.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the syntax to specify a valid IP address in dotted-decimal notation.

**Source Data Set:** SMTPPARSE

**Procedure Name:** DotNum

---

### 501 Syntax Error. *'.'* expected

**Suppression Level:** Recoverable error.

**Explanation:** An IP address was not separated by decimal points. The IP address should be a valid address in dotted-decimal notation.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the syntax to specify a valid IP address in dotted-decimal notation.

**Source Data Set:** SMTPPARSE

**Procedure Name:** DotNum

---

### 501 Syntax Error. *'['* expected in PathName

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting a left bracket ([).

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** Element

---

### 501 Syntax Error. *':'* Expected in Path Name

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting a colon (:).

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** ADLpath

---

---

**501 Syntax Error. '@' expected**

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting an at sign (@).

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** MailBox

---

**501 Syntax Error. '@' Expected in Source Route**

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting an at sign (@) at this point in the source route part of the mail address.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** AtDomain

---

**501 Syntax Error. "" expected**

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting a quotation (").

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** LocalPart

---

**501 Syntax Error. Domain name cannot end with '-'**

**Suppression Level:** Recoverable error.

**Explanation:** A domain name cannot end with a hyphen (-).

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** Name

---

**501 Syntax Error. Domain name missing**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect HELO command was issued. The same message is also displayed on the server output device without the 501 message prefix.

**System Action:** SMTP continues.

**System Programmer Response:** Specify a valid host name after the HELO command.

**Source Data Set:** SMTPCMDSD

**Procedure Name:** DoHelo

---

## 501

---

### 501 Syntax Error. Domain name too long

**Suppression Level:** Recoverable error.

**Explanation:** An invalid HELO command was issued. A domain name greater than 256 characters was specified. The same message is also displayed on the server output device without the 501 message prefix.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoHelo

---

### 501 Syntax Error. Incomplete Address

**Suppression Level:** Recoverable error.

**Explanation:** A backslash mark (\) was specified without a number in the range 0–127 following the backslash. To specify an ASCII character, enter a backslash followed by the integer in the range 0–127 that gives the ASCII character.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** PlainString

---

### 501 Syntax Error. Incomplete Address

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was not expecting a null argument at this point.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** PlainString

---

### 501 Syntax Error. Invalid LocalPart of Address

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was not expecting a null argument at this point.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** PlainString

---

### 501 Syntax Error. Invalid Path Specification

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was not expecting a null argument at this point.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** ParsePath

---

---

**501 Syntax Error. Missing Domain Name**

**Suppression Level:** Recoverable error.

**Explanation:** A right angle bracket (>) was found before a domain name had been defined in the parsing procedure.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** PlainString

---

**501 Syntax Error. Missing host name, '@' expected**

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure did not find an at sign (@) before the expected host name string.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** MailBox

---

**501 Syntax Error. Missing User name**

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was not expecting a null argument for a user name at this point.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** MailBox

---

**501 Syntax Error. Must use MAIL FROM:**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect MAIL FROM command was entered; use the correct one.

**System Action:** SMTP continues.

**System Programmer Response:** Use the correct MAIL FROM command, and try again.

**Source Data Set:** SMTPCMDSD

**Procedure Name:** DoMail

---

**501 Syntax Error. Must use RCPT TO:**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect RCPT TO command was entered; use the correct one.

**System Action:** SMTP continues.

**System Programmer Response:** Use the correct RCPT TO command, and try again.

**Source Data Set:** SMTPCMDSD

**Procedure Name:** DoRcpt

---

## 501

---

### 501 Syntax Error. Must use VERB ON or VERB OFF

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect VERB command was entered. Use the VERB ON or VERB OFF command. ON or OFF are the only valid parameters for the VERB command.

**System Action:** SMTP continues.

**System Programmer Response:** Specify either VERB ON or VERB OFF, and try again.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoVerb

---

### 501 Syntax Error. Need args after MAIL command

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect MAIL FROM command was entered. Specify a valid mail address.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoMail

---

### 501 Syntax Error. Need args after RCPT command

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect RCPT TO command was entered. Specify a valid mail address.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoRcpt

---

### 501 Syntax Error. Need args after *command* command

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect VRFY or EXPN command was entered. Follow the VRFY and EXPN commands with a user ID or mailing list.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoVrfyExpn

---

### 501 Syntax Error. Need args after TICK command

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect TICK command was entered. Specify a text string after the command.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoTick

---

---

**501 Syntax Error. Need args after VERB command**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect VERB command was entered. Specify ON or OFF after the VERB command.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoVerb

---

**501 Syntax Error. No Args after *command* command**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect DATA, QUIT, RSET, NOOP, TURN, or QUEU command was entered. Arguments are not valid with these commands.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoCommand

---

**501 Syntax Error. Null Recipient Invalid**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect RCPT TO command was entered. Specify a valid mail address after the RCPT TO command.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoRcpt

---

**501 Syntax Error. Number Expected**

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting a number in the range 0–9 at this point.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPARSE

**Procedure Name:** Number

---

**501 Syntax Error. Only ListId or Userid allowed as argument to this command**

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect VRFY or EXPN command was entered. Enter a user ID or mailing list after the VRFY and EXPN commands.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoVrfyExpn

---

## 501

---

### 501 Syntax Error. Path too long

**Suppression Level:** Recoverable error.

**Explanation:** The path in a MAIL FROM command or RCPT TO command exceeded the limit of 256 characters.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoMail

---

### 501 Syntax Error. Quoted text is a null string

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure found nothing between two quotation marks ("").

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** Qtext

---

### 501 Syntax Error. Special chars only with Escape Char

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was not expecting a special character other than an at sign (@), a right angle bracket (>), or a decimal point (.).

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** PlainString

---

### 501 Syntax Error. Start Domain with a...z, A...Z, or 0...9

**Suppression Level:** Recoverable error.

**Explanation:** An incorrect character was entered in a domain name. Valid host names should start with an ASCII letter or number.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** Name

---

### 501 Syntax Error. Start Path name with '<'

**Suppression Level:** Recoverable error.

**Explanation:** The parsing procedure was expecting a left angle bracket (<) to initiate a mail address path.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPPARSE

**Procedure Name:** ParsePath

---

---

**501 Syntax Error. Unexpected end of Domain Name**

**Suppression Level:** Recoverable error.

**Explanation:** A complete and valid mail address path was not specified.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPARSE

**Procedure Name:** Element

---

**501 Syntax Error. Unexpected Token *result***

**Suppression Level:** Recoverable error.

**Explanation:** A complete and valid mail address path was not specified.

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPARSE

**Procedure Name:** ParsePath

---

**501 Syntax Error. Unterminated Quoted String**

**Suppression Level:** Recoverable error.

**Explanation:** A quoted string was not ended with the required close quotation mark (").

**System Action:** SMTP continues.

**System Programmer Response:** Correct the command syntax, and try again.

**Source Data Set:** SMTPARSE

**Procedure Name:** Qtext

---

**503 HELO must be first command in session**

**Suppression Level:** Warning.

**Explanation:** A valid HELO command was already issued, or a MAIL FROM command or RCPT TO command was issued before a HELO command.

**System Action:** The command is ignored. SMTP continues.

**System Programmer Response:** Check that your SMTP commands are sent in the correct order.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoMail

---

**503 No Recipients specified**

**Suppression Level:** Warning.

**Explanation:** Data was entered using the DATA command before the RCPT TO command.

**System Action:** The DATA command is ignored. SMTP continues.

**System Programmer Response:** Check that your SMTP commands are sent in the correct order.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoData

---

---

**503 No Sender specified**

**Suppression Level:** Warning.

**Explanation:** Data was entered using the DATA command before the MAIL FROM command.

**System Action:** The DATA command is ignored. SMTP continues.

**System Programmer Response:** Check that your SMTP commands are sent in the correct order.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoData

---

**503 Sender already specified**

**Suppression Level:** Warning.

**Explanation:** A valid MAIL FROM command was already issued. The identical command was issued unnecessarily.

**System Action:** The MAIL command is ignored. SMTP continues.

**System Programmer Response:** Check that your SMTP commands are sent in the correct order.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoMail

---

**503 Sender must be specified before recipients**

**Suppression Level:** Warning.

**Explanation:** An RCPT TO command was issued before the MAIL FROM command.

**System Action:** The RCPT command is ignored. SMTP continues.

**System Programmer Response:** Check that your SMTP commands are sent in the correct order.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoRcpt

---

**504 HELP topic unknown**

**Suppression Level:** Warning.

**Explanation:** HELP was requested for an unknown topic.

**System Action:** SMTP continues.

**System Programmer Response:** Enter HELP for a list of the valid SMTP commands.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoHelp

---

**522 Too many recipients**

| **Explanation:** This message is returned to the mail client from the local host when the mail server has detected that  
| there are too many recipients on this single connection. SMTP protocol dictates that the SMTP client should proceed  
| with the DATA command and may resend these recipients later on another connection. This error can also be detected  
| when processing data from the JES spool. If a batch job is causing this problem, the job should be corrected to limit  
| the number of recipients.

| The mail is not delivered to those recipients that receive this reply code.

| **System Action:** SMTP continues.

| **User Response:** None.

| **System Programmer Response:** Notify owner of remote SMTP client of the problem.

| **Source Data Set:** SMTPCMDS

| **Procedure Name:** DoRcpt

---

**550 Cannot accept mail for this host; MX records will cause loop.**

**Suppression Level:** Recoverable error.

**Explanation:** The SMTP server sends this message to the client showing that the local host cannot accept mail for the local host because the CheckHomeList procedure has determined that accepting mail exchange records would cause a looping mail condition.

**System Action:** SMTP continues.

**System Programmer Response:** Determine what MX records are stored in the domain name server and why they are causing a loop. Tell the domain name server administrator about the error.

**Source Data Set:** SMTPRES

**Procedure Name:** ProcessRQR

---

**550 Cannot accept mail for this host; Next MX site not defined.**

**Suppression Level:** Recoverable error.

**Explanation:** SMTP has evaluated all the possible MX records for the host and eliminated all the necessary hosts with a lower preference than this SMTP server. After this processing, SMTP did not have any MX records remaining for this host and did not know where to deliver the mail. This is a configuration error in either SMTP or the domain name server.

**System Action:** The mail is rejected. SMTP continues.

**System Programmer Response:** Determine what MX records are stored in the domain name server and why SMTP cannot determine the final recipient. Tell the domain name server administrator about the error.

**Source Data Set:** SMTPRES

**Procedure Name:** ProcessRQR

---

**550 Host *host* Unknown**

**Suppression Level:** Recoverable error.

**Explanation:** The SMTP server sends this message to the client showing that the host name in the mail address is unknown. SMTP determined that this address is not the local host and is not an NJE host.

**System Action:** The mail is rejected. SMTP continues.

**System Programmer Response:** Determine why the host name is not valid. If the address is supposed to be an SMTP host, check that the domain name server or site tables have the correct entries. If the address is supposed to be an NJE host, check that the entries in the SMTPRSCS.HOSTINFO data set are current and correct.

**Source Data Set:** SMTPRES

**Procedure Name:** ProcessRQR

---

**550 Mail forwarding not supported**

**Suppression Level:** Warning.

**Explanation:** The SMTP server sends this message to the client showing that the client tried to source route mail through this SMTP gateway. This gateway is currently in SECURE mode and does not support source routing.

**System Action:** The mail is rejected. SMTP continues.

**System Programmer Response:** Do not perform source routing through this gateway. Determine an alternative path to deliver your mail.

**Source Data Set:** SMTPRES

## 550

**Procedure Name:** ProcessRQR

---

### 550 Mailing list *mailinglist* Nonexistent 550 MailBox *mailbox* Nonexistent

**Suppression Level:** Warning.

**Explanation:** The indicated mailing list or mailbox does not exist on the local host.

**System Action:** SMTP continues.

**System Programmer Response:** Specify a valid mailing address that exists on the local host.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoVrfyExpn

---

### 550 Service denied due to user supplied exit.

**Explanation:** This reply message is sent to the partner SMTP application if the user-supplied exit rejects either an SMTP command, or a piece of mail, or both.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** Look at the user supplied exit to determine the cause of the rejection and take any necessary action.

**Source Data Set:** Various in SMTP

**Procedure Name:** Various

---

### 550 Source routing not permitted in gateway

**Suppression Level:** Warning.

**Explanation:** The SMTP server sends this message to the client showing that the client tried to source route mail through this SMTP gateway. This gateway is currently in SECURE mode and does not support source routing.

**System Action:** The mail is rejected. SMTP continues.

**System Programmer Response:** Do not perform source routing through this gateway. Determine an alternative path to deliver your mail.

**Source Data Set:** SMTPPRES

**Procedure Name:** ProcessRQR

---

### 550 Spool File Origin: *userid@nodeid* does not match Sender's Address: *path*

**Suppression Level:** Warning.

**Explanation:** Unregistered BSMTP mail was received from the indicated sender at the indicated origin and cannot be processed.

**System Action:** SMTP continues.

**System Programmer Response:** Follow the instructions in the SECURITY.MEMO data set that the SMTP server machine returned to you just before this message.

**Source Data Set:** SMTPCMDS

**Procedure Name:** DoMail

---

### 550 Unable to find A records for any MX sites for the recipient host.

**Suppression Level:** Recoverable error.

**Explanation:** The SMTP server sends this message to the client to show that the local host cannot find an A record that corresponds to an MX record for the destination host. This is a configuration error in the domain name server.

**System Action:** The mail is rejected. SMTP continues.

**System Programmer Response:** Determine what MX records are stored in the domain name server and why SMTP cannot find a corresponding A record for one or more of the MX records. Tell the domain name server administrator about the error.

**Source Data Set:** SMTPRES

**Procedure Name:** ProcessRQR

---

**550 Unable to resolve recipient address for *days* days.**

**Suppression Level:** Warning.

**Explanation:** The SMTP server sends this message to the client to show that the local host was unable to resolve a recipient address for the indicated number of days.

**System Action:** The mail in question is returned to the sender. SMTP continues.

**System Programmer Response:** Determine why the SMTP server cannot resolve the mail address. SMTP sends this message when the name server is down or when connectivity to the name server through the internet is unavailable.

**Source Data Set:** SMTPRES

**Procedure Name:** SendRQR

---

**550 User *name* Unknown**

**Suppression Level:** Recoverable error.

**Explanation:** The SMTP server sends this message to the client to show that the indicated user ID was not found on the local host. This error is returned if the user ID is not POSTMASTER or a valid user ID.

**System Action:** SMTP continues.

**System Programmer Response:** You specified a user ID that is not known on the local system. Check the mail address for errors. Check the local host to see if the user ID exists.

**Source Data Set:** SMTPRES

**Procedure Name:** ProcessLocal

---

**550 User *userid@nodeid* on Restricted List**

**Suppression Level:** Warning.

**Explanation:** SMTP sends this message to the client to show that the indicated user ID and node ID origin is rejected because the address is in the Restrict list.

**System Action:** SMTP continues.

**System Programmer Response:** None.

**Source Data Set:** SMTPCMD5

**Procedure Name:** DoRestricted

---

**550 User *RSCSUser@RSCSHost* is not a registered gateway user**

**Suppression Level:** Recoverable error.

**Explanation:** The SMTP server sends this message to the client to show that the indicated user ID is not a registered secure gateway user, and is not in the SMTP.SECTABLE security table.

**System Action:** The mail is rejected. SMTP continues.

**System Programmer Response:** Update the SMTP.SECTABLE security table as necessary, or inform the unauthorized user not to use this SMTP secure gateway.

**Source Data Set:** SMTPRES

**Procedure Name:** ProcessRQR

## 552 Mail file too large

**Suppression Level:** Recoverable error.

**Explanation:** The local host sends this message to the sender when the sender mail data set exceeds the maximum length specified by the MAXMAILBYTES option in the configuration data set.

**System Action:** SMTP continues.

**System Programmer Response:** Shorten the mail data set, or subdivide the long data set into two or more shorter data sets that are within the existing MAXMAILBYTES limitations. Increase the value for the MAXMAILBYTES option in the configuration data set, and try again.

**Source Data Set:** SMTPEVNT

**Procedure Name:** StoreData

## SNALU6.2 abend codes

The following codes are abend codes for SNALU6.2.

1

**Explanation:** The CANCEL subcommand has been entered from an operator console (using a MODIFY console command).

**System Programmer Response:** None.

100

**Explanation:** An error was encountered during the processing of an DLC interrupt. The reason code contained in Register 15 indicates the exact nature of the error.

### Reason Explanation

- 1 A non-DLC event was found on the DLC event queue.
- 2 An unexpected DLC interrupt type was encountered.

**System Programmer Response:** Contact the IBM Software Support Center.

200

**Explanation:** An error was encountered during the processing of a VTAM interrupt. The reason code contained in Register 15 indicates the exact nature of the error.

### Reason Explanation

- 1 An expected exit type was found in a VTAM event queue element.
- 2 An unexpected ATTN exit type was encountered.

**System Programmer Response:** Contact the IBM Software Support Center.

210

**Explanation:** A error was detected in one of the internal data structures. The reason code contained in Register 15 indicates the exact nature of the error.

### Reason Explanation

- 1 The free pool of connection table entries was exhausted; sufficient entries should have been allocated during initialization.
- 2 An incorrect connection entry address was found in the word immediately preceding the RPL record passed to an allocate request.
- 3 An incorrect connection entry address was found in the word immediately preceding the RPL record passed to a deallocate request.

- 4 An incorrect connection entry address was found in the word immediately preceding the RPL record passed to a send request.
- 5 An incorrect connection entry address was found in the word immediately preceding the RPL record passed to a receive request.
- 6 The RPL address returned from a VTAM deallocate request does not match either the send or receive RPL address.
- 7 The VTAM send queue was empty when it was expected to contain an entry.
- 8 A counter, which contains the number of entries in the VTAM send, contains a negative number.
- 9 An attempt to terminate a connection with a destination node has failed because of a probable program logic error.
- 10 An error occurred while adding a connection to the time-out inactivity list; the connection entry address did not reference a valid connection table entry.
- 11 A connection table entry has been lost from the time-out inactivity list.
- 12 The RPL address returned from VTAM for a conversation allocation request did not match either the send or receive RPL address.
- 13 The free pool for the pending message queue was exhausted; sufficient entries should have been allocated during initialization.

**System Programmer Response:** Contact the IBM Software Support Center.

---

## 220

**Explanation:** The return codes from a VTAM APPC command indicate that the RPL specified was not valid.

**System Programmer Response:** Contact the IBM Software Support Center.

---

## 300

**Explanation:** An error was detected during a GETMAIN macro execution. The reason code contained in register 15 indicates the exact nature of the error.

### Reason Explanation

- 1 Insufficient storage for subroutine stacks
- 2 Insufficient storage for major data structures

**System Programmer Response:** Increase the value of the REGION parameter for the address space, and restart the address space.

---

## 310

**Explanation:** An unexpected data set identifier was passed to an I/O utility routine.

**System Programmer Response:** Contact the IBM Software Support Center.

---

## 320

**Explanation:** An error was detected in the subroutine stack processing logic. The reason code contained in Register 15 indicates the exact nature of the error.

### Reason Explanation

- 1 Stack Overflow
- 2 Stack Underflow
- 3 Stack not empty on exit from program

**System Programmer Response:** Contact the IBM Software Support Center.

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**331**

**Explanation:** An invalid number of arguments was passed to a subroutine in the SNALINK LU6.2 address space.

**System Programmer Response:** Contact the IBM Software Support Center.

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## Chapter 10. SNMP pe\_error messages

This chapter contains descriptions of the pe\_errors that can appear when the SNMP query engine is decoding the presentation elements from a presentation stream.

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### Class/ID mismatch in constructor

**Explanation:** The SNMP query engine was decoding a constructed presentation element, but the presentation element did not have the expected class and ID.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the presentation stream is correct, then the SNMP query engine built the corresponding presentation element incorrectly. Contact the IBM Software Support Center.

---

### Not a constructor form

**Explanation:** The SNMP query engine expected the presentation element being decoded to be a constructed form, but it was not.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the presentation stream is correct, then the SNMP query engine built the corresponding presentation element incorrectly. Contact the IBM Software Support Center.

---

### Not a primitive form

**Explanation:** The SNMP query engine expected the presentation element to have a form of primitive. Either the form was not primitive, or the form was primitive but the presentation element had no value associated with it.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the presentation stream is correct, then the SNMP query engine built the corresponding presentation element incorrectly. Contact the IBM Software Support Center.

---

### Out of memory

**Explanation:** The SNMP query engine could not allocate enough memory to decode the presentation element.

**User Response:** Restart the SNMP query engine with a larger region size.

---

### Overflow

**Explanation:** The length of the value in the presentation element was larger than the length allowed for that data type.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the presentation stream is correct, then the SNMP query engine built the corresponding presentation element incorrectly. Contact the IBM Software Support Center.



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## Chapter 11. SNMP ps\_error messages

This chapter contains descriptions of the ps\_errors that can appear when the SNMP query engine is converting a presentation stream into a series of presentation elements.

---

### End of file

**Explanation:** The SNMP query engine attempted to read the presentation stream, but there is no data to be read.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

---

### End of file reading extended ID

**Explanation:** The SNMP query engine attempted to read the extended ID in the tag field of the ASN.1 type but could not find the data to read.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

---

### End of file reading extended length

**Explanation:** The SNMP query engine attempted to read the extended length field of the ASN.1 type but could not find the data to read.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

---

### Indefinite length in primitive form

**Explanation:** The SNMP query engine attempted to read a primitive ASN.1 type, but the primitive ASN.1 type had an indefinite length field. This is not allowed by SNMP.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

---

### Length Mismatch

**Explanation:** The SNMP query engine attempted to read a constructed ASN.1 type, but the SNMP query engine found an inconsistency between the length of the data to be read and the actual data read.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

---

### Out of memory

**Explanation:** The SNMP query engine could not allocate enough memory to process the presentation stream.

**User Response:** Restart the SNMP query engine with a larger region size.

---

**Overflow in ID**

**Explanation:** An overflow occurred reading the extended ID of the tag field of an ASN.1 type.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

---

**Overflow in length**

**Explanation:** The length specified in the tag field of an ASN.1 type is larger than the allowed length.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

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**XXX**

**Explanation:** The SNMP query engine attempted to read a primitive ASN.1 type, but either the pointer to the presentation stream was null, or the length field of the ASN.1 type was larger than the number of bytes remaining to be read in the presentation stream.

**User Response:** Run traces to determine whether the error is in the incoming presentation stream or in the SNMP query engine translation process. If the presentation stream is in error, contact the support center of the client or agent originating the request. If the SNMP query engine is reading the presentation stream incorrectly, contact the IBM Software Support Center.

## Chapter 12. Sockets and sockets extended return codes (ERRNOs)

If the return code is not listed in this chapter, it is a return code that is received from z/OS UNIX. Refer to the *z/OS UNIX System Services Messages and Codes* for the z/OS UNIX System Services ERRNOs.

### Sockets return codes (ERRNOs)

This section provides the system-wide message numbers and codes set by the system calls. These message numbers and codes are in the TCPERRNO.H include file supplied with TCP/IP Services.

Table 21. Sockets ERRNOs

Error number	Message name	Socket type	Error description	Programmer's response
1	EAI_NONAME	GETADDRINFO GETNAMEINFO	NODE or HOST cannot be found.	Ensure the NODE or HOST name can be resolved.
1	EPERM	All	Permission is denied. No owner exists.	Check that TCP/IP is still active; check protocol value of socket () call.
1	EDOM	All	Argument too large.	Check parameter values of the function call.
2	EAI_AGAIN	FREEADDRINFO GETADDRINFO GETNAMEINFO	For GETADDRINFO, NODE could not be resolved within the configured time interval. For GETNAMEINFO, HOST could not be resolved within the configured time interval. The Resolver address space has not been started. The request can be retried later.	Ensure the Resolver is active, then retry the request.
2	ENOENT	All	The data set or directory was not found.	Check files used by the function call.
2	ERANGE	All	The result is too large.	Check parameter values of the function call.
3	EAI_FAIL	FREEADDRINFO GETADDRINFO GETNAMEINFO	This is an unrecoverable error. NODELEN, HOSTLEN, or SERVLN is incorrect. For FREEADDRINFO, the resolver storage does not exist.	Correct the NODELEN, HOSTLEN, or SERVLN. Otherwise, call your system administrator.
3	ESRCH	All	The process was not found. A table entry was not located.	Check parameter values and structures pointed to by the function parameters.
4	EINTR	All	A system call was interrupted.	Check that the socket connection and TCP/IP are still active.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
5	EAI_FAMILY	GETADDRINFO GETNAMEINFO	The AF or the FAMILY is incorrect.	Correct the AF or the FAMILY.
5	EIO	All	An I/O error occurred.	Check status and contents of source database if this occurred during a file access.
6	EAI_MEMORY	GETADDRINFO GETNAMEINFO	The resolver cannot obtain storage to process the host name.	Contact your system administrator.
6	ENXIO	All	The device or driver was not found.	Check status of the device attempting to access.
7	E2BIG	All	The argument list is too long.	Check the number of function parameters.
7	EAI_BADFLAGS	GETADDRINFO GETNAMEINFO	FLAGS has an incorrect value.	Correct the FLAGS.
8	EAI_SERVICE	GETADDRINFO	The SERVICE was not recognized for the specified socket type.	Correct the SERVICE.
8	ENOEXEC	All	An EXEC format error occurred.	Check that the target module on an exec call is a valid executable module.
9	EAI_SOCKTYPE	GETADDRINFO	The SOCKTYPE was not recognized.	Correct the SOCKTYPE.
9	EBADF	All	An incorrect socket descriptor was specified.	Check socket descriptor value. It might be currently not in use or incorrect.
9	EBADF	Givesocket	The socket has already been given. The socket domain is not AF_INET.	Check the validity of function parameters.
9	EBADF	Select	One of the specified descriptor sets is an incorrect socket descriptor.	Check the validity of function parameters.
9	EBADF	Takesocket	The socket has already been taken.	Check the validity of function parameters.
10	ECHILD	All	There are no children.	Check if created subtasks still exist.
11	EAGAIN	All	There are no more processes.	Retry the operation. Data or condition might not be available at this time.
12	ENOMEM	All	There is not enough storage.	Check validity of function parameters.
13	EACCES	All	Permission denied, caller not authorized.	Check access authority of file.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
13	EACCES	Takesocket	The other application (listener) did not give the socket to your application. Permission denied, caller not authorized.	Check access authority of file.
14	EFAULT	All	An incorrect storage address or length was specified.	Check validity of function parameters.
15	ENOTBLK	All	A block device is required.	Check device status and characteristics.
16	EBUSY	All	Listen has already been called for this socket. Device or file to be accessed is busy.	Check if the device or file is in use.
17	EEXIST	All	The data set exists.	Remove or rename existing file.
18	EXDEV	All	This is a cross-device link. A link to a file on another file system was attempted.	Check file permissions.
19	ENODEV	All	The specified device does not exist.	Check file name and if it exists.
20	ENOTDIR	All	The specified directory is not a directory.	Use a valid file that is a directory.
21	EISDIR	All	The specified directory is a directory.	Use a valid file that is not a directory.
22	EINVAL	All types	An incorrect argument was specified.	Check validity of function parameters.
23	ENFILE	All	Data set table overflow occurred.	Reduce the number of open files.
24	EMFILE	All	The socket descriptor table is full.	Check the maximum sockets specified in MAXDESC().
25	ENOTTY	All	An incorrect device call was specified.	Check specified IOCTL() values.
26	ETXTBSY	All	A text data set is busy.	Check the current use of the file.
27	EFBIG	All	The specified data set is too large.	Check size of accessed dataset.
28	ENOSPC	All	There is no space left on the device.	Increase the size of accessed file.
29	ESPIPE	All	An incorrect seek was attempted.	Check the offset parameter for seek operation.
30	EROFS	All	The data set system is Read only.	Access data set for read only operation.
31	EMLINK	All	There are too many links.	Reduce the number of links to the accessed file.
32	EPIPE	All	The connection is broken. For socket write/send, peer has shut down one or both directions.	Reconnect with the peer.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
33	EDOM	All	The specified argument is too large.	Check and correct function parameters.
34	ERANGE	All	The result is too large.	Check function parameter values.
35	EWOULDBLOCK	Accept	The socket is in nonblocking mode and connections are not queued. This is not an error condition.	Reissue Accept().
35	EWOULDBLOCK	Read Recvfrom	The socket is in nonblocking mode and read data is not available. This is not an error condition.	Issue a select on the socket to determine when data is available to be read or reissue the Read()/Recvfrom().
35	EWOULDBLOCK	Send Sendto Write	The socket is in nonblocking mode and buffers are not available.	Issue a select on the socket to determine when data is available to be written or reissue the Send(), Sendto(), or Write().
36	EINPROGRESS	Connect	The socket is marked nonblocking and the connection cannot be completed immediately. This is not an error condition.	See the Connect() description for possible responses.
37	EALREADY	Connect	The socket is marked nonblocking and the previous connection has not been completed.	Reissue Connect().
37	EALREADY	Maxdesc	A socket has already been created calling Maxdesc() or multiple calls to Maxdesc().	Issue Getablesize() to query it.
37	EALREADY	Setibmopt	A connection already exists to a TCP/IP image. A call to SETIBMOPT (IBMTCP_IMAGE), has already been made.	Only call Setibmopt() once.
38	ENOTSOCK	All	A socket operation was requested on a nonsocket connection. The value for socket descriptor was not valid.	Correct the socket descriptor value and reissue the function call.
39	EDESTADDRREQ	All	A destination address is required.	Fill in the destination field in the correct parameter and reissue the function call.
40	EMSGSIZE	Sendto Sendmsg Send Write	The message is too long. It exceeds the IP limit of 64K or the limit set by the setsockopt() call.	Either correct the length parameter, or send the message in smaller pieces.
41	EPROTOTYPE	All	The specified protocol type is incorrect for this socket.	Correct the protocol type parameter.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
42	ENOPROTOOPT	Getsockopt Setsockopt	The socket option specified is incorrect or the level is not SOL_SOCKET. Either the level or the specified optname is not supported.	Correct the level or optname.
42	ENOPROTOOPT	Getibmssockopt Setibmssockopt	Either the level or the specified optname is not supported.	Correct the level or optname.
43	EPROTONOSUPPORT	Socket	The specified protocol is not supported.	Correct the protocol parameter.
44	ESOCKTNOSUPPORT	All	The specified socket type is not supported.	Correct the socket type parameter.
45	EOPNOTSUPP	Accept Givesocket	The selected socket is not a stream socket.	Use a valid socket.
45	EOPNOTSUPP	Listen	The socket does not support the Listen call.	Change the type on the Socket() call when the socket was created. Listen() only supports a socket type of SOCK_STREAM.
45	EOPNOTSUPP	Getibmopt Setibmopt	The socket does not support this function call. This command is not supported for this function.	Correct the command parameter. See Getibmopt() for valid commands. Correct by ensuring a Listen() was not issued before the Connect().
46	EPFNOSUPPORT	All	The specified protocol family is not supported or the specified domain for the client identifier is not AF_INET=2.	Correct the protocol family.
47	EAFNOSUPPORT	Bind Connect Socket	The specified address family is not supported by this protocol family.	For Socket(), set the domain parameter to AF_INET. For Bind() and Connect(), set Sin_Family in the socket address structure to AF_INET.
47	EAFNOSUPPORT	Getclient Givesocket	The socket specified by the socket descriptor parameter was not created in the AF_INET domain.	The Socket() call used to create the socket should be changed to use AF_INET for the domain parameter.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
48	EADDRINUSE	Bind	The address is in a timed wait because a LINGER delay from a previous close or another process is using the address.	If you want to reuse the same address, use Setsockopt() with SO_REUSEADDR. See Setsockopt(). Otherwise, use a different address or port in the socket address structure.
49	EADDRNOTAVAIL	Bind	The specified address is incorrect for this host.	Correct the function address parameter.
49	EADDRNOTAVAIL	Connect	The calling host cannot reach the specified destination.	Correct the function address parameter.
50	ENETDOWN	All	The network is down.	Retry when the connection path is up.
51	ENETUNREACH	Connect	The network cannot be reached.	Ensure that the target application is active.
52	ENETRESET	All	The network dropped a connection on a reset.	Reestablish the connection between the applications.
53	ECONNABORTED	All	The software caused a connection abend.	Reestablish the connection between the applications.
54	ECONNRESET	All	The connection to the destination host is not available.	N/A
54	ECONNRESET	Send Write	The connection to the destination host is not available.	The socket is closing. Issue Send() or Write() before closing the socket.
55	ENOBUFS	All	No buffer space is available.	Check the application for massive storage allocation call.
55	ENOBUFS	Accept	Not enough buffer space is available to create the new socket.	Call your system administrator.
55	ENOBUFS	Send Sendto Write	Not enough buffer space is available to send the new message.	Call your system administrator.
55	ENOBUFS	Takesocket	Not enough buffer space is available to create the new socket.	Call your system administrator.
56	EISCONN	Connect	The socket is already connected.	Correct the socket descriptor on Connect() or do not issue a Connect() twice for the socket.
57	ENOTCONN	All	The socket is not connected.	Connect the socket before communicating.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
58	ESHUTDOWN	All	A Send cannot be processed after socket shutdown.	Issue read/receive before shutting down the read side of the socket.
59	ETOOMANYREFS	All	There are too many references. A splice cannot be completed.	Call your system administrator.
60	ETIMEDOUT	Connect	The connection timed out before it was completed.	Ensure the server application is available.
61	ECONNREFUSED	Connect	The requested connection was refused.	Ensure server application is available and at specified port.
62	ELOOP	All	There are too many symbolic loop levels.	Reduce symbolic links to specified file.
63	ENAMETOOLONG	All	The file name is too long.	Reduce size of specified file name.
64	EHOSTDOWN	All	The host is down.	Restart specified host.
65	EHOSTUNREACH	All	There is no route to the host.	Set up network path to specified host and verify that host name is valid.
66	ENOTEMPTY	All	The directory is not empty.	Clear out specified directory and reissue call.
67	EPROCLIM	All	There are too many processes in the system.	Decrease the number of processes or increase the process limit.
68	EUSERS	All	There are too many users on the system.	Decrease the number of users or increase the user limit.
69	EDQUOT	All	The disk quota has been exceeded.	Call your system administrator.
70	ESTALE	All	An old NFS** data set handle was found.	Call your system administrator.
71	EREMOTE	All	There are too many levels of remote in the path.	Call your system administrator.
72	ENOSTR	All	The device is not a stream device.	Call your system administrator.
73	ETIME	All	The timer has expired.	Increase timer values or reissue function.
74	ENOSR	All	There are no more stream resources.	Call your system administrator.
75	ENOMSG	All	There is no message of the desired type.	Call your system administrator.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
76	EBADMSG	All	The system cannot read the message.	Verify that z/OS CS installation was successful and that message files were properly loaded.
77	EIDRM	All	The identifier has been removed.	Call your system administrator.
78	EDEADLK	All	A deadlock condition has occurred.	Call your system administrator.
78	EDEADLK	Select Selectex	None of the sockets in the socket descriptor sets are either AF_INET or AF_IUCV sockets and there is not timeout or no ECB specified. The select/selectex would never complete.	Correct the socket descriptor sets so that an AF_INET or AF_IUCV socket is specified. A timeout or ECB value can also be added to avoid the select/selectex from waiting indefinitely.
79	ENOLCK	All	No record locks are available.	Call your system administrator.
80	ENONET	All	The requested machine is not on the network.	Call your system administrator.
81	ERREMOTE	All	The object is remote.	Call your system administrator.
82	ENOLINK	All	The link has been severed.	Release the sockets and reinitialize the client-server connection.
83	EADV	All	An ADVERTISE error has occurred.	Call your system administrator.
84	ESRMNT	All	An SRMOUNT error has occurred.	Call your system administrator.
85	ECOMM	All	A communication error has occurred on a Send call.	Call your system administrator.
86	EPROTO	All	A protocol error has occurred.	Call your system administrator.
87	EMULTIHOP	All	A multihop address link was attempted.	Call your system administrator.
88	EDOTDOT	All	A cross-mount point was detected. This is not an error.	Call your system administrator.
89	EREMCHG	All	The remote address has changed.	Call your system administrator.
90	ECONNCLOSED	All	The connection was closed by a peer.	Check that the peer is running.
113	EBADF	All	Socket descriptor is not in correct range. The maximum number of socket descriptors is set by MAXDESC(). The default range is 0–49.	Reissue function with corrected socket descriptor.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
113	EBADF	Bind socket	The socket descriptor is already being used.	Correct the socket descriptor.
113	EBADF	Givesocket	The socket has already been given. The socket domain is not AF_INET.	Correct the socket descriptor.
113	EBADF	Select	One of the specified descriptor sets is an incorrect socket descriptor.	Correct the socket descriptor. Set on Select() or Selectex().
113	EBADF	Takesocket	The socket has already been taken.	Correct the socket descriptor.
113	EBADF	Accept	A Listen() has not been issued before the Accept().	Issue Listen() before Accept().
121	EINVAL	All	An incorrect argument was specified.	Check and correct all function parameters.
145	E2BIG	All	The argument list is too long.	Eliminate excessive number of arguments.
156	EMVSINITIAL	All	Process initialization error.  This indicates an z/OS UNIX process initialization failure. This is usually an indication that a proper OMVS RACF segment is not defined for the user ID associated with application. The RACF OMVS segment may not be defined or may contain errors such as an improper HOME() directory specification.	Attempt to initialize again. After ensuring that an OMVS Segment is defined, if the errno is still returned, call your MVS system programmer to have IBM service contacted.
1002	EIBMSOCKOUTOFRANGE	Socket	A socket number assigned by the client interface code is out of range.	Check the socket descriptor parameter.
1003	EIBMSOCKINUSE	Socket	A socket number assigned by the client interface code is already in use.	Use a different socket descriptor.
1004	EIBMIUCVERR	All	The request failed because of an IUCV error. This error is generated by the client stub code.	Ensure IUCV/VMCF is functional.
1008	EIBMCONFLICT	All	This request conflicts with a request already queued on the same socket.	Cancel the existing call or wait for its completion before reissuing this call.
1009	EIBMCANCELLED	All	The request was canceled by the CANCEL call.	Informational, no action needed.
1011	EIBMBADTCPNAME	All	A TCP/IP name that is not valid was detected.	Correct the name specified in the IBM_TCPIIMAGE structure.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
1011	EIBMBADTCPNAME	Setibmopt	A TCP/IP name that is not valid was detected.	Correct the name specified in the IBM_TCPIIMAGE structure.
1011	EIBMBADTCPNAME	INITAPI	A TCP/IP name that is not valid was detected.	Correct the name specified on the IDENT option TCPNAME field.
1012	EIBMBADREQUESTCODE	All	A request code that is not valid was detected.	Contact your system administrator.
1013	EIBMBADCONNECTIONSTATE	All	A connection token that is not valid was detected; bad state.	Verify TCP/IP is active.
1014	EIBMUNAUTHORIZEDCALLER	All	An unauthorized caller specified an authorized keyword.	Ensure user ID has authority for the specified operation.
1015	EIBMBADCONNECTIONMATCH	All	A connection token that is not valid was detected. There is no such connection.	Verify TCP/IP is active.
1016	EIBMTCPABEND	All	An abend occurred when TCP/IP was processing this request.	Verify that TCP/IP has restarted.
1023	EIBMTERMERROR	All	Encountered a terminating error while processing.	Call your system administrator.
1026	EIBMINVDELETE	All	Delete requestor did not create the connection.	Delete the request from the process that created it.
1027	EIBMINVSOCKET	All	A connection token that is not valid was detected. No such socket exists.	Call your system programmer.
1028	EIBMINVTCPCONNECTION	All	Connection terminated by TCP/IP. The token was invalidated by TCP/IP.	Reestablish the connection to TCP/IP.
1032	EIBMCALLINPROGRESS	All	Another call was already in progress.	Reissue after previous call has completed.
1036	EIBMNOACTIVETCP	All	TCP/IP is not installed or not active.	Correct TCP/IP name used.
1036	EIBMNOACTIVETCP	Select	EIBMNOACTIVETCP	Ensure TCP/IP is active.
1036	EIBMNOACTIVETCP	Getibmopt	No TCP/IP image was found.	Ensure TCP/IP is active.
1037	EIBMINVTSRBUUSERDATA	All	The request control block contained data that is not valid.	Call your system programmer.
1038	EIBMINVUSERDATA	All	The request control block contained user data that is not valid.	Check your function parameters and call your system programmer.
1040	EIBMSELECTEXPOST	SELECTEX	SELECTEX passed an ECB that was already posted.	Check whether the user's ECB was already posted.

Table 21. Sockets ERRNOs (continued)

Error number	Message name	Socket type	Error description	Programmer's response
2001	EINVALIDRXSOCKETCALL	REXX	A syntax error occurred in the RXSOCKET parameter list.	Correct the parameter list passed to the REXX socket call.
2002	ECONSOLEINTERRUPT	REXX	A console interrupt occurred.	Retry the task.
2003	ESUBTASKINVALID	REXX	The subtask ID is incorrect.	Correct the subtask ID on the INITIALIZE call.
2004	ESUBTASKALREADYACTIVE	REXX	The subtask is already active.	Only issue the INITIALIZE call once in your program.
2005	ESUBTASKALNOTACTIVE	REXX	The subtask is not active.	Issue the INITIALIZE call before any other socket call.
2006	ESOCKETNETNOTALLOCATED	REXX	The specified socket could not be allocated.	Increase the user storage allocation for this job.
2007	EMAXSOCKETSREACHED	REXX	The maximum number of sockets has been reached.	Increase the number of allocate sockets, or decrease the number of sockets used by your program.
2009	ESOCKETNOTDEFINED	REXX	The socket is not defined.	Issue the SOCKET call before the call that fails.
2011	EDOMAINSERVERFAILURE	REXX	A Domain Name Server failure occurred.	Call your MVS system programmer.
2012	EINVALIDNAME	REXX	An incorrect <i>name</i> was received from the TCP/IP server.	Call your MVS system programmer.
2013	EINVALIDCLIENTID	REXX	An incorrect <i>clientid</i> was received from the TCP/IP server.	Call your MVS system programmer.
2014	ENIVALIDFILENAME	REXX	An error occurred during NUCEXT processing.	Specify the correct translation table file name, or verify that the translation table is valid.
2016	EHOSTNOTFOUND	REXX	The host is not found.	Call your MVS system programmer.
2017	EIPADDRNOTFOUND	REXX	Address not found.	Call your MVS system programmer.

## Sockets extended ERRNOs

Table 22. Sockets extended ERRNOs

Error code	Problem description	System action	Programmer's response
10100	An ESTAE macro did not complete normally.	End the call.	Call your MVS system programmer.

Table 22. Sockets extended ERRNOs (continued)

Error code	Problem description	System action	Programmer's response
10101	A STORAGE OBTAIN failed.	End the call.	Increase MVS storage in the application's address space.
10108	The first call issued was not a valid first call.	End the call.	For a list of valid first calls, refer to the section on special considerations in the chapter on general programming.
10110	LOAD of EZBSOH03 (alias EZASOH03) failed.	End the call.	Call the IBM Software Support Center.
10154	Errors were found in the parameter list for an IOCTL call.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the IOCTL call. You might have incorrect sequencing of socket calls.
10155	The length parameter for an IOCTL call is less than or equal to 0.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the IOCTL call. You might have incorrect sequencing of socket calls.
10156	The length parameter for an IOCTL call is 3200 (32 x 100).	Disable the subtask for interrupts. Return an error code to the caller.	Correct the IOCTL call. You might have incorrect sequencing of socket calls.
10159	A 0 or negative data length was specified for a READ or READV call.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the length in the READ call.
10161	The REQARG parameter in the IOCTL parameter list is 0.	End the call.	Correct the program.
10163	A 0 or negative data length was found for a RECV, RECVFROM, or RECVMMSG call.	Disable the subtask for interrupts. Sever the DLC path. Return an error code to the caller.	Correct the data length.
10167	The descriptor set size for a SELECT or SELECTEX call is less than or equal to 0.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the SELECT or SELECTEX call. You might have incorrect sequencing of socket calls.
10168	The descriptor set size <i>in bytes</i> for a SELECT or SELECTEX call is greater than 252. A number greater than the maximum number of allowed sockets (2000 is maximum) has been specified.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the descriptor set size.
10170	A 0 or negative data length was found for a SEND or SENDMSG call.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the data length in the SEND call.
10174	A 0 or negative data length was found for a SENDTO call.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the data length in the SENDTO call.

Table 22. Sockets extended ERRNOs (continued)

<b>Error code</b>	<b>Problem description</b>	<b>System action</b>	<b>Programmer's response</b>
10178	The SETSOCKOPT option length is less than the minimum length.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the OPTLEN parameter.
10179	The SETSOCKOPT option length is greater than the maximum length.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the OPTLEN parameter.
10184	A data length of 0 was specified for a WRITE call.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the data length in the WRITE call.
10186	A negative data length was specified for a WRITE or WRITEV call.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the data length in the WRITE call.
10190	The GETHOSTNAME option length is not from 1 to 255.	Disable the subtask for interrupts. Return an error code to the caller.	Correct the length parameter.
10193	The GETSOCKOPT option length is less than the minimum or greater than the maximum length.	End the call.	Correct the length parameter.
10197	The application issued an INITAPI call after the connection was already established.	Bypass the call.	Correct the logic that produces the INITAPI call that is not valid.
10198	The maximum number of sockets specified for an INITAPI exceeds 2000.	Return to the user.	Correct the INITAPI call.
10200	The first call issued was not a valid first call.	End the call.	For a list of valid first calls, refer to the section on special considerations in the chapter on general programming.
10202	The RETARG parameter in the IOCTL call is 0.	End the call.	Correct the parameter list. You might have incorrect sequencing of socket calls.
10203	The requested socket number is a negative value.	End the call.	Correct the requested socket number.
10205	The requested socket number is a duplicate.	End the call.	Correct the requested socket number.
10208	The NAMELEN parameter for a GETHOSTBYNAME call was not specified.	End the call.	Correct the NAMELEN parameter. You might have incorrect sequencing of socket calls.
10209	The NAME parameter on a GETHOSTBYNAME call was not specified.	End the call.	Correct the NAME parameter. You might have incorrect sequencing of socket calls.
10210	The HOSTENT parameter on a GETHOSTBYNAME or GETHOSTBYADDR call was not specified.	End the call.	Correct the HOSTENT parameter. You might have incorrect sequencing of socket calls.

Table 22. Sockets extended ERRNOs (continued)

<b>Error code</b>	<b>Problem description</b>	<b>System action</b>	<b>Programmer's response</b>
10211	The HOSTADDR parameter on a GETHOSTBYNAME or GETHOSTBYADDR call is incorrect.	End the call.	Correct the HOSTADDR parameter. You might have incorrect sequencing of socket calls.
10212	The resolver program failed to load correctly for a GETHOSTBYNAME or GETHOSTBYADDR call.	End the call.	Check the JOBLIB, STEPLIB, and linklib datasets and rerun the program.
10213	Not enough storage is available to allocate the HOSTENT structure.	End the call.	Increase the user storage allocation for this job.
10214	The HOSTENT structure was not returned by the resolver program.	End the call.	Ensure that the domain name server is available. This can be a nonerror condition indicating that the name or address specified in a GETHOSTBYADDR or GETHOSTBYNAME call could not be matched.
10215	The APITYPE parameter on an INITAPI call instruction was not 2 or 3.	End the call.	Correct the APITYPE parameter.
10218	The application programming interface (API) cannot locate the specified TCP/IP.	End the call.	Ensure that an API that supports the performance improvements related to CPU conservation is installed on the system and verify that a valid TCP/IP name was specified on the INITAPI call. This error call might also mean that EZASOKIN could not be loaded.
10219	The NS parameter is greater than the maximum socket for this connection.	End the call.	Correct the NS parameter on the ACCEPT, SOCKET or TAKESOCKET call.
10221	The AF parameter of a SOCKET call is not AF_INET.	End the call.	Set the AF parameter equal to AF_INET.
10222	The SOCTYPE parameter of a SOCKET call must be stream, datagram, or raw (1, 2, or 3).	End the call.	Correct the SOCTYPE parameter.
10223	No ASYNC parameter specified for INITAPI with APITYPE=3 call.	End the call.	Add the ASYNC parameter to the INITAPI call.
10224	The IOVCNT parameter is less than or equal to 0, for a READV, RECVMSG, SENDMSG, or WRITEV call.	End the call.	Correct the IOVCNT parameter.
10225	The IOVCNT parameter is greater than 120, for a READV, RECVMSG, SENDMSG, or WRITEV call.	End the call.	Correct the IOVCNT parameter.
10226	Not valid COMMAND parameter specified for a GETIBMOPT call.	End the call.	Correct the COMMAND parameter of the GETIBMOPT call.
10229	A call was issued on an APITYPE=3 connection without an ECB or REQAREA parameter.	End the call.	Add an ECB or REQAREA parameter to the call.

