Unicenter

NetMaster Socket Management for CICS Getting Started

Version 1.0

MAN05095806E

Computer Associates

The Software That Manages eBusiness

Booklist

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Chapter 1

Introducing Unicenter NetMaster Socket Management for CICS

After more than 30 years, CICS still lies at the heart of enterprise transaction and messaging operations with most of the world's financial transactions, including ATM and credit card transactions, processed by CICS.

Today's eBusiness-focused world sees CICS/TS as also the most web-enabled application of all mainframe based applications. The web-enablement of CICS/TS has introduced issues regarding the effective management of the associated IP network connections. Unicenter NetMaster Socket Management for CICS enables you to extend your investment in Unicenter NetMaster IP management to manage these connections with greater context in regards to their CICS usage, allowing for both a heightened awareness of the service they provide and improved diagnosis of CICS network connection problems.

This chapter provides an overview of Unicenter NetMaster Socket Management for CICS (Socket Management). For a more detailed overview, see the "Introduction" chapter of the *Unicenter NetMaster Socket Management for CICS Administrator Guide*.

There are three key areas where the product enhances an EZASOKET (or EZACICAL) application:

- The Unicenter NetMaster Interface
- The Listen Tool
- Tracing

The Unicenter NetMaster Interface

Unicenter NetMaster for TCP/IP (Unicenter NetMaster) acts as a central repository for network information in an OS/390 enterprise environment. By enabling this interface all Socket Management endpoints for a sysplex can be managed from a single point.

Once the Unicenter NetMaster interface is enabled, Socket Management does the following:

- Passes additional CICS/TS information about TCP endpoints to Unicenter NetMaster such as User ID, CICS/TS transaction name, and CICS/TS transaction number.
- All EZASOKET and EZACICAL calls are time stamped at entry and exit. You can tell whether a transaction is executing inside CICS or API code. You can tell how long a long a call has been active.
- EZASOKET and EZACICAL call statistics are kept at both the session and server level. These session and server level statistics are available for query.
- This information then becomes available via central network management displays within Unicenter NetMaster, refer to the Unicenter NetMaster documentation for additional details.
- Provides an interface, the Unicenter NetMaster command processor allows further drill down inquiries into Socket Management endpoints.

  Note: Unicenter NetMaster 6.2 requires:

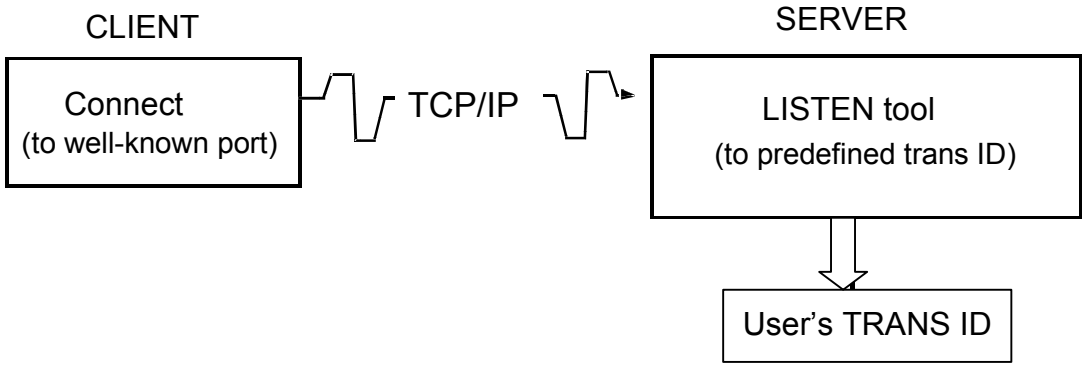
  - Service pack 3 (GL0206) installed
  - Place statement 'PROD=SOCKETMGMT' in the region RUNSYSIN file to enable the Socket Management Interface

The Listen Tool

The Socket Management Listen tool is comprised of prewritten CICS transactions that help establish connections over Transmission Control Protocol (TCP). You can add a new listener service in your environment using two to three parameters of a macro definition.

The T09MLSN macro starts the IPTL server transaction, which replaces the CSKL listener transaction.

