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NetMaster Network Management for SNA Release and Migration Guide

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What’s New in Version 4.0

This chapter summarizes the changes and enhancements that have been implemented in Version 4.0, and indicates which NetMaster for SNA manual provides detailed information about each enhancement.

This chapter also indicates if compatibility with other versions is affected by the new functionality.

This chapter discusses the following:

- New and Enhanced Features in Version 4.0
- Summary of New and Enhanced Features in Version 3.3

New and Enhanced Features in Version 4.0

This release includes the following new and enhanced features:

- Initialization and Customization Services (ICS)
- Menu restructure, shortcuts, and tip of the day
- Logging enhancements
- Alert Monitor
- Enhanced resource-based security
- General NCS enhancements
- Support for APPN resources
- Support for subarea resources
- NSCNTL enhancements
- NCP V7R8 support
- NCP monitoring
- NCPView printing
- NetSpy data
- LMP replacing APKs for license control
- Object Services no longer required

Initialization and Customization Services (ICS)

You now use ICS to customize your NetMaster for SNA region. ICS is an initialization facility that enables you to implement a region rapidly and easily. Also, ICS enables you to customize parameters easily at a later stage.

When you first log on to a region, you need to set various parameters to get the product up and running. ICS helps you set up these parameters. An initial dialog is supplied for the first time user, to walk you through the process. You are prompted to supply required parameter values and given the opportunity to supply optional parameter values within various parameter groups.

Most of the operational parameters that were previously stored on the Network Services Control File (NSCNTL) are now customized by using ICS parameter groups. You can export ICS parameters to an initialization file to be used for multiple NetMaster regions. As a side effect, you can share the distributed NSCNTL file between multiple NetMaster regions. This sharing significantly simplifies the region setup process.

See the *Unicenter NetMaster Network Management for SNA Implementation Guide* and the *Management Services Administrator Guide*.

Menu Restructure, Shortcuts, and Tip of the Day

The user interface menus for NetMaster for SNA and related products have been unified in such a way as to make their structure logical, intuitive, and easy to navigate. They also now include shortcuts to go directly to a function. Shortcuts are shown beside options on menus.

Selecting a Function Directly by Using Shortcuts

To jump to the panel of a function directly:

- Specify ***/shortcut-name*** to retain the current panel on return.
- Specify ***=/shortcut-name*** to close the current panel and return to the primary menu on exit.

Note

Enter / or =/ to list all shortcuts.

Tip of the Day

Each time you log on to your NetMaster for SNA region, the primary menu shows a tip of the day. To view more details of a tip, position your cursor on it and press F1 (Help).

See the section, *Navigation Tables*, on page 1-10, and the *Unicenter NetMaster Network Management for SNA User's Guide*.

Logging Enhancements

The activity log has been enhanced in the following ways:

- Supports multiple concatenated log files.
- Supports filtering by text, origin, or region.
- Text finding has been enhanced as follows:
  - Supports 'FIND text FIRST' and 'FIND text LAST' (within the current day).
  - Supports compound FIND arguments, using the AND (&) or OR (|) operators.
- The scan limit can be set in the $NM LOGFILES parameter group in ICS.
- The DATE command and TIME commands support larger sets of operands. You can now position the log by either relative time or absolute time.
- Allows you to print parts of the log.
- Supports a user-written log exit.

See the *Management Services Administrator Guide*.

Alert Monitor

The Dynamic Attentions Display has been replaced, so that all NetMaster for SNA alerts are now displayed on the Alert Monitor, with the alerts from other NetMaster products and Management Services.

See the *Unicenter NetMaster Network Management for SNA Administrator Guide*.

Enhanced Resource-Based Security

Automation Services resource-based security is now available in NetMaster for SNA, allowing you to control a user's access to menus, resources, and commands by using the Network Partitioning Facility (NPF) or a third-party security package, such as RACF.

See the *Unicenter NetMaster Network Management for SNA Administrator Guide*.

General NCS Enhancements

The Network Control System (NCS) has been enhanced with the following new displays:

- SNA Resource List
- SNA Resource Display

The SNA Resource List displays all resources that match a specified prefix. The same resource may be listed multiple times if it has multiple types.

The SNA Resource Display is an alternative to the Graphic Node Display for session-based resources.

See the *Unicenter NetMaster Network Management for SNA User's Guide*.

Support for APPN Resources

Support for APPN resources has been enhanced as follows:

- There are new displays available for the following resources:
  - RTP pipes
  - Transport resources
  - DLURs
- There is a new APING function available.

- The Subnetwork Topology Display has been enhanced.
- The NTS Session Display and NTS Session Configuration Display have been enhanced.

New Display—RTP Pipe List

The RTP Pipe List displays a list of Rapid Transport Protocol pipes. Lines on this display are color-coded:

- Red—if the status is not CONNECTED
- Turquoise—if a path switch is in progress
- White—if congested, or the queue count is non-zero
- Green—otherwise

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

New Display—Transport Resource List

The Transport Resource List displays a list of entries (TRLEs) for the ISTTRL major node. TRLEs define the connectivity characteristics of PUs that provide APPN host-to-host channel connection.