Table 22. Sockets extended ERRNOs (continued)

<b>Error code</b>	<b>Problem description</b>	<b>System action</b>	<b>Programmer's response</b>
10300	Termination is in progress for either the CICS transaction or the sockets interface.	End the call.	None.
10330	A SELECT call was issued without a MAXSOC value and a TIMEOUT parameter.	End the call.	Correct the call by adding a TIMEOUT parameter.
10331	A call that is not valid was issued while in SRB mode.	End the call.	Get out of SRB mode and reissue the call.
10332	A SELECT call is invoked with a MAXSOC value greater than that which was returned in the INITAPI function (MAXSNO field).	End the call.	Correct the MAXSOC parameter and reissue the call.
10334	An error was detected in creating the data areas required to process the socket call.	End the call.	Call the IBM Software Support Center.
10999	An abend has occurred in the subtask.	Write message EZY1282E to the system console. End the subtask and post the TRUE ECB.	If the call is correct, call your system programmer.
20000	An unknown function code was found in the call.	End the call.	Correct the SOC-FUNCTION parameter.
20001	The call passed an incorrect number of parameters.	End the call.	Correct the parameter list.
20002	The CICS Sockets Interface is not in operation.	End the call.	Start the CICS Sockets Interface before executing this call.



## Chapter 13. TCP/IP abend 3C5 reason codes

Table 23 displays reason codes for abend 3C5.

Table 23. Abend 3C5 reason code descriptions

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
001	MVPATT	Bad Load	Issued when the routine that is to run under the newly attached task cannot be found.
002	MVPCLOSE	UCB DEQ Failed	Issued when the DEQ processing in MVPCLOSE fails with a nonzero return code. Note the resource name that is used is TCPIP.DEVxxx, where xxx is the device number being closed.
003	MVPDG7C	MVPDG7C Logic error 1	Issued by MVPDG7C when an LDSF Present command is issued for a nonexistent LU session.
004	MVPDG7C	MVPDG7C Logic error 2	Issued by MVPDG7C when an LDSF Break command is issued for a nonexistent LU session.
005	MVPIOINT	MVPIOINT Circular Q	Issued by MVPIOINT when it detects that the TCPIP engine's interrupt queues have been corrupted.
006	MVPOCM	Operator Forced Dump	A MODIFY (F) TCPIP,DUMP command was issued from the MVS console.
007	MVPTADD	Get of TNF area failed	While attempting to set up a new TNF manager, storage could not be obtained for a TNF manager queue element.
008	MVPTDEL	Zero ptr	MVPTDEL is attempting to delete a TNF manager for a TNF client address space, and the TNF manager cannot be found.
009	MVPTNF	Cannot locate TNF SSCT	While initializing the TNF address space, an attempt was made to locate the SSCT entry, set up for the TNF subsystem by MVS. It wasn't found. <b>Note:</b> This should never happen and probably indicates an MVS problem.
010	MVPUTIL	Raclow allocate failed	MVPUTIL failed when trying to obtain storage for the below-the-line work area needed by RACF.
011	MVPUTIL	Raclow free failed	MVPUTIL failed while trying to free the below-the-line RACF work area.
012	MVPUTIL (via MVPGARB macro)	GARB routine allocation failure	MVPUTIL failed while trying to obtain either an I/O interrupt block or an external interrupt block.
013	MVPVTWK	VTWK Free error	Failure while trying to free a VTRQ queue element.
015	MVPVTWK (via MVPQTOVT)	Zero token invalid bug	While attempting to queue work to the VTAM application task, MVPVTWK detected a VTRQ with a token value of 0.
016	MVPXINT (via MVPXUQ)	Unqueue - entry not found	MVPXINT tried to take a VMCF interrupt off of an interrupt queue, but the interrupt was not on the queue.
017	MVPXIUC	Message complete not done here	Processing detected a message-complete interrupt being queued by IUCV that is not supported in the IUCV implementation. This should not happen and is probably a programming error.
018	MVPXIUC	Bug - wrong type to Q_IUCV_Int	Processing tried to queue an invalid interrupt to an IUCV client that is not allowed. This should not happen and is probably a programming error.

Table 23. Abend 3C5 reason code descriptions (continued)

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
019	MVPXIUC	Count going negative	The number of interrupts processed by IUCV for a client is greater than the number of interrupts scheduled for that client.
020	MVPXIUC	Bad interrupt type being Queued	An interrupt type that is not valid is being queued to a client.
021	MVPXIUC	Caught local lock held in xiuc	The VMCF CML lock is held invalidly by the IUCV process.
022	MVPXIUC	Logic error in DoQr MVPXIUC	Processing detected an interrupt type that is not valid (not quiesce or resume) passed to the quiesce/resume routine. This should not happen and is probably a programming error.
023	MVPXIUC (via MVPGARB)	GARB routine allocation failure	MVPXIUC could not obtain an IUCV_QD block to contain interrupt information.
024	MVPXIUT	Lock not held error	The VMCF CML lock was detected as not being held.
025	MVPXIUT	Count going negative	The number of interrupts processed by IUCV for a client is greater than the number of interrupts scheduled for that client.
026	MVPXIUT	Internal error in path counting	MVPXIUT detected that there are no available paths to which to connect.
027	MVPXIUT (via MVPGARB)	GARB routine allocation failure	MVPXIUC could not obtain an IUCV_path block to contain path data.
028	MVPXIUT (MVPXUQ)	Unqueue - entry not found	While trying to free an IUCV_QD element, the element could not be found on the interrupt queue.
031	MVPXTNF	Wrong ASCB	MVPXTNF is passed a pointer to an ASCB when the failing ASCB goes through termination processing. The TNF entry for the address space contains an ASCB pointer. If these two do not match, an error is detected.
032	MVPXTNF	Caught Local lock held in xtnf	MVPXTNF was detected holding the TNF CML lock in error.
033	MVPXUNT (via MVPXUQ)	Unqueue - entry not found	While trying to take a VMCF interrupt off a client's interrupt queue, the interrupt element was not found.
034	MVPXUT	Alloc user data failed	MVPXUT could not obtain storage for a user-data entry.
035	MVPXUT	Alloc SRBS failed	MVPXUT could not obtain storage for the VMCF/IUCV communications SRBs.
036	MVPXUT	Freemain of SRB failed	MVPXUT could not free storage for the VMCF/IUCV communications SRBs.
037	MVPXUT (via MVPXGFL)	Getlock for 0 asid	A GET for ASID 0's user lock was attempted.
038	MVPXUT (via MVPXGFL)	Local lock not held error	A GET of a user lock was attempted, but the VMCF local lock was already held.
039	MVPXUT (via MVPXGFL)	Local lock held	The VMCF CML lock is held, but at least one user lock is not held.
040	MVPXUT (via MVPXGFL)	Local lock should be held	At least one user lock is held, but the VMCF CML lock is not held.
041	MVPXUT (via MVPXGFL)	Too many locks held	Only 4 locks can be held. This request was for a fifth lock.

Table 23. Abend 3C5 reason code descriptions (continued)

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
042	MVPXUT (via MVPXGFL)	User lock already held excl	A caller of MVPXUT attempted to upgrade ownership of a user lock to exclusive, but the user already holds the lock exclusive.
043	MVPXUT (via MVPXGFL)	Two user locks in read only	A user of MVPXUT that holds a user lock in read-only mode attempted to upgrade the lock to exclusive, but another user lock is held read by the same user. A user lock can be held exclusive only if no other user locks are currently held.
044	MVPXUT (via MVPXGFL)	Upgrade lock by wrong TCB	A user attempted to upgrade a user lock to exclusive, but the user is not the one who holds the lock shared.
045	MVPXUT (via MVPXGFL)	User lock not held excl	A user attempted to downgrade a user lock from exclusive to shared, but the user does not own the lock exclusive.
046	MVPXUT (via MVPXGFL)	Already holding user lock	A user attempted to obtain a user lock that the user already holds. This can happen if a VMCF or IUCV user attempts to send data to himself or herself.
047	MVPXUT (via MVPXGFL)	User lock is not held excl	A user attempted to downgrade a user lock from exclusive to shared, but the user does not own the lock exclusive.
048	MVPXUT (via MVPXGFL)	More than two user locks error	A user attempted to obtain a third user lock. Only two user locks can be held by the same process at one time.
049	MVPXUT (via MVPXGFL)	holding other user lock exclusively	A user attempted to obtain another user's user lock exclusive, but the attemptor's own lock is held shared. No lock can be obtained exclusive if more than one user lock is held shared.
050	MVPXUT (via MVPXGFL)	Already held the local lock	A user who is attempting to obtain a lock already holds the VMCF CML lock.
051	MVPXUT (via MVPXGFL)	Must hold user lock first	A user must hold the user lock before any other lock can be obtained.
052	MVPXUT (via MVPXGFL)	Path lock already held exclusive	A user attempted to obtain the path lock exclusive, but it is already held exclusive by another user.
053	MVPXUT (via MVPXGFL)	Already holding path lock	A user attempted to obtain the path lock shared, but it is already held shared by another user.
054	MVPXUT (via MVPXGFL)	Lock already held	A user attempted to obtain a lock that the user already owns.
055	MVPXUT (via MVPXGFL)	Another subordinate lock held	A user requested a subordinate lock, but the user already holds a different one. Only one subordinate lock can be held by one process at one time.
056	MVPXUT (via MVPXGFL)	Freelock for 0 asid	A FREE for ASID 0's user lock was attempted.
057	MVPXUT (via MVPXGFL)	Freeing not-held lock	A user attempted to free a lock that wasn't owned by the user.
058	MVPXUT (via MVPXGFL)	Subordinate not free	A user attempted to free a user lock, but a subordinate lock is still held. Subordinate locks must be freed before any user locks.
059	MVPXUT (via MVPXGFL)	Local lock was not held	The VMCF local lock was not held when a free request was processed.
060	MVPXVMC	Caught local lock held in xvmc	The VMCF address space CML lock was held in error.

Table 23. Abend 3C5 reason code descriptions (continued)

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
061	MVPXVMC (via MVPGARB)	GARB routine allocation failure	A failure occurred while attempting to obtain either a VMCF interrupt block or an intermediate data move buffer.
062	MVPXVMC (via MVPXUQ)	Unqueue - entry not found	When attempting to remove a VMCF interrupt from a user's interrupt queue, the interrupt element was not found.
063	MVPYSRB	YSRB Freemain of SRB failed	An SRB arrived for a VMCF or IUCV client that has been terminated. The FREEMAIN for the SRB failed.
101	IUCVFORC	Interrupt when INT_GETN. AddUserNote rc not zero.	After call to ADDUSERNOTE, PASCROUT was not zero.
102	IUCVFORC	Interrupt when INT_PECB. Circular buffer wrapped.	All the space in the circular interrupt buffer has been exhausted.
103	MVPSQL	In SQLSUBx-TASK. "TODO" not FETCH a row -or- CLOSE DOWN	The TODO task must be either fetch a row or close down.
104	SNALINK	In PUTVTAM. New VTAM PUT addr equals VTAM GET addr.	All the space in the circular buffer has been exhausted.
105	SNALINK	In IUCVRUPT. New IUCV PUT addr equals IUCV GET addr.	All the space in the circular buffer has been exhausted.
106	SNALINK	Usage error	SNALINK entered with a missing parameter. Refer to message EZA5775I for more information.
107	SNALINK	Session Type	The session type was coded but invalid. Refer to message EZA5842E for more information.
108	SNALINK	Max RU size	The MAX RU size specified is invalid. Refer to message EZA5776E for more information.
109	SNALINK	Storage for path index table	There is not enough free storage in the region to satisfy the get main request. Refer to message EZA5777E for more information.
110	SNALINK	IUTIL Init Error	There was an error when trying to initialize the IUTIL interface. Refer to message EZA5778E for more information.
111	SNALINK	Missing CONNBLOK	There was an error when trying to reference the session control block. Refer to message EZA5809E for more information.
112	SNALINK	OPENACB failure	There was an error when trying to open the ACB with VTAM. Refer to message EZA5779E for more information.
113	SNALINK	SETLOGON failure	There was an error when trying to issue the SETLOGON VTAM API call. Refer to message EZA5837E for more information.
502	MVDYNALL	UNITCHEC Freemain error	In checking unit name, after linking to IEFEB4UV, the UCB_List was FREEMAINED. FREEMAIN return code was not zero.
503	MYDYNALL	TAPECHEC FREEMAIN ERROR	In checking tape name, after linking to IEFEB4UV, the UCB_List was FREEMAINED. FREEMAIN return code was not zero.

Table 23. Abend 3C5 reason code descriptions (continued)

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
505	MVPCCALL	CCALL: Data copy allocate failure	GETMAIN failed for the allocated area.
506	MVPCCALL	GARB routine allocate failure	GETMAIN failed for the GARB macro (MVPGARB).
507	MVPCDODG (ISSUEDIA)	Unexpected GTTERM Return Code	In Issue Diagnostic, the GTTERM return code was not zero or eight.
508	MVPCDODG (ISSUEDIA)	Unexpected STFSMODE Return Code	The STFSMODE Return Code was not zero.
509	MVPCDODG (ISSUEDIA)	Unexpected TPG Return Code	TSO PUT GET return code was not zero.
510	MVPCDODG (ISSUEDIA)	Unexpected Return Code from TGET after TPG	TSO TGET Return Code after TPG was not zero.
511	MVPCDODG (ISSUEDIA)	Invalid device for Diagnose 8C	In Issue Diagnostic, the second GTTERM return code was eight.
512	MVPCDODG (ISSUEDIA)	Unexpected GTTERM Return Code in Diagnose 8	Issue Diagnostic, the 2nd GTTERM return code was not zero or eight.
513	MVPCDODG (ISSUEDIA)	Invalid virtual device number	RXF was not a -1 nor a Console_address.
514	MVPCDODG (ISSUEDIA)	Unexpected Diagnose Request	The diagnostic request was not DIAGCP, DIAGDEVT or DIAGDEVD.
515	MVPCDODG (ISSUEDIA)	Invalid WSF Data	Q_Reply was not a '81'X.
516	MVPCDODG (ISSUEDIA)	Invalid Query Data	Query_Buffer(1:1) was not a X'88'.
517	MVPCDODG (DODIAG58)	Unexpected STFSMODE Return Code	STFSMODE Return Code was not a zero for special reshow key.
518	MVPCDODG (DODIAG58)	Bad STTMPMD Return Code	STTMPMD Return Code was not a zero for PA1.
519	MVPCDODG (DODIAG58)	Bad STTMPMD Return Code	STTMPMD Return Code was not a zero when not for PA1.
520	MVPCDODG (DODIAG58)	Unexpected TPUT Return Code	TPUT return code was not zero or twenty for CC_Write_Buffer.
521	MVPCDODG (DODIAG58)	Unexpected TGET Return Code	TGET return code was not 0, 4, 12, 24 or 28 for CC_Read_Buffer.
522	MVPCDODG (DODIAG58)	Unexpected TGET Return Code	TGET return code was not 0, 12, 20, 24 or 28 for Data_Address.
523	MVPCDODG (DODIAG58)	Unexpected TPG Return Code for read buffer	PUT/GET return code was not zero or twenty for CC_Write_Buffer.
524	MVPCDODG (DODIAG58)	Unexpected TGET Return Code	TGET return code was not 0, 12, 20, 24 or 28 for Data_Address.
525	MVPCDODG (DODIAG58)	Unexpected Diagnose 58 OpCode	Diagnosis Op_Code was not '29'X or '2A'.
526	MVPCDODG (FSIOBEGR)	Error allocating write buffer	GETMAIN return code was not zero for CC_Write_Buffer.

Table 23. Abend 3C5 reason code descriptions (continued)

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
527	MVPCDODG (FSIOBEGR)	Error allocating read buffer	GETMAIN return code was not zero for CC_Read_Buffer.
528	MVPCDODG (FSIOENDR)	Unexpected STFSMODE Return Code	STFSMODE (for OFF) Return Code was not zero.
529	MVPCDODG (FSIOENDR)	Error freeing write buffer	FREEMAIN return code was not zero for CC_Write_Buffer.
530	MVPCDODG (FSIOENDR)	Error freeing read buffer	FREEMAIN return code was not zero for CC_Read_Buffer.
531	MVPCDODG (FSIOENDR)	Bad STTMPMD Return Code	STTMPMD Return Code was not a zero (Reset Display Terminal Manager).
532	MVPCDODG (CONWAIT)	Unexpected STFSMODE Return Code	STFSMODE (for ON) Return Code was not zero.
533	MVPCFIO (MVSCLOSE)	MVSCLOSE DCB=0	CPlist.DCBptr = 0.d
534	MVPCFIO (MVSPOSIT)	MVSPOSIT zero DCBptr	Plist.DCBptr = 0 at entry.
535	MVPCFIO (BFREAD)	BFREAD DCB=0	Plist.DCBptr = 0.
536	MVPCFIO (SLOWSFRE)	SLOWSFRE DCB=0	Plist.DCBptr = 0.
537	MVPCFIO (BFWRITE)	BFWRITE DCB=0	Plist.DCBptr = 0.
538	MVPCFIO (SFWRITE)	SFWRITE DCB=0	Plist.DCBptr = 0 at entry.
539	MVPCFIO (SFWRITE)	Null=2	If DelimPtr+1 => EndPtr Then there is no room for LF.
540	MVPCFIO (SFWRITE)	Null=1	DelimPtr = 0. No Delimiter found.
541	MVPCFIO (WRITEBLO)	WRITEBLOck DCB=0	Plist.DCBptr = 0 at entry.
542	MVPCFIO (WRITEWBL)	WRITEBLOck DCB=0	Plist.DCBptr = 0 at entry.
543	MVPCFIO (BLOKREAD)	BLOKREAD DCB=0	Plist.DCBptr = 0 at entry.
544	MVPCFIO (BLOKWRT)	BLOKWRIT DCB=0	Plist.DCBptr = 0 at entry.
545	MVPCFIO (BLOKINFO)	BLOKINFO DCB=0	Plist.DCBptr = 0 at entry.
546	MVPCFIO (MVSAPPEN)	MVSAPPEN DCB=0	Plist.DCBptr = 0 at entry.
547	MVPCFIO	MVPCFIO (MVSMEMLI)	MemList bad state. MemList did not return: 1) a fully qualified name, 2) just a member name, or 3) all but prefix.
548	MVPCFIO (MVSDSLIS)	DSLIS Free=1	FREEMAIN return code was not zero for WorkArea.
549	MVPCFIO (MVSDSLIS)	Bad Locate parms	List Cataloged Data Sets (SVC 26) return code was '20'X.

Table 23. Abend 3C5 reason code descriptions (continued)

Reason code in hex	Module where issued	Text description in MVPDUMP	Detailed description
550	MVPCFIO (MVSDSLIS)	DISLIS Free=2	FREEMAIN return code was not zero for WorkArea in FreeArea.
551	MVPCPASS (PASCASPM, PASCASU)	Bad return code from PUTGET	PUTGET for IO parameter list return code not 0, 8, 12, 28 or 32.
552	MVPCSEMA	Unexpected TGET Return Code	TGET return code was not 0, 4, 12, 24 or 28 for CC_Read_Buffer.
553	MVPCSEMA	Bad RC from STIMERM SET™	STIMER issued for .5 seconds. Return code not zero.
554	MVPCTSO (CALLTSO)	Bad Return Code from IKJEFTSR	IKJEFTSR return code 16. One of first six parm addressess is invalid for MVPCTSO.
555	MVPCTSO (CALLTSO)	Bad Return Code from IKJEFTSR	IKJEFTSR return code 20. You must analyze the reason code as well.
556	MVPCXSEM (ASMWAIT)	CXSEM: Data copy free failure	FREEMAIN return code was not zero for Complete_Entry.Parm.
557	MVPDODG (DoDiag58, FslEndR, ConWait, DoSioWat and FslBegR)	This return code should not occur.	These entries in MVPDODG should never be called. The five entries call a subroutine for MVPDUMP.
558	MVPJES (GETJOBID)	GETJOBID ZERO DCBPTR	CPlist.DCBptr = 0 at entry.
559	MVSTATE (GETSTATE)	Unrecognized Dsorg	Dsorg is not PS, PO, DA, IS, VS nor an alias.
560	MVSTATE (GETSTATE)	Incorrect DSCB obtained	
561	MVSTATE (GETSTATE)	Obtain error	



## Chapter 14. TCP/IP abend 4C5 reason codes

Table 24 displays reason codes for abend 4C5.

The abend 4C5 reason codes are in the format xxxxyyyy where:

**xxxx** The first halfword is for internal use only.

**yyyy** The second halfword contains a unique TCP/IP reason code for abend 4C5.

Table 24. Abend 4C5 reason code descriptions

Reason code	Text description in EZBZCTCP	Detailed description
03FD	TcpMACROAsyncError	The Macro API Asynchronous Function Processing REQAREA Parameter is INVALID. This could be due to re-using the REQAREA before a previous asynchronous function has completed
03FE	TcpTerminatedFail	This unit of work was running in TCP/IP when TCP/IP was terminated for a failure. This goes with the 422 abend
03FF	TcpTerminatedNorm	This unit of work was running in TCP/IP when TCP/IP was terminated normally. This goes with the 422 abend
0401	TcpBadEntryCode	Bad Entry code to module
0402	TcpUnexpectedErr	Unexpected error
0403	TcpInBadStack	Stack Overflow Error
04C1	TcpINcode	Bad Entry code to module
04C2	TcpINDspservC	Bad RC from DSPSERV Create
04C3	TcpINAlservA	Bad RC from ALESERV Add
04C4	TcpINAlservE	Bad RC from ALESERV Extract
04C5	TcpINAlservD	Bad RC from ALESERV Delete
04C6	TcpINDspservD	Bad RC from DSPSERV Delete
04C7	TcpINTcbToken	Bad RC from TCBTOKEN macro
04C8	TcpINLxres	Bad RC from LXRES macro
04C9	TcpINAxset	Bad RC from AXSET macro
04CA	TcpINETcre	Bad RC from ETCRE macro
04CB	TcpINETcon	Bad RC from ETCON macro
04CC	TcpINEstae	Bad RC from ESTAE macro
04CD	TcpINBadVSMLoc	Bad RC from VSM Locate macro
04CE	TcpINBadLoad	Bad RC from LOAD or NUCLKUP macros
04CF	TcpINETdes	Bad RC from ETDES macro
04D0	TcpINBadParm	Bad Params in ParmLib
04D1	TcpINCsvquery	Bad RC from CSVQUERY macro
04D2	TcpINPgser	Bad RC from Pgser macro
04D3	TcpINAxres	Bad RC from Axres macro
04D4	TcpINAsext	Bad RC from Asext macro
04D5	TcpINAsxTcbToken	Bad RC from Tcbtoken
04D6	TcpINLxfre	Bad RC from Lxfre macro

Table 24. Abend 4C5 reason code descriptions (continued)

Reason code	Text description in EZBZCTCP	Detailed description
04D7	TcpINAttach	Bad RC from Attach macro
04D8	TcpINBadDelete	Bad RC from Delete macro
04D9	TcpINAxext	Bad RC from Axext macro
04DA	TcpINNoTseb	No valid Tseb found
04DB	TcpINBadDirectedLoad	Bad RC from directed LOAD
05C0	TcpS2Ecode	Bad Entry code to module
05C1	TcpSMLatchSetExists	Storage Manager Latch Set already exists in this AS
05C2	TcpSMLatchCreateOutOfStorage	Storage Manager Latch Create out of storage
05C3	TcpInIsglcr	Bad RC from Isglcr service
05C4	TcpInvCellStart	Cell storage addr required
05C5	TcpInAleserv	Bad RC from Aleserv macro
05C6	TcpInvReleaseReq	Cannot do DSPSERV RELEASE for this cell pool
05C7	TcpInCsrpbld	Bad RC from Csrpbld service
05C8	TcpInCsrpexp	Bad RC from Csrpexp service
05C9	TcpInvCellToken	Cell pool token invalid
05CA	TcpInvCellAddr	Cell address is invalid
05CB	TcpInCsrpget	Bad RC from Csrpget service
05CC	TcpInCsrpfre	Bad RC from Csrpfre service
05CD	TcpInCsrpqpl	Bad RC from Csrpqpl service
05CE	TcpInCsrpcon	Bad RC from Csrpcon service
05CF	TcpInCsrpact	Bad RC from Csrpact service
05D0	TcpCBInvalidStack	A Storage Manager Control Block stack is invalid
05D1	TcpCBStackOverflow	A Storage Manager Control Block stack overflowed
05D2	TcpOutOfMasterCells	A Master Cell Pool is out of extent storage cells
05D3	TcpOutOfMasterCBCells	A Master Cell Pool is out of control block cells
05D4	TcpOutOfStackCells	A Cell Pool for stack storage is out of cells
05D5	TcpInvalidCpoolId	Expand stack invoked with an invalid cell pool ID
05D7	TcpSmEstae	Bad return code from Estae
05D8	TcpInCsrpqex	Bad RC from Csrpqex service
05D9	TcpInCsrpdac	Bad RC from Csrpdac service
05DA	TcpInCsrpdis	Bad RC from Csrpdis service
05DB	TcpInLength	Length of requested storage exceeds the maximum
05DC	TcpInDataSpaceGroupID	Invalid data space group ID is passed
05DD	TcpInDataSpaceAlet	Invalid data space alet is passed
05DE	TcpInDataSpaceStoken	Invalid data space Stoken is passed
06C1	TcpTSEstae	Bad RC from ESTAE macro
06C2	TcpTCMLLockHeld	CML lock held when it shouldnt be
07C1	TcpLAObtHier	Latch obtain hierarchy error
07C3	TcpLARelHier	Latch release hierarchy error
07C5	TcpLAObtFail	ISGLOBT Latch Obtain failure

Table 24. Abend 4C5 reason code descriptions (continued)

Reason code	Text description in EZBZCTCP	Detailed description
07C7	TcpLARelFail	ISGLREL Latch release failure
07C9	TcpLAFreLocked	Cannot free latch - currently locked
07CB	TcpLAINvTlcb	Latch error - null Tlcb address or Tlcb Invalid
07CD	TcpLAINvLmca	Latch error - Lmca does not exist
07CF	TcpLAINvLmqe	Latch error - Lmqe does not exist
07D1	TcpLAAAllocLatch	Cannot allocate latch from latch set
07D3	TcpLAObtDelete	Latch obtain failure - latch set marked deleted
07D5	TcpLAINvConTok	Invalid connection token for socket latch request
07D7	TcpLAAAllocLS	Error allocated latch set
07D9	TcpLAINvTcb	Tcb other than latch obtainer attempted latch release
08C1	TcpSMGetCell	Cell obtain failure - no more storage
08C3	TcpSMGetCellID	Cell obtain failure - cell pool marked for deletion
08C5	TcpSMFreeCellZero	Cell release failure - bad cell pointer
08C7	TcpSMGetCellInUse	Cell obtain failure - cell already in use
08C9	TcpSMFreeCellInUse	Cell release failure - cell not already in use
08CB	TcpLALatchSetInUse	Latch set delete failure - latch set already in use
08CD	TcpSMFreeCellCirc	Cell release failure - circular queue error
08FF	TcpOPInvEye	Invalid eyecatcher found in internal control block
1001	TcpSKBadVerb	Invalid verb passed to STREAMOP processor
1101	TcpSKMsgNotAvailable	Message triple is held or has been freed
1102	TcpSKMsgHoldFailed	Message triple is already held
1103	TcpSKMsgReleaseFailed	Message triple is already available
2000	TcpitProcStackExceeded	itProc size of dynamic storage area exceeded
2001	TcpitLockObtNotInit	Lock obtain - lockword not initialized
2002	TcpitLockObtLevelHeld	Lock obtain - cls/lvl already held for other lockword
2003	TcpitLockObtStatusChange	Lock obtain - attempt to change lock status shr- excl
2004	TcpitLockObtHierarchy	Lock obtain - level hierarchy violation
2101	TcpitLockRelNotInit	Lock release - lockword not initialized
2102	TcpitLockRelNotHeld1	Lock release - lock not held
2103	TcpitLockRelLevelHeld	Lock release - cls/lvl already held for other lockword
2104	TcpitLockRelNotHeld2	Lock release - lock not held
2105	TcpitLockRelNotHeld3	Lock release - lock not held
2201	TcpitLockTstNotInit	Lock test - lockword not initialized
2301	TcpitLockRelAllAbend	Lock release all-
2401	TcpitLockSusError1	Lock suspend - internal error
2402	TcpitLockSusError2	Lock suspend - internal error
2403	TcpitLockSusError3	Lock suspend - internal error
2500	TcpitStorNoStorage	No storage available – increase common storage. For more information on TCP/IP storage requirements and tuning, see informational APARs II11710, II11711, and II11712.

Table 24. Abend 4C5 reason code descriptions (continued)

Reason code	Text description in EZBZCTCP	Detailed description
2501	TcpitStorNoCSMstorage	No CSM storage available
2502	TcpitStorBadHeader	Bad storage header
2503	TcpitStorBadTrailer	Bad storage trailer
2504	TcpitStorBadParm	Bad storage input parameter
2505	TcpitStorCSMtooLarge	CSM storage request size too large
2506	TcpitStorNotAllocated	Release of storage not allocated
2507	TcpitStorNoPrivStorage	Failure allocating TCP/IP private storage
2508	TcpitStorECSALimit	Allocation would exceed ECSALIMIT in TCP/IP profile
2509	TcpitStorPoolLimit	Allocation would exceed POOLLIMIT in TCP/IP profile
2600	TcpitDUbadParm	SRB schedule - invalid ASCB
2601	TcpitDUSusError1	SRB suspend failure
2701	TcpitTimerBadTQE1	Timer cancel - invalid TQE
2702	TcpitTimerCanError1	Timer cancel - internal error
2703	TcpitTimerCanError2	Timer cancel - internal error
2704	TcpitTimerBadTID1	Timer cancel - invalid TID
2705	TcpitTimerBadTQE2	Timer pop/cancel - invalid TQE
2706	TcpitTimerSetFailed	Timer set - timer cannot be set
2707	TcpitTimerBadState1	Timer set - invalid state in TID
2708	TcpitTimerBadTID2	Timer cancel - invalid TID
2709	TcpitTimerBadTQE3	Timer cancel - invalid TQE
270A	TcpitTimerBadState2	Timer cancel - invalid state in TID
2801	TcpitTrrStackFull	Trr push - TRR stack full
2900	TcpPatTreeCorrupted	Patricia tree structure was corrupted
2901	TcpPatTreeKeyTooLarge	Patricia tree key length is too large
2902	TcpPatTreeBadParm	Bad PatTree input parameter
3001	TcpSTKattLoop	Loop detected in ATT entries
3002	TcpSTKblkngArrInvalid	Invalid Manipulation of the Blocking Array
3003	TcpSTKPtrreeRecovery	Abend while in the Routing Patricia Tree
3004	TcpSTKLoopIUTChain	Loop in IUT plist chain was detected
3005	TcpSTKMPProtoInvalid	Corrupted MPROTO detected
3006	TcpSTKLoopIUTIDChain	Loop in QDIO IUT plist chain was detected
3007	TcpSTKLoopXbflChain	Loop in buffer list chain was detected
3100	TcpPascalUnexpectCond	RC of SoftwareError indicates an APAR condition
3101	TcpPascalUnknownFnCode	PC Router called with invalid function code
3133	TcpTelnetAbendTrap	Abend Trap for Telnet error was set
C001	TcpJCodeNotValid	The callable service is incorrect or is not supported

---

## Chapter 15. TCP/IP abend 422 reason codes

Abend code 422 is a general use abend code. It provides an abend that will not be delivered to the target task if the task is already in recovery processing.

This abend might be retryable or non-retryable, depending on the reason code.

The abend 422 reason codes are in the format xxxxyyzz where:

**xxxx** The first halfword is for internal use only.

**yy** The third byte contains a component identifier. 02 stands for TCP/IP.

**zz** Unique reason code within the component, in this case, TCP/IP.

Table 25 displays reason codes for abend 422.

*Table 25. Abend 422 reason code descriptions*

<b>Reason code</b>	<b>Text description in MVDUMP</b>	<b>Detailed description</b>
0200	TCPipcall	The task is being ended because it is in a wait state controlled by the TCP/IP address space, which is being ended. To prevent leaving the task in a never-ending wait, the task is abended. If a recovery routine exists in the task, the routine can retry for this abend.



---

## Chapter 16. FTPD reply codes

This chapter contains FTPD Reply codes.

---

### 125      **Appending to data set *name***

**Explanation:** The current data set is being appended to the indicated data set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 125      **command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

### 125      **Could not allocate receive buffer**

**Explanation:** A command was issued to retrieve output from JES. A buffer required for this command to process is not available.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be sent.

**User Response:** None.

**System Programmer Response:** None.

---

### 125      **Data connection already open; transfer starting.**

**Explanation:** The FTP server is about to transfer data. The server determined that a data connection already existed and it was not necessary to open a new data connection. The FTP server will use the existing data connection for FTP transfer.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 125      **Data set *dsname* is migrated and NoAutoRecall is specified.**

**Explanation:** A submit job request was received for a job located in a data set at the server. The data set was migrated and needed to be recalled. The FTP server is currently in NoAutoRecall mode.

**System Action:** The command is rejected.

**User Response:** Issue the "SITE AUTORECALL" command to allow the data set to be recalled, and then reissue the FTP command.

**System Programmer Response:** None.

---

---

**125** *dsname* is a physical sequential data set and a member was specified on the RETR command.

**Explanation:** The client entered the RETR command to request that a JES job be submitted and the output of the job retrieved. The pathname on the RETR command indicated that the job to be submitted was a member of the MVS partitioned data set *dsname*, but the FTP server determined that *dsname* was a physical sequential data set, and not a partitioned data set.

**System Action:** The command is rejected. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125** DCB *lrecl blksize*

**Explanation:** This message contains the DCB parameters that will be required for the client to replicate the temporary file containing unloaded load modules, which the server is preparing to send to the client.

*lrecl* The logical record length required for the temporary data set

*blksize* The block size required for the temporary data set

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125** Error allocating tape data set *dsname*

**Explanation:** The server attempted to allocate to a data set on a tape volume. The dynamic allocation was unsuccessful.

**System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** Examine the trace and look for trace messages with the tag *alloc\_tape*. These trace messages provide the reason codes for the dynamic allocation error.

---

**125** Error mounting volume

**Explanation:** A request was received that requires a data set at the server. The data set will be allocated on a volume that is not mounted. The FTP server attempted to mount the volume but was unable to successfully do so.

**System Action:** The command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Determine why the volume cannot be mounted and correct the problem.

---

**125** Error mounting volume containing data set *dsname*

**Explanation:** A request was received that requires a data set at the server. The data set is on a volume that is not mounted. The FTP server attempted to mount the volume but was unable to successfully do so.

**System Action:** The command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Determine why the volume cannot be mounted and correct the problem.

---

---

**125 error occurred while seeking restart marker**

**Explanation:** The server attempted to restart a store operation, as requested by the client. However, an error occurred when the server was positioning its file marker. The file transfer is ended.

**System Action:** Processing continues.

**User Response:** Contact the system programmer with the error.

**System Programmer Response:** Contact the IBM Software Support Center with the error.

---

**125 Error recalling data set *dsname*.**

**Explanation:** The command being processed requires a data set at the server. The data set was migrated and needed to be recalled. The FTP server attempted to recall the data set, but was unable to successfully recall it.

**System Action:** The command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Determine why the data set cannot be recalled and correct the problem.

---

**125 Error recalling data set *data\_set* (rc=rc)**

**Explanation:** A RETR request was received for a data set. The data set was migrated and needed to be recalled. The FTP server attempted to recall the data set, but was unable to successfully recall the data set.

**System Action:** The RETR command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Determine why the data set cannot be recalled and correct the problem.

---

**125 File *dsname* not found.**

**Explanation:** The job was not submitted because the file was not found.

**System Action:** The job is not submitted. FTP continues.

**User Response:** Reissue the request with a name of a file that can be found by the server. To ensure that the server can find the file, issue a DIR subcommand for the file after issuing SITE FILETYPE=SEQ.

**System Programmer Response:** None.

---

**125 *file\_name* request nonexistent member to be sent.**

**Explanation:** A command was issued specifying resource *file\_name*. The resource appears to be a member of a partitioned data set, but the member does not exist in the specified PDS.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** Reissue the command with a correct *file\_name* or PDS member name.

**System Programmer Response:** None.

---

**125- Format of file number incorrect, *filenum* ignored.**

**Explanation:** The RETR command is being executed with the specified jobid and all files. The jobid must be in the form of JOBxxxxx, TSUxxxxx, APCxxxxx, TSUxxxxx or JOBxxxxx.y, TSUxxxxx.y, APCxxxxx.y, TSUxxxxx.y to retrieve a file. Note that the file number postfix can be either the string ".X" or .1 through the number of files associated with the job. The file number postfix .0 is an incorrect value.

**System Action:** The file number is ignored and the RETR command is executed for all files.

**User Response:** None.

---

125

**System Programmer Response:** None.

---

**125 Invalid data set name "dsname". Use MVS Dsname conventions.**

**Explanation:** The data set name violates one of the MVS file naming conventions and cannot be used to reference a data set at the server.

**System Action:** The job is not submitted. FTP continues.

**User Response:** Rename the data set in compliance with MVS data set naming conventions. For more information about MVS data set naming conventions, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

**125 JES internal reader operation failed**

**Explanation:** In preparation of submitting a job to MVS the Internal Reader needed to be allocated or opened. This operation of the Internal Reader failed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125 List started OK for JESJOBNAME=name, JESSTATUS=status and JESOWNER=owner**

**Explanation:** The LIST command is being executed with the specified SITE parameters. The server is getting ready to transfer the LIST command output back to the client.

**System Action:** The LIST command is executed.

**User Response:** None.

**System Programmer Response:** None.

---

**125 List started OK.**

**Explanation:** The LIST or NLST command is being executed. The server is getting ready to transfer the LIST or NLST command output back to the client.

**System Action:** The LIST or NLST command is executed.

**User Response:** None.

**System Programmer Response:** None.

---

**125 List terminated.**

**Explanation:** The FTP server was preparing to transfer the output from the LIST or NLST command, but encountered an error and ended the data transfer. This reply is followed by a 550 reply with additional information about the error.

**System Action:** The data transfer ends.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Mismatched quotes on pathname pathname**

**Explanation:** The pathname provided for a data set that contains a job to submit was enclosed in an unbalanced set of single quotes.

**System Action:** The job is not submitted. FTP continues.

---

**User Response:** Enclose the data set name in balanced quotes -- a quote at the beginning and the end of the name.

**System Programmer Response:** None.

**125 Name length error for pathname *pathname***

**Explanation:** The pathname provided for a data set that contains a job to submit is too long. The name, when combined with the current working directory, must adhere to the following maximum lengths:

44 for a physical sequential data set

55 for a member of a PDS (includes the parentheses for the member name)

1023 for a file in the hierarchical file system.

**Note:** The maximum length for a filename is 255 -- the total pathname maximum length is 1023.

**System Action:** The job is not submitted. FTP continues.

**User Response:** Reissue the request with a name that meets the limits for the type of data set or file.

**System Programmer Response:** None.

**125 Nlst started OK**

**Explanation:** A command was issued to obtain an NLST. The NLST command started ok.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be sent.

**User Response:** None.

**System Programmer Response:** None.

**125 Nlst started OK for JESJOBNAME=*name*, JESSTATUS=*status* and JESOWNER=*owner***

**Explanation:** The NLST command is being executed with the specified SITE parameters. The server is getting ready to transfer the NLST command output back to the client.

**System Action:** The NLST command is executed.

**User Response:** None.

**System Programmer Response:** None.

**125 Non-DASD data set *dsname* cannot be processed.**

**Explanation:** A command was issued against a data set that does not reside on a Direct Access Storage Device (DASD).

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

**125 Open of *dsname* failed.**

**Explanation:** The data set or file containing a job cannot be opened.

**System Action:** The job is not submitted. FTP continues.

**User Response:** None.

**System Programmer Response:** If necessary, re-create the problem with FTP server trace active. The open file error will create a trace record with an *errno* code. Determine the cause of the error and correct the problem. *errno* is the z/OS UNIX System Services Return Code. These return codes are listed and described in the *z/OS UNIX System Services Messages and Codes*.

---

**125 Retrieve of a whole Partitioned data set is not supported. Use MGET for this purpose.**

**Explanation:** The client entered the RETR command to request that a JES job be submitted and the output of the job retrieved. The pathname on the RETR command indicated that the job to be submitted was the MVS data set *dsname*, but the FTP server determined that *dsname* was a partitioned data set, which requires a member name to be specified with *dsname*.

**System Action:** The command is rejected. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125- Seeking restart marker**

**Explanation:** The server is restarting a store operation, as requested by the client. The server is positioning its file marker at the location specified on the last REST command.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Sending all SPOOL files for requested Jobid.**

**Explanation:** The FTP server is sending all the files in the spool for a specified job ID. For more information about spool files, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Action:** The files are sent. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Sending data set *data set* FIXrecfm record length**

**Explanation:** The FTP server is sending the indicated data set with a fixed record length. The record length is indicated in the reply.

**System Action:** The data set is transferred. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Sending data set *name***

**Explanation:** The FTP server is sending the indicated data set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Sending file via NJE to requested destination.**

**Explanation:** The data that is transferred from the client is being sent via Network Job Entry (NJE) to the destination specified by the SITE DEST= parameter.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**125**      **Sending Job to JES internal reader** *format record length*

**Explanation:** The FTP server is sending the indicated job to the job entry system (JES) internal reader with the indicated record format and record length. For more information on JES, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Action:** The job is sent to JES. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125**      **Storing data in the Null directory (\*dev.null).**

**Explanation:** The FTP server is transferring data from the client but is not storing the data in the file system. This action was requested with a change directory subcommand to the null directory.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125**      **Storing data set** *name*

**Explanation:** The FTP server is storing the indicated data set. If the data set already exists, it is replaced by the transferred data.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125**      **Storing data set** *name (unique name)*

**Explanation:** The FTP server is storing the indicated data set with a unique name. This prevents overwriting or erasure of existing files on the remote host.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125**      **Submit fails:** *dsname* **User not authorized.**

**Explanation:** The job was not submitted. The requested data set is protected by a security system such as RACF, and the user is not authorized to read the data set.

**System Action:** The job is not submitted. FTP continues.

**User Response:** Contact the owner of the data set for authorization to read the data set.

**System Programmer Response:** None.

---

**125-**      **Submitting job** *job\_id format record\_length*

**Explanation:** The indicated job is being submitted to the Job Entry System (JES).

**System Action:** The job is submitted. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**125- Tagged *type* file translated with table built using file system cp=*codepage\_1*, network transfer cp=*codepage\_2***

**Explanation:** The FTP server detected that the local file is tagged with a coded character set ID (ccsid). A translation table is built for this data transfer using the codepage that corresponds to the ccsid.

*type* is either ASCII or EBCDIC.

*codepage\_1* is the codepage of the file.

*codepage\_2* is the codepage that was specified for the network transfer codepage on SITE SBDATACONN or on the SBDATACONN statement in the FTP.DATA file.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125- Tagged *type* file translated with current data connection translation table**

**Explanation:** The FTP server detected that the local file is tagged with a coded character set ID (ccsid). The data connection translate table is not defined with the SBDATACONN=(file\_system\_cp,network\_transfer\_cp) method. Without a network transfer codepage, the server cannot build a translate table using the ccsid of the file. The FTP server uses the translate table defined for the data connection.

*type* is either ASCII or EBCDIC.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Transfer aborted: file error.**

**Explanation:** A file error occurred while processing the command.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Transfer aborted: send error.**

**Explanation:** While attempting to submit a job from the command, the data connection was lost. The job may or may not have been successfully submitted to the system for processing.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Transfer request aborted**

**Explanation:** The FTP server closed the data connection because of an internal error. This reply ends an outstanding preliminary reply.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**125- Transferring load module**

**Explanation:** The RETR command is being executed, and the server is preparing to send a temporary data set containing unloaded load modules to the client.

**System Action:** FTP continues. A second 125 message will be sent containing DCB parameters for the temporary file.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Transferring load module**

**Explanation:** The STOR command is being executed, and the server is preparing to receive a temporary data set containing unloaded load modules from the client.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Unable to get Jobid**

**Explanation:** GET command with automatic retrieve was issued. The jobid could not be obtained after being submitted.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be sent.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Unable to send *name***

**Explanation:** The file used in a JesPutGet operation either cannot be found, is being used by another process, or cannot be opened.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125 User Exit refuses this Job to be submitted by *dsname***

**Explanation:** During the submit of a job to JES, a JES user or installation exit encountered an error. The request to submit the job may have failed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125 Volume containing *dsname* is not mounted and NoAutoMount specified.**

**Explanation:** A submit job request was received for a job located in a data set at the server. The data set is on a volume that is not mounted. The FTP server is currently in NoAutoMount mode.

**System Action:** The command is rejected.

**User Response:** Issue the "SITE AUTOMOUNT" command to allow the volume to be mounted, and then reissue the FTP command.

**System Programmer Response:** None.

---

---

**125            Volume is not ready and automatic tape mounts are not allowed.**

**Explanation:** A request to retrieve a data set from or store a data set on a tape volume was received. The tape volume is not mounted and the end user requested NoAutoTapeMount.

**System Action:** The request is not performed.

**User Response:** Request that the tape be mounted by the operator and then reissue the request. Also, the SITE AUTOTAPEMOUNT subcommand can be issued to allow automatic tape mounts to occur.

**System Programmer Response:** None.

---

**125            VSAM data set *dsname* cannot be processed.**

**Explanation:** A command was issued that requests action be performed against a VSAM data set. VSAM data sets are not supported.

**System Action:** FTP server continues normal execution. The FTP client waits for the next reply to be presented by the server.

**User Response:** None.

**System Programmer Response:** None.

---

**125-            Waiting for allocation of tape data set *dsname***

**Explanation:** A retrieve or store command was issued for a data set that is on a tape volume. The FTP server may have to have the volume mounted. The server will wait for the volume to be successfully mounted and then begin processing the data set.

**System Action:** The FTP server prompts the operator to mount the volume. FTP processing continues once the volume is mounted.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125-            Waiting for recall of data set *data set***

**Explanation:** A command was issued for a data set that is migrated. The FTP server must recall the data set in order complete the command. The server waits for the data set to be successfully recalled and then begins processing the command.

**System Action:** The FTP server recalls the data set. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**125-            Waiting for volume mount for *dsname***

**Explanation:** A command was issued for a data set that is catalogued on a volume that is not mounted. The FTP server must mount the volume in order to complete the command. The server waits for the volume to be successfully mounted and then begins processing the command.

**System Action:** The FTP server prompts the operator to mount the volume. FTP processing continues once the volume is mounted.

**User Response:** None.

**System Programmer Response:** None.

---

---

**125-           Waiting for volume mount for volume *volume***

**Explanation:** The FTP server is waiting for the volume to be mounted. The FTP server is about to open the data connection.

**System Action:** FTP continues. The FTP server mounts the volume automatically.

**User Response:** None.

**System Programmer Response:** None.

---

**125           When *job\_id* is done, will retrieve its output.**

**Explanation:** When the indicated job is completed, the FTP server will retrieve the output from the Job Entry System (JES). If the specified job id is "\*\*UNKNOWN", the retrieval of the job identifier from JES failed.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**150           command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**150           Waiting for allocation of tape data set *dsname***

**Explanation:** A retrieve or store command was issued for a data set that is on a tape volume. The FTP server may have to have the volume mounted. The server will wait for the volume to be successfully mounted and then begin processing the data set.

**System Action:** The FTP server prompts the operator to mount the volume. FTP processing continues once the volume is mounted.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**150           Waiting for recall of data set *dsname***

**Explanation:** The FTP server is waiting for the recall of the indicated data set. The FTP server will open a data connection for the data transfer.

**System Action:** The FTP server recalls the data set. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**150           Waiting for volume mount for *dsname***

**Explanation:** The FTP server is waiting for the volume containing the indicated data set to be mounted. The FTP server is about to open the data connection.

**System Action:** FTP continues. The FTP server mounts the volume automatically.

**User Response:** None.

## 200-

**System Programmer Response:** None.

---

### | 200-           % Free Free Largest Free

| **Explanation:** This reply displays the headers for the information provided when the QDISK parameter was specified for the SITE subcommand.

| **System Action:** None.

| **User Response:** None.

| **System Programmer Response:** None.

---

### 200-           Active server dumpIDs: *value\_1 value\_2 ... value\_n*

**Explanation:** The SITE command was specified with the DUMP parameter. The values listed are the extended traces that are currently active.

**System Action:** None.

**User Response:** None.

**System Programmer Response:** None.

---

### 200-           Active server traces: *value\_1 value\_2 ... value\_n*

**Explanation:** The SITE command was specified with the DEBUG parameter. The values listed are the general traces that are currently active.