Note: There is no limit to the number of listen tools you can start. To customize another listen tool just code another T09MLSTN macro in the T09CONez configuration table.



Tracing

The Socket Management API and tools provide extensive debugging and performance analysis capabilities through its tracing and statistics options. The debugging capabilities can be invaluable in an environment where problems can occur in the CICS/TS application, such as the TCPIP address space, the network, or the remote host. The tracing options used selectively can pinpoint exactly where a problem is occurring.

You can follow EZASOKET and EZASOKET calls and their parameter lists both into and out of the TCP/IP region.

You can follow TCP/IP sessions as their ownership passes between CICS tasks.

All trace entries use time stamps that detail events down to the micro second level.

Tracing is turned on and off dynamically—invoked via the TCPEEP interface. There is no need to modify CICS transactions or configuration files. Just submit a TCPEEP job with the options you want traced and the trace events are routed to the trace address space.

All trace output is routed to a trace address space. There is no CICS overhead when formatting trace output. Tracing does not overload the CICS message logs.

Chapter

2

Preparing for Installation

This chapter provides a brief overview of the requirements necessary for Unicenter NetMaster Socket Management for CICS installation.

This information is provided for planning:

- Installation Materials
- Prerequisites
- CAIRIM
- CA LMP

Installation Materials

Before starting the installation procedure, make sure that you have the following Socket Management installation materials:

- The installation tape—the volume serial number is specified on the PML received with the installation package
- The CA Common Services for z/OS and OS/390 tape and documentation
- The *Unicenter NetMaster Socket Management for CICS Administrator Guide*

Prerequisites

- DASD space required is fifteen cylinders
- Unicenter TCPaccess 5.2 (with HPNS) or higher or IBM's Communications Server Version 3 Release 2 or higher
- HPNS support was introduced in Unicenter TCPaccess release 5.2 with PTFs TP06755, TP06756, TP06757, TP06766, TP06806, and TP06807
- CICS 4.1 or greater
- CA Common Services for z/OS and OS/390 Release 1.0, Genlevel 9901 or above

Related Documentation

With Unicenter NetMaster Socket Management for CICS, Computer Associates distributes a CA Common Services for z/OS and OS/390 (formerly known as Unicenter TNG Framework for OS/390) tape and the following guides:

Name	Contents
CA Common Services for z/OS and OS/390 Administrator Guide	Operating instructions for the CA Common Services for z/OS and OS/390s.
CA Common Services for z/OS and OS/390 Getting Started	Installation procedures and installation JCL for CA Common Services for z/OS and OS/390.
CA Message Guide	Messages and codes for CA Common Services for z/OS and OS/390.

CA Common Services for z/OS and OS/390

To help you quickly understand all that CA Common Services for z/OS and OS/390 offers, this section provides a brief description of the common services that can be used by Unicenter NetMaster Socket Management for CICS.

CAIRIM

CAIRIM, CAI Resource Initialization Manager, is the common driver for a collection of dynamic initialization routines that eliminate the need for user SVCs, SMF exits, subsystems, and other installation requirements commonly encountered when installing systems software. These routines are grouped under the Computer Associates z/OS and OS/390 dynamic service code, S910. Some of the features of CAIRIM include:

- Obtaining SMF data
- Verification of proper software installation
- Installation of z/OS and OS/390 interfaces
- Automatic startup of CA and other vendor products
- Proper timing and order of initialization

No other services are required to operate properly.

Note: CAIRIM is mandatory for Unicenter NetMaster Socket Management for CICS. It must be installed and started with within 30 minutes of IPL time. CAIRIM is part of the CA Common Services for z/OS and OS/390.

CA LMP

The CA License Management Program (LMP) provides a standardized and automated approach to the tracking of licensed software. It uses common realtime enforcement software to validate the user's configuration. CA LMP reports on license, usage, and financial activities of Unicenter NetMaster Socket Management for CICS. The routines that accomplish this are integrated into the Computer Associates z/OS and OS/390 dynamic service code, S910 (the CAIRIM service). Some of the features of CA LMP include:

- Common key data set can be shared among many CPUs
- *Check digits* are used to detect errors in transcribing key information
- Execution keys can be entered without affecting any CA software solution already running
- No special maintenance requirements

Requirements

Unicenter NetMaster Socket Management for CICS requires CA Common Services for z/OS and OS/390 at genlevel 9901 or above, and OS 2.10.