**System Action:** None.

**User Response:** None.

**System Programmer Response:** None.

---

### 200-           BLOCKSIZE being set to *blksize*

**Explanation:** The SITE subcommand was entered with one or more of the LRECL, RECFM, and BLKSIZE parameters, and the resulting parameter values caused a mismatch between the LRECL, RECFM, and BLKSIZE parameters. The BLKSIZE value is reset to a compatible value, *blksize*.

**System Action:** The BLKSIZE parameter is reset to *blksize*.

**User Response:** If necessary, reissue the SITE subcommand with a valid LRECL and RECFM combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200-           BLOCKSIZE must be a multiple of LRECL for RECFM *rcfm*

**Explanation:** The SITE subcommand was entered with one or more of the LRECL, RECFM, and BLKSIZE parameters, and the resulting parameter values caused a mismatch between the LRECL, RECFM, and BLKSIZE parameters. The Record Format, *rcfm*, requires that BLKSIZE be a multiple of LRECL, but the BLKSIZE was not a multiple of LRECL.

**System Action:** FTP attempts to set the parameters to compatible values. This reply is followed by another 200-reply indicating which values have been reset.

**User Response:** If necessary, reissue the SITE subcommand with a valid LRECL, RECFM, and BLKSIZE combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

---

**200- BLOCKSIZE must be at least 4 more than LRECL for RECFM *recfm***

**Explanation:** The SITE subcommand was entered with one or more of the LRECL, RECFM, and BLKSIZE parameters, and the resulting parameter values caused a mismatch between the LRECL, RECFM, and BLKSIZE parameters. The Record Format, *recfm*, requires that BLKSIZE be at least 4 more than LRECL, but the BLKSIZE was not at least 4 more than LRECL.

**System Action:** FTP attempts to set the parameters to compatible values. This reply is followed by another 200-reply indicating which values have been reset.

**User Response:** If necessary, reissue the SITE subcommand with a valid LRECL, RECFM, and BLKSIZE combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- BLOCKSIZE must equal LRECL for RECFM *recfm***

**Explanation:** The SITE subcommand was entered with one or more of the LRECL, RECFM, and BLKSIZE parameters, and the resulting parameter values caused a mismatch between the LRECL, RECFM, and BLKSIZE parameters. The Record Format, *recfm*, requires that LRECL and BLKSIZE be equal, but the values for BLKSIZE and LRECL were not the same.

**System Action:** FTP attempts to set the parameters to compatible values. This reply is followed by another 200-reply indicating which values have been reset.

**User Response:** If necessary, reissue the SITE subcommand with a valid LRECL, RECFM, and BLKSIZE combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Blocksize parameter (*value*) is not numeric. Blocksize ignored.**

**Explanation:** The SITE command was specified with the BLKSIZE parameter, but the value, *value*, specified for the BLKSIZE parameter was not a numeric value. The value for BLKSIZE must be a numeric value between 1 and 32760.

**System Action:** The BLKSIZE parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Blocksize parameter (*value*) must be between 0 and 32760. Blocksize ignored.**

**Explanation:** The SITE command was specified with the BLKSIZE parameter, but the value, *value*, specified for the BLKSIZE parameter was outside the valid range. The value for the BLKSIZE parameter must be a numeric value between 0 and 32760.

**System Action:** The BLKSIZE parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- BUFno parameter (*value*) is not numeric. BUFno ignored.**

**Explanation:** The SITE command was specified with the BUFNO parameter, but the value, *value*, specified for the BUFNO parameter was not a numeric value.

**System Action:** The BUFNO parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's*

## 200-

*Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

## 200- BUFno parameter (*value*) must be between 1 and 255. BUfno ignored.

**Explanation:** The SITE command was specified with the BUFNO parameter, but the value, *value*, specified for the BUFNO parameter was outside the valid range.

**System Action:** The BUFNO parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

## 200 BUFno parameter *value* must be from *minimum* to *maximum*. BUfno ignored.

**Explanation:** The site subcommand was specified with the BUFNO parameter, but the value specified for the BUFNO parameter was outside the valid range.

*value* is the value entered for BUfno.

*minimum* is the minimum allowed value.

*maximum* is the maximum allowed value.

**System Action:** The BUFNO parameter is ignored.

**User Response:** Reissue the subcommand with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

## 200 CCC command successful

**Explanation:** The FTP server received a CCC command that was processed successfully. The FTP client can send unprotected commands on the control connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

## 200- CHKPTInt parameter (*value*) is not numeric. Chkptint ignored.

**Explanation:** The value of the CHKPTInt parameter, *value*, was not a numeric value, or was outside the acceptable range.

**System Action:** The parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the CHKPTInt parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

## 200- CHKPTInt parameter (*value*) is larger than a 4 byte integer. Chkptint ignored.

**Explanation:** The value of the CHKPTInt parameter, *value*, was larger than the maximum value allowed for a 4 byte integer.

**System Action:** The value in error is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the CHKPTInt parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file

transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Chmod cannot access file *filename* : error**

**Explanation:** The FTP server encountered an error attempting to obtain the file information for *filename*. *error* is the C run-time library error encountered while accessing the file.

**System Action:** The CHMOD parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the filename on the CHMOD parameter. If the problem persists, contact the system programmer.

**System Programmer Response:** If necessary, correct the error indicated by *error*.

**200- Chmod failed: error**

**Explanation:** The FTP server encountered an error attempting to change the permission bits of the file. *error* is the C run-time library error returned in response to the chmod() request.

**System Action:** The CHMOD parameter is ignored.

**User Response:** Contact the system programmer.

**System Programmer Response:** Correct the error indicated by *error*

**200- Chmod filename is not a valid HFS file. CHMOD ignored**

**Explanation:** The filename specified on the CHMOD parameter of the SITE subcommand was not an HFS file. The CHMOD parameter is only valid for HFS files.

**System Action:** The CHMOD parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the filename on the CHMOD parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Chmod invalid filename *filename***

**Explanation:** The *filename* specified by the CHMOD parameter of the SITE subcommand was longer than the HFS filename maximum of 1023 characters. If the filename operand of the CHMOD parameter began with a forward slash (/), *filename* will be the filename operand used "asis"; otherwise *filename* will be the filename operand appended to the current working directory.

**System Action:** The CHMOD parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the filename on the CHMOD parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Chmod invalid syntax. Specify CHMOD mode filename. CHMOD ignored**

**Explanation:** The Chmod parameter of the SITE command was entered incorrectly. The correct syntax of the CHMOD parameter of the SITE subcommand is SITE CHMOD *mode filename* where *mode* is the new permission bit setting for the file, and *filename* is the name of the file to change.

**System Action:** The CHMOD parameter is ignored.

**User Response:** Reissue the SITE command with the correct syntax for the CHMOD parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

## 200-

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### 200- Chmod mode value invalid. Specify mode as a 1-3 digit octal value, or as {ulglola}{=l+l-}{rlwlxlrwlrlwxlrwx}. CHMOD ignored

**Explanation:** The SITE command was entered with the CHMOD parameter, but the mode operand of the CHMOD parameter was incorrect. The mode operand specifies the permission bit settings of the file, and should be expressed as either a 1-3 digit octal number (for example, 666 for permission setting rw-rw-rw-), or as a mnemonic indicating the changed bits, (for example a+x to turn on the execute bit for user, group, and other).

**System Action:** The CHMOD parameter is ignored.

**User Response:** Re-enter the SITE subcommand, specifying the correct value for the mode operand. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Chmod not allowed when user not logged in. CHMOD ignored.

**Explanation:** The SITE subcommand was issued with the CHMOD parameter, but the user was not currently logged in to the server with a valid user ID. The user must first log in with a valid user ID and password before issuing the SITE subcommand with the CHMODE parameter.

**System Action:** FTP continues.

**User Response:** Log in to the server using the USER and PASS subcommands, then reissue the SITE subcommand with the CHMOD parameter.

**System Programmer Response:**

---

### 200- Chmod parameters missing. Specify CHMOD mode filename. CHMOD ignored

**Explanation:** The SITE command was entered with the CHMOD parameter, but the syntax of the CHMOD parameter was incorrect. One or more of the operands required on the CHMOD parameter were missing. The syntax of the CHMOD parameter is SITE CHMOD *mode filename*.

**System Action:** The CHMOD parameter is ignored.

**User Response:** Re-enter the SITE subcommand, specifying the correct operands. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200 command terminated due to server shutdown in progress

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

### 200- Conddisp parameter (*value*) is invalid. Conddisp ignored.

**Explanation:** The SITE command was entered with the CONDDISP parameter, but the value specified, *value*, was not a valid value. Valid values for the CONDDISP parameter are Catlg and Delete.

**System Action:** The CONDDISP parameter is ignored.

**User Response:** Re-enter the SITE subcommand, specifying the correct value for CONDDISP. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Conflicting SITE operands *keyword1* and *keyword2* *Keyword2* ignored.**

**Explanation:** A SITE command was entered with two keywords that conflict. The second keyword is ignored.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**200- Ctrlconn invalid syntax. Specify CTRLCONN=*ascii\_code\_page\_name* or CTRLCONN=7BIT.**

**Explanation:** A SITE subcommand was entered with a CTRLCONN parameter whose value begins with '('. The syntax for the CTRLCONN parameter does not use parentheses. The CTRLCONN parameter is ignored.

**System Action:** FTP continues.

**User Response:** Reenter the SITE command with corrected syntax.

**System Programmer Response:** None.

---

**200 Data connection protection set to *protection***

**Explanation:** The FTP server successfully processed a PROT command and returned a reply to indicate the data connection protection level.

*protection* is clear, safe, or private.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**200- Data set "*dsname*" does not exist. Dcbdsn parameter ignored.**

**Explanation:** The SITE subcommand been issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, could not be found.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Reissue the SITE DCBDSN subcommand, specifying a valid MVS data set.

**System Programmer Response:** None.

---

**200- "*dsname*" invalid dsorg. Dcbdsn parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, did not have a valid data set organization, or the FTP server was not able to determine the data set organization of the data set. Only MVS PS and PDS data sets can be used as a model DCB data set by the FTP server.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Reissue the SITE DCBDSN subcommand, specifying a valid MVS data set.

**System Programmer Response:** None.

---

**200- "*dsname*" is a VSAM data set. Dcbdsn parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, was a Virtual Storage Access Method (VSAM) data set. Only MVS PS and PDS data sets can be used as a model DCB data set by the FTP server.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Reissue the SITE DCBDSN subcommand, specifying a valid MVS data set.

**System Programmer Response:** None.

---

---

**200-           “dsname” is migrated and noautorecall is specified. DCBDSN parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, was migrated and the FTP server could not recall the data set because NOAUTORECALL had been specified at the server.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Issue the SITE subcommand with the AUTORECALL parameter to allow the data set to be recalled.

**System Programmer Response:** None.

---

**200-           “dsname” is not on a direct access volume. Dcbdsn parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, was not located on a direct access volume. The model DCB data set must be located on a direct access volume to be used by the FTP server.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Reissue the SITE DCBDSN subcommand, specifying a valid MVS data set.

**System Programmer Response:** None.

---

**200-           Data set name missing from DCBDSN parameter. DCBDSN parameter ignored.**

**Explanation:** The DCBDSN parameter of the SITE subcommand was specified with an equal sign, but no data set name followed the equal sign.

**System Action:** The DCBDSN parameter is ignored. FTP continues.

**User Response:** If the SITE DCBDSN= was issued to setup a model DCB data set, reissue the command specifying a data set after the equal sign. If the SITE DCBDSN= was issued to clear the setting of the model DCB data set, reissue the command with no equal sign. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200           Data transfer is mixed SBCS/DBCS**

**Explanation:** The FTP server received a valid DBCS TYPE command from the client. The current transfer type has now been changed to transmit mixed SBCS/DBCS data.

**System Action:** Program execution continues. The current FTP transfer type now uses mixed SBCS/DBCS data.

**User Response:** None.

**System Programmer Response:** None.

---

**200           Data transfer is pure DBCS**

**Explanation:** The FTP server received a valid DBCS TYPE command from the client. The current transfer type has now been changed to transmit only pure DBCS data. No SO/SI characters will be present in EBCDIC DBCS data.

**System Action:** Program execution continues. The current FTP transfer type now treats EBCDIC data as pure DBCS data with no SO/SI characters.

**User Response:** None.

**System Programmer Response:** None.

---

**200           Data transfer mode is *type***

**Explanation:** The MODE command was entered to change the data transfer mode to the type shown. The request is processed successfully.

**System Action:** The data transfer mode is changed. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**200- Dataclass parameter (*value*) is more than 8 characters. Dataclass ignored.**

**Explanation:** The value, *value*, specified for the Dataclass parameter is not valid. The Dataclass parameter value cannot be more than 8 characters long.

**System Action:** The Dataclass parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the DATACLASS parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- DB2<sup>®</sup> parameter (*db2name*) is more than 4 characters. DB2 ignored.**

**Explanation:** The *db2name* specified for the DB2 parameter on an FTP SITE command is too long.

**System Action:** The DB2 parameter is ignored. FTP continues.

**User Response:** Correct the name of the DB2 subsystem, and issued the SITE command again.

**System Programmer Response:** None

**200- Debug values not supported: *value\_1 value\_2 ... value\_n***

**Explanation:** The SITE command was specified with the DEBUG parameter. One or more values that were specified are not supported.

*value\_1 ... value\_n* are the values that were specified but are not supported.

**System Action:** The DEBUG parameter values are ignored.

**User Response:** Correct the values that are incorrect.

**System Programmer Response:** None.

**200- Dest node longer than 8 characters. Dest ignored.**

**Explanation:** The DEST parameter of the SITE command was specified with a user ID and node, and the node operand was longer than 8 characters. The node operand must be 8 characters or less.

**System Action:** The DEST parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the DEST parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Dest user longer than 8 characters. Dest ignored.**

**Explanation:** The DEST parameter of the SITE command was specified with a user ID and node, and the user ID operand was longer than 8 characters. The user ID operand must be 8 characters or less.

**System Action:** The DEST parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the DEST parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Destination (*value*) is more than 8 characters. Dest ignored.**

**Explanation:** The destination, *value*, specified for the DEST parameter is not valid. The Dest parameter destination operand cannot be more than 8 characters long.

**System Action:** The Dest parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the DEST parameter.

**System Programmer Response:** None.

---

**200- Directory parameter (*value*) is not numeric. Directory ignored.**

**Explanation:** The SITE command was specified with the DIRECTORY parameter, but the value, *value*, specified for the DIRECTORY parameter was not a numeric value.

**System Action:** The DIRECTORY parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Directory parameter (*value*) must be between 1 and 16777215. Directory ignored.**

**Explanation:** The SITE command was specified with the DIRECTORY parameter, but the value, *value*, specified for the DIRECTORY parameter was outside the valid range.

**System Action:** The DIRECTORY parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Dump values not supported: *value\_1 value\_2 ... value\_n***

**Explanation:** The SITE command was specified with the DUMP parameter. One or more values that were specified are not supported.

*value\_1 ... value\_n* are the values that were specified but are not supported.

**System Action:** The DUMP parameter values are ignored.

**User Response:** Correct the values that are incorrect.

**System Programmer Response:** None.

---

**| 200 EPRT request OK**

| **Explanation:** The client sent an EPRT command to the server. The server accepted the EPRT command. The FTP server will connect its next data socket to the IP address and port number specified on the EPRT command.

| **System Action:** FTP continues.

| **User Response:** None.

| **System Programmer Response:** None.

---

**| 200 EPSV ALL accepted**

| **Explanation:** The client sent an EPSV ALL command to the server. The server accepted the EPSV ALL command.

| **System Action:** For the rest of the current FTP login session, the server will accept EPSV commands on this session, but reject PASV, PORT, and EPRT commands.

**User Response:** If you need to use PASV, PORT, or EPRT commands, exit the current session and log in to the FTP server again.

**System Programmer Response:** None.

**200- Error locating file “*dsname*”. DCBDSN parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The FTP server was unable to locate the data set, *dsname*, which was specified as the model DCB data set.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Reissue the SITE DCBDSN subcommand, specifying a valid MVS data set.

**System Programmer Response:** None.

**200- Error mounting “*dsname*”. DCBDSN parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, was on a volume that was not mounted to the system, and the FTP server encountered an error attempting to have the volume mounted.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Contact the system programmer

**System Programmer Response:** Determine why the volume cannot be mounted and correct the error.

**200- Error retrieving “*dsname*”. DCBDSN parameter ignored.**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, was migrated, and the FTP server encountered an error attempting to retrieve the data set.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Contact the system programmer

**System Programmer Response:** Determine why the data set cannot be recalled and correct the error.

**200- Filename for Xlate parameter (*name*) exceeds maximum length of *length*. XLATE ignored.**

**Explanation:** A SITE subcommand was entered with an Xlate=*name* parameter. The corresponding environment variable defines a fully qualified filename that is too long for FTP to use for a translate table file for the data connection. The Xlate parameter is ignored.

**System Action:** FTP continues.

**User Response:** If *name* is correct, contact the system programmer for the FTP server.

**System Programmer Response:** Ensure that the fully qualified filename specified by the `_FTPXLATE_name` environment variable is not longer than *length* characters. If FTP tracing was active, there will be a trace entry displaying actual length and the first *length* characters of the filename defined by the environment variable for the Xlate parameter *name*.

**200- Filetype parameter (*value*) is invalid. Filetype ignored.**

**Explanation:** The value, *value*, specified for the FILETYPE parameter is not valid. FILETYPE must be SEQ, JES, or SQL.

**System Action:** The FILETYPE parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the FILETYPE parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

## 200-

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### 200- Ignoring *parameter*. The keyword was already specified on this SITE command.

**Explanation:** The keyword specified on the SITE command was already encountered on this SITE command. A parameter can only be issued once per SITE command. All occurrences of the parameter after the first occurrence are ignored.

**System Action:** The keyword is set to the value specified the first time the parameter was encountered.

**User Response:** If you wish to change the parameter to a specification that was not the first one on the SITE command, reissue the SITE command with the appropriate parameters.

**System Programmer Response:** None.

---

### 200- Ignoring *parameter=value*. The keyword was already specified on this SITE command.

**Explanation:** *parameter=value* was specified on the SITE command, but the keyword was already encountered on this SITE command. A parameter can only be issued once per SITE command. All occurrences of the parameter after the first occurrence are ignored.

**System Action:** *parameter* is set to the value specified the first time the parameter was encountered.

**User Response:** If you wish to change the parameter value to the value specified by *parameter=value*, reissue the SITE command with *parameter=value* as the only occurrence of the parameter on the SITE command.

**System Programmer Response:** None.

---

### 200- Invalid format data set name "*name*". Dcbdsn parameter ignored.

**Explanation:** The data set name specified for the DCBDSN parameter of the SITE command, which is used to specify the name of the data set to be used as a model for allocation of new data sets, has an incorrect format. The data set name must conform to MVS data set naming conventions.

**System Action:** The DCBDSN parameter is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid MVS data set name. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Invalid record format '*value*' encountered.

**Explanation:** The SITE subcommand encountered an invalid internal value for the record format.

**System Action:** FTP attempts to reset the BLKSIZE, RECFM, and LRECL parameter values back to the default values.

**User Response:** Contact the system programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

### 200- JESINTERFACELEVEL=*value* The value of *keyword* cannot be modified.

**Explanation:** The keyword specified can only be modified when JESINTERFACELEVEL=2.

**System Action:** The SITE parameter is ignored. FTP continues.

**User Response:** Ensure that the JESINTERFACELEVEL=2 and reissue the SITE command.

**System Programmer Response:** None.

---

### 200- Jeslrecl parameter (*value*) is not numeric. Jeslrecl ignored.

**Explanation:** The SITE command was specified with the JESLRECL parameter, but the value, *value*, specified for the JESLRECL parameter was not a numeric value. The value for the JESLRECL parameter must be a numeric value between 1 and 254, or an '\*'.

**System Action:** The JESLRECL parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- JesLrecl parameter must be between 1 and 254. JesLrecl parameter ignored.**

**Explanation:** The value submitted for the JESLRECL parameter, which is used to specify the logical record length for the JES internal reader at the remote host, was not within the valid range of 1 through 254.

**System Action:** The JESLRECL parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command specifying value for the JESLRECL parameter in the valid range of 1 to 254. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Jesrecfm parameter (parameter) is invalid. Jesrecfm ignored.**

**Explanation:** The value specified for the record format of the Job Entry Subsystem (JES) internal reader, JESRECFM, is not a valid value for that parameter. JESRECFM must be F, V, or \*.

**System Action:** The JESRECFM value is ignored. FTP continues.

**User Response:** Reissue the SITE command specifying a valid value for JESRECFM. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- keyword=value ignored. Unable to set up requested conversion.**

**Explanation:** A CTRLCONN parameter was entered on a SITE subcommand, but FTP was unable to build the single-byte translate tables for the control connection. The CTRLCONN parameter is ignored. The translate tables for the control connection are not changed.

**Note:** If the FTP server is running in a double-byte environment, the CTRLCONN parameter cannot be used to change the translate tables for the control connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** If the FTP server is running in a double-byte code set, the CTRLCONN parameter is not supported. The tables used for the control connection are set at server initialization from either a TCPXLBIN file, or from FTP's internal default single-byte tables.

If the server is running in a single-byte environment, an internal error occurred. If this occurs repeatedly, contact the IBM Support Center with an FTP trace.

**200 Language is en-US (United States English)**

**Explanation:** The FTP server received a LANG command requesting English or one of its variations as the language to use for server replies. The server will use United States English for server replies. See RFC 2640 for more information about the LANG command. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

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**200- Language reverts to default en-US (United States English)**

**Explanation:** The server received a LANG command with no arguments. The server has reverted to its default language for FTP server replies. See RFC 2640 for more information about the LANG command. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**200 Load module transfer reset**

**Explanation:** Load module transfer processing was aborted because it was not required. The transfer operation continues using normal processing.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**200 Local byte size is 8, representation type is Image.**

**Explanation:** The FTP TYPE L command was accepted, and the data transfer type is set to Image.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**200- LRECL being changed to *lrecl***

**Explanation:** The SITE subcommand was entered with one or more of the LRECL, RECFM, and BLKSIZE parameters, and the resulting parameter values caused a mismatch between the LRECL, RECFM, and BLKSIZE parameters. The LRECL value is changed to a compatible value, *lrecl*.

**System Action:** The LRECL parameter is reset to *lrecl*.

**User Response:** If necessary, reissue the SITE subcommand with a valid LRECL, RECFM, and BLKSIZE combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- LRECL being reset to *lrecl***

**Explanation:** The SITE subcommand was entered with one or more of the BLKSIZE, LRECL, and RECFM parameters, and the resulting parameter values were incompatible. The LRECL value is reset to a compatible value, *lrecl*.

**System Action:** The LRECL parameter is reset to the value it had prior to the SITE subcommand, if compatible, otherwise it is reset to the value from FTP.DATA, if compatible, otherwise it is set to the default.

**User Response:** Reissue the SITE subcommand with a valid LRECL, RECFM, and BLKSIZE combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- LRECL being reset to SITE default of 'not used'.**

**Explanation:** The SITE subcommand was entered with one or more of the LRECL, RECFM, and BLKSIZE parameters, and the resulting parameter values were incompatible. The previous LRECL value was also not compatible and the LRECL was reset to the value specified in the FTP.DATA file. The value in the FTP.DATA file was a

NULL value, indicating that the LRECL should be unspecified.

**System Action:** The LRECL parameter is reset to the NULL value from the FTP.DATA file.

**User Response:** If necessary, reissue the SITE subcommand with a valid BLKSIZE, LRECL, and RECFM combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Lrecl parameter (*value*) is not numeric. Lrecl ignored.**

**Explanation:** The SITE command was specified with the LRECL parameter, but the value, *value*, specified for the LRECL parameter was not a numeric value. The value for the LRECL parameter must be a numeric value between 0 and 32760.

**System Action:** The LRECL parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Lrecl parameter (*value*) must be between 0 and 32760. Lrecl ignored.**

**Explanation:** The SITE command was specified with the LRECL parameter, but the value, *value*, specified for the LRECL parameter was outside the valid range. The value for the LRECL parameter must be a numeric value between 0 and 32760.

**System Action:** The LRECL parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- LRECL X valid only for RECFM of U or variable length spanned.**

**Explanation:** The SITE subcommand was entered with the LRECL and/or RECFM parameters, and the resulting parameter values caused a mismatch between the LRECL and RECFM parameters. The LRECL value was X, but the RECFM was not U or variable length spanned. Logical record length of X is only valid when the record format is U, VS, VSA, VSM, VBS, VBSA, or VBSM.

**System Action:** FTP attempts to reset the values to compatible values. This reply is followed by another 200- reply indicating which values have been reset.

**User Response:** Reissue the SITE subcommand with a valid LRECL and RECFM combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- LRECL 0 valid only for RECFM of U.**

**Explanation:** The SITE subcommand was entered with the LRECL and/or RECFM parameters, and the resulting parameter values caused a mismatch between the LRECL and RECFM parameters. The LRECL value was 0, but the RECFM was not U. Logical record length of 0 is only valid when the record format is U.

**System Action:** FTP attempts to set the parameters to compatible values. This reply is followed by another 200- reply indicating which values have been reset.

**User Response:** If necessary, reissue the SITE subcommand with a valid LRECL and RECFM combination. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

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### 200- LRECL, RECFM, and BLOCKSIZE being reset to default values.

**Explanation:** The SITE subcommand encountered an unresolvable incompatibility between the RECFM, LRECL and BLKSIZE parameter values and has reset all three parameter values back to the default.

**System Action:** FTP attempts to reset the BLKSIZE, RECFM, and LRECL parameter values back to the default values.

**User Response:** Contact the system programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

### 200- Mgmtclass parameter (*value*) is more than 8 characters. Mgmtclass ignored.

**Explanation:** The value, *value*, specified for the Mgmtclass parameter is not valid. The Mgmtclass parameter value cannot be more than 8 characters long.

**System Action:** The Mgmtclass parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the MGMTCLASS parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Migratevol parameter (*value*) is more than 6 characters. Migratevol ignored.

**Explanation:** The value, *value*, specified for the Migratevol parameter is not valid. The Migratevol parameter value cannot be more than 6 characters long.

**System Action:** The Migratevol parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the MIGRATEVOL parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- NCP parameter not supported for the C server. NCP ignored.

**Explanation:** The SITE command was entered with the NCP parameter, but the NCP parameter is not supported for the FTP C server.

**System Action:** The NCP parameter is ignored. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- No conversion available between *parm1* and *parm2*. SBADATACONN ignored.

**Explanation:** A SITE subcommand was entered with an SBADATACONN parameter, but there is no supported code set converter for the code sets *parm1* and *parm2*. The SBADATACONN parameter is ignored.

**System Action:** FTP continues.

**User Response:** Refer to the *z/OS C/C++ Programming Guide* for information about supported code set converters and valid code set names. Resubmit the corrected SITE subcommand, with the EBCDIC code set name as the first SBADATACONN value, followed by the ASCII code set name.

**System Programmer Response:** None.

---

### 200- No storage volumes exist.

**Explanation:** The QDISK parameter was entered without a specific volume serial number. When this parameter is left blank, statistics about all storage volumes are displayed. No storage volumes were found.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**200- No users are allowed to use SITE DEBUG**

**Explanation:** The SITE command was specified with the DEBUG parameter. The FTP server does not allow users to change the debug (general tracing) options with the SITE command.

**System Action:** The DEBUG parameter is ignored.

**User Response:** If the system programmer changes the FTP server as stated below, the user must establish a new FTP session after the server is restarted before issuing SITE DEBUG.

**System Programmer Response:** If users are to be allowed to change the debug options with the SITE command, add the DEBUGONSITE TRUE statement to the FTP server's FTP.DATA file and restart the FTP server.

**200- No users are allowed to use SITE DUMP**

**Explanation:** The SITE command was specified with the DUMP parameter. The FTP server does not allow users to change the dump (extended tracing) options with the SITE command.

**System Action:** The DUMP parameter is ignored.

**User Response:** If the system programmer changes the FTP server as stated below, the user must establish a new FTP session after the server is restarted before issuing SITE DUMP.

**System Programmer Response:** If users are to be allowed to change the dump options with the SITE command, add the DUMPSITE TRUE statement to the FTP server's FTP.DATA file and restart the FTP server.

**200- Nowrtapefastio ignored. Wrtapefastio already specified on this Site command.**

**Explanation:** The WRTAPEFastio parameter was already specified on this SITE subcommand. The NOWRTAPEFastio parameter is ignored.

**System Action:** FTP continues.

**User Response:** Issue the SITE command again with the desired setting.

**System Programmer Response:** None.

**200 OK**

**Explanation:** A NOOP command was executed successfully, indicating that the remote host is still responding. For more information about the NOOP command, see the *z/OS Communications Server: IP User's Guide and Commands* or type HELP NOOP on the command line.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**200- Operand not allowed on parm parameter. Parameter ignored.**

**Explanation:** The parameter *parm* appeared on a SITE subcommand in incorrect format. No operand is allowed for this parameter. The parameter is ignored.

**System Action:** FTP continues.

**User Response:** If desired, reissue the SITE command without an operand on the *parm* parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

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### 200- operand required on *parm* parameter. Parameter ignored.

**Explanation:** The parameter *parm* appeared on a SITE subcommand without an operand. The parameter is ignored.

**System Action:** FTP continues.

**User Response:** If desired, reissue the SITE command with an operand for the *parm* parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- *parameter=operand* ignored. Requested conversion is not supported.

**Explanation:** A CTRLCONN paramter was entered on a SITE subcommand, but there is no conversion available between the FTP server's code page and *operand*. The CTRLCONN parameter is ignored. The translate tables for the control connection are not changed.

**System Action:** FTP continues.

**User Response:** Reissue the SITE command, specifying either "7bit" or the name of an ASCII code page supported by iconv. Refer to the *z/OS C/C++ Programming Guide* for a list of the code pages supported by iconv. The code page name must be entered exactly as shown in the list (for example: IBM-850 or ISO8859-1).

**System Programmer Response:** None

---

### 200 PBSZ=0 is the protection buffer size

**Explanation:** The FTP server received a command to set the Protection Buffer Size (PBSZ) to a nonzero value. The connection is protected by the TLS security mechanism, which does not accept a PBSZ value greater than 0. The PBSZ command completed successfully but the PBSZ is set to 0.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None

---

### 200 PBSZ=*size*

**Explanation:** The client used a PBSZ command to request a maximum size for protected buffers sent on the data connection. The FTP server set the size to a value less than or equal to the client's requested size.

*size* is the negotiated maximum size of protected buffers sent on the data connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200 Port request OK.

**Explanation:** The PORT command was accepted.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- Primary parameter (*value*) is not numeric. Primary ignored.

**Explanation:** The SITE command was specified with the PRIMARY parameter, but the value, *value*, specified for the PRIMARY parameter was not a numeric value.

**System Action:** The PRIMARY parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's*

*Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Primary parameter (*value*) must be between 1 and 16777215. Primary ignored.**

**Explanation:** The SITE command was specified with the PRIMARY parameter, but the value, *value*, specified for the PRIMARY parameter was outside the valid range.

**System Action:** The PRIMARY parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200 Protection buffer size accepted**

**Explanation:** The FTP server received a command to set the Protection Buffer Size (PBSZ) to 0. The request was accepted.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**200- Qdisk ignored. "*value*" is not a valid volser.**

**Explanation:** The value, *value*, specified for the QDISK parameter was not a valid volume serial name. The value specified for QDISK must be 6 characters or less.

**System Action:** The QDISK parameter is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid value for the QDISK parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Qdisk workarea allocation failed.**

**Explanation:** The allocation of the workarea for qdisk failed. number.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**200- READTAPEFormat *value* is not supported - READTAPEFormat ignored**

**Explanation:** The value specified for the READTAPEFormat parameter on a SITE command is not supported.

*value* can be one of the following:

- F (for fixed)
- V (for variable)
- S (for spanned)
- X (for Irecl X)
- blank (unspecified)

**System Action:** The READTAPEFormat parameter is ignored. FTP continues.

**User Response:** Change *value* to one of the supported formats.

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**System Programmer Response:** None.

---

### 200- Recfm parameter (*value*) is invalid. Recfm ignored.

**Explanation:** The value, *value*, specified for the record format is invalid. The record format must be one of: F, FA, FB, FBA, FBM, FBS, FM, V, VA, VB, VBA, VBM, VBS, VM\$, VS, U, or blank.

**System Action:** The RECFM value is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid value for the RECFM parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Representation type is Big5

**Explanation:** The FTP server received a valid TYPE B 8 command from the FTP client. The current transfer type has successfully been changed to Big5.

**System Action:** Program execution continues. The current FTP transfer type is changed.

**User Response:** None.

**System Programmer Response:** None.

---

### 200 Representation type is EBCDIC IBM kanji

**Explanation:** The FTP TYPE F command was accepted, and the data transfer type is the IBM kanji code, which is based on the EBCDIC code set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200 Representation type is IMAGE.

**Explanation:** The FTP TYPE I command was accepted, and the data transfer type is image (or binary). With the image transfer type, data is sent as continuous bits, packed into 8-bit bytes.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- Representation type is SChinese

**Explanation:** The FTP server received a valid TYPE B 9 command from the FTP client. The current transfer type has successfully been changed to Simplified Chinese.

**System Action:** Program execution continues. The current FTP transfer type is changed.

**User Response:** None.

**System Programmer Response:** None.

---

### 200 Representation type is *type*

**Explanation:** The FTP server received a valid TYPE subcommand, and the data representation type was changed.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

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**200 Representation type is UCS-2**

**Explanation:** The FTP server received a valid TYPE U 2 command from the FTP client. The current transfer type has successfully been changed to UCS-2.

**System Action:** Program execution continues. The current FTP transfer type is changed.

**User Response:** None.

**System Programmer Response:** None.

---

**200- Retpd parameter (value) is not numeric. Retpd ignored.**

**Explanation:** The SITE command was specified with the RETPD parameter, but the value, *value*, specified for the RETPD parameter was not a numeric value. The value specified for the RETPD parameter must be a numeric value between 0 and 9999.

**System Action:** The RETPD parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Retpd parameter (value) must be between 0 and 9999. Retpd ignored.**

**Explanation:** The SITE command was specified with the RETPD parameter, but the value, *value*, specified for the RETPD parameter was outside the valid range. The value of RETPD must be a numeric value between 0 and 9999.

**System Action:** The RETPD parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

**200- Sbdataconn invalid syntax. Specify SBDATACONN=(value1,value2) or SBDATACONN=dsn. SBDATACONN ignored.**

**Explanation:** A SITE subcommand was entered with a SBDATACONN parameter that has incorrect syntax. The SBDATACONN parameter must be either a pair of code set names (the first must be an EBCDIC code set name, and the second must be an ASCII code set name), or the fully qualified name of an MVS data set or HFS file containing translate tables generated by the CONVXLAT utility.

**System Action:** FTP continues.

**User Response:** Resubmit the SITE subcommand with corrected syntax.

**System Programmer Response:** None.

---

**200- Sbdataconn parameter is too long. Maximum length for code page name is length. SBDATACONN ignored.**

**Explanation:** A SITE subcommand was entered with an SBDATACONN parameter specifying a invalid code page name. The SBDATACONN parameter is ignored.

**System Action:** FTP continues.

**User Response:** Refer to the *z/OS C/C++ Programming Guide* for information on supported code set converters and valid code set names. Resubmit the corrected SITE subcommand.

**System Programmer Response:** None.

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### 200- SBSUBChar parameter *sbsubchar* is not valid - SBSUBChar ignored

**Explanation:** The value of the SBSUBChar parameter must be either a hexadecimal number or SPACE.

*sbsubchar* is not a valid substitution character.

**System Action:** The parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the SBSUBChar parameter. See the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol, for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Secondary parameter (*value*) is not numeric. Secondary ignored.

**Explanation:** The SITE command was specified with the SECONDARY parameter, but the value, *value*, specified for the SECONDARY parameter was not a numeric value.

**System Action:** The SECONDARY parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Secondary parameter (*value*) must be between 0 and 16777215. Secondary ignored.

**Explanation:** The SITE command was specified with the SECONDARY parameter, but the value, *value*, specified for the SECONDARY parameter was outside the valid range.

**System Action:** The SECONDARY parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200 SITE command was accepted

**Explanation:** The SITE subcommand was accepted and processed. If an error was detected in any SITE subcommand parameters, this reply will be preceded by one or more 200- replies indicating any parameter errors.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- Some characters cannot be translated between *codeset\_1* and *codeset\_2*

**Explanation:** The SITE SBDATACONN command specified the codeset names for the file system codeset and the network transfer codeset. The iconv() function was used to build a table for each of the 256 single character codepoints. Some of the codepoints do not have an equivalent codepoint. If FTP detects a data byte during the transfer of the data that cannot be translated using the tables, the data transfer will fail.

*codeset\_1* is the name of the file system codeset.

*codeset\_2* is the name of the network transfer codeset.

**System Action:** The tables are built and will be used during data transfer by FTP.

**User Response:** Specify SITE SBDATACONN with codeset names that convert all of the codepoints. However, you can use the table if your data does not contain any of the untranslatable characters.

**System Programmer Response:** To see which of the codepoints cannot be translated, start the server with the following trace specified in the FTP.DATA file:

DEBUG UTL ; utility services trace

**200- SO/SI characters *char* used**

**Explanation:** The FTP server received a valid DBCS TYPE command from the client. The current transfer type now includes the use of SO/SI characters shown to delimit ASCII DBCS data.

**System Action:** Program execution continues.

**User Response:** None.

**System Programmer Response:** None.

**200- SQLCOL parameter (*value*) is invalid. Sqlcol ignored.**

**Explanation:** The value submitted for the SQLCOL parameter, which is used to determine the column headings of the output file, was not valid. Valid values for the SQLCOL parameter are:

**Type Description**

**Names** Uses the names of the DB2 SQL table columns. The labels are ignored.

**Labels** Uses the labels of the SQL table columns. If any of the columns do not have labels, the corresponding column heading in the output file is given a heading of 'COLnnn'

**Any** The label of the DB2 SQL table column is the first choice for column heading in the output file. If there is no label, the column name is used.

**System Action:** The SQLCOL parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the SQLCOL parameter. For more information about the SITE command, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

**200 Standard DBCS control used**

**Explanation:** The FTP server received a valid DBCS TYPE command from the client. Standard DBCS control will be used. For JIS78KJ and JIS83KJ the selected escape sequences are used and for all other ASCII types no SO/SI characters are used. Data transfer is also set to mixed SBCS/DBCS.

**System Action:** Program execution continues. The current FTP transfer type is changed.

**User Response:** None.

**System Programmer Response:** None.

**200- Storclass parameter (*value*) is more than 8 characters. Storclass ignored.**

**Explanation:** The value, *value*, specified for the Storclass parameter is not valid. The Storclass parameter value cannot be more than 8 characters long.

**System Action:** The Storclass parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the STORCLASS parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- The keyword *keyword* value of *value* is not valid. Parameter ignored.**

**Explanation:** The value specified for the keyword is not valid. Valid values for JESSTATUS are ACTIVE, INPUT, OUTPUT, and ALL. Valid values for JESENTRYLIMIT are whole numbers between 1 and 1024. Valid values for JESINTERFACELEVEL are 1 and 2. Valid values for JESOWNER and JESJOBNAME are a character string that can include the wildcards '\*' and '?'.

**System Action:** The parameter is ignored. FTP continues.

**User Response:** Resubmit the SITE command with a valid value for the parameter. Refer to the *z/OS*

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*Communications Server: IP User's Guide and Commands*, for information about transferring data using the file transfer protocol, and to the *z/OS Communications Server: IP Configuration Reference* for information on the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200 Transferring PDS directory information.

**Explanation:** PDS directory information will be transmitted along with the PDS member.

**System Action:** None.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- Translate file '*file*' invalid. SBDATACONN ignored.

**Explanation:** A SITE subcommand was entered with an SBDATACONN parameter that specified a filename, but FTP encountered an error while trying to load its translate tables using *file*. Possible errors include an invalid header record or incorrect file length. (The file must contain exactly 768 bytes of data.) The SBDATACONN parameter is ignored.

**System Action:** FTP continues.

**User Response:** Ensure that the filename specified is correct. It must be a fully qualified name, and the file must contain translate tables in the format generated by the CONVXLAT utility.

**System Programmer Response:** If FTP tracing was active, an EZY message will appear in FTP's system log and trace output explaining why FTP cannot use the file.

---

### 200- Translate file '*file*' not found. SBDATACONN ignored.

**Explanation:** A SITE subcommand was entered with an SBDATACONN parameter that specified a filename, but FTP was unable to open *file*. The SBDATACONN parameter is ignored.

**System Action:** FTP continues.

**User Response:** Ensure that the filename specified on the SBDATACONN parameter is a fully qualified name of an existing MVS data set or HFS file.

**System Programmer Response:** If the filename is correct, look in the FTP server's trace for the reason why FTP cannot open the file.

---

### 200- Translate file for Xlate name '*name*' not found. Xlate ignored.

**Explanation:** A SITE subcommand was entered with an Xlate parameter to specify a translate table file but FTP was unable to find or open a file for that Xlate name. The Xlate parameter is ignored.

**System Action:** FTP continues.

**User Response:** If the name provided was correct, contact the system programmer for the FTP server.

**System Programmer Response:** Ensure that a binary translate table file exists as *hlq.name.TCPXLBIN*, or if you wish to use a file with a different name, ensure that an environment variable was set at FTP server start to specify the different name. The environment variable must be called *\_FTPXLATE\_name*, the environment variable name must be all uppercase, and the environment variable must be set to a fully qualified filename. The FTP server's trace will contain the environment variables that were defined when the server was started. It will also contain the name of the file that FTP tried to open in response to the SITE command and the reason why the file could not be opened.

---

### 200- Translate file for Xlate name '*name*' not valid. Xlate ignored.

**Explanation:** A SITE subcommand was entered with an Xlate parameter, but FTP encountered an error while trying to load translate tables from the file indicated by *name*. Possible errors include an invalid header record or incorrect file length. (The file must contain exactly 768 bytes of data.) The Xlate parameter is ignored.

**System Action:** FTP continues.

**User Response:** If *name* is correct, contact the system programmer for the FTP server.

**System Programmer Response:** Ensure that `hlq.nameTCPXLBIN`, or the file specified by the `_FTPXLATE_name` environment variable, contains translate tables in the format generated by the CONVXLAT utility. If FTP tracing was active, an EZY message will appear in FTP's system log and trace output explaining why FTP cannot use the file.

**200- UCOUNT parameter (*value*) is neither numeric, nor P. UCOUNT ignored.**

**Explanation:** The value of the UCOUNT parameter, *value*, was not a numeric value, nor was it the letter P.

**System Action:** The parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the UCOUNT parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information on the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- UCOUNT parameter (*value*) must be between 1 and 59, or P. UCOUNT ignored.**

**Explanation:** The SITE command was specified with the UCOUNT parameter, but the value, *value*, specified for the UCOUNT parameter was outside the valid numeric range.

**System Action:** The UCOUNT parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information on the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Umask invalid syntax. Specify UMASK umask\_value. UMASK ignored**

**Explanation:** The SITE command was issued with the UMASK parameter, but the syntax of the UMASK parameter was incorrect. The correct syntax is `SITE UMASK umask_value`, where *umask\_value* is a 3 character octal number representing file permission bits.

**System Action:** The UMASK parameter is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid value for the UMASK parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Umask value invalid. Specify Umask value as 1 - 3 octal digits**

**Explanation:** The SITE command was issued with the UMASK parameter, but the value specified for the UMASK parameter was invalid. The value specified for UMASK should be a 1 to 3 character octal number representing file permission bits.

**System Action:** The UMASK parameter is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid value for the UMASK parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- Umask value missing. Specify Umask value as 1 - 3 octal digits**

**Explanation:** The SITE command was issued with the UMASK parameter, but no value was specified for the UMASK parameter. The value specified for UMASK should be a 1 to 3 character octal number representing file permission bits.

**System Action:** The UMASK parameter is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid value for the UMASK parameter. Refer to the *z/OS*

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*Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Unable to set up conversion between *parm1* and *parm2*. SBDATACONN ignored.

**Explanation:** A SITE subcommand was entered with an SBDATACONN parameter. A code set convertor was successfully opened, but FTP was unable to set up single-byte translate tables using the requested code sets. The SBDATACONN parameter is ignored.

**System Action:** FTP continues.

**User Response:** Ensure that the requested code set names are for single-byte code pages. SBDATACONN is not supported for double-byte. Refer to the *z/OS C/C++ Programming Guide* for information on supported code set converters and valid code set names.

**System Programmer Response:** None.

---

### 200- Unable to set up conversion between UCS-2 and *codeset*

**Explanation:** The FTP server was unable to setup a conversion between UCS-2 and EBCDIC or EBCDIC and UCS-2 when SITE UCSHOSTCS was received.

**System Action:** UCSHOSTCS is ignored.

**User Response:** If you want to change the UCSHOSTCS value, reissue the SITE UCSHOSTCS command to change the EBCDIC codeset. For information about UCSHOSTCS, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

### 200- Unit ignored. "*value*" is not a valid unit parameter

**Explanation:** The value, *value*, specified for the UNIT parameter was not a valid unit name. The value specified for UNIT must be 8 characters or less.

**System Action:** The Unit parameter is ignored. FTP continues.

**User Response:** Reissue the SITE command with a valid value for the UNIT parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Unrecognized parameter '*parameter=operand*' on SITE command.

**Explanation:** The SITE subcommand was entered with the parameter *parameter*, but *parameter* was not a valid SITE subcommand parameter.

**System Action:** The parameter is ignored. FTP continues.

**User Response:** Reissue the SITE subcommand with a valid parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- Unrecognized parameter '*parameter*' on SITE command.

**Explanation:** The SITE subcommand was entered with the parameter *parameter*, but *parameter* was not a valid SITE subcommand parameter.

**System Action:** The parameter is ignored. FTP continues.

**User Response:** Reissue the SITE subcommand with a valid parameter. Refer to the *z/OS Communications Server:*

*IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

**200- User *userid* is not authorized to filter on *keyword*. Its value remains *value*.**

**Explanation:** The user ID must have SAF READ access to SDSF resource ISFCMD.FILTER.OWNER to change JESOWNER.

To change JESJOBNAME, the user ID must have SAF READ access to SDSF resource ISFCMD.FILTER.PREFIX.

The user ID must have SAF READ access to SDSF resource ISFCMD.DSP.INPUT.jesx, ISFCMD.DSP.ACTIVE.jesx, and ISFCMD.DSP.OUTPUT.jesx to set JESSTATUS to INPUT, ACTIVE, and OUTPUT, respectively. READ access to all three is required to set JESSTATUS to ALL. If the user ID has no access to the three ISFCMD.DSP.\*\* SDSF resources the user ID will not be able to change JESOWNER, JESJOBNAME or JESSTATUS from their default values.

**System Action:** The SITE parameter is ignored. FTP continues.

**User Response:** Ensure that the user has the proper SAF resource access.

**System Programmer Response:** None.

**200- User *user\_name* is not allowed to use SITE DEBUG**

**Explanation:** The SITE command was specified with the DEBUG parameter. *user\_name* is not permitted to change the debug (general tracing) options with the SITE command because the user is not allowed access by the server's security product.

**System Action:** The DEBUG parameter is ignored.

**User Response:** Try again after your user ID is added to the resource class.

**System Programmer Response:** If the user is allowed to change debug options with the SITE command, permit the user to access the profile defined by the security product. See the *z/OS Communications Server: IP Diagnosis* for information about Start Tracing after FTP initialization, the SERVAUTH class, and the profile that restricts the use of the SITE DEBUG command.

**200- User *user\_name* is not allowed to use SITE DUMP**

**Explanation:** The SITE command was specified with the DUMP parameter. The user is not permitted to change the dump (extended tracing) options with the SITE command because he is not allowed access by the server's security product.

**System Action:** The DUMP parameter is ignored.

**User Response:** Try again after your user ID is added to the resource class.

**System Programmer Response:** If the user is allowed to change debug options with the SITE command, permit the user to access the profile defined by the security product. See the *z/OS Communications Server: IP Diagnosis* for information about Start Tracing after FTP initialization, the SERVAUTH class, and the profile that restricts the use of the SITE DEBUG command.

**200- VCOUNT parameter (*value*) is not numeric. VCOUNT ignored.**

**Explanation:** The value of the VCOUNT parameter, *value*, was not a numeric value.

**System Action:** The parameter is ignored.

**User Response:** Reissue the SITE command with a valid value specified for the VCOUNT parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the parameters of the SITE subcommand.

**System Programmer Response:** None.

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### 200- VCOUNT parameter (*value*) must be between 1 and 255. VCOUNT ignored.

**Explanation:** The SITE command was specified with the VCOUNT parameter, but the value, *value*, specified for the VCOUNT parameter was outside the valid range.

**System Action:** The VCOUNT parameter is ignored.

**User Response:** Reissue the command with a valid value. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information on the parameters of the SITE subcommand.

**System Programmer Response:** None.

---

### 200- volume for "*dsname*" is not mounted and noautomount is specified. DCBDSN parameter ignored.

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, was on a volume that was not mounted to the system and the FTP server could not mount the volume because NOAUTOMOUNT had been specified at the server.