Using CA LMP

Unicenter NetMaster Socket Management for CICS requires CA LMP (License Management Program), one of the CA Common Services for z/OS and OS/390 services, to initialize correctly. CA LMP also provides a standardized and automated approach to the tracking of licensed software.

CA LMP is provided as an integral part of CAIRIM (Resource Initialization Manager), another one of the Common Services. If CAIRIM has not already been installed on your system, you must do so now. Once CAIRIM has been installed or maintained at Service Level C1/9901 or higher, CA LMP support is available for all CA LMP—supported CA software solutions. See the *CA Common Services for z/OS and OS/390 Getting Started* guide for detailed instructions on installing CAIRIM.

Examine the CA LMP Key Certificate you received with your Unicenter NetMaster Socket Management for CICS installation or maintenance tape. That certificate contains the following information:

Field	Description
Product Name	The trademarked or registered name of the CA software solution licensed for the designated site and CPUs.
Product Code	A two-character code that corresponds to Unicenter NetMaster Socket Management for CICS.
Supplement	The reference number of your license for Unicenter NetMaster Socket Management for CICS, in the format *nnnnnn - nnn*. This format differs slightly inside and outside North America, and in some cases may not be provided at all.
CPU ID	The code that identifies the specific CPU for which installation of Unicenter NetMaster Socket Management for CICS is valid.

Field	Description
Execution Key	An encrypted code required by CA LMP for Unicenter NetMaster Socket Management for CICS initialization. During installation, it is referred to as the LMP Code.
Expiration Date	The date *(ddmmmyy* as in 01AUG00) your license for Unicenter NetMaster Socket Management for CICS.
Technical Contact	The name of the technical contact at your site responsible for the installation and maintenance of Unicenter NetMaster Socket Management for CICS. This is the person to whom CA addresses all CA LMP correspondence.
MIS Director	The name of the Director of MIS, or the person who performs that function at your site. If the title but not the individual's name is indicated on the Certificate, you should supply the actual name when correcting and verifying the Certificate.
CPU Location	The address of the building where the CPU is installed.

The CA LMP execution key, provided on the Key Certificate, must be added to the CAIRIM parameters to ensure proper initialization of Unicenter NetMaster Socket Management for CICS.

To define a CA LMP execution key to the CAIRIM parameters, modify member KEYS in the OPTLIB data set.

The parameter structure for member KEYS is as follows:

```
PROD(pp) DATE(ddmmmyy) CPU(tttt-mmmm/ssssss)
LMPCODE(kkkkkkkkkkkkkkkk)
```

Where:

pp	Required. The two-character product code. For any given CA LMP software solution, this code agrees with the product code already in use by the CAIRIM initialization parameters for earlier genlevels of that software solution. The two-character product code for Unicenter NetMaster Socket Management for CICS: **2D**.
ddmmmyy	The CA LMP licensing agreement expiration date.
tttt-mmmm	Required. The CPU type and model (for example: 3090-600) on which the CA LMP software solution is to run. If the CPU type or model requires less than four characters, blank spaces are inserted for the unused characters.
ssssss	Required. The serial number of the CPU on which the CA LMP software solution is to run.
kkkkkkkkkkkkkkk	Required. The execution key needed to run the CA LMP software solution. This CA LMP execution key is provided on the Key Certificate shipped with each CA LMP software solution.

For a full description of the procedure for defining the CA LMP execution key to the CAIRIM parameters, see *CA Common Services for z/OS and OS/390 Getting Started*.

Chapter

3

Installation Steps

This chapter contains the instructions you need to perform Unicenter NetMaster Socket Management for CICS (Socket Management) installation from tape through the initial configuration and startup.

Installing Unicenter NetMaster Socket Management for CICS

1. Refer to the "Introduction" chapter in the *Unicenter NetMaster Socket Management for CICS Administrator Guide* for a more detailed overview of Socket Management.
2. Review the "Pre-Installation Checklist" chapter of this guide to determine your environment's requirements.
3. Unicenter TCPaccess customers, verify correct required maintenance:

   HPNS support was introduced in Unicenter TCPaccess release 5.2 with PTFs TP06755, TP06756, TP06757, TP06766, TP06806, and TP06807.
4. Copy any iebcopy JCL sample you have to create a simple job stream to read the CNTL file from the distribution tape. This file is a PDS containing all the JCL necessary to receive, apply, and accept the Socket Management product.

   In the example JCL below:

   a. Update the fields below shown in ***bold initialics***.

   b. Replace *jobcard* with a valid one for your environment.

c. Submit job.

```
//UNLOAD JOB
//*
//STEP1  EXEC PGM=IEBCOPY,REGION=1024K
//INDD1 DD DSN=INSTJCL,DISP=SHR,VOL=SER=SSWTCP,
//   LABEL=(1,SL,,EXPDT=98000),UNIT=tapunit
//OUTDD1  DD DSN=HLQ.CNTL,DISP=(,CATLG,DELETE),
//   UNIT=SYSICS,DCB=(RECFM=FB,LRECL=80,BLKSIZE=6160),
//   SPACE=(TRK,(15,3,23),RLSE)
//SYSPRINT DD SYSOUT=*
//SYSIN  DD *
COPY INDD=INDD1,OUTDD=OUTDD1
/*
```

5. Read the overview in section Using the T09NAMES CLIST.
6. Follow the setup instructions in the Setting Up the T09NAMES CLIST sub-section of Using the T09NAMES CLIST.
7. Verify adequate space is available on the DASD volume specified in T09NAMES.
8. Update the T09JCARD member in the CNTL library for use by the T09NAMES CLIST. This jobcard will be inserted as the first line in every JCL job that you edit with the T09NAMES CLIST.

   If you are using JES3, replace the JOBPARM statement with the following:

   ```
   //*MAIN LINES=(999,W)
   ```

9. Allocate the product data sets.

   We recommend that you install Unicenter NetMaster Socket Management for CICS into its own SMP/E CSI and libraries or together with Unicenter TCPaccess Communications Server if you have that installed. This separate CSI installation simplifies the installation procedure while preserving a previous Socket Management release if you had one. This also enables you to implement a phased migration of this new Socket Management release.

The Socket Management prefix is T09, to conform with IBM standard prefixes.

(1) Use T09NAMES CLIST to globally update the symbolics in the T09ALSMP job in the CNTL file.

Note: If you want TRGINDX and DSTINDX to be different from SMPINDX, manually update the SMPEDDEF step with the proper CSI HLQ.

(2) Submit the T09ALSMP job.

(3) If you are running over IBM TCP/IP, do the following:

a. Use T09NAMES CLIST to globally update the symbolics in the T09ALIBM job in the CNTL file.

Note: If you want TRGINDX and DSTINDX to be different from SMPINDX, manually update the SMPEDDEF step with the proper CSI HLQ.

b. Submit the T09ALIBM job.

(4) Use T09NAMES CLIST to globally update the symbolics in the T09ALLOC job in the CNTL file.

a. Modules from cicshlq.SDFHLOAD and modules from cicshlq.SDFHEXCI are required during SMP/E apply processing. You MUST update the string "??CICS.HLQ??" in the SMP UCLIN statement DDDEF(CICSLIB) and DDDEF(CICSEXC) with a valid HLQ for your local CICS/TS SDFHLOAD data set and CICS/TS SDFHEXCI data set.

Important! *If you skip this update the job will fail, and you must fix the HLQ prior to going forward.*

b. Submit the T09ALLOC job.

10. Receive, apply, and accept the product.

    a. Use T09NAMES CLIST to globally update the symbolics in the T09INSTL job in the CNTL file.

       Note: This job was intentionally setup to fail so that it is impossible to submit this job without updating the SMP/E control statements at the bottom of this member as instructed below.

    b. If you have the Unicenter TCPaccess Communications Server stack running, use the statements as shown below:

```
C2F1000      /* Socket Man. base */
```

    c. If you have the IBM TCP/IP stack running, use the statements as shown below:

```
      C2F1000   /* Socket Man. base */
???  /* C2E600C /* ** IBM stack only ** - SAS C */
???  /* C2E600I /* ** IBM stack only ** - Infrastructure  */
???  /* C2E600T /* ** IBM stack only ** - Trace component */
```

       Note: Blank over the "??? /*" from the last three lines.

    d. Submit the T09INSTL job

11. Get the latest maintenance.

    Apply the latest maintenance prior to beginning any customization, as configuration files or parameters may have changed.