**System Action:** The DCBDSN parameter is ignored.

**User Response:** Issue the SITE subcommand with the AUTOMOUNT parameter to allow the volume to be mounted.

**System Programmer Response:** None.

---

### 200- Volume ignored. "*value*" is not a valid volume parameter

**Explanation:** The server detected a syntax error in the value, *value*, specified for the SITE VOLUME command. The value specified for VOLUME must be a volume serial number or a list of volume serial numbers.

**System Action:** The Volume parameter is ignored. FTP continues.

**User Response:** Issue the SITE command with a valid value for the VOLUME parameter. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information on the syntax of the SITE VOLUME subcommand.

**System Programmer Response:** None.

---

### 200- Volume Unit Free Cyls Trks Cyls-Trks Exts Address Use Attr

**Explanation:** These replies display the headers for the information provided when the QDISK parameter was specified for the SITE subcommand.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- Volume *volser* could not be found.

**Explanation:** The QDISK parameter was entered with volume serial number *volser*. The requested volume serial number could not be found.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 200- Waiting for mount for "*dsname*"

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, is on a volume that is not mounted to the system. The volume must first be mounted to the system.

**System Action:** FTP waits for the volume for *dsname* to be mounted, then continues processing the DCBDSN parameter of the SITE subcommand.

**User Response:** None.

**System Programmer Response:** None.

**200-           Waiting for recall of “*dsname*”**

**Explanation:** The SITE subcommand was issued with the DCBDSN parameter. The data set specified as the model DCB, *dsname*, is migrated and must be recalled.

**System Action:** FTP waits for *dsname* to be recalled, then continues processing the DCBDSN parameter of the SITE subcommand.

**User Response:** None.

**System Programmer Response:** None.

**200-           Wrtapefastio ignored. Nowrtapefastio already specified on this Site command.**

**Explanation:** The NOWRTAPEFastio parameter was already specified on this SITE subcommand. The WRTAPEFastio parameter is ignored.

**System Action:** FTP continues.

**User Response:** Issue the SITE subcommand again with the desired setting.

**System Programmer Response:** None.

**200-           Xlate parameter (*xlate\_name*) is more than 8 characters. Xlate ignored.**

**Explanation:** *xlate\_name* exceeds the maximum length of 8 characters.

**System Action:** Xlate is ignored.

**User Response:** If you wish to use the Xlate parameter, reissue the command specifying an *xlate\_name* that is no more than 8 characters long.

**System Programmer Response:** None.

**202           ACCT command not required - ignored.**

**Explanation:** The FTP server received the ACCT command, which is not supported under MVS. The command is ignored.

**System Action:** FTP continues.

**User Response:** Use the USER command instead of the ACCT command. For more information about the USER command, see the *z/OS Communications Server: IP User's Guide and Commands*, or type HELP USER at the command line.

**System Programmer Response:** None.

**202           ALLO not necessary, you may proceed**

**Explanation:** The FTP server received the ALLO subcommand, which is not supported under MVS. The command is ignored.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**202           command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

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**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

### 202            **SITE not necessary: you may proceed**

**Explanation:** The SITE subcommand was entered with no parameters.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 205            **Load module transfer syntax error**

**Explanation:** An unexpected or incorrectly formatted load module transfer command was sent to the server. This is a violation of the load module transfer protocol.

**System Action:** Load module transfer processing is aborted and the file transfer is completed using base processing. Any MVS Load modules transferred will not be executable on the target system.

**User Response:** Contact your system programmer.

**System Programmer Response:** Ensure that the server and client are both Communications Server for OS/390 at the R10 level or higher. If they are not, contact the vendor of the non-IBM FTP program for service.

---

### 205            **Load module transfer syntax error: blksize parameter missing**

**Explanation:** The blocksize parameter was missing from an XLMT DCB command. This is a violation of the load module transfer protocol.

**System Action:** Load module transfer processing is aborted and the file transfer is completed using base processing. Any MVS Load modules transferred will not be executable on the target system.

**User Response:** Contact your system programmer.

**System Programmer Response:** Ensure that the server and client are both Communications Server for OS/390. If they are not, contact the vendor of the non-IBM FTP program for service.

---

### 205            **Load module transfer syntax error: lrecl parameter missing**

**Explanation:** The logical record length parameter was missing from an XLMT DCB command. This is a violation of the load module transfer protocol.

**System Action:** Load module transfer processing is aborted and the file transfer is completed using base processing. Any MVS Load modules transferred will not be executable on the target system.

**User Response:** Contact your system programmer.

**System Programmer Response:** Ensure that the server and client are both Communications Server for OS/390 at the R10 level or higher. If they are not, contact the vendor of the non-IBM FTP program for service.

---

### 211            **command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

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**211 End**

**Explanation:** The server sent a 211- message to the client in response to a FEAT command. This message signals the end of the current message. See RFC 2389 for more information about the FEAT command. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**211- Extensions supported**

**Explanation:** The server received a FEAT command from the client. This reply code is followed immediately by a list of features or extensions supported by the server. See RFC 2389 for more information about the FEAT command. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**211- ISPFSTATS is set to *ispfstats***

**Explanation:** ISPFSTATS can be set to either TRUE or FALSE. When ISPFSTATS is set to TRUE, ISPF Statistics of a PDS member that was transferred to the FTP client will be updated or created. The default setting is FALSE.

*ispfstats* is either TRUE or FALSE.

**System Action:** FTP Continues.

**User Response:** None.

**System Programmer Response:** None.

---

**211 no Extensions supported**

**Explanation:** The server received a FEAT command from the client. The server supports no features or extensions with an architected FEAT response. See RFC 2389 for more information about the FEAT command. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**211- Records on input tape are fixed format**

**Explanation:** This message is part of the STAT reply. It means that a value of F was specified for READTAPEFormat and the record format for an input tape is expected to be fixed. This value must be consistent with the tape label when the data set is opened.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**211- Records on input tape are Irecl X format**

**Explanation:** This message is part of the STAT reply. It means that a value of X was specified for READTAPEFormat and the record format for an input tape is expected to be Irecl X. This value must be consistent with the tape label when the data set is opened.

**System Action:** FTP continues.

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**User Response:** None.

**System Programmer Response:** None.

---

### 211- Records on input tape are spanned format

**Explanation:** This message is part of the STAT reply. It means that a value of S was specified for READTAPEFormat and the record format for an input tape is expected to be spanned. This value must be consistent with the tape label when the data set is opened.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 211- Records on input tape are unspecified format

**Explanation:** This message is part of the STAT reply. It means that no value was specified for READTAPEFormat and the record format for an input tape will not be known until the data set is opened.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 211- Records on input tape are variable format

**Explanation:** This message is part of the STAT reply. It means that a value of V was specified for READTAPEFormat and the record format for an input tape is expected to be variable. This value must be consistent with the tape label when the data set is opened.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 211- SBSUBCHAR is set to *sbsubchar*.

**Explanation:** During the file transfer, untranslatable codepoints will be replaced by the substitution character *sbsubchar*. This setting is ignored if SBSUB is set to FALSE. If SPACE is specified, the ASCII or EBCDIC representation of a blank will be substituted.

*sbsubchar* is either a SPACE or a substitution in hexadecimal.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 211- SBSUB is set to *sbsub*

**Explanation:** SBSUB can be set to either TRUE or FALSE.

*sbsub* is one of the following:

**TRUE** Indicates that a substitution character is used when untranslatable characters are encountered during the data transfer.

**FALSE** Indicates that the data transfer will fail when an untranslatable character is encountered during file transfer. FALSE is the default setting.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

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**211- UTF-8 encoding in use on the control connection**

**Explanation:** The server received a STAT command from the client. This part of the STAT reply indicates that the server is currently using UTF-8 encoding for the control connection. See RFC 2640 for more information about UTF-8 encoding. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Action:** Processing continues.

**User Response:** If you do not want to use UTF-8 encoding for the control connection, issue the SITE CTRLCONN and LOCSITE CTRLCONN subcommands to change the control connection encoding. See the *z/OS Communications Server: IP User's Guide and Commands* for more information about the SITE and LOCSITE subcommands.

**System Programmer Response:** If you do not want the server to use or accept UTF-8 encoding on the control connection, remove the EXTENSIONS UTF8 statement from the server's FTP.DATA file. See the *z/OS Communications Server: IP Configuration Reference* for more information about the EXTENSIONS statement.

---

**213 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**213 Status: *number* bytes transferred**

**Explanation:** The STAT command was received as an Out Of Band command during data transfer. When the STAT command is received during data transfer, the server returns only the number of bytes transferred on the data connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**213 YYYYMMDDHHMMSS**

**Explanation:** The MDTM command was issued to the FTP Server for a certain pathname. This response indicates when the pathname was last modified, according to the Gregorian calendar.

**YYYY** is the year;

**MM** is a number from 1 to 12 indicating the month;

**DD** is a number from 1 to 31 indicating day of the month;

**HH** is a number from 0 to 23 indicating hour of the day;

**MM** is a number from 0 to 59 indicating minute of the hour;

**SS** is a number from 0 to 61 indicating second of the minute, values 60 and 61 implying leap seconds.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**214 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**214- READTAPEFormat=value Format of input tape data sets. Valid formats are**

**Explanation:** Reply to HELP SITE.

---

**214 F (for fixed), V (for variable), S (for spanned),**

**Explanation:** Reply to HELP SITE.

---

**214- X (for IrecL X), and blank (unspecified).**

**Explanation:** Reply to HELP SITE.

---

**215 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**215 MVS is the operating system of this server. FTP Server is running on OS/390 UNIX System Services.**

**Explanation:** The FTP server handling the file transfer uses the MVS operating system. This is the FTP server that runs under z/OS UNIX System Services and is capable of handling HFS files.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**215 UNIX is the operating system of this server. FTP Server is running on OS/390 UNIX System Services.**

**Explanation:** The FTP server handling the file transfer uses the UNIX System Services operating system. This is the FTP server that runs under OS/390 UNIX System Services and is capable of handling HFS files.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**220 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

**220 Connection will close if idle for more than *timeout***

**Explanation:** The FTP server was started with a timeout value of *timeout*. If there is no activity on the control connection between the client and the server for the specified amount of time, the control connection will end.

**Note:** The inactivity timer is not in effect during data transfer. The inactivity timer is only in effect during the time between the successful completion of one subcommand and the issuing of the next subcommand.

**Note:** The inactivity timer is for the control connection only. It has no effect on the data connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**220 Connection will not timeout.**

**Explanation:** The FTP server was started with no control connection timeout value. The control connection between the client and the server will stay active indefinitely, regardless of whether or not there is activity on the connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**220- IBM FTP *init\_time* on *init\_date*.**

**Explanation:** The FTP client has successfully contacted the FTP server. The FTP was initiated at *init\_time* on *init\_date*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**220- *jobname* IBM FTP *version\_release* at *hostname*, *init\_time* on *init\_date*.**

**Explanation:** The FTP client successfully contacted the FTP server. The FTP server is at host *hostname*. The FTP server job, *jobname*, was initiated at *init\_time* on *init\_date*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**220 Reinitialized; Ready for new user.**

**Explanation:** The FTP server is reinitialized and ready for a new user.

**System Action:** The FTP server is reinitialized and waits for a new user.

**User Response:** None.

**System Programmer Response:** None.

---

**220-           The message was truncated.**

**Explanation:** The FTP server banner message exceeded 100 lines. FTP server displays only the first 100 lines of the banner message.

**System Action:** The FTP continues.

**User Response:** Report the error to the system programmer.

**System Programmer Response:** Redesign the FTP banner message so it does not exceed 100 lines.

---

**221           command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**221           Quit command received. Goodbye.**

**Explanation:** The Quit command was received. The FTP session and the connection to the host ends.

**System Action:** The FTP session ends.

**User Response:** None.

**System Programmer Response:** None.

---

**226           Abort successful.**

**Explanation:** The ABOR command was received and processed successfully.

**System Action:** If a command is in progress, the command in progress ends. If a data transfer is in progress, the data transfer ends and the data connection is closed. If no command is in progress, no action is taken. The control connection remains active, and the FTP server waits for the next command from the client.

**User Response:** None.

**System Programmer Response:** None.

---

**226           command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**227           command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

---

**227 Entering Passive Mode** (*h1,h2,h3,h4,p1,p2*)

**Explanation:** The server received the PASV subcommand. The server successfully entered passive mode and is listening on the socket indicated by *h1,h2,h3,h4,p1,p2*, where *h1-h4* are the host ip address and *p1,p2* are the port number.

**System Action:** FTP creates the server socket and listens on that socket.

**User Response:** None.

**System Programmer Response:** None.

---

**229 Entering Extended Passive Mode** (*llport\_numberl*)

**Explanation:** The server received the EPSV command. The server successfully opened a data socket, and is listening on the socket. The IP address associated with the listening socket is the same as the IP address used for the control connection.

*port\_number* is the port number associated with the listening data socket.

**System Action:** The FTP server continues processing commands on the control connection. The server expects the client to create a data socket and connect it to the IP address of the control connection and port number indicated in the EPSV reply.

**User Response:** None.

**System Programmer Response:** None.

---

**230 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**230- Password was changed.**

**Explanation:** The PASS command was entered in the format `PASS old_pass/new_pass/new_pass` to change the password during login. The user’s password was changed. The user can no longer log on to the system using the old password.

**System Action:** The user’s password is changed. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**230- Processing FTPS.RC configuration file - filename**

**Explanation:** The FTPS.RC user-level configuration file was found and opened for read access. The FTP server will parse and execute each line.

*filename* is the FTPS.RC user-level configuration file.

See the *z/OS Communications Server: IP User’s Guide and Commands* for more information about the user-level configuration file.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**230 The email address entered is in an incorrect format.**

**Explanation:** The anonymous user entered a bad e-mail address, but the user is still allowed to log in successfully.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**230- The message was truncated.**

**Explanation:** The FTP server banner message exceeded 100 lines and was truncated.

**System Action:** The FTP continues.

**User Response:** Report the error to the system programmer.

**System Programmer Response:** Redesign the FTP server banner message so that it does not exceed 100 lines.

---

**230- Unable to open FTPS.RC configuration file - *filename* - *errno***

**Explanation:** The FTPS.RC user-level configuration file was located, but could not be opened for read access.

*filename* is the FTPS.RC user-level configuration file.

*errno* is the decimal z/OS UNIX Return Code. These Return Codes are listed and described in the *z/OS UNIX System Services Messages and Codes*. The *errno* provides information about why the file could not be opened. A common problem is that the filename permission settings are incorrect.

**System Action:** FTP continues.

**User Response:** Contact the system programmer with the error.

**System Programmer Response:** Correct the problem indicated by *errno*. If the problem is caused by incorrect permission bits, use the CHMOD command to change the permission settings of *filename*.

---

**230- Unrecognized command - *cmd* - entered**

**Explanation:** The user-level configuration file contains a command that is not recognized. The command must be CD, CWD or SITE. The command is ignored.

*cmd* is the command that was not recognized.

**System Action:** The command was ignored. FTP continues.

**User Response:** Correct the error in the user-level configuration file. If the problem persists, contact the system programmer with the error.

**System Programmer Response:** Correct the error in the user-level configuration file. See the *z/OS Communications Server: IP User's Guide and Commands* for more information about setting user-level options using FTPS.RC.

---

**230 *user\_id* is logged on. Working directory is "*directory*".**

**Explanation:** The named user successfully logged on.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**230- User *userid* is an authorized user**

**Explanation:** The USER command was received specifying the same username that was received during authentication negotiation. The username is authorized and no password is required. The client is logged in as *userid*.

*userid* is the user ID received from the client on the USER command

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**234 Security environment established - ready for negotiation**

**Explanation:** This reply is in response to the AUTH command. The FTP server is willing to accept the security mechanism specified on the command.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**235 ADAT=*base64EncodedData***

**Explanation:** The client connected to the server using GSSAPI authentication and sent an ADAT command. The server must send an ADAT reply containing the authentication data. The server does not require another ADAT command from the client.

*base64EncodedData* is the server's authentication data.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**235 GSSAPI Authentication succeeded**

**Explanation:** The client connected to the server and GSSAPI authentication was successfully negotiated.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**250 Cancel Successful**

**Explanation:** A job submitted through the Job Entry Subsystem (JES) was canceled due to user request.

**System Action:** The job is canceled. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**250 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

**250- Compression reduced bytes transferred by *amount* percent**

**Explanation:** Data is being transferred while in mode c (compressed). The compression algorithm has reduced by *amount* percent the number of bytes of data that are transferred for the request.

**System Action:** FTP continues.

**User Response:** None.

250

**System Programmer Response:** None.

---

250 *dsname* deleted

**Explanation:** The indicated data set was deleted by user request.

**System Action:** The data set is deleted. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

250 *dsname* deleted from migration volume.

**Explanation:** The data set is migrated and was deleted from the migration volume. Note that if the migration and recall facility is currently inactive, the actual delete may occur later when the facility is activated.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

250 **Data structure is File.**

**Explanation:** The STRU subcommand was received by the FTP server requesting that the file structure for data transfer be set to FILE. The server processed the command and changed the file structure to FILE.

**System Action:** The File structure is changed to FILE structure.

**User Response:** None.

**System Programmer Response:** None.

---

250 **Data structure is Record.**

**Explanation:** The STRU subcommand was received by the FTP server requesting that the file structure for data transfer be set to RECORD. The server processed the command and changed the file structure to RECORD.

**System Action:** The file structure is set to RECORD structure

**User Response:** None.

**System Programmer Response:** None.

---

250- **DBCS conversion to EBCDIC encountered invalid input (*number errors*)**

**Explanation:** While converting mixed or pure DBCS data to EBCDIC, the server encountered invalid input such as a data byte that is not within the valid byte range.

**System Action:** FTP continues.

**User Response:** Check the source data and correct any errors. Resubmit the data transfer request.

**System Programmer Response:** None.

---

250 **DCB saved, send next command for load module transfer**

**Explanation:** The DCB parameters required for the temporary data set have been saved.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**250**      *"directory"* is the working directory name prefix.

**Explanation:** A CWD command was issued that caused the current working directory of the server to be changed to the MVS high level qualifier *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250**      *directory* remains "*old\_directory*".

**Explanation:** A CWD subcommand was entered to change the current working directory, but the FTP server was unable to successfully change the directory. The directory remains unchanged from the old directory.

**System Action:** The directory is unchanged. FTP continues.

**User Response:** This reply is accompanied by other replies that indicate the problem. Correct the errors indicated by the other replies.

**System Programmer Response:** None.

---

**250-**      Error mounting "*dsname*";

**Explanation:** A CWD command was issued to change the current working directory to *dsname*. *dsname* was an existing MVS data set that was catalogued on an unmounted volume. The FTP server needed to mount the volume for the data set in order to determine whether or not the data set was a partitioned data set. The mount of the volume for *dsname* failed. The server was unable to complete the CWD command.

**System Action:** The server attempts to mount the data set, but the mount is unsuccessful. The current working directory is not changed.

**User Response:** Contact the system programmer.

**System Programmer Response:** Determine why the mount of the volume failed and correct the problem.

---

**250-**      Error retrieving "*dsname*"

**Explanation:** A CWD command was issued to change the current working directory to *dsname* data set was an existing MVS data set that was migrated. The FTP server needed to recall the data set in order to determine whether or not the data set was a partitioned data set. The recall of migrated data set *dsname* failed.

**System Action:** The server attempts to recall the data set, but the recall is unsuccessful. The current working directory is not changed.

**User Response:** Contact the system programmer.

**System Programmer Response:** Determine why the recall of the migrated data set failed and correct the problem.

---

**250**      HFS directory *directory* is the current working directory

**Explanation:** The user issued the CWD command to change the current working directory. The CWD command completed successfully and changed the current working directory to the HFS directory indicated by *directory*.

**System Action:** The current working directory is changed to the new directory.

**User Response:** None.

**System Programmer Response:** None.

---

**250-**      It is known to JES as *job\_ID*.

**Explanation:** This reply displays the job ID assigned to a job by the Job Entry System (JES). Use this job ID to access the job through the JES. If the specified job id is "*\*UNKNOWN*", the retrieval of the job identifier from JES failed.

**System Action:** FTP continues.

---

## 250- • 250

**User Response:** None.

**System Programmer Response:** None.

---

### 250- JES SSI interface return code *rc*.

**Explanation:** The Subsystem Interface (SSI) between FTP and JES completed with a non-zero return code. The IEFSSREQ macro completed with the specified decimal value in register 15. The meaning of each value is described in the *z/OS MVS Using the Subsystem Interface*.

**System Action:** The data transfer ends.

**User Response:** None.

**System Programmer Response:** None.

---

### 250- JESENTRYLIMIT of *number* reached. Additional entries not displayed

**Explanation:** More jobs matched the selection criteria but were not displayed due to the JESENTRYLIMIT value shown.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 250 List completed successfully.

**Explanation:** A list command was successfully completed.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 250 Nlst completed successfully

**Explanation:** A command was issued to obtain a NLST. The NLST command completed successfully.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 250 *old data set* renamed to *new data set*

**Explanation:** The indicated data set was renamed.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 250 One or more characters were substituted during the transfer

**Explanation:** During a data transfer, one or more untranslatable characters were found and were replaced by the substitution character specified by the SBSUBCHAR FTP.DATA keyword.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**250 Rename requested and the new name is the same as the old.**

**Explanation:** A RENAME was requested and the new filename is the same as the old. The file is not renamed and a normal completion is returned to the client.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250- Statistics have been updated for the PDS member that was transferred**

**Explanation:** Statistics had to be updated for the PDS member that was transferred, because the PDS member that it replaced had statistics. ISPFSTATS setting of FALSE was ignored.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250- The message was truncated.**

**Explanation:** The FTP server banner message exceeded 100 lines and was truncated.

**System Action:** The FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250 The working directory, “*directory*” is a partitioned data set**

**Explanation:** A CWD command was issued that caused the current working directory of the server to be changed to the MVS partitioned data set *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250- The working directory might be a load library**

**Explanation:** As a result of the CWD command, the FTP server’s working directory is a PDS or a PDSE with RECFM=U. This might be load library, and load module transfer processing might be attempted for this directory.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250 Transfer completed (data was truncated)**

**Explanation:** A store request or a request to submit a job contains data whose record length is longer than that of the destination data set. Some of the data was truncated (lost).

**System Action:** FTP continues.

**User Response:** Specify a logical record length for the destination data set that is big enough for the largest record that is transferred.

**System Programmer Response:** None.

---

---

**250 Transfer completed (lines were wrapped)**

**Explanation:** A store request or a request to submit a job contains data whose record length is longer than that of the destination data set. However, since the WrapRecord option is in effect, the data is wrapped into the next record instead of being truncated (lost).

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250 Transfer completed (number translation errors)**

**Explanation:** A data transfer request (retrieve or store) or a request to submit a job contains data that must be translated to or from a double-type character set. A total of *number* translation errors occurred during the translation process.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250 Transfer completed successfully.**

**Explanation:** The requested data transfer command successfully completed.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250 Transfer completed successfully, warning SELECT file too large**

**Explanation:** A SQL query was submitted through FTP. The length of the SQL statement in the input file exceeded 32765 characters. The SQL statement was truncated to 32765 characters and submitted to DB2.

**System Action:** FTP continues.

**User Response:** Check the input file used to submit the query. If necessary, correct the SQL statement in the input file, and resubmit the query.

**System Programmer Response:** None.

---

**250 *type size* - send next command for load module transfer**

**Explanation:** The server is ready to accept the next load module transfer command.

*type* The type of load library that the server's current working directory points to (PDS or PDSE)

*size* The size of temporary data set that will be required to transfer the load modules

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250- Unicode to EBCDIC conversion resulted in *number* substitutions**

**Explanation:** The requested data transfer command completed. There were *number* Unicode characters that could not be converted to the EBCDIC code page. Those characters were replaced with the EBCDIC substitution character.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**250-           Waiting for mount for “*dsname*”**

**Explanation:** A CWD command was issued to change the current working directory to *dsname* *data set* was an existing MVS data set that was catalogued on an unmounted volume. The FTP server needed to mount the volume for the data set in order to determine whether or not the data set was a partitioned data set.

**System Action:** The FTP server waits for the volume to be mounted.

**User Response:** None.

**System Programmer Response:** None.

---

**250-           Waiting for recall of “*dsname*”**

**Explanation:** A CWD command was issued to change the current working directory to *dsname*. *dsname* was an existing MVS data set that was migrated. The FTP server needed to recall the data set in order to determine whether or not the data set was a partitioned data set.

**System Action:** The server attempts to recall the data set.

**User Response:** None.

**System Programmer Response:** None.

---

**250-           Working Directory for PUT is NULL Device;****250           for GET is “*directory*” partitioned data set.**

**Explanation:** The user entered the CWD \*DEV.NULL command to change the current working directory of the server to the NULL directory. When the current working directory is the NULL directory, data transferred to the server from the client (STOR or STOU) will not be stored at the server, but will be received and discarded. The NULL directory is used only for data transferred from the client to the server. Data transferred from the server to the client (RETR) will continue to use the working directory that was in effect prior to the issuance of the CWD \*DEV.NULL command. The directory that will be used for the RETR command is the partitioned data set *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250-           Working Directory for PUT is NULL Device;****250           for GET is HFS directory *directory***

**Explanation:** The user entered the CWD \*DEV.NULL command to change the current working directory of the server to the NULL directory. When the current working directory is the NULL directory, data transferred to the server from the client (STOR or STOU) will not be stored at the server, but will be received and discarded. The NULL directory is used only for data transferred from the client to the server. Data transferred from the server to the client (RETR) will continue to use the working directory that was in effect prior to the issuance of the CWD \*DEV.NULL command. The directory that will be used for the RETR command is the HFS directory *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**250-           Working Directory for PUT is NULL Device;**

---

**250**      **for GET is “*directory*” name prefix.**

**Explanation:** The user entered the CWD \*DEV.NULL command to change the current working directory of the server to the NULL directory. When the current working directory is the NULL directory, data transferred to the server from the client (STOR or STOU) will not be stored at the server, but will be received and discarded. The NULL directory is used only for data transferred from the client to the server. Data transferred from the server to the client (RETR) will continue to use the working directory that was in effect prior to the issuance of the CWD \*DEV.NULL command. The directory that will be used for the RETR command is the MVS high level qualifier *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**251**      **Current working directory is not a PDS**

**Explanation:** The client requested load module transfer processing, and the client current working directory is a PDS, but the server current working directory is a PDSE. Load module transfer processing is only permitted PDS to PDS or PDSE to PDSE. Load module transfer is not supported between different types of load libraries.

**System Action:** The file transfer is aborted. FTP continues, and waits for the next subcommand.

**User Response:** If you want load module transfer processing to be performed, change the server's working directory to a load library that is a PDS.

**System Programmer Response:** None.

---

**251**      **Current working directory is not a PDSE**

**Explanation:** The client requested load module transfer processing, and the client current working directory is a PDSE, but the server current working directory is a PDS. Load module transfer processing is only permitted PDS to PDS or PDSE to PDSE. Load module transfer is not supported between different types of load libraries.

**System Action:** The file transfer is aborted. FTP continues, and waits for the next subcommand.

**User Response:** If you want load module transfer processing to be performed, change the server's working directory to a load library that is a PDSE.

**System Programmer Response:** None.

---

**252**      **Current working directory is not a load library**

**Explanation:** The client requested load module transfer processing, but the server current working directory is not a load library. A load library is a PDS or a PDSE with RECFM=U.

**System Action:** The file transfer continues using base processing. Any MVS load modules transferred will not be executable on the target system.

**User Response:** If you want load module transfer processing to be performed, change the server's working directory to a load library.

**System Programmer Response:** None.

---

**252**      **No load module transfer processing necessary**

**Explanation:** The client requested load module transfer processing, but the server determined that it is not necessary, because none of the files to be retrieved are actually load modules.

**System Action:** The transfer operation continues using base processing.

**User Response:** None.

**System Programmer Response:** None.

---

---

**253            Could not build a file list**

**Explanation:** While performing load module transfer, the FTP server was unable to build a list of filenames to transfer.

**System Action:** Load module transfer processing ends and base processing continues. Any MVS load modules transferred will not be executable on the target system.

**User Response:** None.

**System Programmer Response:** Verify adequate storage available for memory files.

---

**253            No members of the data set match the selection pathnames**

**Explanation:** The client requested load module transfer processing, but there are no files in the server's current working directory that match the selection criteria specified by the client.

**System Action:** FTP continues.

**User Response:** Check filename specified on the GET or MGET subcommand. If applicable, re-issue the GET or MGET command with a correct filename.

**System Programmer Response:** None.

---

**254            Load module transfer requires filetype=SEQ**

**Explanation:** The client requested load module transfer processing, but the server filetype is not SEQ.

**System Action:** Load module transfer processing ends and base processing continues.

**User Response:** If you want load module transfer processing to be performed, send a SITE FILETYPE=SEQ command to the server.

**System Programmer Response:** None.

---

**257            command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**257            "directory" created.**

**Explanation:** The indicated directory was created.

**System Action:** The directory is created. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**257            "directory" is the HFS working directory.**

**Explanation:** The current working directory for storing and retrieving data from the FTP server is HFS directory *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**257**            “*directory*” is working directory.

**Explanation:** The current working directory for storing and retrieving data from the FTP server is MVS high level qualifier *directory*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**257**            “*directory*” partitioned data set is working directory

**Explanation:** If the current working directory is a partitioned data set (PDS), the user PDS name is listed here. For more information about PDSs, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**257**            MKD failed. Error mounting volume.

**Explanation:** The MKD command was issued to create the new PDS but the server was unable to mount the volume on which the data set is to be allocated.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Contact the system programmer for the server system.

**System Programmer Response:** Determine why the volume could not be mounted and correct the problem.

---

**257-**            Waiting for volume mount for volume *volume*

**Explanation:** The FTP server must wait for the indicated volume to be mounted before the command can be processed.

**System Action:** The volume is mounted and the command is processed. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**257-**            Working Directory for PUT is NULL Device;**257**            for GET is “*directory*” partitioned data set.

**Explanation:** The current working directory for data transferred to the server from the client (STOR or STOU) is the NULL directory. Data transferred to the server will be received and discarded rather than stored at the server's host system. MVS Partitioned Data Set *directory* will be used as the current working directory for transferring data from the server to the client (RETR command).

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**257-**            Working Directory for PUT is NULL Device;

---

**257 for GET is HFS directory *directory***

**Explanation:** The current working directory for data transferred to the server from the client (STOR or STOU) is the NULL directory. Data transferred to the server will be received and discarded rather than stored at the server's host system. HFS directory *directory* will be used as the current working directory for transferring data from the server to the client (RETR command).

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**257- Working Directory for PUT is NULL Device;**

---

**257 for GET is "*directory*" name prefix.**

**Explanation:** The current working directory for data transferred to the server from the client (STOR or STOU) is the NULL directory. Data transferred to the server will be received and discarded rather than stored at the server's host system. MVS high level qualifier *directory* will be used as the current working directory for transferring data from the server to the client (RETR command).

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**300 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**300 Restart command accepted, parameter=*restart checkpoint***

**Explanation:** If a checkpoint for the restart is found by FTP, this reply indicates that the restart is successful. The value for the checkpoint parameter represents the ordinal (number) of the data byte where the restart begins.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**331 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

---

**331 Send email address as password please**

**Explanation:** The USER command was entered as anonymous to begin user login processing. The FTP server can be set to require an e-mail address to validate the anonymous user ID.

**System Action:** FTP continues.

**User Response:** Use the PASS subcommand in FTP to supply your e-mail address to the remote host.

**System Programmer Response:** None.

---

**331 Send password please.**

**Explanation:** The USER command was entered to begin user login processing. The FTP server requires a password to validate the user ID.

**System Action:** FTP continues.

**User Response:** Use the PASS subcommand in FTP to supply your password to the remote host. For more information, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

**334 Using authentication mechanism *mechanism***

**Explanation:** The client connected to the server and sent an AUTH command requesting an authentication mechanism supported by the server.

*mechanism* is the authentication mechanism requested by the client

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**335 ADAT=*base64EncodedData***

**Explanation:** The client has connected to the server using GSSAPI authentication and sent in an ADAT command. The server must send an ADAT reply containing the authentication data. The server requires another ADAT command from the client.

*base64EncodedData* is the server's authentication data.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**335 More data needed**

**Explanation:** The client has connected to the server using GSSAPI authentication and sent in an ADAT command. The server requires another ADAT command from the client.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**350 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

**350 Restart command accepted, parameter *byte\_transfer\_offset***

**Explanation:** The server received a REST command from the client. The server accepted the REST command as valid.

*byte\_transfer\_offset* is the REST command parameter.

**System Action:** FTP continues. The next file transfer will start at *byte\_stream\_offset* within the stream of bytes that would be transmitted if the whole file were transferred.

**User Response:** If the client is trying to resume an interrupted file transfer, no further action is needed. If the client does not want to resume an interrupted file transfer, issue quote REST 0 from the FTP client to nullify the REST command.

**System Programmer Response:** None.

**350 RNFR accepted. Please supply new name for RNTO.**

**Explanation:** The RNFR command, which specifies the data set to be renamed, was accepted. The FTP server is prompting the user to supply the new name for the data set.

**System Action:** FTP continues.

**User Response:** Use the RNTO command to specify the new name for the data set to be renamed. Refer to the *z/OS Communications Server: IP User's Guide and Commands*, in the chapter about transferring data using the file transfer protocol for information about the RNFR and RNTO subcommands, or type HELP RNTO at the command line.

**System Programmer Response:** None.

**400 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

**421 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

**421 connection terminated - setuid failure during *cmd* command processing.**

**Explanation:** The client entered either the USER command to change the user ID of the FTP session, or the REIN command to reinitialize an FTP session back to the state of a new connection that has not logged in as user ID. In order to reset the user ID to a new user ID or to a state of no user ID, the server must change the user ID associated with the server to a "superuser" user ID. The server was unable to return to the "superuser" environment.

**System Action:** The FTP session ends.

**User Response:** Retry the connection and the failing command. If the problem persists, contact the system programmer.

## 421 • 425

**System Programmer Response:** If necessary, re-create the problem with FTP server trace active. The setuid error will create a trace record with a return code. Determine the cause of the error and correct the problem.

---

### 421 Open rejected due to insufficient resources.

**Explanation:** The FTP server attempted to create a new address space for the client session, but was unable to do so.

**System Action:** FTP continues. The client connection ends.

**User Response:** If the problem persists, contact the system programmer.

**System Programmer Response:** If necessary, re-create the problem with tracing. The trace messages will show the exact error received by the server when it attempted to fork the new address space. Correct the error indicated by the traces.

---

### 421 User Exit rejects open for connection

**Explanation:** The FTP server is running with the security user exit FTCHKIP. The user exit does not allow the IP address to access the FTP server.

**System Action:** FTP continues. The client connection is rejected.

**User Response:** Contact the owner of the FTP server to have the IP address authorized in the FTCHKIP user exit.

**System Programmer Response:** If necessary, update the FTCHKIP user exit to allow the IP address to access the server.

---

### 425 Can't open data connection.

**Explanation:** The server cannot open the data connection to transfer the data set.

**System Action:** The data set is not transferred. FTP continues.

**User Response:** None.

**System Programmer Response:** If necessary, re-create the problem with FTP server trace active. The data connection error will create a trace record with a socket function return code. Determine the cause of the socket error and correct the problem.

---

### 425 Can't open passive connection.

| **Explanation:** The FTP server received a PASV or EPSV command requesting that the server open a passive data connection (server does the "listen" rather than the "connect"). The server was unable to open the passive connection.

| **System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** If necessary, re-create the problem with FTP server trace active. The open data connection error will create a trace record with a socket function return code. Determine the cause of the socket error and correct the problem.

---

### 425 command terminated due to server shutdown in progress

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

---

**425- Server requires protected data connection.**

**Explanation:** The FTP server processed a command that requires a data connection. The session is protected by a security mechanism and the protection level for the data connection is Clear. The minimum data connection protection required by the server is Safe or Private.

**System Action:** FTP continues.

**User Response:** Issue a PROT S or PROT P command to set the protection level for data connection to a protected level and then reissue the command that required the data connection.

**System Programmer Response:** None.

---

**425 Unable to open data connection.**

**Explanation:** The server cannot open the data connection to transfer the data.

**System Action:** The data is not transferred. FTP continues.

**User Response:** None.

**System Programmer Response:** If necessary, re-create the problem with FTP server trace active. The data connection error will create a trace record with a socket function return code. Determine the cause of the socket error and correct the problem.

---

**426 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**426 Connection closed; transfer aborted.**

**Explanation:** The FTP server received an Out Of Band ABOR subcommand from the FTP client requesting that the data transfer in progress end. The FTP server aborted the data transfer.

**System Action:** The data transfer in progress is aborted. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**426 Data connection aborted**

**Explanation:** The FTP server closed the data connection because of an error reported in a previous reply.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**426- Data set *dsname* is allocated to another job and is unavailable for *cmd* command.**

**Explanation:** The *cmd* command was issued but the server was unable to allocate the the data set because it is already allocated to another job.

**System Action:** None.

**User Response:** Try again later.

**System Programmer Response:** None.

---

---

**450 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**450 Data set *dsname* is allocated to another job and is unavailable for *cmd* command.**

**Explanation:** The *cmd* command was issued but the server was unable to allocate the the data set because it is already allocated to another job.

**System Action:** None.

**User Response:** Try again later.

**System Programmer Response:** None.

---

**450 JESGET failed, could not allocate send buffer**

**Explanation:** While attempting to send a file, a buffer was not available.

**System Action:** FTP continues.

**User Response:** Reissue the command later.

**System Programmer Response:** None

---

**450- Record too long**

**Explanation:** During the transmission of a file, an incomplete record was encountered.

**System Action:** FTP continues.

**User Response:** Reissue the command.

**System Programmer Response:** None

---

**451- Checkpoint marker not supported**

**Explanation:** A store request failed for a variable spanned data set because a block header contains a checkpoint/restart marker. Checkpointing is not supported from transfers to a variable spanned data set when the logical record length is larger than the blocksize.

**System Action:** FTP continues.

**User Response:** Ensure that the client program is not sending checkpoint markers. For the MVS client, issue LOCSITE CHKPTINT=0 and try the transfer again.

**System Programmer Response:** None.

---

**451 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

---

**451- Compression reduced bytes transferred by *amount* percent**

**Explanation:** Data is being transferred while in mode c (compressed). The compression algorithm has reduced by *amount* percent the number of bytes of data that are transferred for the request.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**451- Data set is full (19).**

**Explanation:** A store request failed because the destination data set is full. The C run-time errno code of 19 indicates that an unrecoverable error has permanently marked the data set in error.

**System Action:** FTP continues.

**User Response:** Request a larger space allocation for the destination data set and try the transfer again.

**System Programmer Response:** None.

---

**451- Data set is full *rc*.**

**Explanation:** A store request failed because the destination data set is full. The C run-time errno code of 33 says that an attempt was made to extend a non-extendable file. The C run-time errno code of 65 says that a write system error occurred.

**System Action:** FTP continues.

**User Response:** Request a larger space allocation for the destination data set and try the transfer again.

**System Programmer Response:** None.

---

**451- Data set is out of space.**

**Explanation:** A data transfer failed because there is not enough space in the data set.

**System Action:** FTP continues.

**User Response:** This reply is preceded by a reply with the specific system completion code and reason code. Take actions appropriate for the failure.

**System Programmer Response:** None.

---

**451 data transfer aborted - command terminated due to CPU time limit exceeded**

**Explanation:** The FTP server was in the process of transferring data when the process was stopped either by an OMVS kill -s SIGXCPU command or because the CPU time limit (MAXCPU TIME in BPXPRMnn) was exceeded.

**System Action:** Data transfer and the FTP server process end.

**User Response:** Contact the system programmer.

**System Programmer Response:** If the process was stopped due to CPU time limit exceeded, check the MAXCPU TIME in the BPXPRMnn member.

---

**451 data transfer aborted - command terminated due to server shutdown in progress**

**Explanation:** The FTP server was in the process of transferring data when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** Data transfer and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**451 Dele failed due to internal error**

**Explanation:** A required data area was not available for the requested JES function to complete.

**System Action:** FTP continues.

**User Response:** Reissue the command later.

**System Programmer Response:** None.

---

**451 Dele failed, too many entries**

**Explanation:** A request was made to JES to delete multiple jobids. To many jobs exist for JES to process this request.

**System Action:** FTP continues.

**User Response:** Reissue the command. If the problem persists, request assistance from your system support personnel.

**System Programmer Response:** None.

---

**451- Device is out of space.**

**Explanation:** A file transfer to the FTP server HFS failed. The C runtime library reported the error as 'device out of space', indicating that the target directory is out of space.

**System Action:** The file transfer fails. FTP continues processing.

**User Response:** Report the error to the system programmer.

**System Programmer Response:** Create more space in the target directory by deleting files, or instruct the user to store the file in a different location with adequate space.

---

**451 Error *error* closing the data set.**

**Explanation:** The data set or file did not close successfully.

*error* is the fclose() return code when the file is HFS. *error* is not meaningful otherwise.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**451 Error *error* closing the data set. File could not be deleted.**

**Explanation:** The MVS data set did not close successfully. The FTP server tried to delete the data set because the current CONDDISP is set to delete the data set when a close failure occurs.

*error* is not meaningful.

**System Action:** FTP continues processing.

**User Response:** Change the CONDDISP setting with a SITE subcommand if you do not want data sets to be deleted when the close fails. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** None.

---

**451 Error *error* closing the data set. File is catalogued.**

**Explanation:** The MVS data set did not close successfully. The data set was catalogued.

*error* is not meaningful.

**System Action:** FTP continues processing.

**User Response:** Change the CONDDISP setting with a SITE subcommand if you do not want data sets to be

catalogued when file transfers fail. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** None.

**451 Error *error* closing the data set. File is deleted.**

**Explanation:** The MVS data set did not close successfully. The data set was deleted.

*error* is not meaningful.

**System Action:** FTP continues processing.

**User Response:** Change the CONDDISP setting with a SITE subcommand if you do not want data sets to be deleted when the close fails. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE command.

**System Programmer Response:** None.

**451 Error (*rc*) closing data set *dsname***

**Explanation:** The close of the data set was unsuccessful.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Resubmit the command.

**451- File transfer failed. File contains records that are longer than the LRECL of the new file.**

**Explanation:** Options NOTRUNcate and NOWRAPrecord are set. The file being transferred contains records that are longer than the LRECL of the new file.

**System Action:** The transfer is ended. FTP continues.

**User Response:** Increase the value of LRECL for the new file or change the Locsite options.

**System Programmer Response:** None.

**451 Index *index* is greater than number of spool files for *jobid***

**Explanation:** A specific spool file was requested to be retrieved from JES using the FTP GET command. JES output files are numbered sequentially from one. The specified number is greater than the number of spool files for the job.

**System Action:** FTP continues.

**User Response:** Reissue the FTP GET command with the correct jobid and index.

**System Programmer Response:** None.

**451 Internal storage allocation error, JesPutGet aborted**

**Explanation:** While attempting to retrieve an output file for a JOB, an insufficient storage condition existed.

**System Action:** FTP continues.

**User Response:** Reissue the command later.

**System Programmer Response:** None.

**451 Internal storage allocation error, try again later**

**Explanation:** While attempting to retrieve an output file for a JOB, an insufficient storage condition existed.

**System Action:** FTP continues.

**User Response:** Reissue the command later.

**System Programmer Response:** None.

---

**451 JESGET aborted: internal error processing JES request**

**Explanation:** FTP encountered an internal error with the JES interface. Partial data might be sent.

**System Action:** FTP continues.

**User Response:** Retry the request. If the problem persists, contact the system programmer for FTP.

**System Programmer Response:** If the problem persists, get a trace of the FTP operation that includes the FTP JES trace and contact the IBM Software Support Center.

---

**451 JESPUTGET aborted: internal error processing JES request**

**Explanation:** FTP encountered an internal error with the JES interface. Partial data might be sent.

**System Action:** FTP continues.

**User Response:** Retry the request. If the problem persists, contact the system programmer for FTP.

**System Programmer Response:** If the problem persists, get a trace of the FTP operation that includes the FTP JES trace and contact the IBM Software Support Center.

---

**451 List failed due to internal error**

**Explanation:** A required data area was not available at the time the command was issued.

**System Action:** FTP continues.

**User Response:** Reissue the command later.

**System Programmer Response:** None.

---

**451 List failed, too many entries**

**Explanation:** The request resulted in more data than the data area could contain.

**System Action:** FTP continues.

**User Response:** Reissue the command later. If the problem persists, request assistance from system support personnel.

**System Programmer Response:** None.

---

**451 LRECL *lrecl* is incompatible with RECFM *recfm***

**Explanation:** The LRECL value is incompatible with the RECFM. This value might have come from FTP.DATA, as the result of a SITE command, or from MVS as a default.

*lrecl* is the length of the record.

*recfm* is the record format.

**System Action:** The file transfer ends.

**User Response:** Enter a correct value using SITE LRECL=*value*. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information about transferring data using the File Transfer Protocol.

**System Programmer Response:** Update the FTP.DATA file. Refer to the *z/OS Communications Server: IP Configuration Reference* and to the *z/OS Communications Server: IP User's Guide and Commands* for information about the parameters of the FTP.DATA file.

---

**451 Nlst failed due to internal error**

**Explanation:** A required data area was not available at the time the command was issued.

**System Action:** FTP continues.

**User Response:** Reissue the command later.

**System Programmer Response:** None.

---

---

**451 Nlst failed, too many entries**

**Explanation:** The request resulted in more data than the data area could contain.

**System Action:** FTP continues.

**User Response:** Reissue the command later. If the problem persists, request assistance from system support personnel.

**System Programmer Response:** None.

---

**451- Possible cause is the destination PDS or its directory is too small.**

**Explanation:** An ABENDB14 has occurred. This may have been preceded by an ABENDD37. This would imply that the destination data set is too small. This reply is to warn the client of that possibility.

**System Action:** The FTP session ends.

**User Response:** Take action as is appropriate for the B14 and D37 abend codes. Verify with operations that a D37 did occur or try increasing the size of the PDS of the directory.

**System Programmer Response:** Verify that this is a recursive abend and take action as suggested by the abend that occurred.

---

**451- Record is too long to process**

**Explanation:** A file from an ASCII client is FTP PUT to the server. SITE NOWRAP is set, and data type is ASCII. The file has an extremely long record and cannot be transferred.

**System Action:** The data transfer is terminated and the data session is closed.

**User Response:** Set Wraprecord on or correct the source file. Insert Carriage Returns as needed to break up the line or delete the invalid line.

**System Programmer Response:** None.

---

**451- Record received was too short (4).**

**Explanation:** A store request failed because one of the records that is transferred is too short for the destination data set. This error occurs when the destination data set is a fixed record format, the transfer mode is b (blocked) or c (compressed), and a short record is transferred. The C run-time errno code of 4 says that a specified record length is not large enough.

**System Action:** FTP continues.

**User Response:** Ensure that each fixed format record has the correct length or choose a non-fixed record format (e.g., variable).

**System Programmer Response:**

---

**451 Renaming attempt failed.**

**Explanation:** A RNT0 command was issued to rename a member of a partitioned data set. The rename was unsuccessful because a system resource was not available.

**System Action:** The data set is not renamed. FTP continues.

**User Response:** None.

**System Programmer Response:** If possible, re-create the problem with FTP server trace active and contact the IBM Support Center with the results.

---

**451- System completion code and reason: *cc-rc***

**Explanation:** The transfer of data ended because of a file I/O error. The system completion code *cc* and reason code *rc* are displayed.

**System Action:** FTP continues.

---

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**User Response:** Refer to the *System Codes* and the *System Messages* publications for suggested actions for the specified failure code.

**System Programmer Response:** None.

---

### 451 Transfer aborted.

**Explanation:** The transfer of data ended because of an error in the block header of the data.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

### 451 Transfer aborted due to file error.

**Explanation:** The transfer of data ended because of an error while writing to the data set.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

### 451 Transfer aborted due to file error. File could not be deleted.

**Explanation:** The transfer of data ended because of an error while writing to the data set. The FTP server tried to delete the data set because the current CONDDISP is set to delete the data set when write errors occur.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets deleted when file write errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

### 451 Transfer aborted due to file error. File is catalogued.

**Explanation:** The transfer of data ended because of an error while writing to the data set. The data set was catalogued.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets catalogued when file write errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

### 451 Transfer aborted due to file error. File is deleted.

**Explanation:** The transfer of data ended because of an error while writing to the data set or file.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets deleted when file write errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

---

**451 Transfer aborted due to receive error.**

**Explanation:** The transfer of data ended because of an error while receiving data from the data connection.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted due to receive error. File could not be deleted.**

**Explanation:** The transfer of data ended because of an error while receiving data from the data connection. The FTP server tried to delete the data set because the current CONDDISP is set to delete the data set when close failures occur.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE subcommand if you do not want data sets to be deleted when the close fails. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted due to receive error. File could not be deleted.**

**Explanation:** The transfer of data ended because of an error while receiving data from the data connection. The FTP server tried to delete the data set because the current CONDDISP is set to delete the data set when close failures occur.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE subcommand if you do not want data sets to be deleted when the close fails. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted due to receive error. File is catalogued.**

**Explanation:** The transfer of data ended because of an error while receiving data from the data connection. The partially transferred file was catalogued.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets catalogued when receive errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted due to receive error. File is deleted.**

**Explanation:** The transfer of data ended because of an error while receiving data from the data connection. The partially transferred file or data set is deleted.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE subcommand if you do not want data sets to be deleted when the close fails. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

---

**451 Transfer aborted. File could not be deleted.**

**Explanation:** The transfer of data ended because of an error in the block header of the data. The FTP server tried to delete the data set because the current CONDDISP is set to delete the data set when file transfer errors occur.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets deleted when file write errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted. File is catalogued.**

**Explanation:** The transfer of data ended because of an error in the block header of the data.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets catalogued when file transfer errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted. File is deleted.**

**Explanation:** The transfer of data ended because of an error in the block header of the data. The data set was deleted.

**System Action:** Processing continues.

**User Response:** Change the CONDDISP setting with a SITE command if you do not want data sets deleted when file write errors occur. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE subcommand.

**System Programmer Response:** Get a trace of the store operation and contact the IBM Software Support Center.

---

**451 Transfer aborted: file error.**

**Explanation:** The transfer of data ended because of an error reading the data set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the retrieve operation and contact the IBM Software Support Center.

---

**451 Transfer aborted: internal error while processing SQL request**

**Explanation:** FTP encountered an internal error while processing a SQL request. No data is sent.

**System Action:** FTP continues.

**User Response:** Try again. If the problem persists, contact the system programmer for FTP.

**System Programmer Response:** If the problem occurs repeatedly, get a trace of the FTP operation and contact the IBM Support Center.

---

**451 Transfer aborted: send error**

**Explanation:** The server was attempting to send data to the client over the data connection, but an error occurred executing the send() socket function for the data connection. The data transfer is ended.

**System Action:** Control is returned to the client connection for further command processing.

**User Response:** The command can be retried. If the problem persists, contact the system programmer

**System Programmer Response:** If necessary, re-create the problem with FTP server traces active. The send() error

---

will create a trace record with the send() return code. Determine the cause of the send error and correct the problem.

**451            Transfer aborted: SQL FETCH error (code)**

**Explanation:** A SQL query was submitted through FTP, but DB2 encountered an error retrieving the data. Data retrieval for this query is discontinued. Data in the output file may be incomplete. *code* indicates the reason for the failure.

**System Action:** FTP continues.

**User Response:** Resubmit the query. If the problem persists, contact the system programmer for FTP.

**System Programmer Response:** See "SQL Return Codes" in the *DB2 Messages and Codes* for an explanation of *code* and correct the problem.

**451            Transfer completed**

**Explanation:** A job was successfully submitted,

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

**451-           Unable to get Jobid**

**Explanation:** A job was submitted to JES. No Jobid was returned after the completion of the submit.

**System Action:** FTP continues.

**User Response:** Check the JCL file for an error in the JOBCARD.

**System Programmer Response:** None.

**452            command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

**452            Insufficient storage to process SITE command.**

**Explanation:** The SITE command was entered, but there was not enough storage available for the server to parse the SITE command.

**System Action:** FTP continues.

**User Response:** Try the command at a later time when more storage may be available.

**System Programmer Response:** None.

**452            Transfer aborted: insufficient storage to process SQL request**

**Explanation:** A SQL query was being attempted through FTP, but there is not enough system storage available for FTP to complete the request.

**System Action:** No data is sent. FTP continues.

**User Response:** Try again. If the problem persists, contact the system programmer for the FTP server.

**System Programmer Response:** Determine why FTP is unable to acquire dynamic storage and correct the problem.

---

**500 command failed - command too long**

**Explanation:** The FTP server attempted to receive a command from the client connection, but the command received was larger than the FTP server command buffer. The maximum allowed command length is 1099 bytes, including control characters.

**System Action:** The command is rejected. Control returns to the client connection for further command processing.

**User Response:** If possible, break the command into multiple, smaller, commands (for example, a SITE command with multiple parameters can be broken into several SITE commands with fewer parameters). If it is not possible to break the command into smaller pieces, contact the IBM Software Support Center with requirements for a larger command buffer.

**System Programmer Response:** None.

---

**500 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**500 Invalid restart parameter.**

**Explanation:** You attempted to restart a checkpointed data transfer command and the restart marker that was received at the server is incorrect.

**System Action:** The data transfer command is not restarted. FTP continues.

**User Response:** Make sure that the *hlq.FTP.CHECKPOINT* data set is valid. The data set name might be *hlq.FTP.CHECKPOINT* or, if your path points to a PDS, the name will be *hlq.pds\_name(CHECKPOINT)*. This data set was created by the client during a checkpointed command and must not be altered after the checkpointed command is unsuccessful and before the restart is entered. Failure to observe this procedure will affect the restart.

**System Programmer Response:** None.

---

**500 unknown command *command***

**Explanation:** The client connection entered the command *command*, which the FTP server did not recognize as a valid FTP command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Issue a valid FTP command.

**System Programmer Response:** None.

---

**500 User Exit denies Userid '*user\_ID*' from using Command '*command*'.**

**Explanation:** The client logged in to the server as user ID *user\_ID* and attempted to issue the FTP command *command*. The FTP server was running with the user-written exit routine FTCHKCMD, and the FTCHKCMD user exit prevented the user ID *user\_ID* from issuing command *command*.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Refer to the preceding 500-UX- reply (if generated by the user exit) for an explanation of the rejection. Contact the system programmer for the server system for more information.

**System Programmer Response:** If necessary, change the user exit FTCHKCMD to allow the user to issue the command. The client must end the FTP session and then reconnect to the server in order to pick up changes to the user exit routines.

---

**500- UX-explanation**

**Explanation:** This reply precedes the notification that the user exit has denied the user access to this command. *explanation* is the exit routine's explanation of why the user was denied access to the command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer for the server system for more information if needed.

**System Programmer Response:** If necessary, change the user exit FTCHKCMD to allow the user to issue the command. The client must end the FTP session and then reconnect to the server to pick up changes to the user exit routines.

---

**501 \* is not last char**

**Explanation:** The LIST or NLST command was entered with the \* global file-name character in the path name, but the \* was not the last character in the qualifier. For MVS FTP, the \* global file-name character can only appear at the end of any qualifier in the data set name.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Enter the command again with the correct syntax.

**System Programmer Response:** None.

---

**501 \*\* must be preceded and followed by a period or blank**

**Explanation:** The LIST (DIR) or NLST (LS) command was entered with the \*\* global filename character in the pathname, but the \*\* was either not preceded by or not followed by a period (.) or blank. The \*\* character is used to replace zero or more complete qualifiers in the name.

**System Action:** FTP continues.

**User Response:** See the *z/OS Communications Server: IP User's Guide and Commands* for the rules for using special characters in LIST and NLST commands.

**System Programmer Response:** None.

---

**501 A qualifier in "pathname" begins with an invalid character**

**Explanation:** The pathname in the subcommand entered specified an MVS data set, but one of the qualifiers in the data set name began with an invalid character. Qualifiers in an MVS data set name can only begin with a letter, a '\$', an '@', or a '#'.

**System Action:** The subcommand is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the subcommand with the corrected path name.

**System Programmer Response:** None.

---

**501 A qualifier in "pathname" is more than 8 characters**

**Explanation:** The pathname in the subcommand entered specified an MVS data set, but one of the qualifiers in the data set name was longer than 8 characters. Qualifiers in an MVS data set name cannot exceed 8 characters.

**System Action:** The subcommand is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the subcommand with the corrected path name.

**System Programmer Response:** None.

---

**501 A qualifier in "pathname" contains an invalid character**

**Explanation:** The pathname in the subcommand entered specified an MVS data set, but one of the qualifiers in the data set name contained an invalid character. Qualifiers in an MVS data set name can only contain letters, numbers, a '\$', an '@', '#', '-', or a 'XC0'.

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**System Action:** The subcommand is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the subcommand with the corrected path name.

**System Programmer Response:** None.

---

### 501 Base 64 decode failed for ADAT data: *error*

**Explanation:** The server received an ADAT command containing authentication data but was unable to decode the authentication data.

*error* will be one of the following:

- 1 **Bad character in encoding:** An invalid character was received from the server as part of a base 64 encoded string. The valid characters in a base 64 encoded string are the letters A–Z, the letters a–z, the numbers 0–9, the plus sign (+), and the forward slash (/).
- 2 **Encoding not properly padded:** An invalid base 64 encoded string was received from the server. The string was not padded with equal signs to extend the length of the string to a multiple of four characters.
- 3 **Decoded number of bits not a multiple of 8:** An invalid base 64 encoded string was received from the server. The string was unable to be decoded because it did not decode into a multiple of eight bits.

**System Action:** Authentication negotiation fails. FTP continues.

**User Response:** Contact the system programmer of the client to determine why the authentication data was not properly base 64 encoded.

**System Programmer Response:** None.

---

### 501 Base 64 decode failed for *command command*: *error*

**Explanation:** The server received a base 64 encoded command and was unable to decode the command.

*command* is the type of protected command. Valid values are ENC for protection level private commands and MIC for protection level safe commands.

*error* will be one of the following:

- 1 **Bad character in encoding:** An invalid character was received from the server as part of a base 64 encoded string. The valid characters in a base 64 encoded string are the letters A–Z, the letters a–z, the numbers 0–9, the plus sign (+), and the forward slash (/).
- 2 **Encoding not properly padded:** An invalid base 64 encoded string was received from the server. The string was not padded with equal signs to extend the length of the string to a multiple of four characters.
- 3 **Decoded number of bits not a multiple of 8:** An invalid base 64 encoded string was received from the server. The string was unable to be decoded because it did not decode into a multiple of eight bits.

**System Action:** The command fails. FTP continues.

**User Response:** Contact the system programmer of the client to determine why the authentication data was not properly base 64 encoded.

**System Programmer Response:** None.

---

### 501 *command aborted - error in local processing*

**Explanation:** An internal programming error occurred that caused the parser to end up within the routines that process the valid FTP commands while processing an incorrect command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer of the FTP server system.

**System Programmer Response:** Contact the IBM Software Support Center. The FTP server output should provide additional information regarding the failure.

---

---

**501**      **command aborted -- FTP server not configured for *commandname* .**

**Explanation:** The client issued a *command name* command to the FTP server. The FTP server implements the *command name* command, but is configured to reject it.

**System Action:** The command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Report the error to the FTP server installation system programmer.

**System Programmer Response:** If you want your FTP server to support *command name*, add statements to FTP.DATA to enable this support. Refer to the *z/OS Communications Server: IP Configuration Reference* for information on enabling *command name* support for your FTP server.

---

**501**      ***command* command syntax error : too many parameters**

**Explanation:** The client issued the FTP command *command*, but the command contained more parameters than allowed for that command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Reissue the command with the correct number of parameters.

**System Programmer Response:** None.

---

**501**      **command OPTS aborted -- no options supported for *command***

**Explanation:** The server received an OPTS command. The server does not support any options for *command*. *command* is the argument of the OPTS command.

See RFC 2389 for more information about the OPTS command. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs.

**System Action:** The OPTS command is ignored. Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**501**      ***command* supported only in Stream mode**

**Explanation:** The LIST or NLST command was entered, but the FTP session was in a mode other than stream mode. The LIST and NLST command are supported only in stream mode.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Issue the MODE S command to change the mode to stream mode, then reissue the LIST or NLST command.

**System Programmer Response:** None.

---

**501**      **command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

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### 501 CWD ../ only valid for HFS directories

**Explanation:** The CWD command was entered with a pathname of ../ to back up one directory level, but the current working directory was either an MVS partitioned data set, or an MVS high level qualifier. The "../ notation is only valid when the current working directory is an HFS directory.

**System Action:** The CWD command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the CWD command with the corrected path name.

**System Programmer Response:** None.

---

### 501 Data set name too long. Use MVS naming conventions

**Explanation:** The LIST or NLST command was entered with a data set name that was longer than the MVS maximum of 44 characters.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the LIST or NLST command with the correct data set name.

**System Programmer Response:** None.

---

### 501 Data set name too long. Use MVS or HFS naming conventions.

**Explanation:** The LIST or NLST command was entered with a data set name that was longer than the MVS maximum of 44 characters or the HFS maximum of 1023 characters.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the LIST or NLST command with the correct data set or HFS file name.

**System Programmer Response:** None.

---

### 501 *'data\_set(member)'* requests members but *data\_set* is not a partitioned data set.

**Explanation:** The LIST or NLST command was entered using the MVS syntax *data\_set(member)*, which indicates that members of the PDS *data\_set* are to be listed; however, *data\_set* is not a partitioned data set.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Verify that the correct data set name was entered. Reissue the LIST or NLST command with the correct data set name.

**System Programmer Response:** None.

---

### 501 Directory is already NULL

**Explanation:** The CDUP, or CD .. command was issued to back up the directory name one level, but the directory name was already back to the NULL directory ("").

**System Action:** The CDUP command is rejected.

**User Response:** None.

**System Programmer Response:** None.

---

### 501 Error - existing kanji type invalid

**Explanation:** The FTP server received an invalid TYPE command. The current data transfer type is for a DBCS data type, but an internal error occurred and the current data type is no longer valid.

**System Action:** The FTP connection with the client ends.

**User Response:** Reconnect to the FTP server and issue the desired TYPE command. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*. If this reply is received repeatedly, make a note of the last few FTP commands you have issued that cause this result, and contact your system programmer

**System Programmer Response:** Contact the IBM Support Center with output from the FTP server trace, if available.

**501 Error - existing type invalid**

**Explanation:** The FTP server received an invalid TYPE command. FTP tried to continue with the current data transfer type, but an internal error occurred and the current data type is no longer valid.

**System Action:** The FTP connection with the client ends.

**User Response:** Reconnect to the FTP server and issue the desired TYPE command. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*. If this reply is received repeatedly, make a note of the last few FTP commands you have issued that cause this result, and contact your system programmer

**System Programmer Response:** Contact the IBM Support Center with output from the FTP server trace, if available.

**501 Error - existing UCS type invalid**

**Explanation:** The FTP server received an invalid TYPE command. The current data transfer type is for a UCS data type, but an internal error occurred and the current data type is no longer valid.

**System Action:** The FTP connection with the client ends.

**User Response:** Reconnect to the FTP server and issue the desired TYPE command. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*. If this reply is received repeatedly, make a note of the last few FTP commands you have issued that cause this result, and contact your system programmer

**System Programmer Response:** Contact the IBM Support Center with output from the FTP server trace, if available.

**501 Error - existing UCS type invalid**

**Explanation:** The FTP server received an invalid TYPE command. The current data transfer type is for a UCS data type, but an internal error occurred and the current data type is no longer valid.

**System Action:** The FTP connection with the client ends.

**User Response:** Reconnect to the FTP server and issue the desired TYPE command. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*. If this reply is received repeatedly, make a note of the last few FTP commands you have issued that cause this result, and contact your system programmer

**System Programmer Response:** Contact the IBM Support Center with output from the FTP server trace, if available.

**501 File name too long. Use HFS naming conventions.**

**Explanation:** The LIST or NLST command was entered with a file name that was longer than the HFS maximum of 1023 characters.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the LIST or NLST command with the correct HFS file name.

**System Programmer Response:** None.

**501 Invalid data set name "dsname". Use MVS Dsname conventions.**

**Explanation:** The data set name violates one of the MVS file naming conventions and cannot be used to reference a data set at the server.

**System Action:** The data set is not sent. FTP continues.

**User Response:** Rename the data set in compliance with MVS data set naming conventions. For more information

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about MVS data set naming conventions, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

### 501 Invalid data set name. Use MVS Dsname conventions.

**Explanation:** The command was entered with a data set name, but the data set name did not meet MVS data set name conventions. The data set name must:

- Be no more than 44 characters total
- Each qualifier must be no more than 8 characters total
- Each qualifier must start with a letter or with a \$, @, or #
- The 2nd–8th characters of each qualifier must be either a letter, a number, or a \$, @, #, -, or }.

**System Action:** The command is rejected.

**User Response:** Reissue the command with the corrected data set name.

**System Programmer Response:** None.

---

### 501 Invalid directory name - too large.

**Explanation:** A command was issued that contained a pathname that specified a directory name that was longer than the maximum allowable 44 characters for an MVS data set name, or 1023 characters for an HFS file name.

**System Action:** The command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the command with the corrected path name.

**System Programmer Response:** None.

---

### 501 Invalid file identifier in RNTO command.

**Explanation:** The RNTO command was issued to rename a data set or file. The data set (file) identifier is invalid or was not specified.

**System Action:** The data set or file is not renamed. FTP continues.

**User Response:** Reissue the rename command observing the file naming conventions for MVS. For more information about MVS data set naming conventions, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

### 501 Invalid Jobid

**Explanation:** A Command was issued requesting JES to delete a job. The jobid was not specified or it was incorrectly specified.

**System Action:** FTP continues.

**User Response:** Reissue the command.

**System Programmer Response:** None.

---

### 501 Invalid user name '\*' in USER command

**Explanation:** The client attempted to log on to the FTP server with a user ID of \*. This is an incorrect user ID.

**System Action:** The user login is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the USER command with the correct user ID.

**System Programmer Response:** None.

---

---

**501 Member name too long. Use MVS naming conventions.**

**Explanation:** The LIST or NLST command was entered with a data set name and member name requested, but the member name was longer than the MVS maximum length of 8 characters.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the command with the correct member name syntax.

**System Programmer Response:** None.

---

**501 Mismatched quotes on directory name “*path name*”**

**Explanation:** A command was issued that started the pathname with a single quote while QUOTESOVERRIDE was TRUE. The FTP server expected a matching ending quote to be found at the end of the pathname, but no matching ending quote was found.

**System Action:** The command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the command with the corrected path name.

**System Programmer Response:** None.

---

**501 MKDIR fails: *reason***

**Explanation:** The MKD command was issued to create a new MVS PDS or a new HFS directory, but the path name specified contained only quotation marks with no data set name, had an HFS name larger than 1023 characters, or an MVS data set name longer than 44 characters.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Reissue the command with the data set name for the new PDS.

**System Programmer Response:** None.

---

**501 No directory name entered**

**Explanation:** The MKD command was entered to create a directory, or the RMD command was entered to delete a directory, but no directory was specified with the command.

**System Action:** The command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the MKD or RMD command, specifying a valid directory to be created or be deleted.

**System Programmer Response:** None.

---

**501 Nonexistent GDG data set *dsname***

**Explanation:** The relative generation number for the Generation Data Group (GDG) data set is invalid. The number should be a negative integer, a positive integer (for a store command only), or a 0, enclosed in parentheses.

**System Action:** FTP continues.

**User Response:** Reissue the command with a valid relative number for the data set.

**System Programmer Response:** None.

---

**501 One or more parameters missing from command *command***

**Explanation:** The server received a command from the client that was missing one or more parameters.

*command* is the command that was missing the expected parameters.

**System Action:** The server rejects *command*. FTP continues processing.

**User Response:** Report the error to the FTP client system programmer.

**System Programmer Response:** If the faulty command was generated as a result of incorrect parameters specified

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by the user, have the user execute the command again using correct parameters. If the faulty command was generated by the client software, report the error to the provider of the client software.

---

### 501 Partitioned data set may not be created within a partitioned data set

**Explanation:** The MKD command was entered to create a new PDS. The *path name* parameter was not in quotation marks, indicating that the path name should be appended to the current working directory; however, the current working directory was a partitioned data set, and a new partitioned data set cannot be created within the current working directory.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Either issue the CWD command to change the current working directory to a high-level qualifier rather than a PDS and then reissue the MKD command as before, or reissue the MKD command with the path name in quotation marks to prevent appending to the current working directory.

**System Programmer Response:** None.

---

### 501 Partitioned data set may not be deleted within a partitioned data set

**Explanation:** The RMD command was issued to delete a PDS. The path name specified with the RMD command was not in quotation marks, indicating that the path name should be appended to the current working directory to determine the name of the PDS to be deleted, but the current working directory was already a PDS and could not be appended to the path name.

**System Action:** The RMD command is rejected. Control returns to the client for further command processing.

**User Response:** Either issue a CWD command to change to current working directory and then issue the RMD command as before, or issue the RMD command with the fully qualified data set name in quotation marks to prevent the current working directory from being appended.

**System Programmer Response:** None.

---

### 501 password missing from PASS command

**Explanation:** The PASS command was issued to complete user log on, but no password was entered with the PASS command.

**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Reissue the USER and PASS commands, specifying a password with the PASS command.

**System Programmer Response:** None.

---

### 501 Pathname required with null working directory

**Explanation:** The LIST (DIR) or NLST (LS) command was entered with a blank pathname and the current working directory is null.

**System Action:** FTP continues.

**User Response:** If a listing of data sets is desired, enter a pathname with the command.

**System Programmer Response:** None.

---

### 501 Patterns (% and \*) may only be specified in the last qualifier when in directory mode

**Explanation:** The LIST or NLST command was entered with a path name that contained the global file-name characters % and \*. The global file-name characters were not in the last qualifier of the path name, and the MVS server was currently in directory mode. The global file-name characters can only be used in the last qualifier when the server is in directory mode.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Either correct the path name to have the global file-name characters in the last qualifier and reissue

the command in directory mode, or issue the SITE DATASETMODE command to change the server to data set mode and then reissue the LIST or NLST command as is.

**System Programmer Response:** None.

**501 Protection buffer size value is not valid**

**Explanation:** The server received a PBSZ specifying an invalid protection buffer size. The size must be a positive integer in the range of 512–32768.

**System Action:** The command fails. FTP continues.

**User Response:** Reissue the PBSZ command with a valid size.

**System Programmer Response:** None.

**501 Qualifier too long. Use MVS naming conventions.**

**Explanation:** A LIST or NLST command was entered with a data set name that contained a qualifier that was longer than the MVS maximum of 8 characters.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Correct the data set name and reissue the command.

**System Programmer Response:** None.

**501 RMDIR fails: *reason***

**Explanation:** The RMD command was issued to delete a PDS or an HFS directory, but the name contained only a set of quotation marks, no data set name, an HFS directory longer than 1023 characters, or an MVS data set longer than 44 characters.

**System Action:** The RMD command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the RMD command with the correct data set name.

**System Programmer Response:** None.

**501 Store unique not supported for GDG data sets.**

**Explanation:** The method of storing cannot be "store unique" when storing data in a Generation Data Group data set.

**System Action:** FTP continues.

**User Response:** Reissue the command after changing the storing method from store unique.

**System Programmer Response:** None.

**501 syntax error -- command required for OPTS**

**Explanation:** The server received an OPTS command from the client, but the OPTS command was not syntactically correct. See RFC 2389 for more information about the OPTS command. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs.

**System Action:** The OPTS command is ignored. Processing continues.

**User Response:** Issue the command again using the correct syntax.

**System Programmer Response:** None.

**501 Syntax error -- marker required for REST.**

**Explanation:** A restart (REST) command was received by the FTP server and there was no server marker at which the file transfer is to be restarted. The REST command must have a marker that is coordinated within the client program for a restart to occur.

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**Note:** The REST command should not be issued directly by the user.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Determine why the client program did not send the marker.

---

### 501 Syntax error -- pathname required for *command*

**Explanation:** The command specified was received with no name specified.

**System Action:** FTP continues.

**User Response:** Reissue the command with a name.

**System Programmer Response:** None.

---

### 501 too many bad passwords entered, PASS command disabled

**Explanation:** The PASS command was issued to complete log on to a user ID on the server system, but previous attempts to log in to this user ID with the incorrect password have caused the user ID to be locked out and log on for this user ID is no longer allowed.

**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** The FTP session must end and reconnected to reset the number of bad password attempts for the user ID.

**System Programmer Response:** None.

---

### 501 TYPE command contains invalid parameter

**Explanation:** A TYPE B command was issued, but one or more of the parameters specifying DBCS options is invalid or a TYPE U command was issued, but the big/little endian option was invalid.

**System Action:** The TYPE command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the TYPE command with corrected parameters. Refer to *z/OS Communications Server: IP User's Guide and Commands* for information on the parameters for the TYPE subcommand.

**System Programmer Response:** None.

---

### 501 TYPE command syntax error: *num* parameter invalid

**Explanation:** The TYPE command was issued by the client. The TYPE command should have the syntax `TYPE type {format opt1 opt2 opt3}` where each parameter is a single character. The FTP server determined that the value entered for parameter specified was not a single character. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information about transferring data using the file transfer protocol and the parameters of the TYPE command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Re-enter the TYPE command with the correct syntax.

**System Programmer Response:** None.

---

### 501 TYPE command syntax error: *reason*

**Explanation:** The TYPE command was issued by the client. The TYPE command should have the syntax `TYPE type {format opt1 opt2 opt3}` where each parameter is a single character. The FTP server determined that for the reason given was not a single character. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information about transferring data using the file transfer protocol and the parameters of the TYPE command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** Re-enter the TYPE command with the correct syntax.

**System Programmer Response:** None.

**501**            **Type remains** *type*

**Explanation:** The FTP server received an invalid TYPE command. The current data transfer type remains the type specified.

**System Action:** The FTP transfer data type is unchanged. Control returns to the client for further commands.

**User Response:** If you want to change the data transfer type, reissue the TYPE command with corrected parameters. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for information about valid TYPE parameters.

**System Programmer Response:** None.

**501-**            **Unknown mode** *new\_mode*.

**501**            **Data transfer mode remains** *old\_mode*

**Explanation:** The MODE command was entered to change the setting of MODE to *new\_mode*; but *new\_mode* was not a valid mode value.

**System Action:** The MODE command is rejected and control returns to the client for further command processing.

**User Response:** Reissue the MODE command with a valid value. Valid values are S (stream), B (block), or C (compressed).

**System Programmer Response:** None.

**501-**            **Unknown structure** *new\_stru*

**501**            **Data structure remains** *old\_stru*.

**Explanation:** The STRU command was entered to change the structure to *new\_stru*, but *new\_stru* was not a valid setting for the structure.

**System Action:** The STRU command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the STRU command with a valid value. Valid values are R (record structure) and F (file structure).

**System Programmer Response:** None.

**501-**            **unknown type** *type\_value*.

**Explanation:** The client entered the TYPE command to change the type setting to *type\_value*, but the server did not recognize the *type\_value* as a valid setting for TYPE.

**System Action:** The TYPE command is rejected. Control returns to the client for further commands.

**User Response:** Reissue the TYPE command with a valid TYPE value. For information about valid TYPE values, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

**501**            **User name missing from USER command**

**Explanation:** The client attempted to log on to the FTP server, but the name of the user ID to be logged in was missing from the USER command.

**System Action:** The user login is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the USER command with the appropriate user ID.

**System Programmer Response:** None.

---

**501 Wildcards not allowed in PDS name**

**Explanation:** The LIST or NLST command was issued requesting that members of a partitioned data set be listed. The name of the PDS contained one or more global file-name characters \* or %. When listing members of a PDS, global file-name characters are allowed only in the member name, not in the PDS name.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Correct the data set name and reissue the request.

**System Programmer Response:** None.

---

**502 command aborted -- server not configured for LANG**

**Explanation:** The server received a LANG command, but the server is not configured to support LANG.

**System Action:** The LANG command is ignored. Processing continues.

**User Response:** Report the error to the administrator of the FTP server.

**System Programmer Response:** If you want the server to support the LANG command, code EXTENSIONS UTF8 in the server's FTP.DATA file. See the *z/OS Communications Server: IP Configuration Reference* for more information about the EXTENSIONS statement.

---

**502 command aborted -- UTF-8 translation not available**

**Explanation:** The server received a command that cannot be supported unless UTF-8 translation is available to the server. The server has been configured for UTF-8 support, but the translation is not available. Either z/OS is not configured to support translation between the host page and UTF-8, or UTF-8 encoding has been disabled for this session. Any SITE command that affects the encoding of the control connection will disable UTF-8 for the remainder of the FTP session. See the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE command.

**System Action:** Processing continues.

**User Response:** Report the error to the system programmer.

**System Programmer Response:** Inspect SYSLOG output to determine whether the error is due to z/OS setup, or to the user issuing SITE commands that affect encoding on the control connection. See the *z/OS Communications Server: IP Configuration Guide* for more information about enabling UTF-8 encoding on the control connection, and the *z/OS Communications Server: IP User's Guide and Commands* for information about the SITE command.

---

**502 command *command* not implemented**

**Explanation:** The client entered the FTP command *command*, but the FTP server does not support this command.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** None.

**System Programmer Response:** None.

---

**502 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

---

**502 error in host address**

**Explanation:** The PORT command was issued by the client. When parsing the PORT command, the FTP server found an error.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** If the command was issued by the user, reissue the command with the correct syntax. If the command was issued automatically by the FTP client, contact the owner of the FTP client program for a possible programming error.

**System Programmer Response:** None.

---

**502 error in host address 'value'**

**Explanation:** The server received one of these commands containing a port number: EPRT or PORT.

*value* is the value of the port number parameter. The port number parameter is not valid.

The PORT command was issued by the client. The PORT command should have the syntax PORT *h1, h2, h3, h4, p1, p2* where *h1—h4* are integers that make up the host address and *p1* and *p2* are integers that make up the port address. When parsing the PORT command, the FTP server found a nonnumeric character in one of the 4 integers that make up the host address.

The EPRT command should have the syntax EPRT <d><net-prt><d><net-addr><d><tcp-port> where:

<d> is a delimiter character.

<net-prt>  
is the network protocol.

<net-addr>  
is the network address.

<tcp-port>  
is the port number.

When parsing the EPRT command, the FTP server could not parse the *tcp-port* parameter.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** If the command was issued by the user, reissue the command with the correct syntax. If the command was issued automatically by the FTP client program, contact the owner of the FTP client program for a possible programming error in the client program.

**System Programmer Response:** None.

---

**502 error in port number**

**Explanation:** The PORT command was issued by the client. When parsing the PORT command, the FTP server found an error.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** If the command was issued by the user, reissue the command with the correct syntax. If the command was issued automatically by the FTP client, contact the owner of the FTP client program for a possible programming error.

**System Programmer Response:** None.

---

**502 error in port number 'value'**

**Explanation:** The server received one of these commands containing a port number: EPRT or PORT.

*value* is the value of the port number parameter. The port number parameter is not valid.

The PORT command was issued by the client. The PORT command should have the syntax PORT *h1,h2,h3,h4,p1,p2* where *h1—h4* are integers that make up the host address and *p1* and *p2* are integers that make up the port address.

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When parsing the PORT command, the FTP server found a nonnumeric character in one of the 2 integers that make up the port address.

| The EPRT command should have the syntax EPRT <d><net-prt><d><net-addr><d><tcp-port> where:

| <d> is a delimiter character.

| <net-prt>

| is the network protocol.

| <net-addr>

| is the network address.

| <tcp-port>

| is the port number.

| When parsing the EPRT command, the FTP server could not parse the *tcp-port* parameter.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** If the command was issued by the user, reissue the command with the correct syntax. If the command was issued automatically by the FTP client program, contact the owner of the FTP client program for a possible programming error in the client program.

**System Programmer Response:** None.

---

### 502 error parsing *command\_name* command

| **Explanation:** The client sent a command to the FTP server. An error occurred when the FTP server attempted to parse the command and its arguments.

| *command\_name* is the name of the command that could not be parsed.

| **System Action:** The server rejects the *command\_name* command.

| **User Response:** Report the error to the system programmer.

| **System Programmer Response:** Inspect the command that the server rejected. If the command is syntactically valid, activate the FTP server trace, re-create the problem, save the system log for problem determination, and report the problem to IBM. Otherwise, report the error to the provider of the FTP client software.

---

### 502 PORT command syntax error - insufficient digits in host-port

**Explanation:** The PORT command was issued by the client. The PORT command should have the syntax PORT *h1,h2,h3,h4,p1,p2* where *h1—h4* are the 4 integers that make up the host address and *p1* and *p2* are the 2 integers that make up the port address. When parsing the PORT command, the FTP server did not find a total of 6 integer values to make up the host address and port address.

**System Action:** The command is rejected. Control is returned to the client for further command processing.

**User Response:** If the command was issued by the user, reissue the command with the correct syntax. If the command was issued automatically by the FTP client program, contact the owner of the FTP client program for a possible programming error in the client program.

**System Programmer Response:** None.

---

### 503 Authentication already established

**Explanation:** The server received an ADAT command but authentication has already been successfully negotiated.

**System Action:** The command fails. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**503 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**503 EPSV ALL received - command not allowed after EPSV ALL.**

**Explanation:** The client sent *command* to the server. Previously during the login session, the client sent an EPSV ALL command to the server. *command* is not allowed after an EPSV ALL command has been sent to the server.

**System Action:** FTP rejects *command*. The FTP server continues processing commands from the client.

**User Response:** If you must use *command*, exit the current session and log in to the FTP server again. Do not issue EPSV ALL before issuing *command*.

**System Programmer Response:** None.

---

**503 Must first establish authentication**

**Explanation:** The server received a command that is not valid unless the client and server successfully negotiated authentication, but authentication was not successfully negotiated.

**System Action:** The command fails. FTP continues.

**User Response:** Issue an AUTH command and reissue the failing command. See RFC 2228 for more information about the OPTS command. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Programmer Response:** None.

---

**503 Must first issue PBSZ**

**Explanation:** The server received a command that is not valid unless a PBSZ command was previously received, but a PBSZ command was not received.

**System Action:** The command fails. FTP continues.

**User Response:** Issue a PBSZ command and reissue the failing command. See RFC 2228 for more information about the OPTS command. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Programmer Response:** None.

---

**503 Must issue AUTH command before ADAT command**

**Explanation:** The server received an ADAT command but had not previously received an AUTH command. An AUTH command must always precede an ADAT command.

**System Action:** The command fails. FTP continues.

**User Response:** Issue an AUTH command and reissue the ADAT command. See RFC 2228 for more information about the OPTS command. See Appendix A, “Related protocol specifications (RFCs)” on page 531 for information about accessing RFCs.

**System Programmer Response:** None.

---

---

**503 PASS command must be preceded by USER**

**Explanation:** The PASS command was entered to complete log on of a user ID on the server system, but the USER command has not been issued to specify which user ID to log in to. The USER command must be issued to specify the user ID before the PASS command can be issued.

**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Issue the USER command to specify the user ID of the server system to log in to, then reissue the PASS command with the password for this user ID.

**System Programmer Response:** None.

---

**503 Server on the TLS secure port does not accept the AUTH command**

**Explanation:** The FTP client program connected to an FTP server that is running on the TLS secure port 990. The FTP server assumes that all connections are protected by the TLS security mechanism and that an AUTH command is not needed to initiate a TLS handshake.

**System Action:** FTP continues.

**User Response:** Close the connection to the FTP server and reconnect without sending an AUTH command.

**System Programmer Response:** None.

---

**504 Block mode not implemented for type B.**

**Explanation:** The data type B (double Byte) is not supported while in block transmission mode.

**System Action:** FTP continues.

**User Response:** Either change to mode s (stream) or change the data type to EBCDIC and reissue the command.

**System Programmer Response:** None.

---

**504 command *command* aborted -- FTP server not configured for parameter *parameter*.**

**Explanation:** The client issued a command to the FTP server. The FTP server implements the command but is configured to reject commands with the specified parameter.

*command* is the command the client sent to the server.

*parameter* is the *command* parameter rejected by the server.

When *command* is EPRT, the PORTCOMMANDPORT or PORTCOMMANDIPADDR statement in FTP.DATA is coded to reject *parameter*.

**System Action:** The command is rejected.

**User Response:** Report the error to the FTP server installation system programmer.

**System Programmer Response:** If you want your FTP server to support the combination of *command* and *parameter*, code statements in FTP.DATA to enable this support. Refer to the *z/OS Communications Server: IP Configuration Reference* for information about enabling *command* and *parameter* support for your FTP server.

---

**504 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

---

**504 Compress mode not implemented for type B.**

**Explanation:** The data type B (double Byte) is not supported while in compress transmission mode.

**System Action:** FTP continues.

**User Response:** Either change to mode s (stream) or change the data type to EBCDIC and reissue the command.

**System Programmer Response:** None.

---

**504 Data structure remains *old\_stru*.**

**Explanation:** The STRU command was entered to change the structure to PAGE, but PAGE structure is not supported by the FTP server.

**System Action:** The STRU command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the STRU command with a valid value. Valid values are R (record structure) and F (file structure).

**System Programmer Response:** None.

---

**504 Error - existing kanji type invalid**

**Explanation:** The FTP server received an invalid TYPE command. The current data transfer type is for a DBCS data type, but an internal error occurred and the current data type is no longer valid.

**System Action:** The FTP connection with the client ends.

**User Response:** Reconnect to the FTP server and issue the desired TYPE command. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*. If this reply is received repeatedly, make a note of the last few FTP commands you have issued that cause this result, and contact your system programmer

**System Programmer Response:** Contact the IBM Support Center with output from the FTP server trace, if available.

---

**504 Error - existing type invalid**

**Explanation:** The FTP server received an invalid TYPE command. FTP tried to continue with the current data transfer type, but an internal error occurred and the current data type is no longer valid.

**System Action:** The FTP connection with the client ends.

**User Response:** Reconnect to the FTP server and issue the desired TYPE command. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*. If this reply is received repeatedly, make a note of the last few FTP commands you have issued that cause this result, and contact your system programmer

**System Programmer Response:** Contact the IBM Support Center with output from the FTP server trace, if available.

---

**504 filetype SQL requires type A or E**

**Explanation:** The FTP server received a request to transfer a file. The current FTP filetype is SQL, and the current data transfer type is neither ASCII (A) nor EBCDIC (E).

**System Action:** FTP continues.

**User Response:** From the FTP client, change either the current filetype or the current data transfer mode. For information on changing the filetype and data transfer mode for the z/OS client, see the *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

---

**504 Lrecl X transfer not supported with *condition***

**Explanation:** A GET was issued for a data set with lrecl X and an incorrect condition was detected.

*condition* is one of the following:

- MODE C — Compressed Mode.
- TYPE U 2 — Data type U 2.
- FILETYPE=SQL — SQL.
- NOASATRANS — NOASATRANS cannot be specified with lrecl X w/ASA.
- STRUCT R — Record structure.

**System Action:** The request is rejected. FTP continues.

**User Response:** Retrieve the lrecl X data set using the correct FILETYPE, MODE, STRUCT, TYPE, or ASATRANS setting.

**System Programmer Response:** None.

---

**504 Lrecl X transfer not supported with Record I/O**

**Explanation:** A GET was issued for a data set with lrecl X and Record I/O was requested. The condition is unexpected.

**System Action:** The request is rejected. FTP continues.

**User Response:** Contact your system programmer.

**System Programmer Response:** Collect an FTP Server trace that includes the failure and call the IBM Support Center.

---

**504 NOASATRANS is not supported for TYPE U. Use 'SITE ASATRANS'**

**Explanation:** You attempted to get a data set when ASA control characters were being converted to C control characters and the transfer type is Unicode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Turn on ASA control character transfer (SITE ASATRANS)

**System Programmer Response:** None.

---

**504 Only local byte size allowed is 8**

**Explanation:** The client entered the TYPE command with a parameter of "L byte\_size" to change the type setting to the specified local byte size. The byte\_size specified by the command was a value other than 8, but the only local byte size supported by the server is 8.

**System Action:** The TYPE command is rejected. Control returns to the client for further commands.

**User Response:** Reissue the TYPE command with a valid local byte size.

**System Programmer Response:** None.

---

**504- Only 'TYPE U 2' is supported**

**Explanation:** The client entered the TYPE command in the format "TYPE type\_value *format*" to change the type setting, but the *format* specified was not recognized by the FTP server.

**System Action:** The TYPE command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the TYPE command with a valid format value. For information about valid parameters for the TYPE command, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

---

**504- Page structure not implemented**

**Explanation:** The STRU command was entered to change the structure to PAGE, but PAGE structure is not supported by the FTP server.

**System Action:** The STRU command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the STRU command with a valid value. Valid values are R (record structure) and F (file structure).

**System Programmer Response:** None.

---

**504 parameter *parameter* not supported**

**Explanation:** The server received a command with a parameter, *parameter*, it does not support.

**System Action:** FTP continues.

**User Response:** Issue the command again with a valid parameter.

**System Programmer Response:** None.

---

**504 Port command not implemented for that parameter**

**Explanation:** User attempted port command using incorrect parameters.

The FTP client sent a PORT command to the server. The server is configured to reject PORT commands with the parameter that you specified.

**System Action:** The request is rejected. FTP continues.

**User Response:** Contact system programmer.

**System Programmer Response:** See the *z/OS Communications Server: IP Configuration Reference* for information about configuring your server to reject PORT commands with the PORTCOMMAND, PORTCOMMANDIPADDR, and PORTCOMMANDPORT statements. Correct the server configuration as appropriate for your installation. Advise users of any restrictions you have placed on the PORT command parameters.

---

**504 Record structure is not supported for TYPE U transfer**

**Explanation:** You attempted to get a data set while the data structure is defined as Record and the transfer type is Unicode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the data structure to File (STRUCT F)

**System Programmer Response:** None.

---

**504 Restart not allowed with active security mechanism**

**Explanation:** The connection to the FTP server is protected by a security mechanism (for example, TLS). While the connection is protected, the restart of a failed data transfer is not allowed.

**System Action:** FTP continues.

**User Response:** The following are the possible responses:

- Reissue the data transfer command to transfer all of the data of file.
- Close the connection, reconnect without a security mechanism in place, and then issue the restart command.

**System Programmer Response:** None.

---

## 504

---

### 504 restart is not supported for type *type*

**Explanation:** You attempted to restart a data transfer command. Restart is not supported for the current data type. *type* is the current data type setting.

**System Action:** The data transfer is not resumed. FTP continues.

**User Response:** If *type* was the data type in use during the file transfer you want to resume, you will not be able to resume the file transfer. Issue the original data transfer command to transmit the file. Otherwise, set the data type to the value in effect during the file transfer you want to resume; then try to restart the data transfer.

**System Programmer Response:** None.

---

### 504 Restart not allowed for store unique.

**Explanation:** A restart (REST) command was received by the FTP server and the storage method is "store unique." This combination is not allowed for a restarted store operation.

**System Action:** FTP continues.

**User Response:** Change from store unique method and reissue the restart command.

**System Programmer Response:** None.

---

### 504 Restart requires Block or Compressed transfer mode.

**Explanation:** You attempted to restart a checkpointed data transfer command and the transfer mode is not block or compressed.

**System Action:** The data transfer command is not restarted. FTP continues.

**User Response:** Change the transfer mode to block or compressed and re-enter the restart command.

**System Programmer Response:** None.

---

### 504 Restart requires EBCDIC data type.

**Explanation:** You attempted to restart a checkpointed data transfer command and the data type is not EBCDIC.

**System Action:** The data transfer command is not restarted. FTP continues.

**User Response:** Change the data type to EBCDIC and re-enter the restart command.

**System Programmer Response:** None.

---

### 504 Restart requires filetype=SEQ.

**Explanation:** You attempted to restart a checkpointed data transfer command and the filetype is not SEQ.

**System Action:** The data transfer command is not restarted. FTP continues.

**User Response:** Change the filetype to SEQ and re-enter the restart command.

**System Programmer Response:** None.

---

### 504 Server does not understand the specified mechanism

**Explanation:** The AUTH command specified a security mechanism name that is too long for the FTP server to process. The security mechanism names supported by the FTP server are GSSAPI and TLS. TLS support can also be requested with a mechanism name of TLS-C, TLS-P, or SSL.

**System Action:** FTP continues.

**User Response:** Reissue the AUTH command with one of the supported security mechanism names.

**System Programmer Response:** None

---

---

**504 Server does not understand the specified protection level**

**Explanation:** The PROT command has requested a data protection level that is unknown to the FTP server. The request to set the level is rejected. The level specified on the command must be one character long. The following are the valid level names:

**C** Clear  
**P** Private  
**S** Safe

**System Action:** FTP continues.

**User Response:** Reissue the PROT command with one of the valid level names.

**System Programmer Response:** None.

---

**504 STAT file-identifier: not implemented**

**Explanation:** The STAT subcommand was entered with the file-identifier parameter. The file-identifier parameter of the STAT subcommand is not supported by the FTP server.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**504 Stream mode restart not supported for MVS data sets**

**Explanation:** The FTP server received a request to restart transmission of an MVS data set. The current data transmission mode is Stream. Stream mode restart is not supported for MVS data sets.

**System Action:** The restart request is ignored. Processing continues.

**User Response:** If stream mode was in use during the file transfer you want to resume, you will not be able to resume the file transfer. Issue the original data transfer command to transmit the file. Otherwise, set the mode to the value in effect during the file transfer you want to resume; then try to restart the data transfer.

**System Programmer Response:** None.

---

**504 Struct R implemented with stream mode only.**

**Explanation:** You attempted to get or store a data set while the data structure is defined as record and the transfer mode is not stream mode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the transfer mode to stream (MODE S) or change the data structure to file (STRU F).

**System Programmer Response:** None.

---

**504 Transfer of RDWs is not supported for TYPE U. Use 'SITE NORDW'**

**Explanation:** You attempted to get a data set while RDWs for variable format data sets were retained as data and the transfer type is Unicode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the RDW setting (SITE NORDW)

**System Programmer Response:** None.

---

---

**504 Transfer of trailingblanks is not supported for TYPE U. Use 'SITE NOTRILINGBLANKS'**

**Explanation:** You attempted to get a data set while trailing blanks were retained for fixed format data set and the transfer type is Unicode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Turn off trailing blanks (SITE NOTRILINGBLANKS)

**System Programmer Response:** None.

---

**504- TYPE command contains extraneous parameter *parm***

**Explanation:** The FTP server received an invalid TYPE command. The TYPE command contained too many parameters.

**System Action:** The FTP transfer data type is unchanged. Control returns to the client for further commands.

**User Response:** If you want to change the data transfer type, reissue the TYPE command with corrected TYPE parameters. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

**504- TYPE has unknown format *format*.**

**Explanation:** The FTP server received an invalid TYPE command. The transfer type shown remains.

**System Action:** The FTP transfer data type is unchanged. Control returns to the client for further commands.

**User Response:** If you want to change the data transfer type, reissue the TYPE command with corrected TYPE parameters. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

**504- TYPE has unsupported format *format***

**Explanation:** A TYPE A or TYPE E command was received by the FTP server, but format *format* is not supported. The only format parameter supported is N (Non-Print), which is also the default.

**System Action:** The TYPE command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the corrected TYPE command.

**System Programmer Response:** None.

---

**504- TYPE not Supported. Translation table not Loaded.**

**Explanation:** A TYPE B command was received for a DBCS language, but the required DBCS translation table is not available to the FTP server.

**System Action:** The TYPE command is rejected. Control returns to the client for further command processing.

**User Response:** Contact the system programmer at the server system to get the necessary DBCS tables loaded.

**System Programmer Response:** Ensure that the TCP/IP.DATA file contains a LOADDBCSTABLES statement that correctly specifies the DBCS languages whose translation tables are to be loaded. For information about the LOADDBCSTABLES parameters, see *z/OS Communications Server: IP Configuration Reference*. If the TCP/IP.DATA file is changed, the FTP server must be restarted to recognize the change.

---

**504- Type not supported. Unable to load *lang* translation tables.**

**Explanation:** The FTP server received a TYPE B command but an error occurred when the server tried to load the required translation tables for this client.

**System Action:** The TYPE command is rejected. Control returns to the client for further commands.

**User Response:** Contact the system programmer for the FTP server's system.

**System Programmer Response:** Look in the system log for the FTP server for message EZY2721E or EZY2722E. Probable causes of the problem include unable to open the file containing the translation tables, insufficient storage available for the translate tables, or the file format is invalid.

**504**      **Type remains** *type*

**Explanation:** The FTP server received an invalid TYPE command. The transfer type shown remains.

**System Action:** The FTP transfer data type is unchanged. Control returns to the client for further commands.

**User Response:** If you want to change the data transfer type, reissue the TYPE command with corrected TYPE parameters. For information about valid TYPE parameters, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

**504**      **TYPE U transfer is not supported for filetype** *type*

**Explanation:** You attempted to get a data set while the file type was not SEQuential and the transfer type was Unicode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the file type to SEQuential (SITE FILETYPE=SEQ)

**System Programmer Response:** None.

**504**      **TYPE U transfer is not supported in mode** *mode*

**Explanation:** You attempted to get a data set while the transfer type is defined as Unicode and the transfer mode is not stream mode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the transfer mode to stream (MODE S)

**System Programmer Response:** None.

**504**      **TYPE U transfer is supported only for filetype** **SEQ**

**Explanation:** You attempted to get a data set while the transfer type is defined as Unicode and the filetype is not sequential.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the filetype to SEQ (SITE FILETYPE=SEQ)

**System Programmer Response:** None.

**504**      **TYPE U transfer is supported only in stream** **mode**

**Explanation:** You attempted to get a data set while the transfer type is defined as Unicode and the transfer mode is not stream mode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the transfer mode to stream (MODE S)

**System Programmer Response:** None.

**504-**      **Unable to set up conversion between UCS-2 and** *codeset*

**Explanation:** The FTP server was unable to setup a conversion between UCS-2 and EBCDIC or EBCDIC and UCS-2 when TYPE U 2 was received.