    Check for the most recent PTFs via StarTCC by using the following URL: http://support.ca.com/

    Note: If there are no applicable PTFs, the installation is complete and you can skip the remaining steps.

    From the left panel, select StarTCC.

If you are not registered, you **must** perform the following steps:

a. Select StarTCC Registration (required first time only.

   Note: If you are registered, skip to c.

   The registration screen appears. You must complete and submit this form to register for Total Client Care (TCC) via the Internet.

   You must have your Site ID and PIN Number to complete the registration. Your Site ID and PIN Number will be associated with your new User ID. CA-TCC gives you access to additional services based on your site's licensed products.

b. Once you fill out the information, you will be sent a confirming email notice.

c. Once you have registered, select the path to Registered Clients Only.

d. Enter your User ID and password on the dropdown panel.

e. The StarTCC Solution Download main menu appears. Note the new item notification at the bottom of the screen regarding proper handling of solution downloads. This gives you detailed information of the actual download process.

f. Select BROWSE/DOWNLOAD SOLUTIONS.

g. Select PRODUCT AND RELEASE Search type. Then select the correct product.

   - For this product, choose:

     NSOCCS - UNICENTER NETMASTER SOCKET MANG./CICS

   - Select Release 1.0 and press SELECT at the bottom of the panel

h. A panel should be presented showing all of the PTFs for this release.

   You can check multiple SELECT boxes, press the UPDATE STARTCC SOLUTION CART at the bottom of the screen, and then download a ZIP file containing all the PTFs you have selected.

Important! *If you have problems with the StarTCC download process, contact Customer Support or your Customer Relationship Manager.*

12. Review the latest HOLDDATA.

    To get the latest HOLDDATA, go to the StarTCC database on the Web site located at http://support.ca.com/ and download the $$HOLD.BIN file.

    The file can be found in Solution 3, APAR QO20643, of NTCPAC - UNICENTER TCPACCESS COMMUNICATIONS SERVER, Release 6.0. Instructions for accessing the StarTCC database are included in Step 11.

    This file HOLDDATA contains hold information for any PTFs that may have been PE'd.

    There are two file formats:

    - $$HOLD.VIEW (PART2 of the solution) is in ASCII format and can be viewed online
    - $$HOLD.BIN (PART3) is in binary (EBCDIC) format and must be transferred to the mainframe in binary

13. Execute SRVPAC.

    Before executing this job:

    - Modify the SMPPTFIN DD statement to point to the DASD data set containing the PTFs. It must be a sequential file.
    - Modify the SMPHOLD DD statement to point to the DASD data set containing the HOLDDATA. If there is no hold data, set the DD to DUMMY.

You may submit only the RECEIVE portion of this job first. This enables you to review any held PTFs, especially any with HOLD ACTION that may appear, and take appropriate action. It will also let you add additional BYPASS HOLD keywords to your APPLY statement.

14. Receive and apply Socket Management maintenance.

    a. You should have requested the latest Unicenter NetMaster Socket Management for CICS service pack tape when you ordered the product. Receive and apply this cumulative maintenance. Member T09MAINT in the CNTL library contains JCL to perform this function. Copy; modify and submit this job to receive and apply Socket Management maintenance.

    b. Apply this maintenance, as well as any maintenance obtained interactively via StarTCC site, prior to beginning any customization, as configuration files or parameters may have changed.

       Before submitting the T09MAINT member, consider the following:

       (1) You may submit only the RECEIVE portion of this job first. This allows you to review the HOLDDATA, especially any hold action that may appear, and take appropriate action. It also lets you add additional BYPASS HOLD keywords to your APPLY statement.

       (2) Edit the T09MAINT member by entering T09NAMES at the command line.

           If you are using a tape management system, such as CA1, you must modify the label parameter on your DD statements to include EXPDT=98000.

           ```
           LABEL=1,NL,,EXPDT=98000
           ```

           If you are using JES3, replace the JOBPARM statement with the following:

           ```
           //*MAIN LINES=(999,W)
           ```

       (3) Verify that the tape unit is correct. It is hard coded as CART.

(4) Submit T09MAINT.

T09MAINT may generate the following message:

```
GIM34701E: SMPE expected to find ++MCS
```

This is expected and normal.

(5) To verify accuracy of the job, view the JES job output log. Execute the ISPF Browse or equivalent syslog view command:

```
F 'APPLY PROCESSING WAS SUCCESS' ALL
```

Confirm that the number matches the number of PTFs you applied.

Note: PTFs may have a HOLD status associated with them that should be reviewed prior to applying maintenance. Review the ++HOLD requirements after you RECEIVE the SYSMODS. When satisfied, use a BYPASS(HOLDSYS) on the APPLY command.

15. Install Socket Management programs, transactions, and TDQs, using the sample member T09RDO in the T09SAMP library. Refer to the "*CICS/TS Resource Definition Reference*"chapter of the *Administrator Guide* for details on RDO definitions.

16. Refer to Terminal Control (TCT) Entries in the "CICS/TS Resource Definition Reference"chapter of the *Administrator Guide.* Install Socket Management terminal definitions using the sample member T09TCT in the T09SAMP library.

17. Read the introduction and the System Initialization Tasks (SIT) Entries section in the "CICS/TS Resource Definition Reference" chapter of the *Administrator Guide.* You will find information on possible resource maximum changes that may occur after installation.

18. Enable Socket Management start up and shutdown programs by adding the sample members T09PLTPI and T09PLTSD in the T09SAMP library to your existing PLT tables. Refer to the Program List Table (PLT) Entries section in the "CICS/TS Resource Definition Reference" chapter of the *Administrator Guide* for details on these table definitions.

19. Follow the instructions in the "Initial Minimal Configuration" chapter. It provides you with an initial Socket Management configuration and CICS/TS startup JCL changes.
20. Start Socket Management: Refer to the "Operations" chapter of the *Administrator Guide* for startup instructions and expected startup and termination messages.

Using the T09NAMES CLIST

This section acquaints you with the T09NAMES CLIST and how to set it up.

The T09NAMES CLIST is provided in the downloaded CNTL PDS library. It provides for quick customization of the Socket Management installation jobs.

The T09NAMES CLIST does the following:

- Inserts a copy a locally customized jobcard as the first statement in the JCL stream

  Note: You must first update the T09JCARD member in the CNTL library for this to work.
- Updates all high level qualifiers to your local standards
- Updates all DASD unit names and VOLSERs to your local standards
- Updates all tape unit names and VOLSERs to your local standards

Important! *The CLIST assumes you use the same HLQ and volume for everything. You can update individual (that is, target, dlib, and so on) fields by updating the CLIST directly. Make sure you save a copy for reference before you modify the CLIST.*

Setting Up the T09NAMES CLIST

1. Copy the T09NAMES member from CNTL library to a CMDLIB listed in the SYSPROC concatenation of your TSO logon procedure as described below:

   a. Determine the name of your logon procedure. It is identified on the first screen of your TSO logon.

   b. Determine the data set in which your logon procedure is located. It is probably in SYS1.PROCLIB. If not, from your TSO command line execute the command **TSO LISTA**, which lists all data sets allocated to your TSO session. Your TSO logon procedure is probably located in a data set with final node of PROCLIB.

   c. Determine the CMDLIB you will use.

      - Select the member containing your logon procedure
      - Find the SYSPROC DD
      - Select a CMDLIB into which to copy T09NAMES

      Note: In many locations a *youruserid*.CLIST data set is available for just this purpose.

   d. If you are copying the T09NAMES EXEC into a VBA library, enter **unnumb** at the command line before you copy T09NAMES. This eliminates the sequence numbers at the far right side of the member that causes the EXEC not to function in the VBA format.

   e. If after following the above suggestions, you are not able to determine your CLIST library, contact your TSO administrator.

2. Update the T09JCARD member in the CNTL library for use by the CLIST. This jobcard is inserted as the first line in every JCL job that you edit with the T09NAMES CLIST.