**System Action:** The FTP transfer data type is unchanged. Control returns to the client for further commands.

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**User Response:** If you want to change the data transfer type, issue the SITE UCSHOSTCS command to change the EBCDIC codeset and reissue the TYPE command. For information about UCSHOSTCS, see *z/OS Communications Server: IP User's Guide and Commands*.

**System Programmer Response:** None.

---

### 504 Unknown authentication type *mechname*

**Explanation:** The AUTH command specified a security mechanism name that is unknown to the FTP server. The security mechanism names supported by the FTP server are GSSAPI and TLS. TLS support can also be requested with a mechanism name of TLS-C, TLS-P, or SSL.

*mechname* is the name of the security mechanism specified on the AUTH command.

**System Action:** FTP continues.

**User Response:** Reissue the AUTH command with one of the supported security mechanism names.

**System Programmer Response:** None.

---

### 504 WRAPRECORD is not supported for TYPE U. Use 'SITE NOWRAPRECORD'

**Explanation:** You attempted to get a data set when record wrapping was on and the transfer type is Unicode.

**System Action:** The request is rejected. FTP continues.

**User Response:** Turn off record wrapping (SITE NOWRAPRECORD)

**System Programmer Response:** None.

---

### 509 cannot convert pathname to native character set

**Explanation:** The server attempted to convert a command received on the control connection to the host character set. The conversion failed. The client might be using an encoding not supported by the FTP server.

**System Action:** The control connection is ended.

**User Response:** Report the error to the administrator of the FTP server.

**System Programmer Response:** Inspect the SYSLOG trace for more information about the error.

---

### 521 command terminated due to server shutdown in progress

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

### 521 "*new\_directory*" data set already exists

**Explanation:** The MKD command was entered to create a new PDS with the name *new\_directory*, but a data set with that name already exists at the server system.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Change the name of the *new\_directory* to a unique name and reissue the MKD command.

**System Programmer Response:** None.

---

---

**522 command PORT not allowed with this session - current protocol is not IPv4.**

**Explanation:** The FTP client sent a PORT command to the z/OS FTP server. The PORT command is not appropriate for the current session because the session protocol is not IPv4. The FTP client might send such a command to the server if the user is trying to proxy transfer files between two servers, and the two servers are known to the client by IP addresses of different protocol families. Even a z/OS FTP server with both IPv4 and IPv6 interfaces will not accept a PORT command if the client logged in to that server with an IPv6 IP address.

**System Action:** The FTP server rejects the PORT command. The server waits for the next FTP command.

**User Response:** If you received this reply while attempting a proxy transfer of data between two servers, and the proxy transfer failed subsequent to this reply, try the strategies listed below. If you received this reply under any other circumstance, report the error to the system programmer.

- Log in to the FTP servers as before, but reverse the order in which you log in to those servers. Try the proxy transfer again. The strategy is to reverse the roles of the FTP servers from the client's perspective so that the FTP client sends PORT or EPRT to the other FTP server.
- Log in to each server again by specifying server IP addresses of the same protocol family, and try the proxy transfer again. If you know the servers only by DNS names, ask the system programmer what the server IP addresses are. If both servers are z/OS FTP servers, this is the only way to successfully proxy transfer files.
- If neither of the above strategies succeeds, you cannot proxy transfer files directly between the servers. Transfer the file first to the client, then from the client to the other server.

**System Programmer Response:** If the user is attempting proxy transfer between two FTP servers, verify that the user correctly attempted the strategies in the **User or Operator Response**. Otherwise, report the error to the provider of the FTP client software.

---

**522 network protocol *netprt\_specified* not consistent with this session. Use *netprt\_allowed*.**

**Explanation:** The FTP client sent an EPRT command to the z/OS FTP server to establish a data connection. The network protocol specified on the EPRT command is not allowed for the current session because it is not the same protocol the client used to log in to FTP.

*netprt\_specified* is the network protocol address family number specified on the EPRT command.

*netprt\_allowed* is the network protocol address family number allowed for the current session.

Address family (AF) numbers correspond to protocols supported by the FTP server. The address family numbers are defined in RFC 1700. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs. The FTP server might return one of these values:

**AF number**

**Protocol**

- |   |                             |
|---|-----------------------------|
| 1 | Internet Protocol Version 4 |
| 2 | Internet Protocol Version 6 |

The z/OS FTP server supports both IPv4 and IPv6, but the EPRT command is not allowed to specify a protocol different from that used for the current session. An FTP client may send such a command when the user is attempting proxy transfer between two servers known to the client by IP addresses of different protocol families.

**System Action:** The FTP server rejects the EPRT command. Processing continues.

**User Response:** If you received this reply while attempting a proxy transfer of data between two servers, and the file transfer failed subsequent to this reply, try one of the strategies listed below. If you received this reply under any other circumstance, report the error to the system programmer.

- Log in to the FTP servers as before, but reverse the order in which you log in to those servers. Try the proxy transfer again. The strategy is to reverse the roles of the FTP servers from the client's perspective so that the FTP client sends PORT or EPRT to the other FTP server.
- Log in to each server again by specifying server IP addresses of the same protocol family, and try the proxy transfer again. If you know the servers only by DNS names, ask the system programmer what the server IP addresses are. If both servers are z/OS FTP servers, this is the only way to successfully proxy transfer files.
- If neither of the above strategies succeeds, you cannot proxy transfer files directly between the servers. Transfer the file first to the client, then from the client to the other server.

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| **System Programmer Response:** If the user is attempting proxy transfer, verify that the user correctly attempted the strategies described under **User or Operator Response**. Otherwise, report the error to the provider of the FTP client software.

---

### | 522 Network protocol not supported. Use (*supported\_protocols*)

| **Explanation:** The FTP client sent a command to the FTP server to establish a data connection. The FTP server does not support the network protocol that the FTP client specified.

| If you specify a network protocol on the EPSV command, that network protocol must match the protocol used for the control connection.

| *supported\_protocols* is an address family number, or a list of address family numbers, corresponding to protocols supported by the FTP server. The address family numbers are defined in RFC 1700. See Appendix A, "Related protocol specifications (RFCs)" on page 531 for information about accessing RFCs. The FTP server might return one or both of the following values:

Address family number	Protocol
-----------------------	----------

1	Internet Protocol Version 4
---	-----------------------------

2	Internet Protocol Version 6
---	-----------------------------

| The FTP server supports connections over both IPv6 and IPv4 connections at once, but the z/OS system configuration might limit its support to only one of them.

| **System Action:** The current command is rejected by the FTP server. FTP processing continues.

| **User Response:** Issue the commands again, using one of the protocols specified in *supported\_protocols*.

| **System Programmer Response:** None.

---

### | 522 No IPv4 address available for PASV. Use EPSV.

| **Explanation:** The client sent a PASV command to the FTP server to establish a data connection. An affirmative PASV reply must include the server's local IPv4 address. The server cannot reply affirmatively to PASV because it has no local IPv4 address for the PASV reply.

| Some FTP clients recover automatically from this situation by sending an EPSV, EPRT, or PORT command to establish the data connection.

| **System Action:** The server rejects the PASV command. The FTP server processing continues.

| **User Response:** If the client recovered from the error by using a different command to establish the data connection, no further action is needed. Otherwise, report the error to the system programmer.

| **System Programmer Response:** Choose one of these solutions:

- Configure the FTP client to use EPSV instead of PASV when establishing a passive data connection.
- Configure the client to use PORT instead of PASV to establish a data connection (the client must have an IPv4 address that is reachable from the FTP server).
- If the server has an IPv4 address and an IPv6 address, specify the server's IPv4 address when logging in to FTP.

| If none of these solutions is feasible, report the error to the provider of the FTP client software.

---

## 530- A load was done from an uncontrolled library

**Explanation:** The client entered the PASS command. The `__passwd` function issued by the FTP server failed, indicating that this function is not supported in an address space where a load was done from an uncontrolled library.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** Ensure that programs being loaded from this address space are defined as

program controlled. A corresponding ICH420I message is issued identifying the uncontrolled library where the load was done.

### 530- An MVS environmental or internal error occurred

**Explanation:** The client entered the PASS command. The setgroups function issued by the FTP server failed indicating an MVS environmental or internal error occurred.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** There was a MVS internal error. A previous 530 reply should contain the reason code. This reason code will give further information about the setgroups failure.

### 530- Anonymous login with security protected session requires anonymousLevel > 2

**Explanation:** The connection to the FTP server is protected by a security mechanism. Anonymous logins are supported by the FTP server for protected sessions only when the FTP.DATA file statement ANONYMOUSLEVEL has a parameter that is greater than two.

**System Action:** The anonymous login fails.

**User Response:** Contact the system programmer with the error.

**System Programmer Response:** To allow anonymous logins with an active security mechanism, give the ANONYMOUSLEVEL statement in FTP.DATA a parameter value greater than two. See the *z/OS Communications Server: IP Configuration Reference* for information about the ANONYMOUSLEVEL statement.

### 530 Closing control connection

**Explanation:** The client was attempting to log in to the FTP server as an anonymous user. The login was rejected after the root directory was changed for the anonymous login. It is now impossible to do a change directory to any other directory. The connection is severely limited and therefore the control connection is closed by the server.

**System Action:** Login as an anonymous user is rejected. The control connection ends.

**User Response:** The client program must issue an OPEN command to establish a new connection to the FTP server.

**System Programmer Response:** None.

### 530 command terminated due to server shutdown in progress

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

### 530- Current user *current user* remains logged in.

**Explanation:** The client was attempting to issue the FTP USER subcommand to change the login identity from *current user* to a new user login. The FTP server rejected the switch because FTP.DATA specifies ANONYMOUSLEVEL 3, which enables enhanced security checks.

**System Action:** The USER command is rejected. The FTP client is still logged in as user *current user*. Control is returned to the client for further command processing.

**User Response:** Issue the FTP CLOSE subcommand to end the session with the FTP server. Then issue the FTP OPEN subcommand to reinitialize the connection. Then log in as user *new user*.

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**System Programmer Response:** None.

---

### 530- email address rejected by user exit

**Explanation:** The FTP server is running with the user exit FTCHKPWD. The client was attempting to log in to the FTP server as an anonymous user and was prompted for an e-mail address. The user exit does not allow the user to access the FTP server with the e-mail address that was entered.

**System Action:** FTP continues. The client login is rejected.

**User Response:** Contact the owner of the FTP server to have the e-mail address authorized in the FTCHKPWD user exit.

**System Programmer Response:** If necessary, update the FTCHKPWD user exit to authorize the e-mail address.

---

### 530- Error on *func* function call, *errno*= *errno*, *rsncode*= *errnojr*

**Explanation:** The client entered the USER and PASS commands to log in to the FTP server. While validating the user ID and password of the client, a function issued by the FTP server failed.

*func* is the function call that failed.

*errno* is the z/OS UNIX System Services Return Code. These return codes are listed and described in the *z/OS UNIX System Services Messages and Codes*.

*errnojr* is the hexadecimal UNIX System Services Reason Code. The format of the 4-byte Reason Code is explained in the introduction to the Reason Code section of the *z/OS UNIX System Services Messages and Codes*, where the Reason Codes are listed.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer with the *func*, *errno* and *errnojr* values.

**System Programmer Response:** Correct the error indicated by *func*, *errno* and *errnojr*.

---

### 530 error processing PASS command : *error*

**Explanation:** The client entered the USER and PASS commands to log in to the FTP server. The FTP server encountered an error attempting to setup the OMVS environment for the requested user ID.

*error* is the error message returned by the C run-time library.

**System Action:** The login to the FTP server is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** Correct the error indicated by *error*. A previous 530 reply should contain further information in the reason code field.

---

### 530 Excessive bad passwords entered - USER command disabled

**Explanation:** The client attempted to log on to the FTP server system, but the user ID being used by the client had too many login attempts that were specified with an incorrect password and this user ID was disabled.

**System Action:** The user login is rejected. Control returns to the client for further command processing.

**User Response:** The FTP session must end and reconnected to reset the number of bad password attempts.

**System Programmer Response:** None.

---

### 530- Initial filetype *file\_type* is disabled for anonymous.

**Explanation:** The client was attempting to log into the FTP server as user ID anonymous. The FTP server rejected the login because FTP.DATA specified a FILETYPE value, *file\_type*, which was disabled for anonymous login users.

**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer of the server system.

**System Programmer Response:** If necessary, update FTP.DATA to contain consistent specifications for FILETYPE and ANONYMOUSFILETYPEJES, ANONYMOUSFILETYPESEQ, and ANONYMOUSFILETYPESQL.

### 530- Internal processing error

**Explanation:** The client entered the PASS command. The \_\_passwd function issued by the FTP server failed, indicating that an internal processing error occurred.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** There was a SAF/RACF error. A previous 530 reply should contain the reason code. This reason code contains the RACF return and reason codes, respectively.

### 530 Login attempt by *user ID* rejected by user exit

**Explanation:** The FTP server is running with the user exit FTCHKPWD. The user exit does not allow the user ID to access the FTP server.

**System Action:** FTP continues. The client login is rejected.

**User Response:** Contact the owner of the FTP server to have the user ID authorized in the FTCHKPWD user exit.

**System Programmer Response:** If necessary, update the FTCHKPWD user exit to allow the user ID to access the server.

### 530 Logon attempt by '*user\_id*' rejected.

**Explanation:** The FTP server could not successfully validate the user's user ID and password. The user login is rejected.

**System Action:** The user login is rejected. FTP continues.

**User Response:** This reply is preceded by a reply that indicates the reason for the failure. Correct the error indicated by the preceding reply. If necessary, contact the system programmer for the appropriate security authorization to access the FTP server.

**System Programmer Response:** If necessary, authorize the user to access the FTP server.

### 530 new password format invalid

**Explanation:** The PASS command was issued using the format old\_password/new\_password/new\_password to change the password of the user ID, but the second "/" could not be found in the password entered with the PASS command.

**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Reissue the USER and PASS commands, using the correct format of the "old\_password/new\_password/new\_password" on the PASS command.

**System Programmer Response:** None.

### 530 new passwords are not the same

**Explanation:** The PASS command was issued using the format old\_password/new\_password/new\_password to change the password of the user ID, but the second "new password" was not identical to the first "new password". Both "new passwords" must be the same.

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**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Reissue the USER and PASS commands, using the same password for both occurrences of "new password."

**System Programmer Response:** None.

---

### 530 Not logged in.

**Explanation:** A command was issued to request a service from the FTP server, but the client was not currently logged in to a valid user ID for the server system. The command entered required the user to be logged in to a valid user ID.

**System Action:** The command is rejected. Control returns to the client for further command processing.

**User Response:** Log on to a valid user ID for the server system using the USER and PASS commands, then reissue the command. See the *z/OS Communications Server: IP User's Guide and Commands* for more information.

**System Programmer Response:** None. retrieve, store\_data

---

### 530- Number of groups exceeds the maximum number allowed

**Explanation:** The client entered the PASS command. The setgroups function issued by the FTP server failed, indicating that the number of supplementary groups for the specified user plus the basegid group exceeds the maximum number of groups allowed, or an invalid user is specified.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer to determine which supplementary groups your user ID is connected to.

**System Programmer Response:** Ensure that the user ID being used to log in to the FTP server is not connected to more than 300 supplementary groups.

---

### 530 PASS command failed

**Explanation:** The client entered the USER and PASS commands to log in to the FTP server. While validating the user ID and password of the client, a function issued by the FTP server failed. See the previous 530 reply information for details.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** A previous 530 reply should contain further information in the reason code field.

---

### 530 PASS command failed - getpwnam() error : error

**Explanation:** The client entered the USER and PASS commands to log on to the FTP server. While validating the user ID and password of the client, the getpwnam() function issued by the FTP server to obtain the OMVS information about the user ID failed.

*error* is the error message returned by the C run-time library for the getpwnam() function.

**System Action:** The login to the FTP server is denied. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** Correct the error indicated by *error*. A previous 530 reply should contain further information in the reason code field.

---

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**530**      **PASS command failed - `_passwd()` error : *error***

**Explanation:** The client entered the USER and PASS commands to log on to the FTP server. While validating the user ID and password of the client, the `_passwd()` function issued by the FTP server to obtain the OMVS information about the user ID failed.

*error* is the error message returned by the C run-time library for the `_passwd()` function.

**System Action:** Login to the FTP server is denied.

**User Response:** Contact the system programmer.

**System Programmer Response:** Correct the error shown in the reply code.

---

**530-**      **Password was changed.**

**Explanation:** The PASS command was entered in the format `PASS old_pass/new_pass/new_pass` to change the password during login. The user password was changed. The user can no longer log in to the system using the old password.

**System Action:** The user password is changed. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**530-**      **Process does not have permission to set the UID**

**Explanation:** The client entered the USER and PASS command. The `setuid` function issued by the FTP server failed, indicating that the process does not have appropriate privileges to set the UID.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** A previous 530 reply should contain further information in the reason code field.

---

**530**      **Server requires authentication**

**Explanation:** The FTP server requires that a security environment is established before it can process a USER command.

**System Action:** FTP continues.

**User Response:** Issue the AUTH command to establish a security environment and then reissue the USER command.

**System Programmer Response:** None.

---

**530**      **Server requires authorized user**

**Explanation:** The connection to the FTP server is protected by the GSSAPI security mechanism. The server FTP.DATA file contains the statement `SECURE_LOGIN VERIFY_USER`. The USER command that was received has a username that does not match the name found in the Kerberos credentials sent from the client during the authentication negotiation.

**System Action:** The USER command is rejected. FTP continues.

**User Response:** Log in using the username that matches the name that is passed in the Kerberos credentials.

**System Programmer Response:** If username match is not necessary, change the `SECURE_LOGIN` statement to have a value of either `REQUIRED` or `OPTIONAL`.

---

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### 530- StartDirectory *value* is disabled for anonymous.

**Explanation:** The client was attempting to log in to the FTP server as user ID anonymous. The FTP server rejected the login because FTP.DATA specified a STARTDIRECTORY of *value* that is in conflict with the ANONYMOUSFILEACCESS value.

**System Action:** Login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer of the server system.

**System Programmer Response:** If necessary, update FTP.DATA to contain consistent specifications for STARTDIRECTORY and ANONYMOUSFILEACCESS.

---

### 530- System authorization facility (SAF) had an error

**Explanation:** The client entered the PASS command. The setgroups function issued by the FTP server failed indicating the System authorization facility (SAF) had an error.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact your system programmer.

**System Programmer Response:** There was a SAF/RACF error. A previous 530 reply should contain the reason code. This reason code contains the RACF return and reason codes, respectively.

---

### 530- The caller is not authorized

**Explanation:** The client entered the PASS command. The setgroups function issued by the FTP server failed, indicating that the caller is not authorized.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact your system programmer.

**System Programmer Response:** A previous 530 reply should contain further information in the reason code field.

---

### 530- The email address entered is in an incorrect format.

**Explanation:** The client attempted to log in to the FTP server system as anonymous user. The server is setup to only allow valid e-mail address to be entered as password. The e-mail address entered was not valid. This message will be followed by login failure reply.

**System Action:** The user login is rejected. Control returns to the client for further command processing.

**User Response:** The FTP session must end and reconnected to reset the number of bad password attempts.

**System Programmer Response:** None.

---

### 530- The newpass is not valid

**Explanation:** The client entered the PASS command. The \_\_passwd function issued by the FTP server failed, indicating that the new password is not valid, or does not meet the installation-exit requirements.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Use the correct format of the **old\_password/new\_password/new\_password** on the PASS command and reissue the USER and PASS commands.

**System Programmer Response:** None.

---

---

**530- The old password has expired**

**Explanation:** The client entered the PASS command. The \_\_passwd function issued by the FTP server failed, indicating that the password expired.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Use the correct format of the **old\_password/new\_password/new\_password** on the PASS command and reissue the USER and PASS commands.

**System Programmer Response:** None.

---

**530- The old password is not authorized**

**Explanation:** The PASS command was entered and the password was not authorized.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Specify the correct password and retry the USER and PASS commands.

**System Programmer Response:** None.

---

**530- The process is currently not able to change UID**

**Explanation:** The client entered the USER and PASS command. The setuid function issued by the FTP server failed , indicating that the process is currently not able to change UIDs.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** A previous 530 reply should contain further information in the reason code field.

---

**530- The username access was revoked**

**Explanation:** The client entered the PASS command. The \_\_passwd function issued by the FTP server failed, indicating that the username access was revoked.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Reissue the USER and PASS commands with a valid user name and password.

**System Programmer Response:** None.

---

**530- The username is unknown**

**Explanation:** The client entered the PASS command. The \_\_passwd function issued by the FTP server failed, indicating that the user name specified is not defined to OMVS.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Reissue the USER and PASS commands with a valid user ID that is defined to OMVS, and a valid password.

**System Programmer Response:** None.

---

**530- The username, oldpass or newpass argument is invalid**

**Explanation:** The client entered the PASS command. The \_\_passwd() function issued by the FTP server failed, indicating that one of the parameters is incorrect.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

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**User Response:** Reissue the USER and PASS commands with valid parameters.

**System Programmer Response:** None.

---

### 530- The value of uid is incorrect

**Explanation:** The client entered the USER and PASS command. The setuid function issued by the FTP server failed, indicating that the UID is incorrect.

**System Action:** The login to the user ID on the server system is rejected. Control is returned to the client for further command processing.

**User Response:** Contact the system programmer.

**System Programmer Response:** Verify that the UID in the OMVS segment associated with the user ID that is logging in is valid. A previous 530 reply should contain further information in the reason code field.

---

### 530- USER command failed. Switch from *current user* to *new user* not accepted.

**Explanation:** The client was attempting to issue the FTP USER subcommand to change the login identity from *current user* to *new user*. The FTP server rejected the switch because FTP.DATA specifies ANONYMOUSLEVEL 3, which enables enhanced security checks.

**System Action:** The USER command is rejected. The FTP client is still logged in as user *current user*. Control is returned to the client for further command processing.

**User Response:** Issue the FTP CLOSE subcommand to end the session with the FTP server. Then issue the FTP OPEN subcommand to reinitialize the connection. Then log in as user *new user*.

**System Programmer Response:** None.

---

### 530- User *userid* is not allowed to access server's port.

**Explanation:** The user does not have access to the server port.

**System Action:** The user login is rejected. FTP continues.

**User Response:** Contact the system programmer.

**System Programmer Response:** If necessary, authorize the user to the FTP server port.

---

### 530 You must first login with USER and PASS

**Explanation:** A command was issued to request a service from the FTP server, but the client was not currently logged in to a valid user ID for the server system. The command entered required the user to be logged in to a valid user ID.

**System Action:** The command is rejected. Control returns to the client for further command processing.

**User Response:** Log on to a valid user ID for the server system using the USER and PASS commands, then reissue the command. See the *z/OS Communications Server: IP User's Guide and Commands* for more information.

**System Programmer Response:** None.

---

### 531 Server requires client certificate for login processing

**Explanation:** The connection to the FTP server is protected by the TLS security mechanism. The server FTP.DATA file contains a SECURE\_LOGIN statement with either the VERIFY\_USER value or the REQUIRED value. When these values are specified, the client must send a certificate to the server during the TLS authentication handshake. If the certificate is not sent, the FTP server rejects the USER command.

**System Action:** FTP continues.

**User Response:** Change the client configuration so that the client's certificate is sent to the FTP server as part of the TLS handshake. The z/OS FTP client does not require this option because it always sends its certificate. If this reply is received by a client that cannot send a certificate, the system programmer must change the FTP server before the client can log in.

**System Programmer Response:** If the client cannot send a certificate, consider changing the FTP server FTP.DATA file to specify SECURE\_LOGIN OPTIONAL so that a client certificate is not required.

**532 Username does not match name in client certificate**

**Explanation:** The connection to the FTP server is protected by the TLS security mechanism. The server FTP.DATA file contains the statement SECURE\_LOGIN VERIFY\_USER. The USER command that was received has a username that does not match the name found in the certificate sent from the client during the authentication handshake.

**System Action:** The USER command is rejected. FTP continues.

**User Response:** Log in using the username that matches the name that is passed in the client certificate.

**System Programmer Response:** If username match is not necessary, change the SECURE\_LOGIN statement to have a value of either REQUIRED or OPTIONAL.

**533 All commands must be ENC protected**

**Explanation:** The server received a command that was not protected at protection level private. The server is configured to only accept commands protected at protection level private.

**System Action:** The command fails. FTP continues.

**User Response:** Reissue the command using protection level private. If the client cannot send a protection level private command, the system programmer must change the FTP server before the client can log in.

**System Programmer Response:** If the client cannot send a protection level private command, consider changing the SECURE\_CTRLCONN value in the server FTP.DATA file to allow other levels of protection.

**533 All commands must be protected**

**Explanation:** The server received a command that was not protected but had not previously received a CCC command. A CCC command must be received on an authenticated connection before unprotected commands are allowed.

**System Action:** The command fails. FTP continues.

**User Response:** Either reissue the command as a protected command or issue a CCC command and reissue the unprotected command.

**System Programmer Response:** None.

**534 CCC not supported**

**Explanation:** The server FTP.DATA file contains the statement SECURE\_CTRLCONN with a value of SAFE or PRIVATE. A CCC command was received but the control connection cannot be set to the clear protection level.

**System Action:** The CCC command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** If a protection level of clear is desired for the control connection, change the SECURE\_CTRLCONN statement to have a value of CLEAR.

**534 Server does not support the ADAT command for TLS secured connection**

**Explanation:** The FTP server does not support the ADAT command for TLS secured connection.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**534 Server does not turn off protection for TLS secured control connection**

**Explanation:** The FTP server received a CCC command for a session that is protected by the TLS security mechanism. The control connection must have a protection level of private for a TLS secured session.

**System Action:** The CCC command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**534 Server is not willing to accept security mechanism**

**Explanation:** The server received an AUTH command specifying a security mechanism that the server is not configured to accept.

**System Action:** The command fails. FTP continues.

**User Response:** Reissue the command specifying an authentication mechanism that the FTP server is configured to accept or have the system programmer change the FTP server to accept the requested authentication mechanism.

**System Programmer Response:** Change the FTP server FTP.DATA file to specify EXTENSIONS AUTH\_GSSAPI to accept the GSSAPI authentication mechanism or EXTENSIONS AUTH\_TLS to accept the TLS authentication mechanism.

---

**534 Server is not willing to accept security mechanism on this connection**

**Explanation:** The server received an AUTH command specifying a security mechanism that the server does not support for the protocol used by the control connection. For example, AUTH GSSAPI is not supported when the control connection protocol is IPv6.

**System Action:** The command fails. FTP continues.

**User Response:** Reissue the command specifying an authentication mechanism that the FTP server is configured to accept, or start a new FTP session with the server using a protocol the server supports for the authentication mechanism you requested. For example, if the server rejected an AUTH GSSAPI command on an IPv6 connection, log in to that server using an IPv4 connection.

**System Programmer Response:** If the server rejected an AUTH GSSAPI command because the connection was IPv6, instruct the user to log in specifying the server's IPv4 address. If the server has no IPv4 address, code EXTENSIONS AUTH\_TLS in the server's FTP.DATA to accept the TLS authentication mechanism. See the *z/OS Communications Server: IP Configuration Reference* for information about the EXTENSIONS statement.

---

**534 Server is protected and is not willing to accept another AUTH command**

**Explanation:** The FTP server indicates that the session is already protected by a security mechanism and will not accept another AUTH command.

**System Action:** FTP continues.

**User Response:** If you want to change security mechanism, close the connection, reconnect to the FTP server, and issue the AUTH command with the new mechanism.

**System Programmer Response:** None.

---

**534 Server requires authentication before command processing**

**Explanation:** The FTP server requires that a security environment is established before it can process the command.

**System Action:** FTP continues.

**User Response:** Issue the AUTH command to establish a security environment and then reissue the command.

**System Programmer Response:** None.

---

---

**534 Server requires authentication before PASS command**

**Explanation:** The FTP server requires that a security environment is established before it can process a PASS command.

**System Action:** FTP continues.

**User Response:** Issue the AUTH command to establish a security environment and then reissue the PASS command.

**System Programmer Response:** None.

---

**534 Server requires authentication before USER command**

**Explanation:** The FTP server requires that a security environment is established before it can process a USER command.

**System Action:** FTP continues.

**User Response:** Issue the AUTH command to establish a security environment and then reissue the USER command.

**System Programmer Response:** None.

---

**534 Server setup for TLS failed**

**Explanation:** The FTP server attempted to set up a connection that is secured by the TLS security mechanism. The setup failed.

**System Action:** FTP continues.

**User Response:** Activate the FTP client and server traces as follows:

```
SITE DEBUG=(NONE,ACC,SOC(2))
DEBUG NONE ACC SOC(2)
```

Retry the command and contact the system programmer with the error message.

If you are not allowed to issue the SITE command to change the server trace options, ask the system programmer to set the options, close the session to the server, enter FTP again and try the failing subcommand

**System Programmer Response:** Use the FTP client and server traces to determine the cause of the error and correct the problem.

---

**534 TLS negotiation failed -- data connection closed**

**Explanation:** The FTP client and server failed during the negotiation step (also known as the handshake) to protect a data connection with the TLS mechanism.

**System Action:** The command that was being processed failed. FTP continues.

**User Response:** Activate the FTP client and server traces as follows:

```
SITE DEBUG=(NONE,ACC,SOC(2))
DEBUG NONE ACC SOC(2)
```

Retry the command and contact the system programmer with the error message.

If you are not allowed to issue the SITE command to change the server trace options, ask the system programmer to set the options, close the session to the server, enter FTP again and try the failing subcommand.

**System Programmer Response:** Use the FTP client and server traces to determine the cause of the error and correct the problem.

---

---

**535 Attempt to decrypt data failed**

**Explanation:** The server call to the `gss_unwrap()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_unwrap()` function.

---

**535 Attempt to encrypt data failed**

**Explanation:** The server call to the `gss_wrap()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_wrap()` function.

---

**535- GSSAPI error major status code: *value* - *text***

**Explanation:** This reply displays the status code returned from a GSSAPI function call. This message is followed by a reply indicating the failing GSSAPI function call.

*value* is the hexadecimal value of the major status code.

*text* is the text describing the status code obtained by calling the `gss_display_status()` function.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the major status code.

---

**535- GSSAPI error minor status code: *value* - *text***

**Explanation:** This reply displays the status code returned from a GSSAPI function call. This message is followed by a reply indicating the failing GSSAPI function call.

*value* is the hexadecimal value of the minor status code.

*text* is the text describing the status code obtained by calling the `gss_display_status()` function.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the minor status code.

---

**535 Length *length* of received buffer is greater than PBSZ *size***

**Explanation:** The server received an encrypted message whose length was greater than the negotiated protection buffer size.

*length* is the length of the received encrypted message.

*size* is the maximum length of an encrypted message as negotiated with the client.

**System Action:** FTP continues. The message is discarded.

**User Response:** None.

**System Programmer Response:** None.

---

**535 Request to accept security context failed**

**Explanation:** The server call to the `gss_accept_sec_context()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP continues. Authentication negotiation fails.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_accept_sec_context()` function.

---

**535 Request to acquire security credentials failed**

**Explanation:** The server call to the `gss_acquire_cred()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP continues. Authentication negotiation fails.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_acquire_cred()` function.

---

**535 Request to import name failed**

**Explanation:** The server call to the `gss_import_name()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP continues. Authentication negotiation fails.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_import_name()` function.

---

**535 Request to import the security context failed**

**Explanation:** The server call to the `gss_import_sec_context()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP ends.

**User Response:** None.

**System Programmer Response:** See the *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_import_sec_context()` function.

---

**536 Data connection protection *level* not supported**

**Explanation:** The PROT command requested a data protection level that is not supported. The request to set the level is rejected.

*level* is one of the following:

- C** Clear
- P** Private
- S** Safe
- E** Confidential

The support by the FTP server for these levels is determined by the value specified on the `SECURE_DATACONN` statement in the `FTP.DATA` file for the server. `SECURE_DATACONN` specifies the minimum level of security allowed for the data connection.

PROT C is rejected if `SECURE_DATACONN` has a value of SAFE or PRIVATE.

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PROT S is rejected if SECURE\_DATACONN has a value of PRIVATE or NEVER. Also, it is rejected if the security mechanism is TLS.

PROT P is rejected if SECURE\_DATACONN has a value of NEVER.

PROT E is always rejected.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 550 Allocation for remote destination failed.

**Explanation:** The server attempted to allocate to a SYSOUT data set for the purpose to sending a data set to a remote destination (see SITE DEST). The allocation was unsuccessful.

**System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** Examine the trace and look for trace messages with the tag *seq\_alloc\_dest*. These trace messages provide the reason codes for the dynamic allocation error.

---

### 550 Allocation of *dsname* failed while executing *command* command.

**Explanation:** The server attempted to allocate to a data set on a DASD volume. The dynamic allocation was unsuccessful.

**System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** Examine the trace and look for trace messages with the tag *alloc\_dasd*. These trace messages provide the reason codes for the dynamic allocation error.

---

### 550 Allocation of *dsname* failed while executing *cmd* command.

**Explanation:** The server attempted to allocate to a new data set to store data. The dynamic allocation was unsuccessful. *cmd* is STOR, STOU, or APPE.

**System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** Examine the trace and look for trace messages with the tag *seq\_create\_file*. These trace messages provide the reason codes for the dynamic allocation error.

---

### 550 Allocation of *data\_set* failed: (rc=*rc*, err=*err*, info=*info*)

**Explanation:** During load module transfer processing, the FTP server attempted to allocate the load library *data\_set* using *dynalloc* and failed.

*data\_set*

The name of the load library that the FTP server attempted to allocate

*rc* The decimal return code of the allocation attempt.

*err* The hexadecimal error code of the allocation attempt.

*info* The hexadecimal information code of the allocation attempt.

**System Action:** Load module processing ends. No files will be transferred. FTP waits for the next command from the FTP client.

**User Response:** Refer to *z/OS MVS Programming: Authorized Assembler Services Guide* for explanations for the *rc*, *err*, and *info* codes and take appropriate corrective action.

---

**System Programmer Response:** Refer to *z/OS MVS Programming: Authorized Assembler Services Guide* for explanations for the *rc*, *err*, and *info* codes and take appropriate corrective action.

**550 Allocation of temporary data set failed: (rc=rc, err=err, info=info)**

**Explanation:** During load module transfer processing, the FTP server attempted to allocate a temporary data set using *dynalloc* and failed.

*rc* The decimal return code of the allocation attempt.

| *err* The hexadecimal error code of the allocation attempt.

| *info* The hexadecimal information code of the allocation attempt.

**System Action:** Load module processing ends. No files will be transferred. FTP waits for the next command from the FTP client.

**User Response:** Refer to *z/OS MVS Programming: Authorized Assembler Services Guide*, *dynalloc*, for explanations for the *rc*, *err*, and *info* codes and take appropriate corrective action.

**System Programmer Response:** Refer to *z/OS MVS Programming: Authorized Assembler Services Guide*, *dynalloc*, for explanations for the *rc*, *err*, and *info* codes and take appropriate corrective action.

**550- anonymous login rejected by FTP server**

**Explanation:** An FTP client attempted to log in as anonymous. The FTP server rejected the anonymous login.

**System Action:** The client's session is ended.

**User Response:** Log in to FTP as a different user. If you are authorized only as user anonymous, contact the system programmer with the error message.

**System Programmer Response:** Error messages related to anonymous login are written to syslogd if ftp server traces are enabled. If syslogd is not active, the error messages will be written to the operator console. Verify FTP is configured correctly to accept anonymous logins.

| **550 Command terminated due to CPU time limit exceeded**

| **Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS kill -s SIGXCPU command or the CPU time limit exceeded.

| **System Action:** The subcommand in progress and the FTP server session process end.

| **User Response:** Contact the system programmer.

| **System Programmer Response:** If the server process was stopped due to CPU time limit exceeded, check the MAXCPUPTIME parameter in BPXPRMxx.

**550 Cannot create unique data set name for store unique of dsname.**

**Explanation:** A unique name cannot be created to store a data set using the store unique command. The server appends numbers 1 to 999 to the end of the data set name to create a new name. This set of names is exhausted.

**System Action:** The command is rejected. FTP continues.

**User Response:** Change the file name to allow the server a set of names to search for uniqueness.

**System Programmer Response:** None.

**550 Cannot create unique file name for store unique of filename..**

**Explanation:** A unique name cannot be created to store a file in the hierarchical file system using the store unique command. The server appends numbers 1 to 999 to the end of the file name to create a new name. This set of names is exhausted.

**System Action:** The command is rejected. FTP continues.

**User Response:** Change the file name to allow the server a set of names to search for uniqueness.

550

**System Programmer Response:** None.

---

**550 Cannot create unique member name for append to *dsname***

**Explanation:** An append was requested and the data set is a member of a partitioned data set (PDS). Before the append can occur, the member must be copied forward in the PDS and in the process is temporarily given a unique name. This process was attempted 999 times and a unique name was not found.

**System Action:** The append is not performed.

**User Response:** The unique names that are used for the copy are created by appending 1, then 2, and so forth to the end of member name (called the base name). If there are members of the PDS that have the same base name as the one for the append and the members are no longer needed, delete them and reissue the append request.

**System Programmer Response:** None.

---

**550 Cannot create unique member name for store unique of *dsname*.**

**Explanation:** A unique name cannot be created to store a member of a partitioned data set (PDS) using the store unique command. The server appends numbers 1 to 999 to the end of the member name to create a new name. This set of names is exhausted.

**System Action:** The command is rejected. FTP continues.

**User Response:** Change the member name to allow the server a set of names to search for uniqueness.

**System Programmer Response:** None.

---

**550 Cannot rename from partitioned data set *dsname* to a different partitioned data set *dsname*.**

**Explanation:** You have attempted to rename a member of a partitioned data set (PDS). The new name is a member of a different PDS. A member of a PDS can be renamed only to a new member name within the same PDS.

**System Action:** The rename is not performed.

**User Response:** Provide a new name that is a name in the same PDS.

**System Programmer Response:** None.

---

**550 closing control connection**

**Explanation:** An error occurred while the client was logged in to FTP, or while the client was attempting to log in to FTP.

**System Action:** The client's FTP session ends. FTP continues.

**User Response:** Contact the system programmer with the error message.

**System Programmer Response:** Error messages related to the user's FTP session are written to syslogd if ftp server traces are enabled. If syslogd is not active, the error messages will be written to the operator console. Correct any errors found, and instruct the user to log in to FTP again.

---

**550 *cmd cmd failed : error***

**Explanation:** The FTP client issued the command *cmd*. While processing the command, the FTP server issued a C run-time library function that did not complete successfully. *error* is the error message returned by the C run-time library.

**System Action:** The command *cmd* is not executed.

**User Response:** Reissue the command. If the problem persists, contact the system programmer with the error message.

**System Programmer Response:** Correct the error indicated by *error*.

---

---

**550** *cmd cmd failed. No files found.*

**Explanation:** The LIST or NLST command issued for an HFS directory failed because the directory did not contain any files.

**System Action:** FTP continues processing with the next command

**User Response:** None.

**System Programmer Response:** None.

---

**550** *cmd command failed - popen error: error*

**Explanation:** The client issued the LIST or NLST command to list files in an HFS directory. While processing the *cmd* command, the server issued the C run-time library routine `popen()`, which did not complete successfully. *error* is the error message returned by the C run-time library.

**System Action:** The *cmd* command is rejected. The server waits for the next command to be entered by the client.

**User Response:** Reissue the command. If the problem persists, contact the System Programmer.

**System Programmer Response:** Correct the problem indicated by *error*.

---

**550** *cmd failed: Unknown HOME directory*

**Explanation:** A command was issued that required the server to resolve the user's HOME directory name (for example, a pathname was entered that began with the directory notation `~/`) but the server was unable to determine the user's HOME directory.

**System Action:** The command is rejected. FTP continues.

**User Response:** Verify that the OMVS user ID has a HOME directory. If necessary, define a HOME directory for the user ID.

**System Programmer Response:** None.

---

**550** *cmd fails: dsname. User not authorized.*

**Explanation:** A command was issued to store a data set. (*cmd* is STOR, STOU, or APPE.) The requested data set is protected by a security system such as RACF, and the user is not authorized to write to the data set.

**System Action:** The data set is not stored. FTP continues.

**User Response:** Contact the owner of the data set for authorization to store into the data set.

**System Programmer Response:** None.

---

**550** *cmd fails: filename is a directory and is not empty.*

**Explanation:** The file that is named is a directory. The delete and rename subcommands support a directory name but the directory must be empty.

**System Action:** The command is rejected. FTP continues.

**User Response:** Reissue the command specifying an empty directory.

**System Programmer Response:** None.

---

**550** *cmd fails: pathname is a directory.*

**Explanation:** An attempt was made to rename an HFS file to a name that is an existing directory.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**550** *cmd fails: pathname is not a directory.*

**Explanation:** An attempt was made to rename an HFS directory to a name that is an existing regular file.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**550** **Command *command* fails: access to resource is denied by server.**

**Explanation:** The FTP server received a *command* command from an anonymous user. The command arguments specify an MVS or HFS resource, such as an HFS directory or MVS partitioned data set. Whichever file system the resource belongs to, the FTP server is configured to reject anonymous user access to that file system.

**System Action:** The *command* command is rejected. The FTP server waits for the next command.

**User Response:** Report the error to the System Programmer.

**System Programmer Response:** Inspect the default or explicitly coded value of ANONYMOUSFILEACCESS in the server's FTP.DATA. See *z/OS Communications Server: IP Configuration Reference* for information on ANONYMOUSFILEACCESS values. Change ANONYMOUSFILEACCESS to a value appropriate for your site. Stop the FTP server, then start it again, to enable the new ANONYMOUSFILEACCESS value.

---

**550** **Command *cmd* failed - pipe error: *error***

**Explanation:** The client issued the LIST or NLST command to list files in an HFS directory. While processing the *cmd* command, the server issued the C run-time library routine pipe(), which did not complete successfully. *error* is the error message returned by the C run-time library.

**System Action:** The *cmd* command is rejected. The server waits for the next command to be entered by the client.

**User Response:** Reissue the command. If the problem persists, contact the System Programmer.

**System Programmer Response:** Correct the problem indicated by *error*.

---

**550** **Command *cmd* fails: *filename* does not exist.**

**Explanation:** The file that is named does not exist. The retrieve, delete, and rename subcommands require that the file exists.

**System Action:** The command is rejected. FTP continues.

**User Response:** Reissue the command specifying a name of a file exists.

**System Programmer Response:** None.

---

**550** **Command *cmd* fails: *filename* is a character special file.**

**Explanation:** The file that is named is a character special file. The file transfer, delete, and rename subcommands do not support files of this type.

**System Action:** The command is rejected. FTP continues.

**User Response:** Reissue the command specifying a name of a file that is not a character special file.

**System Programmer Response:** None.

---

**550** **Command *cmd* fails: *filename* is an unknown type.**

**Explanation:** The file that is named is an unknown type. The file transfer, delete, and rename subcommands do not support files of this type.

**System Action:** The command is rejected. FTP continues.

**User Response:** Reissue the command specifying a name of a file that is not an unknown file type.

**System Programmer Response:** None.

---

---

**550 Command *cmd* fails: *filename* is a directory.**

**Explanation:** The file that is named is a directory. The RETR, STOR, STOU, and APPE commands do not support file transfer for a directory file.

**System Action:** The command is rejected. FTP continues.

**User Response:** Reissue the command specifying a name of a file that is not a directory.

**System Programmer Response:** None.

---

**550 Command *cmd* fails: *filename* is a pipe or FIFO.**

**Explanation:** The file that is named is a pipe or FIFO special file. The file transfer, delete, and rename subcommands do not support files of this type.

**System Action:** The command is rejected. FTP continues.

**User Response:** Reissue the command specifying a name of a file that is not a pipe or FIFO special file.

**System Programmer Response:** None.

---

**550 Command *command* fails: *filetype* is *file type***

**Explanation:** The client issued the *command* command to the FTP server. The FTP server is operating in *filetype* mode *file type*; *command* is supported only in file type mode SEQ.

**System Action:** The *command* command is rejected. The FTP server waits for the next command from the client.

**User Response:** If possible, issue the SITE FILETYPE=SEQ subcommand to the FTP server to change to the FILETYPE SEQ operating mode, then reissue *command*.

**System Programmer Response:** None.

---

**550 Command *command* is not available for *pathname***

**Explanation:** The client issued the *command* command to the FTP server. The FTP server was not able to execute the command for *pathname*, for one of the following reasons.

The file was not an HFS file. *command* is supported only for HFS files.

An I/O error occurred while the FTP server was reading from the file system.

For FILETYPE=JES, a *pathname* must be in the form of JOBxxxxx, TSUxxxxx, APCxxxxx, or TSUxxxxx.

If *command* is SIZE, additional reasons may cause the command to be rejected:

The file size is too large to be represented by a C int type variable (two words of storage). *Command* is not supported for files of sizes larger than can be represented as an int type variable.

The file is an HFS file, but it is not a regular HFS file as defined by Unix System Services. SIZE is supported for regular HFS files only.

**System Action:** The *command* command is rejected. The FTP server waits for the next command from the client.

**User Response:** Verify *pathname* was entered correctly, and that *pathname* represents an HFS file of a supported size and type, as applicable. Correct any errors, then issue *command* again. If the problem recurs, report it to the system programmer.

**System Programmer Response:** Error messages related to *pathname* retrieval are written to syslogd if ftp server traces are enabled. If syslogd is not active, the error messages will be written to the operator console. Correct any errors, then have the user issue *command* again.

---

**550 command *command* is not supported for mode *mode***

**Explanation:** The FTP client issued command *command* to the FTP server. The FTP server's data transfer mode is *mode*. Command *command* is not supported for data transfer mode *mode*.

**System Action:** The command is rejected. FTP waits for the next command from the FTP client.

**User Response:** If possible, issue the FTP **mode** subcommand to set the data transfer mode to a value valid for *command*. Then issue *command* again. Please refer to *z/OS Communications Server: IP User's Guide and Commands* for information on valid data transfer modes for *command*.

## 550

**System Programmer Response:** None.

---

**550**            **command** *command* **is not supported for structure** *structure*

**Explanation:** The FTP client issued command *command* to the FTP server. The FTP server's file structure is *structure*. Command *command* is not supported for file structure *structure*.

**System Action:** The command is rejected. FTP waits for the next command from the FTP client.

**User Response:** If possible, issue the FTP STRUCTURE subcommand to set the file structure to a value valid for *command*. Then issue *command* again. Please refer to *z/OS Communications Server: IP User's Guide and Commands* for information on valid file structures for *command*.

**System Programmer Response:** None.

---

**550**            **command** *command* **is not supported for type** *type*

**Explanation:** The FTP client issued command *command* to the FTP server. The FTP server's data transfer type is set to *type*. Command *command* is not supported for data transfer type *type*.

**System Action:** The command is rejected. FTP waits for the next command from the FTP client.

**User Response:** If possible, issue the FTP TYPE subcommand to set the data transfer type to a value valid for *command*. Then issue *command* again. Please refer to *z/OS Communications Server: IP User's Guide and Commands* for information on valid data transfer types for *command*.

**System Programmer Response:** None.

---

**550**            **command fails:** *dsname*. **User not authorized**

**Explanation:** The *command* command was issued to read a data set. The requested data set is protected by a security system such as RACF, and the user is not authorized to read the data set.

**System Action:** The data set is not sent. FTP continues.

**User Response:** Contact the owner of the data set for authorization to read the data set.

**System Programmer Response:** None.

---

**550**            **command fails:** *path name*. **User not authorized**

**Explanation:** The LIST or NLST command was issued to list members of a partitioned data set, but the requested data set was protected by a security system such as RACF, and the user was not authorized to read the data set.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Contact the owner of the data set for authorization to read the data set.

**System Programmer Response:** None.

---

**550**            **command SIZE is not supported for the current data connection translate table when type is** *type*

**Explanation:** The server received a SIZE command. SIZE is not supported for the translate table in use on the data connection in combination with the current data transfer type.

*type* is the current data transfer type.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

---

**550 command SIZE rejected - *pathname* contains CR characters**

**Explanation:** The client sent a SIZE *pathname* command to the FTP server while the data transfer type setting was ASCII. The file *pathname* contains carriage return (CR) characters. The FTP server cannot complete the SIZE command for any file containing CR characters when the data transfer type is ASCII.

*pathname* is the name of an HFS file that is the target of the SIZE command.