Using the T09NAMES CLIST to Customize the Install Job

1. Initiate an edit of the T09AL*xxx* install job
2. Issue the T09NAMES command from the primary command prompt while editing the member. See T09NAMES Command Formats below.

T09NAMES Command Formats

The following shows the valid formats for the T09NAMES command.

Note: Many times this command can become too long to type all the parameters on one ISPF edit command line. If you have this problem, you can update and save the T09NAMES CLIST.

1. Edit the T09NAMES CLIST directly supplying your local variables.
2. Save the changes.

This will enable you to type the command name, T09NAMES, by itself in the ISPF edit session while editing the install jobs.

Important! *Make sure to save a reference copy of the CLIST* ***before*** *making any updates to the T09NAMES CLIST.*

```
T09NAMES  high.level.qual  diskvolser diskunit  tapevolser  tapeunit
```

where:

high.level.qual	High-level qualifier for data set names.
diskvolser	Volume serial name of a disk drive in your environment.
diskunit	A valid unit name for a disk drive in your environment.
tapevolser	The volume serial name of the install tape.
tapeunit	A valid unit name for a tape drive in your environment.

T09NAMES CLIST Usage Example

The following is a sample of a T09NAMES CLIST:

```
T09NAMES SOCKMAN.V100 MVS001 3380 TCP001 TAPE
```

where:

SOCKMAN.V100	The high level qualifier for data set names.
MVS001	The volume serial name of a disk drive in your environment.
3380	A valid unit name for a disk drive in your environment.
TCP001	The volume serial name of the install tape.
TAPE	A valid unit name for a tape drive in your environment.

Chapter

4

Initial Minimal Configuration

Note: Throughout this guide you are referred to the "T09CON*xx* Customization" and "T09CON*xx* Configuration Reference" chapters in the *Administrator Guide* for more detail on many items. You may want to keep the *Administrator Guide* handy for easy reference.

Refer to the "Introduction" chapter of the *Administrator Guide* for a detailed overview of Socket Management.

Customizing the Socket Management Macros

The Socket Management configuration file T09CON*xx* defines the operating environment. The Socket Management configuration file must be assembled and link edited before the Socket Management initialization program is executed.

The Socket Management configuration file T09CON*xx* requires the following macros:

T09MCICS defines the basic operating environment. The environmental information includes the TCP/IP job name for communications with the transport provider, transaction IDs, log support and transient data queue names. It is the first macro in the configuration file.

T09MEND is used by internal configuration processing and contains no user-defined fields. It is placed at the end of the configuration file.

The following are optional macros for the Socket Management configuration file T09CON*xx*:

T09MCMDS defines the server that handles the interface to the Unicenter NetMaster Interface.

T09MLSTN defines CSKL replacement listeners.

T09MTRAN starts non-CSKL server transactions at both product startup and while the product is running. It can be used to start any transaction it doesn't have to be a server.

For full details on the configuration macros, see the "Configuration Reference" chapter in the *Administrator Guide*.

Customizing the Distributed Configuration File

Socket Management Default Configuration File T09CONez

The following is the default Socket Management configuration file, T09CONez. It is customized to run Socket Management in a standard setup environment.

Use this as a starting point for creating your customized environment.

```
*
*       Global Product definitions
*
        T09MCICS TRANSID=(IPPR,IPTL,IPST,IPT2),                    X
              TRCSSN=ACTR,                                         X
              JOBNAME=TCPIP
*
*       CSKL replacement server definition
*
        T09MLSTN PORT=1846,                                        X
              SOCKCOMP=YES,                                        X
              CLNTRNS=NO,                                          X
              CLNTLEN=6,                                           X
              CLNTIME=1
*
*       Sample CA-NetMaster Command Control Server T09MCMDS
*       entry when Security has not been configured.
*
*
        T09MCMDS PORT=2257,
              TRANSID=IPCP,
              SECURITY=N,
              SECENT=$SKTVIEW.CICS.CMDAUTH
*
*
*       Sample CA-NetMaster Command Control Server T09MCMDS
*       entry when security has been configured.
*
*       The terminal specified on the TERMID parameter must be
*       available for use by the command server when running
*       with security or the command server will not start!
*
*       T09MCMDS PORT=2257,                                        X
*             TRANSID=IPCP,                                        X
*             TERMID=TCMD,                                         X
*             SECURITY=Y,                                          X
*             SECENT=$SKTVIEW.CICS.CMDAUTH

*
        T09MEND
        END
```