**System Action:** The FTP server stops processing the SIZE command and waits for another command from the client.

**User Response:** If you are using the SIZE command to learn the byte transfer size for a certain file whenever the data transfer type is ASCII, no further action is possible. If you do not require the data transfer type to be ASCII, change the data transfer type from ASCII. See the documentation for your FTP client to learn how to change the data transfer type.

**System Programmer Response:** None.

---

**550 command SIZE rejected - *pathname* is not an HFS file**

**Explanation:** The server received a SIZE command from the client. The target of the SIZE command is not an HFS file. The FTP server supports SIZE only for HFS files.

*pathname* is the target of the SIZE command.

**System Action:** Processing continues.

**User Response:** None.

**System Programmer Response:** None.

---

**550 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**550 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**550 Data set *dsname* is migrated and NoAutoRecall is specified.**

**Explanation:** A command was issued to process a data set, but the data set is migrated and the FTP server is currently in NoAutoRecall mode.

**System Action:** The command is rejected.

**User Response:** Issue the "SITE AUTORECALL" command to allow the data set to be recalled, and then reissue the FTP command.

**System Programmer Response:** None.

---

---

**550 Data set *dsname* not found**

**Explanation:** The server attempted to retrieve a data set (that is, a physical sequential data set or member of a partitioned data set). The data set was not found.

**System Action:** The command is rejected. FTP continues.

**User Response:** Ensure that the data set exists and that the fully qualified name used for the retrieve is correct.

**System Programmer Response:** None.

---

**550 “*directory*” data set does not exist.**

**Explanation:** The RMD was issued to delete the partitioned data set *directory*, but the server could not find the data set to delete it.

**System Action:** The RMD command is rejected. Control returns to the client for further command processing.

**User Response:** Verify that the correct data set name was entered. If necessary, reissue the command with the correct data set name.

**System Programmer Response:** None.

---

**550 *dsname* is a partitioned data set and no member was specified on the *cmd* command.**

**Explanation:** The server attempted to store to a partitioned data set (PDS) but did not provide a member name. *cmd* is STOR, STOU, or APPE.

**System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** Provide a member name for the PDS.

---

**550 *dsname* is a physical sequential data set and a member was specified on the command.**

**Explanation:** You requested a member of a data set but the data set that was named is a physical sequential data set (PDS) and does not have members.

**System Action:** The data set is not stored. FTP continues.

**User Response:** Provide the correct name of the PDS that contains the member requested.

**System Programmer Response:** None.

---

**550 *dsname* is not on a direct access volume. It may not be deleted.**

**Explanation:** The data set to be deleted is not on a direct access volume.

**System Action:** The data set is not deleted. FTP continues.

**User Response:** Make sure that the data set name is for a data set that can be deleted. A tape data set is an example of data set that cannot be deleted.

**System Programmer Response:** None.

---

**550 *dsname* is not on a direct access volume. It may not be renamed.**

**Explanation:** The data set to be renamed is not on a direct access volume.

**System Action:** The data set is not renamed. FTP continues.

**User Response:** Make sure that the data set name is for a data set that can be renamed. A tape data set is an example of data set that cannot be renamed.

**System Programmer Response:** None.

---

---

**550** *dsname* used exclusively by someone else.

**Explanation:** Either a data transfer (retrieve or store), a delete, or a rename of a member of a partitioned data set (PDS) was requested and the member requested is currently in use.

**System Action:** The operation is not performed.

**User Response:** Try the operation later when no one else is using the member of the PDS.

**System Programmer Response:** None.

---

**550** **DELE fails:** *dsname* does not exist.

**Explanation:** The DELE command was issued to delete a data set. The delete was unsuccessful because the data set does not exist.

**System Action:** None. FTP continues.

**User Response:** Make sure that the correct data set name is entered and that the data set is catalogued.

**System Programmer Response:** None.

---

**550** **DELE fails:** *dsname*. User not authorized.

**Explanation:** The DELE command was issued to delete a data set. The requested data set is protected by a security system such as RACF, and the user is not authorized to delete the data set.

**System Action:** The data set is not deleted. FTP continues.

**User Response:** Contact the owner of the data set for authorization to delete it.

**System Programmer Response:** None.

---

**550** **directory remains** *file\_name*

**Explanation:** A CWD command was received to change the current working directory, but the server was not able to successfully change the current working directory. This reply is preceded by other replies with additional information about the error.

**System Action:** The working directory is not changed. FTP continues.

**User Response:** Correct the errors indicated by the replies that preceded this one.

**System Programmer Response:** None.

---

**550** **DSORG=DA requires structure: FILE, mode: STREAM, and transfer type: IMAGE.**

**Explanation:** A RETR command was issued but one or more of the following required conditions are not met: FILE structure, STREAM mode, and/or IMAGE transfer type.

**System Action:** The command is rejected. FTP continues.

**User Response:** If a retrieval of a DA file was intended, use the STAT FTP command to display the current settings for your FTP connection. Use the STRUC F, MODE S, and/or TYPE I commands as necessary to alter the settings for your connection.

**System Programmer Response:** None.

---

**550** **error allocating** *new\_directory*

**Explanation:** The MKD command was issued to create the new PDS *new\_directory*, but the server was unable to allocate the PDS.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Contact the system programmer for the server system.

**System Programmer Response:** Determine why the PDS could not be allocated and correct the problem.

---

## 550

---

### 550 Error allocating storage for *type*

**Explanation:** The FTP server was not able to allocate the storage for the specified type necessary to process the LIST or NLST command.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the FTP server system.

**System Programmer Response:** The FTP server might need to be started with a larger region size.

---

### 550 Error allocating tape data set *dsname*

**Explanation:** The server attempted to allocate to a data set on a tape volume. The dynamic allocation was unsuccessful.

**System Action:** The command is rejected. FTP continues.

**User Response:** None.

**System Programmer Response:** Examine the trace and look for trace messages with the tag *alloc\_tape*. These trace messages provide the reason codes for the dynamic allocation error.

---

### 550 Error deleting migrated data set *dsname*

**Explanation:** The services of DFHSM were invoked to delete a data set that is migrated. DFHSM cannot delete the data set.

**System Action:** The data set is not deleted. FTP continues.

**User Response:** Recall the data set and retry the command.

**System Programmer Response:** None.

---

### 550- error initializing FTP server

**Explanation:** An error occurred while a client was attempting to log in to FTP. FTP was not able to complete the login.

**System Action:** The client's session is ended.

**User Response:** Contact the system programmer with the error message.

**System Programmer Response:** Error messages related to the anonymous login are written to syslogd if FTP server traces are enabled. If syslogd is not active, the error messages will be written to the operator console. Correct any errors, and instruct the user to log in to FTP again.

---

### 550 Error mounting volume containing data set *dsname*

**Explanation:** The volume containing the requested data set *dsname* was not mounted to the FTP server system. The FTP server attempted to have the volume mounted, but did not succeed.

**System Action:** The command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the FTP server system.

**System Programmer Response:** Determine why the requested volume cannot be mounted to the MVS system.

---

### 550 Error opening *data\_set\_name*

**Explanation:** The LIST or NLST command requested members of a PDS, but the FTP server was unable to open the PDS to read the directory. This can be a temporary problem, for example the data set is currently in use, or it can be a permanent error with the data set.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Correct the problem with the data set.

---

**550 error reading PDS directory**

**Explanation:** The LIST or NLST command requested members of a partitioned data set, but the FTP server was unable to read the directory of the PDS.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Correct the problem with the data set.

---

**550 Error recalling data set *data\_set***

**Explanation:** The LIST or NLST command requested members of a partitioned data set. The PDS was migrated and needed to be recalled to read the PDS directory. The FTP server attempted to recall the data set, but was unable to successfully recall the data set.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Determine why the data set cannot be recalled and correct the problem.

---

**550 Error recalling data set *data\_set* (rc=rc)**

**Explanation:** A RETR request was received for a data set. The data set was migrated and needed to be recalled. The FTP server attempted to recall the data set, but was unable to successfully recall the data set.

**System Action:** The RETR command is rejected.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** Determine why the data set cannot be recalled and correct the problem.

---

**550 File *filename* not found.**

**Explanation:** The server attempted to retrieve an hierarchical file system (HFS) file. The file was not found.

**System Action:** The command is rejected. FTP continues.

**User Response:** Ensure that the file exists and that you have access to all of the directories in the path to the file.

**System Programmer Response:** None.

---

**550 *file\_name* request nonexistent member to be sent.**

**Explanation:** The member that was named is not a member of the partitioned data set (PDS) and cannot be retrieved.

**System Action:** The data set is not sent. FTP continues.

**User Response:** Reissue the command with the corrected PDS or member name.

**System Programmer Response:** None.

---

---

**550** *file\_name* requests a non-existent partitioned data set. Use MKD command to create it.

**Explanation:** The store request names a partitioned data set (PDS) that does not exist.

**System Action:** The data set is not sent. FTP continues.

**User Response:** Either name an existing PDS or use MKD command to create a PDS into which the member will be stored.

**System Programmer Response:** None.

---

**550-** GSSAPI error major status code: *value - text*

**Explanation:** This reply displays the status code returned from a GSSAPI function call. This message is followed by a reply indicating the failing GSSAPI function call.

*value* is the hexadecimal value of the major status code.

*text* is the text describing the status code obtained by calling the `gss_display_status()` function.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** See *z/OS Security Server Network Authentication Service Programming* for an explanation of the major status code.

---

**550-** GSSAPI error minor status code: *value - text*

**Explanation:** This reply displays the status code returned from a GSSAPI function call. This message is followed by a reply indicating the failing GSSAPI function call.

*value* is the hexadecimal value of the minor status code.

*text* is the text describing the status code obtained by calling the `gss_display_status()` function.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** See *z/OS Security Server Network Authentication Service Programming* for an explanation of the minor status code.

---

**550** *Index number* is greater than number of spool files for *jobid*.

**Explanation:** User attempted to retrieve a specific spool file from JES using the FTP GET command. JES output files are numbered sequentially from one. The specified number is greater than the number of spool files for the job.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the FTP GET command with the correct jobid and index.

**System Programmer Response:** None.

---

**550-** Internal error processing *function* SSOBRETN=*rc*

**Explanation:** The specified function was using the JES SubSystem Interface (SSI) and received the specified SSOBRETN return code value. The return codes are documented in *z/OS MVS Using the Subsystem Interface*.

**System Action:** No data is sent. FTP continues.

**User Response:** Ensure that the JES subsystem is active.

**System Programmer Response:** None.

---

---

**550 Invalid cancel request**

**Explanation:** A DELETE command was issued. The command was not formed correctly.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 Invalid jobname/Jobid combination**

**Explanation:** JES could not perform the requested function because the exact JOBNAME and JOBID combination specified in the command could not be located.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 JES cannot find output for *jobid***

**Explanation:** User attempted to retrieve data for a specific jobid. The jobid specified in the command was not found.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command.

**System Programmer Response:** None.

---

**550 JES cannot find output for *jobid*, JesPutGet aborted**

**Explanation:** User attempted to retrieve data for a specific jobid. The jobid specified in the command was not found.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command.

**System Programmer Response:** None.

---

**550 JES internal reader allocation failed**

**Explanation:** In preparation of submitting a job to MVS the Internal Reader needed to be allocated. The allocation of the Internal Reader failed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 JES internal reader open failed**

**Explanation:** In preparation of submitting a job to MVS the Internal Reader needed to be opened. The request to open the Internal Reader failed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

---

**550 JES is unable to provide spool data set name now**

**Explanation:** User attempted to retrieve spool files from JES. Requested dataset is open.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Issue the command later

**System Programmer Response:** None.

---

**550 JES is unable to provide spool data set name now, JesPutGet aborted**

**Explanation:** User attempted to retrieve spool files from JES. Requested dataset is open.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Issue the command later

**System Programmer Response:** None.

---

**550 JES spool file allocation failed for *dsname***

**Explanation:** An allocate of a spool file for get processing failed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 JES spool file open failed for *dsname***

**Explanation:** While attempting to open a spool file for processing, an error occurred.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 JESPUT failed, could not allocate receive buffer**

**Explanation:** A buffer was not available while attempting to retrieve a spool output.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 JesPutGet aborted**

**Explanation:** Refer to replies prior to this 550 reply.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 JesPutGet aborted, internal error**

**Explanation:** A GET command was issued with a SITE FILETYPE=JES argument in effect. The GET command requested the output to be automatically retrieved. The output was not retrieved because of an internal processing error in FTP.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Attempt to retrieve the job from JES explicitly. If this problem prevails, contact your system support personnel for assistance.

**System Programmer Response:** None: Diagnose Problem.

---

**550 JesPutGet aborted, job not found**

**Explanation:** A GET command was issued with a SITE FILETYPE=JES argument in effect. The GET command requested the output to be automatically retrieved. The output was not available to be retrieved within the time period allowed for the JOB to complete execution.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input. The job submitted may or may not complete in the near future.

**User Response:** Explicitly retrieve the job from JES if and when the job completes execution.

**System Programmer Response:** None.

---

**550 JesPutGet aborted, timeout exceeded**

**Explanation:** A GET command was issued with a SITE FILETYPE=JES argument in effect. The GET command requested the output to be automatically retrieved. The output was not available to be retrieved within the time period allowed for the JOB to complete execution.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input. The job submitted may or may not complete in the near future.

**User Response:** Explicitly retrieve the job from JES if and when the job completes execution.

**System Programmer Response:** None.

---

**550 JesPutGet terminated**

**Explanation:** During the PUT or GET processing, a timer expired before the job completed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Explicitly retrieve the job from JES.

**System Programmer Response:** None.

---

**550 Job name not found**

**Explanation:** JES could not locate the JOBNAME specified in the command.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 Job not cancelled, duplicate jobnames and no Jobid**

**Explanation:** JES could not perform the requested function because more than one JOBNAME exists on which JES could perform the action.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

**550 Job not cancelled, job on output queue**

**Explanation:** A DELETE (JES cancel) command was issued against a job that was executing. The job completed execution and all output was found to be on the output queue.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

## 550

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

### 550 Jobid *jobid* not found

**Explanation:** JES could not locate the JOBID specified in the command.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

### 550 Jobid *jobid* not found for JESJOBNAME=*name* JESSTATUS=*status* and JESOWNER=*owner*

**Explanation:** JES could not locate the JOBID specified in the command given the filter settings for JESJOBNAME, JESSTATUS, and JESOWNER.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command. Possibly, use the SITE command to change the JESJOBNAME, JESSTATUS, or JESOWNER if it does not match those of the name, status or owner of the specified jobid. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

### 550 Jobid with invalid syntax for subsystem

**Explanation:** The DELETE command issued did not conform to the required syntax.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

### 550 Mismatched quotes on pathname *pathname*

**Explanation:** The pathname provided for a data transfer (retrieve or store), delete, or rename request was enclosed in a unbalanced set of single quotes.

**System Action:** The request is not performed.

**User Response:** Enclose the data set name in balanced quotes -- a quote at the beginning and the end of the name.

**System Programmer Response:** None.

---

### 550 MKD failed. Dcbdsn data set *dcbdsn\_name* does not exist.

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. The server could not find the model data set *dcbdsn\_name* to determine the data set characteristics.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE command to either specify a different DCBDSN data set, or to specify the data set characteristics without using the DCBDSN model data set parameter. After changing the appropriate SITE parameters, reissue the MKD command.

**System Programmer Response:** None.

---

---

**550 MKD failed. Dcbdsn data set *dcbdsn\_name* is not on a direct access volume.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. However, the model data set *dcbdsn\_name* was not on a direct access volume and therefore could not be used as a model data set.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE command to either specify a different DCBDSN data set, or to specify the data set characteristics without using the DCBDSN model data set parameter. After changing the appropriate SITE parameters, reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Dcbdsn data set *dcbdsn\_name* is a VSAM data set.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. However, the model data set *dcbdsn\_name* was a VSAM data set and therefore could not be used as a model for the data set characteristics.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE command to either specify a different DCBDSN data set, or to specify the data set characteristics without using the DCBDSN model data set parameter. After changing the appropriate SITE parameters, reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Dcbdsn data set *dcbdsn\_name* has an invalid dsorg.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. However, the model data set *dcbdsn\_name* was neither a partitioned data set or a physical sequential data set, and therefore could not be used as a model for the data set characteristics.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE command to either specify a different DCBDSN data set, or to specify the data set characteristics without using the DCBDSN model data set parameter. After changing the appropriate SITE parameters, reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Dcbdsn data set *dcbdsn\_name* has a recfm of *recfm* which is invalid for a PDS.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. However, the model data set *dcbdsn\_name* had a record format *recfm* that is not valid for a PDS. Record formats FBS, VBS, and VS are not valid record formats for a PDS.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE command to either specify a different DCBDSN data set, or to specify the data set characteristics without using the DCBDSN model data set parameter, or a combination of DCBDSN and RECFM SITE parameters to use all of the characteristics of the model DCBDSN data set except the record format, which will be overridden by the RECFM parameter. After changing the appropriate SITE parameters, reissue the MKD command.

**System Programmer Response:** None.

---

---

**550 MKD failed. Dcbdsn data set *dcbdsn\_name* is migrated and noautorecall is specified.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. However, the model data set *dcbdsn\_name* was migrated and the server was currently in No AutoRecall mode, therefore the model data set could not be recalled to determine the data set characteristics.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE AUTORECALL command to allow the DCBDSN data set to be recalled, then reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Error locating dcbdsn data set *dcbdsn\_name***

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN was in effect specifying that all new data sets be created with the same characteristics as the data set *dcbdsn\_name*. However, an error occurred when the server issued the LOCATE macro to locate the model data set *dcbdsn\_name*. The server was unable to determine the characteristics of the model data set *dcbdsn\_name* and therefore could not allocate the new data set.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Use the SITE command to either specify a different DCBDSN data set, or to specify the data set characteristics without using the DCBDSN model data set parameter. After changing the appropriate SITE parameters, reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Unit=*unit\_name* invalid for PDS.**

**Explanation:** The MKD command was issued to create a new PDS, but the current setting of the SITE UNIT parameter was not valid for a PDS (for example, the SITE UNIT was set to TAPE and a PDS cannot be allocated on a tape ).

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Issue the SITE command with the UNIT parameter to change the setting of the UNIT parameter to a unit that is valid for a PDS, then reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Volume for dcbdsn data set *dcbdsn\_name* is not mounted and NoAutomount is specified.**

**Explanation:** The MKD command was specified to create a new PDS. The SITE DCBDSN parameter was in effect specifying that all newly created data sets be allocated using data set *dcbdsn\_name* as a model data set for the data set characteristics. The volume containing *dcbdsn\_name* was not currently mounted to the system, and the FTP server was currently in No AutoMount mode, so the FTP server could not get the volume mounted to the system to determine the data set characteristics of *dcbdsn\_name* to use when allocating the new PDS.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Issue the SITE AUTOMOUNT command to allow the volume containing *dcbdsn\_name* to be mounted to the system, then reissue the MKD command.

**System Programmer Response:** None.

---

---

**550 MKD failed. Volume list *volume serial list* includes a volume which is not mounted and NoAutoMount is specified.**

**Explanation:** The client issued the MKD command to create an MVS partitioned data set at the server host. The SITE VOLUME command had previously been issued, or the VOLUME statement was specified in the FTP.DATA file, to specify that all new data sets be allocated on volumes *volume serial list*. Volume list *volume serial list* includes a volume that is not mounted to the system, and NoAutoMount is in effect to prevent the server from automatically requesting the volume to be mounted.

**System Action:** The MKD command is rejected. The FTP server waits for the next command from the client.

**User Response:** If possible, issue the SITE AUTOMOUNT subcommand to allow the FTP server to automatically request the operator to mount every volume in *volume serial list*. Otherwise, contact the MVS System Operator to have the volumes *volume serial list* mounted to the system. Then issue the MKD subcommand again.

**System Programmer Response:** If necessary, mount the volumes *volume list* to the system for use.

---

**550 MKD failed. Volume *volume* is not mounted and NoAutoMount is specified.**

**Explanation:** The client issued the MKD command to create an MVS partitioned data set at the server host. Either the SITE VOLUME command was issued, or the VOLUME statement was specified in the FTP.DATA file, to specify that all new data sets be allocated on volume *volume*. Volume *volume* was not mounted to the system, and NoAutoMount is in effect to prevent the server from automatically requesting the volume to be mounted.

**System Action:** The MKD command is rejected. The FTP server waits for the next command from the client.

**User Response:** If possible, issue the SITE AUTOMOUNT subcommand to allow the FTP server to automatically request the operator to mount volume *volume*. Otherwise, contact the MVS System Operator to have the volume *volume* mounted to the system. Then issue the MKD subcommand again.

**System Programmer Response:** If necessary, mount the volume *volume* to the system for use.

---

**550 MKD failed. Volume=*serial* is a tape and is invalid for a PDS.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE VOLUME parameter was in effect, specifying that all new data sets be allocated on volume *serial*. *serial* was determined to be a tape, and partitioned data sets cannot be allocated to tape.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Issue the SITE VOLUME command to change or reset the volume serial for new data sets to a direct access volume, then reissue the MKD command.

**System Programmer Response:** None.

---

**550 MKD failed. Volume=*volume serial list* includes a tape and is not valid for a PDS.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE VOLUME parameter was in effect, specifying that all new data sets be allocated on volumes *volume serial list*. Or, VOLUME=*volume serial list* was specified in FTP.DATA. The *volume serial list* was determined to include a tape, and partitioned data sets cannot be allocated to tape.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Issue the SITE VOLUME command to change the volume serial for new data sets to one or more direct access volumes. Then the MKD command again.

**System Programmer Response:** None.

---

---

**550 MKD failed. Error mounting dcbdsn data set *dcbdsn\_name***

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN parameter was in effect, specifying that all newly allocated data sets should use the data set *dcbdsn\_name* as a model data set for the data set characteristics. The volume containing data set *dcbdsn\_name* was not currently mounted to the system, and when the FTP server attempted to get the volume mounted, an error occurred and the volume was unable to be mounted. The FTP server was therefore unable to determine the data set characteristics for the new PDS.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Either contact the system programmer for the server system to get the volume containing *dcbdsn\_name* mounted (note, the LIST *dcbdsn\_name* command will display the volume that contains *dcbdsn\_name*), or issue the SITE command to change the model DCB data set specified by the DCBDSN parameter, or use the other SITE parameters to specify the data set characteristics without using a model DCB, then reissue the MKD command.

**System Programmer Response:** Determine why the volume containing *dcbdsn\_name* cannot be mounted to the system and correct the problem.

---

**550 MKD failed. Error retrieving dcbdsn data set *dcbdsn\_name***

**Explanation:** The MKD command was issued to create a new PDS. The SITE DCBDSN parameter was in effect, specifying that all newly allocated data sets should use the data set *dcbdsn\_name* as a model data set for the data set characteristics. *dcbdsn\_name* was migrated, and when the FTP server attempted to recall the data set, an error occurred and the data set was unable to be recalled. The FTP server was therefore unable to determine the data set characteristics for the new PDS.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Either contact the system programmer for the server system to get the *dcbdsn\_name* recalled, or issue the SITE command to change the model DCB data set specified by the DCBDSN parameter, or use the other SITE parameters to specify the data set characteristics without using a model DCB, then reissue the MKD command.

**System Programmer Response:** Determine why *dcbdsn\_name* could not be recalled and correct the problem.

---

**550 MKD failed. Recfm *recfm* is invalid for a PDS.**

**Explanation:** The MKD command was issued to create a new PDS. The SITE RECFM parameter had a value of *recfm*, which is not a valid record format for a PDS.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Issue the SITE RECFM command to change the setting of RECFM to a record format that is valid for a PDS, then reissue the MKD command. (Incorrect record formats are FBS, VBS, and VS).

**System Programmer Response:** None.

---

**550 Mkd fails: *new\_directory*. User not authorized**

**Explanation:** The MKD command was issued to create the new PDS *new\_directory*. However, some part of the high-level qualifiers for *new\_directory* were protected by a security system, such as RACF, and the user did not have sufficient authority to create a data set by this name.

**System Action:** The MKD command is rejected. Control is returned to the client connection for further command processing.

**User Response:** Contact the security administrator to get the necessary authorization for creating the data set.

**System Programmer Response:** None.

---

---

**550 MKDIR failed: *error***

**Explanation:** The client issued a MKD command to create an HFS directory at the FTP server host. The C run-time library function mkdir() was issued by the FTP server to create the directory, but the mkdir() function did not complete successfully. *error* is the error message returned by the C run-time library for the failing routine.

**System Action:** The MKD command is rejected. The server waits for the next command from the client.

**User Response:** Reissue the command. If the problem persists, contact the system programmer.

**System Programmer Response:** Correct the error indicated by *error*.

---

**550 Name length error for pathname *pathname***

**Explanation:** The pathname provided for a data transfer (retrieve or store), delete, or rename request is too long. The name, when combined with the current working directory, must adhere to the following maximum lengths:

44 for a physical sequential data set

55 for a member of a PDS (includes the parentheses for the member name)

1023 for a file in the hierarchical file system.

**Note:** The maximum length for a filename is 255 -- the total pathname maximum length is 1023.

**System Action:** The request is not performed.

**User Response:** Reissue the request with a name that meets the limits for the type of data set or file.

**System Programmer Response:** None.

---

**550 No data sets found**

**Explanation:** The LIST or NLST command requested a listing of one or more data sets, but the FTP server could not find any data sets that matched the requested path name.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Verify that the correct data set name or path was entered.

**System Programmer Response:** None.

---

**550 No jobs found for JESJOBNAME=*name.*, JESSTATUS=*status* and JESOWNER=*owner***

**Explanation:** No jobs were found that matched the selection criteria specified.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**550 No members found.**

**Explanation:** The LIST or NLST command requested members of a partitioned data set, but no members were found in the PDS that matched the requested name.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Verify that the member name or path was entered correctly.

**System Programmer Response:** None.

---

**550 No spool files available for *jobid***

**Explanation:** User attempted to retrieve spool file(s) from JES and no spool file(s) existed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the command and reissue.

**System Programmer Response:** None.

---

---

**550 No spool files available for *jobid*, JesPutGet aborted**

**Explanation:** User attempted to retrieve spool file(s) from JES and no spool file(s) were available for processing.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the command and reissue.

**System Programmer Response:** None.

---

**550 Non-DASD data set *dsname* cannot be processed.**

**Explanation:** The named data set does not have the correct data set organization. It is neither DASD nor tape.

**System Action:** The data transfer does not occur. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**550 Open of *dsname* failed.**

**Explanation:** The data set cannot be opened.

**System Action:** The data set is not sent. FTP continues.

**User Response:** None.

**System Programmer Response:** Look at the trace and find the following trace entry sequence:

```
seq_open_file: Ixy -> r,recfm=* for dsname  
seq_open_file: failed (aa): bbbb
```

The first line describes I/O mode as Input with mode values *x* and *y* that are defined as follows:

```
x = S --> stream I/O  
x = R --> record I/O
```

```
y = B --> binary stream  
y = T --> text stream
```

The second line describes error that occurred. *aa* is the *errno* value returned from the *fopen* of file. **bbbb** is the text associated with the *errno* value. The following describe values and text that could be observed:

**(61): Error trying to define file**

The file is already opened.

---

**550 Partitioned data set '*path name*' does not exist.**

**Explanation:** The LIST or NLST command requested that members of a partitioned data set be listed, but the requested data set could not be found.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Verify that the PDS name was entered correctly.

**System Programmer Response:** None.

---

**550 Pathname does not contain valid Jobid**

**Explanation:** The Jobid was incorrectly specified in the command.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct the request and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

---

**550** *pathname* not retrievable.

**Explanation:** The client issued a command to the FTP server. The FTP server was not able to resolve the *pathname*, perhaps for one of these reasons:

- no *pathname* was provided;
- pathname* does not exist;
- too many symbolic links had to be resolved to retrieve *pathname*;
- pathname* contained too many characters to resolve;
- the user does not have search permission on some component of *pathname*.

**System Action:** The command is rejected. The FTP server waits for the next command from the client.

**User Response:** Verify you entered the *pathname* correctly, and that you have access authority to *pathname*. If the command fails after you have verified *pathname* and access authority, report the error to the system programmer.

**System Programmer Response:** Error messages related to *pathname* retrieval are written to syslogd if ftp server traces are enabled. If syslogd is not active, the error messages will be written to the operator console. Fix any problems, and have the user issue the command again.

---

**550** Permanent negative completion.

**Explanation:** The requested file has a DSORG that is not supported by FTP.

**System Action:** The transfer ends. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**550** READTAPEFormat value is *value* but input tape is *format*

**Explanation:** A GET was issued for a data set on tape and a non-blank value was specified for READTAPEFormat. The READTAPEFormat specification does not match the tape label.

*value* is one of the following:

- F — Format was to be fixed .
- V — Format was to be variable.
- S — Format was to be spanned.
- X — Format was to be lrecl X.

If *value* is X, *format* is:

- lrecl *nnnn* — tape label shows logical record length *nnnn*.

If *value* is F, V, or S, *format* is:

- lrecl X — tape label shows lrecl X format.

**System Action:** The request is rejected. FTP continues.

**User Response:** Either specify the matching READTAPEFormat or change it to unspecified and retry the request. See the *z/OS Communications Server: IP User's Guide and Commands* for the description of the SITE command and for guidelines on using READTAPEFormat.

**System Programmer Response:** None.

---

**550** READTAPEFormat *value* is *value* but input tape is *format format*

**Explanation:** A GET was issued for a data set on tape and a non-blank value was specified for READTAPEFormat. The READTAPEFormat specification does not match the tape label.

*value* is one of the following:

- F — Format was to be fixed.
- V — Format was to be variable.

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*format* is the record format string from the tape label, such as VB, FBA, and so on.

**System Action:** The request is rejected. FTP continues.

**User Response:** Either specify the matching READTAPEFormat or change it to unspecified and retry the request. See the *z/OS Communications Server: IP User's Guide and Commands* for the description of the SITE command and for guidelines on using READTAPEFormat.

**System Programmer Response:** None.

---

### 550 READTAPEFormat value is *value* but input tape is not spanned.

**Explanation:** A GET was issued for a data set on tape and a non-blank value was specified for READTAPEFormat. The READTAPEFormat specification does not match the tape label.

*value* is one of the following:

- S — Format was to be spanned.

**System Action:** The request is rejected. FTP continues.

**User Response:** Either specify the matching READTAPEFormat or change it to unspecified and retry the request. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for the description of the SITE command and for guidelines on using READTAPEFormat.

**System Programmer Response:** None.

---

### 550 READTAPEFormat value is *value* but input tape is spanned

**Explanation:** A GET was issued for a data set on tape and a non-blank value was specified for READTAPEFormat. The READTAPEFormat specification does not match the tape label.

*value* is one of the following:

- F — Format was to be fixed.
- V — Format was to be variable.

**System Action:** The request is rejected. FTP continues.

**User Response:** Either specify the matching READTAPEFormat or change it to unspecified and retry the request. Refer to the *z/OS Communications Server: IP User's Guide and Commands* for the description of the SITE command and for guidelines on using READTAPEFormat.

**System Programmer Response:** None.

---

### 550 Rename fails: *dsname* already exists.

**Explanation:** The RNTO command was issued to rename a data set. A data set already exists with the new name.

**System Action:** The data set is not renamed. FTP continues.

**User Response:** Either delete the existing data set or choose a different new name.

**System Programmer Response:** None.

---

### 550 Rename fails: GDG name conversion failed.

**Explanation:** The relative name for a Generation Data Group (GDG) data set could not be converted into its absolute form.

**System Action:** The request is not performed.

**User Response:** Ensure that the name provided is the name of an existing GDG data set (for the old name) or that the new name specifies an existing base name for a GDG.

**System Programmer Response:** None.

---

---

**550 Renaming attempt failed. Rc was *errno*.**

**Explanation:** The RNTD command was issued to rename a data set. The rename was unsuccessful.

**System Action:** The data set is not renamed. FTP continues.

**User Response:** None.

**System Programmer Response:** The return code *errno* is the *errno* value received when the rename C function was invoked to rename the data set. *errno* is the UNIX System Services Return Code. These return codes are listed and described in the *z/OS UNIX System Services Messages and Codes*.

---

**550 request size of nonexistent member *member***

**Explanation:** The FTP server received a SIZE *file name* request. The *file name* specifies a partitioned data set member that does not exist.

**System Action:** The SIZE command is rejected. The FTP server waits for the next command.

**User Response:** Issue the SIZE command with a correct file name.

**System Programmer Response:** None.

---

**550- Request to export security context failed**

**Explanation:** The server call to the `gss_export_sec_context()` function failed. This reply is preceded by replies specifying the return codes returned from the failing function call. See those replies for further diagnosis.

**System Action:** FTP ends.

**User Response:** None.

**System Programmer Response:** See *z/OS Security Server Network Authentication Service Programming* for an explanation of the `gss_export_sec_context()` function.

---

**550 Retrieve of a whole Partitioned data set is not supported. Use MGET for this purpose.**

**Explanation:** The data set that was named is a partitioned data set (PDS) and cannot be retrieved as a single file.

**System Action:** The data set is not sent. FTP continues.

**User Response:** To get all of the data set, retrieve all of the members of the data set. For example, use the MGET client command if available.

**System Programmer Response:** None.

---

**550 RMD failed. Valid only for HFS files or partitioned data sets.**

**Explanation:** The RMD command was issued to remove a directory, but the directory name entered was not a valid PDS or HFS directory.

**System Action:** FTP continues

**User Response:** Re-enter the command with the correct directory name.

**System Programmer Response:** None.

---

**550 Rmd fails: *directory*. User not authorized**

**Explanation:** The RMD command was issued to delete the partitioned data set *directory*, but *directory* was protected by a security system such as RACF and the user was not authorized to delete the data set.

**System Action:** The RMD command is rejected. Control returns to the client for further command processing.

**User Response:** Contact the owner of the data set to get the necessary authorization to delete the data set.

**System Programmer Response:** If required, authorize the user to delete the partitioned data set.

## 550

---

### 550 RMDIR failed: *error*

**Explanation:** The client issued a RMD command to delete an HFS directory at the FTP server host. The C run-time library function `rmdir()` was issued by the FTP server to delete the directory, but the `rmdir()` function did not complete successfully. *error* is the error message returned by the C run-time library for the failing routine.

**System Action:** The RMD command is rejected. The server waits for the next command from the client.

**User Response:** Reissue the command. If the problem persists, contact the system programmer.

**System Programmer Response:** Correct the error indicated by *error*.

---

### 550 RNFR fails: *dsname* does not exist.

**Explanation:** The RNFR command was issued to rename a data set. The rename was unsuccessful because the data set does not exist.

**System Action:** FTP continues.

**User Response:** Make sure that the correct data set name is entered and that the data set is catalogued.

**System Programmer Response:** None.

---

### 550 RNFR fails: *dsname*. User not authorized.

**Explanation:** The RNFR command was issued to rename a data set. The requested data set is protected by a security system such as RACF, and the user is not authorized to rename the data set.

**System Action:** The data set is not renamed. FTP continues.

**User Response:** Contact the owner of the data set for authorization to rename it.

**System Programmer Response:** None.

---

### 550 RNTO fails: *dsname*. User not authorized.

**Explanation:** The RNTO command was issued to rename a data set. The requested data set is protected by a security system such as RACF, and the user is not authorized to rename the data set.

**System Action:** The data set is not renamed. FTP continues.

**User Response:** Contact the owner of the data set for authorization to rename it.

**System Programmer Response:** None.

---

### 550 SIZE command not supported with active security mechanism

**Explanation:** The SIZE command is not supported when the connection is protected by a security mechanism.

**System Action:** The SIZE command fails. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

### 550 Size of a whole Partitioned data set is not supported.

**Explanation:** The FTP server received a SIZE command that specified an entire partitioned data set. Partitioned data sets cannot be transferred as a single file. SIZE is not supported for data sets that cannot be transferred.

**System Action:** No SIZE information is sent. The FTP server waits for the next command.

**User Response:** To approximate the byte transfer size of a partitioned data set, issue SIZE for each member, then add the sizes together. To transfer the partitioned data set, you would have to transfer each member and aggregate them at the client.

**System Programmer Response:** None.

---

---

**550 SIZE fails: *file name* is migrated**

**Explanation:** The FTP server received a SIZE *file name* request. The *file name* specifies a data set that was migrated. SIZE is not supported for migrated data sets.

**System Action:** The SIZE command is rejected. The FTP server waits for the next command.

**User Response:** Ask the MVS operator to recall the data set. Then issue the SIZE command again.

**System Programmer Response:** None.

---

**550 SIZE fails: *filename* is on a volume which is not mounted**

**Explanation:** The FTP server received a SIZE *file name* request. The *file name* specifies a data set on a volume that is not mounted. SIZE is not supported for data sets on volumes that are not mounted.

**System Action:** The SIZE command is rejected. The FTP server waits for the next command.

**User Response:** Ask the MVS operator to mount the required volume. Then issue the SIZE command again.

**System Programmer Response:** None.

---

**550 SQL query not available. Can't load CAF routines.**

**Explanation:** FTP was unable to load the CAF (Call Access Facility) modules it uses to provide support for SQL queries.

**System Action:** The command is rejected. FTP continues.

**User Response:** If FTP SQL support should be available, contact your system programmer. If FTP SQL support was not intended, issue a 'SITE filetype=' command to change the filetype from its current setting of 'SQL' to 'SEQ' or 'JES'.

**System Programmer Response:** If FTP SQL support is desired, ensure that the appropriate DSNLOAD library is included in the STEPLIB for the FTP server. (If FTP is started from the z/OS UNIX shell, the \$STEPLIB environment variable must be set.) Restart the FTP server.

---

**550 -SVC99 RETURN CODE = *rc* S99INFO = *info* S99ERROR = *decerr* HEX = *hexerr***

**Explanation:** module SVC99 passed back a nonzero return code. This message documents the return code, S99INFO and S99ERROR values.

*rc* is the return code.

*info* is the information code.

*decerr* is the error code in decimal.

*hexerr* is the error code in hexadecimal.

**System Action:** The file transfer will end if the data set was not allocated.

**User Response:** Determine why the data set was not allocated, correct as necessary, and retry. Refer to the *z/OS MVS Programming: Authorized Assembler Services Guide* for information about interpreting DYNALLOC return codes.

**System Programmer Response:** Determine why the data set was not allocated and correct.

---

**550 The user is not authorized to access the job**

**Explanation:** A DELETE command was issued to a job the issuer does not have appropriate authority.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Correct and reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

---

**550 Transfer aborted**

**Explanation:** This is the final reply of a group of replies.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Refer to replies prior to the 550 reply.

**System Programmer Response:** None.

---

**550 TYPE U transfer requires variable format data set**

**Explanation:** You attempted to put a data set while the transfer type is Unicode and the record format was not variable.

**System Action:** The request is rejected. FTP continues.

**User Response:** Change the record format to variable (SITE RECFM)

**System Programmer Response:** None.

---

**550 Unable to append to *dsname***

**Explanation:** An internal error occurred during the processing of the append request.

**System Action:** The request is not performed.

**User Response:** Contact the System Programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

**550 Unable to append to fixed record format file in image mode**

**Explanation:** The server does not supports an append request for a fixed format file when the data type is image.

**System Action:** The append is not performed.

**User Response:** Reissue the request with data type ASCII or EBCDIC.

**System Programmer Response:** None.

---

**550 Unable to append to member *name* in Partitioned data set *dsname***

**Explanation:** An internal error occurred while trying to process a data set.

**System Action:** The request is not performed.

**User Response:** Contact the System Programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

**550 Unable to append to the Null directory.**

**Explanation:** The current working directory is the null directory. The server does not support the append command to the null directory.

**System Action:** The command is rejected. FTP continues.

**User Response:** Use the STOR or STOU command to store to the null directory or change the directory to use append.

**System Programmer Response:** None.

---

**550 Unable to create data set *dsname* for *command* command.**

**Explanation:** The server attempted to allocate to a new data set to store data. The dynamic allocation was unsuccessful. *command* is STOR, STOU, or APPE.

**System Action:** The command is rejected. FTP continues.

---

**User Response:** None.

**System Programmer Response:** Examine the trace and look for trace messages with the tag *seq\_create\_file*. These trace messages provide the reason codes for the dynamic allocation error.

**550 Unable to delete *directory* (Error code: *error code*, Reason code: *reason code*)**

**Explanation:** The RMD or DELE command was issued to delete PDS *directory*, but when the FTP server attempted to delete the data set, the delete did not complete successfully. Possible causes for this error include the data set is currently in use by someone else, the data set has an unexpired retention period, the data set is located on a tape volume, or the direct access volume containing the data set is not writable.

**System Action:** The RMD or DELE command is rejected. Control returns to the client for further command processing.

**User Response:** Reissue the command. If the problem persists, contact the system programmer for the server system.

**System Programmer Response:** The *error code* and *reason code* displayed contain the S99ERROR and S99INFO fields from DYNALLOC. Refer to the Dynamic Allocation return code section in the *z/OS MVS Programming: Authorized Assembler Services Guide* to determine why the data set cannot be deleted and correct the problem.

**550 Unable to delete *dsname* (Rc = *errno*)**

**Explanation:** The attempt to delete an HFS file was unsuccessful.

**System Action:** The file is not deleted. FTP continues.

**User Response:** None.

**System Programmer Response:** The return code *errno* is received when the remove C function was invoked to delete the file. *errno* is the UNIX System Services Return Code. These return codes are listed and described in the *z/OS UNIX System Services Messages and Codes*.

**550 Unable to obtain data set list**

**Explanation:** A service call was issued to obtain the list of requested data sets from the MVS system, but the service call was unsuccessful.

**System Action:** The LIST or NLST command is rejected.

**User Response:** Retry the command. If the problem persists, contact the system programmer for the FTP server system.

**System Programmer Response:** If necessary, re-create the problem with FTP server traces turned on. Locate the last occurrence of the trace message "list2: return code *rc* from gtlst.". This trace message will contain the return code from the service call that was unsuccessful. Determine the cause and correct the problem.

**550- Unable to obtain JES NODE name from subsystem information.**

**Explanation:** The FTP server was attempting to use the JES SubSystem Interface (SSI54) to obtain the JES home NODE name, but the information was not available.

**System Action:** No data is sent. FTP continues.

**User Response:** Ensure that the JES subsystem is active.

**System Programmer Response:** None.

**550 Unable to perform LIST/NLST command due to error with /dev/null.**

**Explanation:** During server initialization, the server attempted to open STDOUT and STDERR to the /dev/null character special file. It was unable to do so, and the server is not able to perform the LIST or NLST subcommand for HFS files.

**System Action:** The command is rejected. FTP continues.

## 550

**User Response:** Contact the system programmer.

**System Programmer Response:** Error Message EZYFT48E logged during server initialization will contain the reason for the /dev/null failure. Correct this error and restart the FTP server.

---

### 550 Unable to send *dsname*

**Explanation:** The named data set is for a generation data group (GDG) that does not exist.

**System Action:** The data set is not sent. FTP continues.

**User Response:** Ensure that the GDG exists.

**System Programmer Response:** None.

---

### 550 Unable to size *dsname*

**Explanation:** An error occurred while the FTP server was trying to determine the byte transfer size of *dsname*.

**System Action:** No size information is returned for *dsname*. FTP continues.

**User Response:** Report the error to the system programmer.

**System Programmer Response:** Error messages related to *dsname* are written to syslogd if ftp server traces are enabled. If syslogd is not active, the error messages will be written to the operator console.

---

### 550 Unable to store *dsname*

**Explanation:** An internal error occurred during the processing of the store request.

**System Action:** The request is not performed.

**User Response:** Contact the System Programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

### 550 Unable to store member *name* in Partitioned data set *dsname*

**Explanation:** An internal error occurred during the processing of the store request.

**System Action:** The request is not performed.

**User Response:** Contact the System Programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

### 550 Unable to store unique *dsname*

**Explanation:** An internal error occurred during the processing of the store unique request.

**System Action:** The request is not performed.

**User Response:** Contact the System Programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

### 550 Unable to store unique member *name* in Partitioned data set *dsname*

**Explanation:** An internal error occurred while trying to process a data set.

**System Action:** The request is not performed.

**User Response:** Contact the System Programmer.

**System Programmer Response:** Contact the IBM Support Center.

---

---

**550 Unexpected status for *dsname***

**Explanation:** An unexpected error occurred attempting to locate a data set.

**System Action:** The request is not performed.

**User Response:** Ensure that the characteristics of the dataset in question are valid. Also, ensure that the data set characteristics passed on the SITE command or the defaults specified in the FTP.DATA file are valid.

**System Programmer Response:** Contact the IBM Support Center.

---

**550 Unknown HOME directory for pathname *path***

**Explanation:** A command was issued that required the server to resolve the user's HOME directory name (for example, a pathname was entered that began with the directory notation ~/) but the server was unable to determine the user's HOME directory.

**System Action:** The command is rejected. FTP continues.

**User Response:** Verify that the OMVS user ID has a HOME directory. If necessary, define a HOME directory for the user ID.

**System Programmer Response:** None.

---

**550 Unknown return code from Get JES spool request: *number***

**Explanation:** During the processing of a JES request, an unknown return code was returned from JES.

**System Action:** Unpredictable results may occur.

**User Response:** Issue the command again. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose problem.

---

**550 Unknown return code from Get JES spool request: *number*, JesPutGet aborted**

**Explanation:** During the processing of a JES request, an unknown return code was returned from JES.

**System Action:** Unpredictable results may occur.

**User Response:** Issue the request again. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose problem.

---

**550 Unknown return code from JES cancel request**

**Explanation:** A request was made to delete a job from JES. During the processing of this request, JES provided an unknown return code.

**System Action:** Unpredictable results may occur.

**User Response:** Issue the request again. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose problem.

---

**550 User Exit refuses this Job to be submitted by *dsname***

**Explanation:** During the submit of a job to JES, a JES user or installation exit encountered an error. The request to submit the job may have failed.

**System Action:** FTP server continues normal execution. The FTP client waits for the next command input.

**User Response:** Reissue the command. If problem persists, contact appropriate support personnel.

**System Programmer Response:** Diagnose Problem.

---

---

**550 Volume containing *dsname* is not mounted and NoAutoMount specified.**

**Explanation:** The command requested MVS data set *dsname*, but the volume containing *dsname* was not mounted to the system and the FTP server was currently in No Automount mode.

**System Action:** The command is rejected.

**User Response:** If possible, issue the SITE AUTOMOUNT command to allow the volume containing the data set to be automatically mounted; otherwise, contact the system operator to mount the volume to the system. Then reissue the command.

**System Programmer Response:** None.

---

**550- volume for "*new\_directory*" is not mounted and NoAutomount is specified.**

**Explanation:** The volume containing the requested *new\_directory* was not mounted and the server was currently in No AutoMount mode. Therefore, the server could not mount the volume to complete the CWD command.

**System Action:** The CWD command is rejected.

**User Response:** If possible, issue the SITE AUTOMOUNT command to allow the server to request automatic volume mounts. Otherwise, issue the STAT command to find the current value for VOLUME. Ask the MVS operator to mount the indicated volume or volumes; then issue the MKD command again.

**System Programmer Response:** If necessary, have the volume mounted to the system.

---

**550 Volume is not ready and automatic tape mounts are not allowed.**

**Explanation:** A request to retrieve a data set from or store a data set on a tape volume was received. The tape volume is not mounted and the end user requested NoAutoTapeMount.

**System Action:** The request is not performed.

**User Response:** Request that the tape be mounted by the operator and then reissue the request. Also, the SITE AUTOTAPEMOUNT subcommand can be issued to allow automatic tape mounts to occur.

**System Programmer Response:** None.

---

**550 Volume *name* is not mounted and NoAutoMount is specified.**

**Explanation:** A store request was received for which a new data set must be created. The volume on which the data set was to be created is not mounted and the server was currently in NoAutoMount mode.

**System Action:** The request is not performed.

**User Response:** Request that the volume be mounted by the operator and then reissue the request. Also, the SITE AUTOMOUNT subcommand can be issued to allow automatic DASD mounts to occur.

**System Programmer Response:** None.

---

**550 Volume=*volume list* includes a volume which is is not mounted and NoAutoMount is specified.**

**Explanation:** The FTP server received a store request that required it to create a new data set. All the volumes in *volume list* are needed to create the new data set. One or more of the volumes is not mounted and the server is currently in NoAutoMount mode.

**System Action:** The FTP server rejects the request. The server waits for the next command.

**User Response:** If possible, issue SITE AUTOMOUNT to allow the server to request volume mounts automatically. Otherwise, ask the MVS operator to mount all the volumes in *volume list*.

**System Programmer Response:** None.

---

---

**550 VSAM data set *dsname* cannot be processed.**

**Explanation:** The named data set is a VSAM data set and cannot be processed.

**System Action:** The data set is not sent. FTP continues.

**User Response:** None.

**System Programmer Response:** None.

---

**551 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS “kill” command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**551 Reload of the load library failed**

**Explanation:** While processing a PUT or MPUT command for one or more load modules, the server failed to reload the load modules from the temporary data set into the load library. The transfer is ended, and no files will be transferred.

**System Action:** FTP waits for the next command.

**User Response:** Contact your system programmer.

**System Programmer Response:** Verify sufficient free space exists in the load library to receive the load modules. Look for console messages from file system or the IEBCOPY utility. Get a server trace of the operation.

---

**551 Transfer aborted: attempt to connect to *db2name* failed (*code*)**

**Explanation:** FTP attempted to process a SQL request, but was unable to connect to the DB2 subsystem named *db2name*.

**System Action:** No data is sent. FTP continues.

**User Response:** If the DB2 subsystem name (*db2name*) is incorrect, issue a 'SITE db2=' command for the correct DB2 subsystem name, and resubmit the SQL query. If the DB2 subsystem name is correct, contact your system programmer for FTP.

**System Programmer Response:** Ensure that the DB2 subsystem was started. See the *DB2 Messages and Codes* for a detailed explanation of *code*.

---

**551 Transfer aborted: *condition* occurred for TYPE U transfer**

**Explanation:** The transfer of data ended because of an error reading the data set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the retrieve operation and contact the IBM Software Support Center.

---

**551 Transfer aborted: conversion failure**

**Explanation:** The transfer of data ended because of an error reading the data set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the retrieve operation and contact the IBM Software Support Center.

---

## 551

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### 551 Transfer aborted: internal read error.

**Explanation:** The transfer of data ended because an internal error was detected while attempting to read the data.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the operation and contact the IBM Software Support Center.

---

### 551 Transfer aborted: internal write error.

**Explanation:** The transfer of data ended because an internal error was detected while attempting to write the data.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the operation and contact the IBM Software Support Center.

---

### 551 Transfer aborted: SQL CURSOR DECLARE failure

**Explanation:** DB2 encountered an error while processing a SQL statement submitted through FTP. The FTP output file contains the error message from DB2.

**System Action:** FTP continues.

**User Response:** If possible, correct the error indicated in the output file and resubmit the SQL request. Otherwise, contact your system programmer for FTP.

**System Programmer Response:** Correct the error indicated by the message contained in the output file. For detailed explanation of DB2 error codes, see the *DB2 Messages and Codes*.

---

### 551 Transfer aborted: SQL CURSOR OPEN failure

**Explanation:** DB2 encountered an error while processing a SQL statement submitted through FTP. The FTP output file contains the error message from DB2.

**System Action:** FTP continues.

**User Response:** If possible, correct the error indicated in the output file and resubmit the SQL request. Otherwise, contact your system programmer for FTP.

**System Programmer Response:** Correct the error indicated by the message contained in the output file. For detailed explanation of DB2 error codes, see the *DB2 Messages and Codes*.

---

### 551 Transfer aborted: SQL not available. Attempt to open plan *plan name* failed (*code*)

**Explanation:** FTP attempted to process a SQL request, but was unable to open FTP's DB2 subsystem plan named *plan name*

**System Action:** No data is sent. FTP continues.

**User Response:** If FTP SQL support should be available, contact your system programmer for FTP. If a SQL query was not intended, issue 'SITE filetype=' command to change the filetype from 'SQL' to 'SEQ' or 'JES' before the next FTP retrieve command.

**System Programmer Response:** Ensure that a BIND was done for plan *plan name* and that execute authorization was granted for the plan.

**Note:** If you used a plan name other than EZAFTPMQ for the EZAFTPMQ DBRM, your FTP.DATA file must contain a DB2PLAN statement to specify the plan name that the FTP server is to use. See *DB2 Messages and Codes* for a detailed explanation of *code*.

---

---

**551 Transfer aborted: SQL PREPARE/DESCRIBE failure**

**Explanation:** DB2 encountered an error while processing a SQL statement submitted through FTP. The FTP output file contains the error message from DB2.

**System Action:** FTP continues.

**User Response:** Correct the error indicated in the output file, and resubmit the SQL request.

**System Programmer Response:** None.

---

**551 Transfer aborted: uneven number of bytes received for TYPE U transfer**

**Explanation:** The transfer of data ended because of an error reading the data set.

**System Action:** FTP continues.

**User Response:** None.

**System Programmer Response:** Get a trace of the retrieve operation and contact the IBM Software Support Center.

---

**551 Unload of the load library failed**

**Explanation:** While processing a GET or MGET command for one or more load modules, the server failed to unload the load modules into a temporary data set. The transfer is ended, and no files will be transferred.

**System Action:** FTP waits for the next command.

**User Response:** Contact your system programmer.

**System Programmer Response:** Verify sufficient free space exists on the file system to receive the temporary data set. Look for console messages from file system or the IEBCOPY utility. Get a server trace of the operation.

---

**554 command terminated due to server shutdown in progress**

**Explanation:** The FTP server was processing a subcommand from the client when the process was stopped either by an OMVS "kill" command, or by a server abend. The server has begun shutdown processing.

**System Action:** The subcommand in progress and the FTP server session process ends.

**User Response:** None.

**System Programmer Response:** If the server process was stopped due to an abend, contact the IBM Support Center.

---

**554 Requested action not taken: file not found.**

**Explanation:** A restart request was received for the FTP server to resume storing into a data set or file at a point indicated by a restart marker. The data set or file does not exist so the restart is not possible.

**System Action:** FTP continues.

**User Response:**

**System Programmer Response:**

---

**554 Requested action not taken: GDG name conversion failed.**

**Explanation:** A request was received to store a relative generation number of a Generation Data Group (GDG) data set. The relative name could not be converted into an absolute name.

**System Action:** FTP continues.

**User Response:** Ensure that the data set name is a valid generation data group.

**System Programmer Response:** None.

---

---

**554 Requested action not taken: invalid REST parameter.**

**Explanation:** A RETR command is being processed as part of a restart of a checkpointed command. Before the RETR was sent, a REST command was processed and a restart marker was saved. The restart marker is incorrect.

**System Action:** The RETR command is rejected.

**User Response:** None.

**System Programmer Response:** Look at the trace to determine the error that occurred when the repositioning was done.

---

**554 Restart not valid for destination processing**

**Explanation:** The user attempted a **restart** or **srestart** FTP subcommand after a site *dest=destination* subcommand had been issued. **Restart** and **srestart** are not valid while a site *dest=destination* option is in effect.

**System Action:** FTP stops processing the restart or srestart subcommand and prompts for the next subcommand.

**User Response:** If a SITE *DEST=destination* subcommand was issued before the file transfer you are trying to restart failed, you cannot restart the file transfer. Issue a get or put subcommand to transfer the file or data set. If no SITE *DEST=destination* subcommand was issued when the original file transfer failed, issue SITE *DEST* to rescind the SITE subcommand. Issue **restart** or **srestart** again.

**System Programmer Response:** None.

---

**554 Transfer aborted: unsupported SQL statement**

**Explanation:** FTP retrieved a file (or data set) while filetype = "SQL" but the contents of the file contain a SQL statement that is not supported by FTP.

**System Action:** The RETR command is rejected.

**User Response:** If a SQL query was intended, reissue the RETR command for a file that contains a SQL SELECT statement. If SQL query was not intended, issue a 'SITE filetype=' command to change the current setting of filetype to either 'SEQ' or 'JES'.

**System Programmer Response:** None.

---

**557 Data contains codepoints that cannot be translated**

**Explanation:** The data cannot be translated using the current translate table. The translate table was built from the codesets that are specified by the SBADATACONN parameter on SITE or an SBADATACONN statement in the FTP.DATA file. At the time the table was built, one or more of the codepoints was reported as untranslatable for specific data codepoints. The data in this transfer has one or more of the codepoints.

**System Action:** FTP continues.

**User Response:** Use SITE SBADATACONN to build or select a translation table that can translate the codepoints in the data

**System Programmer Response:** None.

---

**557 File contains ASCII data - enter TYPE A command before entering *cmdname* command**

**Explanation:** The FTP server determined that the local file is tagged as an ASCII file. FTP will process this file only if the data type is set to ASCII.

*cmdname* is either RETR or SIZE.

**System Action:** FTP continues.

**User Response:** Enter the TYPE A command and re-enter the command that failed.

**System Programmer Response:** None.

---

---

**557 File contains binary data - enter TYPE I command before entering *cmdname* command**

**Explanation:** The FTP server determined that the local file is tagged as a binary file. FTP will process this file only if the data type is set to binary.

*cmdname* is either RETR or SIZE.

**System Action:** FTP continues.

**User Response:** Enter the TYPE I command and re-enter the command that failed.

**System Programmer Response:** None.

---

**557 JES functions are not allowed with ASCII codepage *codepage***

**Explanation:** The current codepage specified for the file system by an SBADATACONN statement in the FTP.DATA file or by the SBADATACONN parameter on a SITE command is an ASCII codepage. JES functions cannot be performed if the file system codepage name is an ASCII codepage.

*codepage* is the name of the current codepage.

**System Action:** FTP continues.

**User Response:** Use a SITE SBADATACONN command to specify a file system codepage that is EBCDIC or use SITE SBADATACONN command to choose a data set for the translation table.

**System Programmer Response:** None.



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## Chapter 17. SMTP (pascal version) user abend codes

This chapter describes the User Abend Codes that might be generated by the SMTP (pascal version) during processing.

*Table 26. User abend codes generated by the SMTP (pascal version) during processing*

<b>Abend code</b>	<b>Module</b>	<b>Description</b>
U0008	SMTPUTIL	Routine Makeerrorfile() generates this user abend code when message EZA5545E or EZA5546E or both are generated more than 100 times. The reason for this abend is to ensure that the system WTO buffers are not flooded. Check the data set names associated with messages. Data sets being erased or manipulated while SMTP is up and running might cause this problem.



## Chapter 18. Intrusion detection services probe IDs

Intrusion Detection Services defines a code called a probeid to identify the reason and code location associated with output information. The probeids appear in IDS console messages, IDS syslogd messages, packets traced in the SYSTCPIP portion of the stack dataspace and CTRACE records in the SYSTCPIP portion of the stack dataspace.

IDS Probe IDs are four bytes in length. The first byte indicates the IDS type:

- X'01' TCP Traffic Regulation event
- X'02' UDP Traffic Regulation event
- X'03' Scan detection event
- X'04' Attack detection event

The second byte is based on the IDS type. For the Traffic Regulation probe IDs, the second byte is always zero.

- For Scan detection probe IDs, a nonzero value in the second byte indicates the suspicion level assigned to a packet being tracked. The following are the possible values:
  - X'01' for very suspicious packet.
  - X'02' for possibly suspicious packet.
  - X'03' for normal packet.
  - X'00' is used to report a scan detected event or other unusual situation that might affect scan processing. These conditions are not written to the IDS trace but are written to the syslogd or the console if requested by the policy.
- For Attack detection, the second byte of the probe ID identifies the attack type.
  - X'01' MALFORMED\_PACKET
  - X'02' OUTBOUND\_RAW
  - X'03' IP\_FRAGMENT
  - X'04' ICMP\_REDIRECT
  - X'05' RESTRICTED\_IP\_OPTIONS
  - X'06' RESTRICTED\_IP\_PROTOCOL
  - X'07' FLOOD
  - X'08' PERPETUAL\_ECHO

Table 27. Intrusion detection services probe IDs

X'01002200'	TCP TR, enter or leave constrained during close processing
X'01002400'	TCP TR, enter or leave constrained during close processing
X'01004014'	TCP TR, source host allowed to exceed idsTRtcpPercentage limit because of QoS policy
X'01004042'	TCP TR, source host exceeded both idsTRtcpPercentage and QoS policy (should not occur)
X'01004044'	TCP TR, source host exceeded idsTRtcpPercentage limit
X'01004048'	TCP TR, destination port exceeded idsTRtcpTotalConnections limit
X'01004084'	TCP TR, internal error processing source host hash table
X'01004088'	TCP TR, internal error processing destination port hash table
X'01004200'	TCP TR, enter or leave constrained during connection handshake complete processing
X'01004400'	TCP TR, enter or leave constrained during connection handshake complete processing

Table 27. Intrusion detection services probe IDs (continued)

X'01004800'	TCP TR, enter or leave constrained during connection handshake complete processing
X'01008400'	TCP TR, enter or leave constrained during listen processing
X'01008800'	TCP TR, enter or leave constrained during listen processing
X'0100C800'	TCP TR, enter or leave constrained during policy change processing
X'02000001'	UDP TR port entered constrained state
X'02000002'	UDP TR port exited constrained state
X'02000003'	UDP TR port exited constrained state at policy end
X'02000004'	UDP TR port IDS Packet traced during constrained state
X'0300FFF1'	Scan, Fast scan detected
X'0300FFF2'	Scan, Slow scan detected
X'0300FFF3'	Scan, Scan processing encountered a storage constraint
X'0300FFF4'	Scan, Scan storage constraint exited
X'0300FFF5'	Scan, Scan internal interval overrun
X'03010001'	Scan, Very Suspicious, request issued to a Reserved port
X'03010011'	Scan, Very Suspicious, ICMP to broadcast or multicast address
X'03010021'	Scan, Very Suspicious, half open connection timed out
X'03010025'	Scan, Very suspicious, unexpected TCP flags or flag combinations (such as syn and fin both set)
X'03010028'	Scan, Very suspicious, no peer connection and unexpected TCP flags set
X'03020002'	Scan, Possibly suspicious, request to an Unbound port
X'03020004'	Scan, Possibly suspicious, rejected by Firewall
X'03020005'	Scan, Possibly suspicious, no peer connection and rejected by Firewall
X'03020006'	Scan, Possibly suspicious, unexpected state
X'03020012'	Scan, Possibly suspicious, ICMP Info request
X'03020013'	Scan, Possibly suspicious, ICMP Subnet mask request
X'03020014'	Scan, Possibly suspicious, ICMP Record route
X'03020015'	Scan, Possibly suspicious, ICMP Record Timestamp
X'03020020'	Scan, Possibly suspicious, reset to half open TCP connection
X'03020024'	Scan, Possibly suspicious, TCP connection timed out
X'03020026'	Scan, Possibly suspicious, TCP syn dropped
X'03020027'	Scan, Possibly suspicious, no TCP connection
X'03030000'	Scan, Normal packet. For example, normal TCP connection completed or ICMP echo request to a single host without special options.
X'03030003'	Scan, Rejected by QOS policy
X'03030022'	Scan, Out of sequence window
X'03030023'	Scan, Stand alone syn but connection already established
X'03030026'	Scan, TCP syn dropped
X'04010001'	Attack, type=MALFORMED_PACKET, IP header error, header length field error
X'04010002'	Attack, type=MALFORMED_PACKET, IP header error, header length field or total length field error
X'04010003'	Attack, type=MALFORMED_PACKET, IP header error, total length field error
X'04010004'	Attack, type=MALFORMED_PACKET, IP header error, fragment offset field error

Table 27. Intrusion detection services probe IDs (continued)

X'04010005'	Attack, type=MALFORMED_PACKET, IP header error, source IP address/destination IP address error
X'04010006'	Attack, type=MALFORMED_PACKET, IP header error, source IP address/destination IP address error
X'04010007'	Attack, type=MALFORMED_PACKET, IP header error, header length field or total length field error
X'04010008'	Attack, type=MALFORMED_PACKET, IP header/TCP header error, source and destination IP addresses and source and destination ports error
X'04010009'	Attack, type=MALFORMED_PACKET, IP header error, header length field error
X'04020001'	Attack, type=OUTBOUND_RAW, IP protocol restricted
X'04020002'	Attack, type=OUTBOUND_RAW, application built IP header, source IP address not in home list
X'04020003'	Attack, type=OUTBOUND_RAW, application built IP header, datagram fragmented
X'04020004'	Attack, type=OUTBOUND_RAW, application built IP header, ICMP reply datagram
X'04020005'	Attack, type=OUTBOUND_RAW, application built IP header, IP protocol restricted
X'04020006'	Attack, type=OUTBOUND_RAW, ICMP reply datagram
X'04030001'	Attack, type=IP_FRAGMENT, datagram fragmented within the first 256 bytes
X'04040001'	Attack, type=ICMP_REDIRECT, ICMP Redirect datagram
X'04050001'	Attack, type=RESTRICTED_IP_OPTIONS, datagram contains a restricted IP option
X'04060001'	Attack, type=RESTRICTED_IP_PROTOCOL, IP protocol restricted
X'04070001'	Attack, type=FLOOD, Synflood end detected
X'04070002'	Attack, type=FLOOD, Syn received during Synflood
X'04070003'	Attack, type=FLOOD, Synflood end detected
X'04070004'	Attack, type=FLOOD, Synflood end detected
X'04070005'	Attack, type=FLOOD, Synflood end detected
X'04070006'	Attack, type=FLOOD, Synflood end detected
X'04070007'	Attack, type=FLOOD, Synflood end detected
X'04070008'	Attack, type=FLOOD, Accept queue expanded
X'04070009'	Attack, type=FLOOD, Synflood start detected
X'04080001'	Attack, type=PERPETUAL_ECHO, UDP perpetual echo detected
X'04080002'	Attack, type=PERPETUAL_ECHO, UDP perpetual echo detected
X'04080003'	Attack, type=PERPETUAL_ECHO, UDP perpetual echo detected, port unreachable



## Chapter 19. Resolver return and reason codes

This chapter describes the return codes and the reason codes generated by the Resolver.

### Resolver return codes

This section describes the return codes returned by the Resolver. Table 28 on page 527 describes the return codes for the `getaddrinfo`, `getnameinfo`, and `freeaddrinfo` resolver APIs. Return codes for the `gethostbyname` and `gethostbyaddr` resolver APIs are described in Table 29 on page 527.

Table 28. Resolver return codes for `getaddrinfo`, `getnameinfo` and `freeaddrinfo`

Code	Name	Description	Programmer's response
1	EAI_NONAME	This can be either of the following: <ul style="list-style-type: none"> <li>The name does not resolve for the supplied parameters.</li> <li>Neither hostname nor servicename were supplied.</li> </ul>	Check the validity of function parameters, TCPIP.DATA values, DNS definitions, or local host file (for example, etc.ipnodes). Also, ensure that your TCP/IP stack is active.
2	EAI_AGAIN	The name could not be resolved at this time. Future attempts might succeed.	The function is not able to complete, but the condition might not last a long time. Another call attempt can be tried almost immediately. Also, ensure that your resolver is active.
3	EAI_FAIL	A non-recoverable error occurred when attempting to resolve the name.	Check the validity of function parameters and TCPIP.DATA values.
5	EAI_FAMILY	The address family was not recognized or the address length was invalid length for the specified family.	Check the validity of function parameters.
6	EAI_MEMORY	There was a memory allocation failure when trying to allocate storage.	Increase the user storage allocation for this job.
7	EAI_BADFLAGS	The flags parameter had an invalid value.	Check the validity of function parameters.
8	EAI_SERVICE	The service passed was not recognized for the specified socket type.	Check the validity of function parameters, and local services file (for example, /etc/services or etc.services)
9	EAI_SOCKTYPE	The intended socket type was not recognized.	Check validity of function parameters.

Table 29. Resolver return codes for `gethostbyname` and `gethostbyaddr`

Code	Name	Description	Programmer's response
1	HOST_NOT_FOUND	The name specified is unknown, the address domain specified is not supported, or the address length specified is not valid.	Check the validity of function parameters, TCPIP.DATA values, and DNS definitions.
2	TRY_AGAIN	Temporary error; information not currently accessible.	The function is not able to complete, but the condition might not last a long time. Another call attempt can be tried almost immediately. Also, ensure that your resolver is active.

Table 29. Resolver return codes for *gethostbyname* and *gethostbyaddr* (continued)

Code	Name	Description	Programmer's response
3	NO_RECOVERY	Unrecoverable error occurred.	Check the validity of function parameters and TCPIP.DATA values.
4	NO_DATA	There is no data of the requested type for the host name.	Check the validity of function parameters, TCPIP.DATA values, and DNS definitions.

## Resolver reason codes

This section describes the Resolver Reason Codes, listing them by decimal and hexadecimal value.

The hexadecimal reason code is made up of 4 bytes in the following format:

cccc	rrrr
------	------

- *cccc* is the reason code qualifier. If *cccc* is in the range of X'7800' through X'78FF', the reason code is defined by the Resolver.
- *rrrr* is the reason code value. If *cccc* is in the range of X'7800' through X'78FF', the value is described in the following table. If *cccc* is outside of that range, it is not a Resolver reason code. Those reason codes are described in the *z/OS UNIX System Services Messages and Codes*.

Table 30. Resolver reason codes

Decimal value	Hexadecimal value	Reason code	Description
0—4095	0000—0FFF	defined by UNIX System Services	See the <i>z/OS UNIX System Services Messages and Codes</i> .
4096	1000	RSN_NotUp	Resolver service is not available.
4097	1001	RSN_BadEnv	Resolver service does not support SRB mode.
4098	1002	RSN_NoSpace	Resolver service output buffer is too small.
4099	1003	RSN_BadValue	Resolver service input parameter value is not valid.
4100	1004	RSN_NotFound	Resolver service did not find the specified host name.
4101	1005	RSN_BadAnswer	Resolver service received a bad answer from the nameserver, or did not receive an answer from the nameserver.
4102	1006	RSN_BadParm	Resolver service was unable to access an input or output parameter.
4103	1007	RSN_BadSrv	Resolver service requested is not supported.
4104	1008	RSN_NoStorage	Resolver service was unable to obtain storage.
4105	1009	RSN_EintrRcv	Resolver service was interrupted by a signal.
4106	100A	EZB_RSN_NamelsAddr	An IP address was passed a name that was expected.
4107	100B	EZB_RSN_NoOmvsAuth	Service invoker not authorized to use USS.
4108	100C	EZB_RSN_NoLatches	Unable to obtain GRS latch set.
4109	100D	EZB_RSN_NameLenErr	Incorrect name length passed.

Table 30. Resolver reason codes (continued)

Decimal value	Hexadecimal value	Reason code	Description
4110	100E	EZB_RSN_NestedAPI	Resolver service detects that there is still an outstanding resolver API request in the same task.
4111	100F	EZB_RSN_ServLenErr	Resolver service detects incorrect service name length.
4112	1010	EZB_RSN_SocketLenErr	Resolver service detects incorrect socket length.
4113	1011	EZB_RSN_NoData	No data passed to Resolver service.
4114	1012	EZB_RSN_ServiceNotFound	Resolver service detects service name is not found.
4115	1013	EZB_RSN_PortNotFound	Resolver service detects port number is not found.
4116	1014	EZB_RSN_NoSocket	Resolver service detects there is no socket.
4117	1015	EZB_RSN_BadAddrinfo	Resolver service detects there is a bad input addrinfo.
4118	1016	EZB_RSN_InvalidSeq	Resolver service detects that freeaddrinfo was invoked without any addrinfos having been created.
4119	1017	EZB_RSN_BadProtocol	Resolver service detects invalid protocol.
4120	1018	EZB_RSN_SockLookup	Resolver service detects invalid socktype.



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## Appendix A. Related protocol specifications (RFCs)

This appendix lists the related protocol specifications for TCP/IP. The Internet Protocol suite is still evolving through requests for comments (RFC). New protocols are being designed and implemented by researchers and are brought to the attention of the Internet community in the form of RFCs. Some of these protocols are so useful that they become recommended protocols. That is, all future implementations for TCP/IP are recommended to implement these particular functions or protocols. These become the *de facto* standards, on which the TCP/IP protocol suite is built.

These documents can be obtained from:

Government Systems, Inc.  
Attn: Network Information Center  
14200 Park Meadow Drive  
Suite 200  
Chantilly, VA 22021

where:

*nnnn* Is the RFC number.  
**TXT** Is the text format.  
**PS** Is the PostScript format.

You can see Internet drafts at <http://www.ietf.org/ID.html>. See "Draft RFCs" on page 538 for draft RFCs implemented in z/OS V1R4 Communications Server.

You can also request RFCs through electronic mail, from the automated NIC mail server, by sending a message to [service@nic.ddn.mil](mailto:service@nic.ddn.mil) with a subject line of RFC *nnnn* for text versions or a subject line of RFC *nnnn*.PS for PostScript versions. To request a copy of the RFC index, send a message with a subject line of RFC INDEX.

For more information, contact [nic@nic.ddn.mil](mailto:nic@nic.ddn.mil).

Many RFCs are available online. Hard copies of all RFCs are available from the NIC, either individually or by subscription. Online copies are available using FTP from the NIC at the following Web address: <http://www.rfc-editor.org/rfc.html>.

Use FTP to download the files, using the following format:

RFC:RFC-INDEX.TXT  
RFC:RFC*nnnn*.TXT  
RFC:RFC*nnnn*.PS

Many features of TCP/IP Services are based on the following RFCs:

<b>RFC</b>	<b>Title and Author</b>
<b>768</b>	<i>User Datagram Protocol</i> J.B. Postel
<b>791</b>	<i>Internet Protocol</i> J.B. Postel
<b>792</b>	<i>Internet Control Message Protocol</i> J.B. Postel
<b>793</b>	<i>Transmission Control Protocol</i> J.B. Postel
<b>821</b>	<i>Simple Mail Transfer Protocol</i> J.B. Postel

- 822 *Standard for the Format of ARPA Internet Text Messages* D. Crocker
- 823 *DARPA Internet Gateway* R.M. Hinden, A. Sheltzer
- 826 *Ethernet Address Resolution Protocol or Converting Network Protocol Addresses to 48.Bit Ethernet Address for Transmission on Ethernet Hardware* D.C. Plummer
- 854 *Telnet Protocol Specification* J.B. Postel, J.K. Reynolds
- 855 *Telnet Option Specification* J.B. Postel, J.K. Reynolds
- 856 *Telnet Binary Transmission* J.B. Postel, J.K. Reynolds
- 857 *Telnet Echo Option* J.B. Postel, J.K. Reynolds
- 858 *Telnet Suppress Go Ahead Option* J.B. Postel, J.K. Reynolds
- 859 *Telnet Status Option* J.B. Postel, J.K. Reynolds
- 860 *Telnet Timing Mark Option* J.B. Postel, J.K. Reynolds
- 861 *Telnet Extended Options—List Option* J.B. Postel, J.K. Reynolds
- 862 *Echo Protocol* J.B. Postel
- 863 *Discard Protocol* J.B. Postel
- 864 *Character Generator Protocol* J.B. Postel
- 877 *Standard for the Transmission of IP Datagrams over Public Data Networks* J.T. Korb
- 885 *Telnet End of Record Option* J.B. Postel
- 896 *Congestion Control in IP/TCP Internetworks* J. Nagle
- 903 *Reverse Address Resolution Protocol* R. Finlayson, T. Mann, J.C. Mogul, M. Theimer
- 904 *Exterior Gateway Protocol Formal Specification* D.L. Mills
- 919 *Broadcasting Internet Datagrams* J.C. Mogul
- 922 *Broadcasting Internet Datagrams in the Presence of Subnets* J.C. Mogul
- 950 *Internet Standard Subnetting Procedure* J.C. Mogul, J.B. Postel
- 952 *DoD Internet Host Table Specification* K. Harrenstien, M.K. Stahl, E.J. Feinler
- 959 *File Transfer Protocol* J.B. Postel, J.K. Reynolds
- 974 *Mail Routing and the Domain Name System* C. Partridge
- 1006 *ISO Transport Service on top of the TCP Version 3* M.T.Rose, D.E. Cass
- 1009 *Requirements for Internet Gateways* R.T. Braden, J.B. Postel
- 1011 *Official Internet Protocols* J. Reynolds, J. Postel
- 1013 *X Window System Protocol, Version 11: Alpha Update* R.W. Scheifler
- 1014 *XDR: External Data Representation Standard* Sun Microsystems Incorporated
- 1027 *Using ARP to Implement Transparent Subnet Gateways* S. Carl-Mitchell, J.S. Quarterman
- 1032 *Domain Administrators Guide* M.K. Stahl
- 1033 *Domain Administrators Operations Guide* M. Lottor

- 1034 *Domain Names—Concepts and Facilities* P.V. Mockapetris
- 1035 *Domain Names—Implementation and Specification* P.V. Mockapetris
- 1042 *Standard for the Transmission of IP Datagrams over IEEE 802 Networks* J.B. Postel, J.K. Reynolds
- 1044 *Internet Protocol on Network System's HYPERchannel: Protocol Specification* K. Hardwick, J. Lekashman
- 1055 *Nonstandard for Transmission of IP Datagrams over Serial Lines: SLIP* J.L. Romkey
- 1057 *RPC: Remote Procedure Call Protocol Version 2 Specification* Sun Microsystems Incorporated
- 1058 *Routing Information Protocol* C.L. Hedrick
- 1060 *Assigned Numbers* J. Reynolds, J. Postel
- 1073 *Telnet Window Size Option* D. Waitzman
- 1079 *Telnet Terminal Speed Option* C.L. Hedrick
- 1091 *Telnet Terminal-Type Option* J. VanBokkelen
- 1094 *NFS: Network File System Protocol Specification* Sun Microsystems Incorporated
- 1096 *Telnet X Display Location Option* G. Marcy
- 1101 *DNS encoding of network names and other types* P.V. Mockapetris
- 1112 *Host Extensions for IP Multicasting* S. Deering
- 1118 *Hitchhikers Guide to the Internet* E. Krol
- 1122 *Requirements for Internet Hosts—Communication Layers* R.T. Braden
- 1123 *Requirements for Internet Hosts—Application and Support* R.T. Braden
- 1155 *Structure and Identification of Management Information for TCP/IP-Based Internets* M.T. Rose, K. McCloghrie
- 1156 *Management Information Base for Network Management of TCP/IP-Based Internets* K. McCloghrie, M.T. Rose
- 1157 *Simple Network Management Protocol (SNMP)* J.D. Case, M. Fedor, M.L. Schoffstall, C. Davin
- 1158 *Management Information Base for Network Management of TCP/IP-based internets: MIB-II* M.T. Rose
- 1179 *Line Printer Daemon Protocol* The Wollongong Group, L. McLaughlin III
- 1180 *TCP/IP Tutorial* T.J. Socolofsky, C.J. Kale
- 1183 *New DNS RR Definitions* C.F. Everhart, L.A. Mamakos, R. Ullmann, P.V. Mockapetris, (Updates RFC 1034, RFC 1035)
- 1184 *Telnet Linemode Option* D. Borman
- 1187 *Bulk Table Retrieval with the SNMP* M.T. Rose, K. McCloghrie, J.R. Davin
- 1188 *Proposed Standard for the Transmission of IP Datagrams over FDDI Networks* D. Katz
- 1191 *Path MTU Discovery* J. Mogul, S. Deering
- 1198 *FYI on the X Window System* R.W. Scheifler

- 1207 *FYI on Questions and Answers: Answers to Commonly Asked "Experienced Internet User" Questions* G.S. Malkin, A.N. Marine, J.K. Reynolds
- 1208 *Glossary of Networking Terms* O.J. Jacobsen, D.C. Lynch
- 1213 *Management Information Base for Network Management of TCP/IP-Based Internets: MIB-II* K. McCloghrie, M.T. Rose
- 1215 *Convention for Defining Traps for Use with the SNMP* M.T. Rose
- 1228 *SNMP-DPI Simple Network Management Protocol Distributed Program Interface* G.C. Carpenter, B. Wijnen
- 1229 *Extensions to the Generic-Interface MIB* K. McCloghrie
- 1230 *IEEE 802.4 Token Bus MIB* K. McCloghrie, R. Fox
- 1231 *IEEE 802.5 Token Ring MIB* K. McCloghrie, R. Fox, E. Decker
- 1236 *IP to X.121 Address Mapping for DDN* L. Morales, P. Hasse
- 1267 *A Border Gateway Protocol 3 (BGP-3)* K. Lougheed, Y. Rekhter
- 1268 *Application of the Border Gateway Protocol in the Internet* Y. Rekhter, P. Gross
- 1269 *Definitions of Managed Objects for the Border Gateway Protocol (Version 3)* S. Willis, J. Burruss
- 1270 *SNMP Communications Services* F. Kastenholz, ed.
- 1321 *The MD5 Message-Digest Algorithm* R. Rivest
- 1323 *TCP Extensions for High Performance* V. Jacobson, R. Braden, D. Borman
- 1325 *FYI on Questions and Answers: Answers to Commonly Asked "New Internet User" Questions* G.S. Malkin, A.N. Marine
- 1340 *Assigned Numbers* J.K. Reynolds, J.B. Postel
- 1348 *DNS NSAP RRs* B. Manning
- 1349 *Type of Service in the Internet Protocol Suite* P. Almquist
- 1350 *TFTP Protocol* K.R. Sollins
- 1351 *SNMP Administrative Model* J. Davin, J. Galvin, K. McCloghrie
- 1352 *SNMP Security Protocols* J. Galvin, K. McCloghrie, J. Davin
- 1353 *Definitions of Managed Objects for Administration of SNMP Parties* K. McCloghrie, J. Davin, J. Galvin
- 1354 *IP Forwarding Table MIB* F. Baker
- 1356 *Multiprotocol Interconnect on X.25 and ISDN in the Packet Mode* A. Malis, D. Robinson, R. Ullmann
- 1363 *A Proposed Flow Specification* C. Partridge
- 1372 *Telnet Remote Flow Control Option* D. Borman, C. L. Hedrick
- 1374 *IP and ARP on HIPPI* J. Renwick, A. Nicholson
- 1381 *SNMP MIB Extension for X.25 LAPB* D. Throop, F. Baker
- 1382 *SNMP MIB Extension for the X.25 Packet Layer* D. Throop
- 1387 *RIP Version 2 Protocol Analysis* G. Malkin
- 1388 *RIP Version 2—Carrying Additional Information* G. Malkin

- 1389 *RIP Version 2 MIB Extension* G. Malkin
- 1390 *Transmission of IP and ARP over FDDI Networks* D. Katz
- 1393 *Traceroute Using an IP Option* G. Malkin
- 1397 *Default Route Advertisement In BGP2 And BGP3 Versions of the Border Gateway Protocol* D. Haskin
- 1398 *Definitions of Managed Objects for the Ethernet-Like Interface Types* F. Kastenholz
- 1416 *Telnet Authentication Option* D. Borman, ed.
- 1464 *Using the Domain Name System to Store Arbitrary String Attributes* R. Rosenbaum
- 1469 *IP Multicast over Token-Ring Local Area Networks* T. Pusateri
- 1535 *A Security Problem and Proposed Correction With Widely Deployed DNS Software* E. Gavron
- 1536 *Common DNS Implementation Errors and Suggested Fixes* A. Kumar, J. Postel, C. Neuman, P. Danzig, S. Miller
- 1537 *Common DNS Data File Configuration Errors* P. Beertema
- 1540 *IAB Official Protocol Standards* J.B. Postel
- 1571 *Telnet Environment Option Interoperability Issues* D. Borman
- 1572 *Telnet Environment Option* S. Alexander
- 1577 *Classical IP and ARP over ATM* M. Laubach
- 1583 *OSPF Version 2* J. Moy
- 1591 *Domain Name System Structure and Delegation* J. Postel
- 1592 *Simple Network Management Protocol Distributed Protocol Interface Version 2.0* B. Wijnen, G. Carpenter, K. Curran, A. Sehgal, G. Waters
- 1594 *FYI on Questions and Answers: Answers to Commonly Asked "New Internet User" Questions* A.N. Marine, J. Reynolds, G.S. Malkin
- 1695 *Definitions of Managed Objects for ATM Management Version 8.0 Using SMIv2* M. Ahmed, K. Tesink
- 1706 *DNS NSAP Resource Records* B. Manning, R. Colella
- 1713 *Tools for DNS debugging* A. Romao
- 1723 *RIP Version 2—Carrying Additional Information* G. Malkin
- 1766 *Tags for the Identification of Languages* H. Alvestrand
- 1794 *DNS Support for Load Balancing* T. Brisco
- 1832 *XDR: External Data Representation Standard* R. Srinivasan
- 1850 *OSPF Version 2 Management Information Base* F. Baker, R. Coltun
- 1876 *A Means for Expressing Location Information in the Domain Name System* C. Davis, P. Vixie, T. Goodwin, I. Dickinson
- 1886 *DNS Extensions to support IP version 6* S. Thomson, C. Huitema
- 1901 *Introduction to Community-Based SNMPv2* J. Case, K. McCloghrie, M. Rose, S. Waldbusser

- 1902 *Structure of Management Information for Version 2 of the Simple Network Management Protocol (SNMPv2)* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1903 *Textual Conventions for Version 2 of the Simple Network Management Protocol (SNMPv2)* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1904 *Conformance Statements for Version 2 of the Simple Network Management Protocol (SNMPv2)* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1905 *Protocols Operations for Version 2 of the Simple Network Management Protocol (SNMPv2)* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1906 *Transport Mappings for Version 2 of the Simple Network Management Protocol (SNMPv2)* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1907 *Management Information Base for Version 2 of the Simple Network Management Protocol (SNMPv2)* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1908 *Coexistence between Version 1 and Version 2 of the Internet-Standard Network Management Framework* J. Case, K. McCloghrie, M. Rose, S. Waldbusser
- 1912 *Common DNS Operational and Configuration Errors* D. Barr
- 1918 *Address Allocation for Private Internets* Y. Rekhter, B. Moskowitz, D. Karrenberg, G.J. de Groot, E. Lear
- 1928 *SOCKS Protocol Version 5* M. Leech, M. Ganis, Y. Lee, R. Kuris, D. Koblas, L. Jones
- 1939 *Post Office Protocol-Version 3* J. Myers, M. Rose
- 1981 *Path MTU Discovery for IP version 6* J. McCann, S. Deering, J. Mogul
- 1982 *Serial Number Arithmetic* R. Elz, R. Bush
- 1995 *Incremental Zone Transfer in DNS* M. Ohta
- 1996 *A Mechanism for Prompt Notification of Zone Changes (DNS NOTIFY)* P. Vixie
- 2010 *Operational Criteria for Root Name Servers* B. Manning, P. Vixie
- 2011 *SNMPv2 Management Information Base for the Internet Protocol Using SMIv2* K. McCloghrie
- 2012 *SNMPv2 Management Information Base for the Transmission Control Protocol Using SMIv2* K. McCloghrie
- 2013 *SNMPv2 Management Information Base for the User Datagram Protocol Using SMIv2* K. McCloghrie
- 2052 *A DNS RR for specifying the location of services (DNS SRV)* A. Gulbrandsen, P. Vixie
- 2065 *Domain Name System Security Extensions* D. Eastlake, C. Kaufman
- 2096 *IP Forwarding Table MIB* F. Baker
- 2104 *HMAC: Keyed-Hashing for Message Authentication* H. Krawczyk, M. Bellare, R. Canetti
- 2132 *DHCP Options and BOOTP Vendor Extensions* S. Alexander, R. Droms
- 2133 *Basic Socket Interface Extensions for IPv6* R. Gilligan, S. Thomson, J. Bound, W. Stevens

- 2137 *Secure Domain Name System Dynamic Update* D. Eastlake
- 2163 *Using the Internet DNS to Distribute MIXER Conformant Global Address Mapping (MCGAM)* C. Allocchio
- 2168 *Resolution of Uniform Resource Identifiers using the Domain Name System* R. Daniel, M. Mealling
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- 2181 *Clarifications to the DNS Specification* R. Elz, R. Bush
- 2205 *Resource ReSerVation Protocol (RSVP) Version 1* R. Braden, L. Zhang, S. Berson, S. Herzog, S. Jamin
- 2210 *The Use of RSVP with IETF Integrated Services* J. Wroclawski
- 2211 *Specification of the Controlled-Load Network Element Service* J. Wroclawski
- 2212 *Specification of Guaranteed Quality of Service* S. Shenker, C. Partridge, R. Guerin
- 2215 *General Characterization Parameters for Integrated Service Network Elements* S. Shenker, J. Wroclawski
- 2219 *Use of DNS Aliases for Network Services* M. Hamilton, R. Wright
- 2228 *FTP Security Extensions* M. Horowitz, S. Lunt
- 2230 *Key Exchange Delegation Record for the DNS* R. Atkinson
- 2233 *The Interfaces Group MIB Using SMIv2* K. McCloghrie, F. Kastenholz
- 2240 *A Legal Basis for Domain Name Allocation* O. Vaughn
- 2246 *The TLS Protocol Version 1.0* T. Dierks, C. Allen
- 2308 *Negative Caching of DNS Queries (DNS NCACHE)* M. Andrews
- 2317 *Classless IN-ADDR.ARPA delegation* H. Eidnes, G. de Groot, P. Vixie
- 2320 *Definitions of Managed Objects for Classical IP and ARP over ATM Using SMIv2* M. Greene, J. Luciani, K. White, T. Kuo
- 2328 *OSPF Version 2* J. Moy
- 2345 *Domain Names and Company Name Retrieval* J. Klensin, T. Wolf, G. Oglesby
- 2352 *A Convention for Using Legal Names as Domain Names* O. Vaughn
- 2355 *TN3270 Enhancements* B. Kelly
- 2373 *IP Version 6 Addressing Architecture* R. Hinden, M. O'Dell, S. Deering
- 2374 *An IPv6 Aggregatable Global Unicast Address Format* R. Hinden, M. O'Dell, S. Deering
- 2375 *IPv6 Multicast Address Assignments* R. Hinden, S. Deering
- 2389 *Feature negotiation mechanism for the File Transfer Protocol* P. Hethmon, R. Elz
- 2428 *FTP Extensions for IPv6 and NATs* M. Allman, S. Ostermann, C. Metz
- 2460 *Internet Protocol, Version 6 (IPv6) Specification* S. Deering, R. Hinden
- 2461 *Neighbor Discovery for IP Version 6 (IPv6)* T. Narten, E. Nordmark, W. Simpson
- 2462 *IPv6 Stateless Address Autoconfiguration* S. Thomson, T. Narten

- | **2464** *Transmission of IPv6 Packets over Ethernet Networks* M. Crawford
- | **2474** *Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers* K. Nichols, S. Blake, F. Baker, D. Black
- | **2535** *Domain Name System Security Extensions* D. Eastlake
- | **2539** *Storage of Diffie-Hellman Keys in the Domain Name System (DNS)* D. Eastlake
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- | **2571** *An Architecture for Describing SNMP Management Frameworks* D. Harrington, R. Presuhn, B. Wijnen
- | **2572** *Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)* J. Case, D. Harrington, R. Presuhn, B. Wijnen
- | **2573** *SNMP Applications* D. Levi, P. Meyer, B. Stewart
- | **2574** *User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)* U. Blumenthal, B. Wijnen
- | **2575** *View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)* B. Wijnen, R. Presuhn, K. McCloghrie
- | **2578** *Structure of Management Information Version 2 (SMIv2)* K. McCloghrie, D. Perkins, J. Schoenwaelder
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- | **2672** *Non-Terminal DNS Name Redirection* M. Crawford
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- | **2845** *Secret Key Transaction Authentication for DNS (TSIG)* P. Vixie, O. Gudmundsson, D. Eastlake, B. Wellington
- | **2874** *DNS Extensions to Support IPv6 Address Aggregation and Renumbering* M. Crawford, C. Huitema
- | **2941** *Telnet Authentication Option* T. Ts'o, ed., J. Altman
- | **2942** *Telnet Authentication: Kerberos Version 5* T. Ts'o
- | **2946** *Telnet Data Encryption Option* T. Ts'o
- | **2952** *Telnet Encryption: DES 64 bit Cipher Feedback* T. Ts'o
- | **2953** *Telnet Encryption: DES 64 bit Output Feedback* T. Ts'o, ed.
- | **3060** *Policy Core Information Model—Version 1 Specification* B. Moore, E. Ellerson, J. Strassner, A. Westerinen

---

## Draft RFCs

Several areas of IPv6 implementation include elements of the following draft RFCs and are subject to change during the RFC review process.

| **Advanced Sockets API for IPv6**

| W. Richard Stevens, Matt Thomas, Erik Nordmark, Tatuya Jinmei

| **Basic Socket Interface Extensions for IPv6**

| R.E. Gilligan, S. Thomson, J. Bound, J. McCann, W. R. Stevens

| **Default Address Selection for IPv6**

| R. Draves

| **Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version  
6 (IPv6) Specification**

| A. Conta, S. Deering

| **IP Version 6 Addressing Architecture**

| R. Hinden, S. Deering



## Appendix B. Information APARs

This appendix lists information APARs for IP and SNA documents.

### Notes:

1. Information APARs contain updates to previous editions of the manuals listed below. Documents updated for V1R4 are complete except for the updates contained in the information APARs that may be issued after V1R4 documents went to press.
2. Information APARs are predefined for z/OS V1R4 Communications Server and may not contain updates.
3. Information APARs for OS/390 documents are in the document called *OS/390 DOC APAR and PTF ++HOLD Documentation*, which can be found at [http://publibz.boulder.ibm.com/cgi-bin/bookmgr\\_OS390/BOOKS/IDDOCMST/CCONTENTS](http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/BOOKS/IDDOCMST/CCONTENTS).
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## Information APARs for IP documents

Table 31 lists information APARs for IP documents.

Table 31. IP information APARs

Title	z/OS CS V1R4	z/OS CS V1R2	CS for OS/390 2.10 and z/OS CS V1R1	CS for OS/390 2.8
IP API Guide	ii13255	ii12861	ii12371	ii11635
IP CICS Sockets Guide	ii13257	ii12862		ii11626
IP Configuration				ii11620 ii12068 ii12353 ii12649 ii13018
IP Configuration Guide	ii13244	ii12498 ii13087	ii12362 ii12493 ii13006	
IP Configuration Reference	ii13245	ii12499	ii12363 ii12494 ii12712	
IP Diagnosis	ii13249	ii12503	ii12366 ii12495	ii11628
IP Messages Volume 1	ii13250	ii12857 ii13229	ii12367	ii11630 13230
IP Messages Volume 2	ii13251	ii12858	ii12368	ii11631
IP Messages Volume 3	ii13252	ii12859	ii12369 12990	ii11632 ii12883
IP Messages Volume 4	ii13253	ii12860		
IP Migration	ii13242	ii12497	ii12361	ii11618

Table 31. IP information APARs (continued)

Title	z/OS CS V1R4	z/OS CS V1R2	CS for OS/390 2.10 and z/OS CS V1R1	CS for OS/390 2.8
IP Network and Application Design Guide	ii13243			
IP Network Print Facility		ii12864		ii11627
IP Programmer's Reference	ii13256	ii12505		ii11634
IP and SNA Codes	ii13254	ii12504	ii12370	ii11917
IP User's Guide			ii12365 ii13060	ii11625
IP User's Guide and Commands	ii13247	ii12501	ii12365 ii13060	ii11625
IP System Admin Guide	ii13248	ii12502		
Quick Reference	ii13246	ii12500	ii12364	

## Information APARs for SNA documents

Table 32 lists information APARs for SNA documents.

Table 32. SNA information APARs

Title	z/OS CS V1R4	z/OS CS V1R2	CS for OS/390 2.10 and z/OS CS V1R1	CS for OS/390 2.8
Anynet SNA over TCP/IP				ii11922
Anynet Sockets over SNA				ii11921
CSM Guide				
IP and SNA Codes	ii13254	ii12504	ii12370	ii11917
SNA Customization	ii13240	ii12872	ii12388	ii11923
SNA Diagnosis	ii13236	ii12490 ii13034	ii12389	ii11915
SNA Messages	ii13238	ii12491	ii12382 ii12383	ii11916
SNA Network Implementation Guide	ii13234	ii12487	ii12381	ii11911
SNA Operation	ii13237	ii12489	ii12384	ii11914
SNA Migration	ii13233	ii12486	ii12386	ii11910
SNA Programming	ii13241	ii13033	ii12385	ii11920
Quick Reference	ii13246	ii12500	ii12364	ii11913
SNA Resource Definition Reference	ii13235	ii12488	ii12380 ii12567	ii11912 ii12568
SNA Resource Definition Samples				
SNA Data Areas	ii13239	ii12492	ii12387	ii11617

## Other information APARs

Table 33 on page 543 lists information APARs not related to documents.

Table 33. Non-document information APARs

Content	Number
OMPROUTE	ii12026
iQDIO	ii11220
index of recommended maintenace for VTAM	ii11220
CSM for VTAM	ii12657
CSM for TCP/IP	ii12658
AHHC, MPC, and CTC	ii01501
DLUR/DLUS for z/OS V1R2	ii12986
Enterprise Extender	ii12223
Generic resources	ii10986
HPR	ii10953
MNPS	ii10370
Performance	ii11710 ii11711 ii11712



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## Appendix C. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/OS enable users to:

- Use assistive technologies such as screen-readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size

---

### Using assistive technologies

Assistive technology products, such as screen-readers, function with the user interfaces found in z/OS. Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.

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### Keyboard navigation of the user interface

Users can access z/OS user interfaces using TSO/E or ISPF. Refer to *z/OS TSO/E Primer*, *z/OS TSO/E User's Guide*, and *z/OS ISPF User's Guide Volume I* for information about accessing TSO/E and ISPF interfaces. These guides describe how to use TSO/E and ISPF, including the use of keyboard shortcuts or function keys (PF keys). Each guide includes the default settings for the PF keys and explains how to modify their functions.



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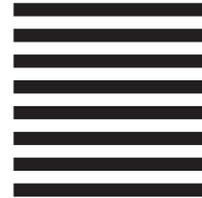
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