Modifying T09CONez Sample Member

The default configuration table is T09CONFG. We recommend that sites configure, assemble and link a T09CONFG member into their T09LOAD or table library. No T09CONFG member is shipped with the product. Sites should create T09CONFG for local use using T09CONEZ as a model. Sample JCL to assemble and link a T09CONFG member is in the T09ASMLK SAMP `member`.

Product startup is simplified when sites use the default T09CONFG configuration member. It allows a more straight forward product start up by:

- Starting the product with the IPST transaction (associated with program T09TSTRT) without any parameters
- Allowing you to place program T09TSTRT in the PLTPI table without having to code a SIT INITPARM override for the proper configuration parm override

You may need to make the following changes to the T09CONez sample member. If you change T09CONez, first copy it into a new member name. This is necessary since the T09CONCP and T09CONEZ members are under the control of SMP and may be overwritten any time maintenance is applied to Socket Management libraries.

1. Verify the JOBNAME parameter, this must be the step name of the TCP/IP started task name.
2. Verify the Socket Management error, statistics, and trace transient data queues named (ACER, ACST and ACTR) were properly created using the T09RDO sample in T09SAMP.

3. Verify the key Socket Management transactions (IPPR, IPTL, IPST, IPT2) were correctly using the T09RDO sample in T09SAMP.

4. Verify the Socket Management server (listening) ports are not being used by existing TCP/IP applications. In the example, the ports are 1846 and 2257, these ports are not well-know reserved ports. Change them to values that are valid for your environment—any unused port number is valid.

   If a change to the server listening port is required, verify that the corresponding remote client well-known port is also changed to match.

   IBM TCP/IP only: Given the above port numbers, you may need to define port security in the PORT section of the profile.tcpip data set as follows (Where TCP ports 1846 and 2257 are associated with job cicsprod:

   1846 TCP *cicsprod*

   2257 TCP *cicsprod*

5. Use T09ASMLK from the SAMP library to assemble and link your T09CON*xx* (preferably T09CONFG) configuration member into an executable load module. Remember when linking into a table library that it must be ahead of the DFHRPL T09LOAD library to ensure that there are no module conflict issues.

Modifications to the CICS/TS Execution JCL

Make the following changes to the CICS/TS startup JCL:

1. Concatenate the Socket Management T09LINK library to the STEPLIB DD statement.
2. For those customers using IBM TCP/IP you must concatenate the TCPIP.SEZALINK library to the STEPLIB DD statement.
3. For those customers using Unicenter TCPaccess TCP/IP you must concatenate the *tcpaccessHLQ*.LINK library to the STEPLIB DD statement.
4. Concatenate the Socket Management T09LOAD library to the DFHRPL DD statement.
5. Add a SYSTCPD DD statement.

   It is recommended that you use what you already have for your existing stack definitions. However, no parameters are required other than having a valid JOBNAME parameter on the T09MCICS macro in your T09CONez configuration file. If you are creating this file *new*, it is recommended that it contain the following minimal parameters:

```
TCPIPJOBNAME  tcpip
HOSTNAME      yourhostname
; update to your SSID and uncomment the following if using
TCPaccess
; DNRSSID ACSS
DOMAINORIGIN  ???.COM
NSINTERADDR   123.234.345.456
DATASETPREFIX tcpip
```

   Note: The previous set is provided for your use in sample member T09STCPD in the T09SAMP library. Any sequential file format, such as a PDS member or a flat file is valid for use as a SYSTCPD DD.

6. Whenever SECURITY=Y is configured in the T09MCMDS macro, a CICS terminal must be made available to the IPCP transaction for use by the command control server.

   The sample CICS terminal definition uses the following DD statement in the CICS region startup JCL:

   ```
   //PRNT001 DD DUMMY
   ```

7. Restart your CICS/TS region.

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