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

New Display—DLURs

The DLUR Resource List displays a list of Dependent LU Requestors for which this host acts as Dependent LU Server (DLUS).

The DLUS sends data on a contention-winner session and receives data on a contention-loser session. This panel displays information on the current state of both these sessions for each DLUR.

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

APING Function

The SNA APING function tests the route to another SNA node and obtains performance information for the route.

To perform an APING on a node, enter **P** beside the node name on a list. This takes you to the APING Results List panel, where you can specify parameters. There are defaults for all of these parameters except the target resource name, which must be specified. You can vary the parameters and immediately correlate the performance information.

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

Enhanced Subnetwork Topology Display

The Subnetwork Topology display now supports the following new actions:

- AL (Alerts)
- P (APING)

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

Enhanced NTS Session Displays

The NTS session display panels now support the following actions:

- DLS—Display Adjacent Link Station; for an APPN session using HPR, this displays the RTP pipe.
- DS—Execute a VTAM D NET,SESSIONS command for the session.

The NTS session configuration display has been enhanced to display the RTP pipe used for APPN sessions, where applicable.

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

Support for Subarea Resources

Support for subarea resources has been enhanced as follows:

- The Graphic Node Display has been enhanced to display IP address information, if available.
- Enterprise Extender is now supported, with DLS action to display link stations.
- You can use the AL action to display alerts.

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

NSCNTL Enhancements

The administration of the Network Services Control File (NSCNTL) and related entities has been simplified, with new menus and shortcuts to display and maintain the following:

- Control File records
- Focal points
- Entry points

All control records now contain the following information to support record-level change control:

- Date created
- Date changed
- Time changed
- User ID responsible for change

See the *Unicenter NetMaster Network Management for SNA Administrator Guide* and the online help.

NCP V7R8 Support

NCP V7R8 is now supported. This was previously made available by APARs.

NCP Monitoring

NetMaster for SNA now supports an NCP monitor, which enables you to:

- Monitor CCU utilization and pool usage, raising alerts based on thresholds
- View performance history about your NCPs
- Perform diagnostic functions on NCPs

The NCP monitor is part of Automation Services. This means that you can define NCPs as a class of monitored resources, so that NCPs can be displayed with other network resources that are monitored by related products. For example, NetMaster for TCP/IP monitors TCP/IP resources such as stacks and OSA devices.

In addition, Automation Services handles all multisystem requirements and therefore supersedes the NCPView connected domains that were previously used with NCPs.

The NCP monitor is used for all diagnostic and monitoring functions for NCP resources, replacing the diagnostic menu options previously used.

See the *Unicenter NetMaster Network Management for SNA Administrator Guide* and the *Unicenter NetMaster Network Management for SNA User's Guide*.

NCPView Printing

A print function is now supported from the following panels:

- NCPView : Control Block Pool/Table Usage List
- NCPView : NCP Buffer Counts
- NCPView : Utilization
- NCPView : NCP Details

Printing this information allows you to document and archive critical NCP configuration and performance data in a more organized manner.

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

NetSpy Data

NetSpy data is now included, if available, on the following displays:

- NTS session summary displays
- NTS session RTM data displays
- NTS virtual route status displays

See the *Unicenter NetMaster Network Management for SNA User's Guide* and the online help.

Using LMP Keys for License Control

License control for the NetMaster, NetSpy, and SOLVE product range is now managed by Licence Manager Program (LMP) keys. Because of this, there are no longer Asset Protection Keys (APKs) for these products. All licence control using LMP keys is performed in Management Services, the common foundation of the NetMaster, NetSpy, and SOLVE products.

See the *Management Services Administrator Guide*.

Object Services

You no longer need Object Services to support any functions in NetMaster for SNA.

Navigation Tables

As part of the general product unification, menus have been restructured along task and resource type lines. All NetMaster for SNA functions have been remapped to the appropriate menus. Table 1-1 and Table 1-2 show the old and new locations of user functions and administration functions respectively.

Table 1-1. User Functions

Old Option/Function	New Primary and Secondary Menu Class	New Location/Function	Shortcut
A – NEWS Real-Time Attentions Display	Monitoring	Old Dynamic Attentions is obsolete. Alerts are now displayed using the standard Alert Monitor	/ALERTS
S – NEWS Device Support	Diagnosis – SNA Diagnosis	Device Support Diagnostics Menu	/DEVSUPP
D – NEWS Database Review	History	SNA	/SNAHIST
CA – NEWS Create an Alert	Diagnosis – SNA Diagnosis	Create an Alert	/SNADIAG.CA
T – Network Tracking System	Diagnosis – SNA Diagnosis	SNA Session Tracking Diagnostics Menu	/SNASESS
C – Network Control System	Diagnosis - SNA Diagnosis	Display SNA Resource List SNA Resources APPN Diagnostics Menu Subarea Diagnostics Menu	/SNANODE /SNALIST /SNAAPPN /SNASUBA
NV – NCPView	Diagnosis – SNA Diagnosis	NCP Diagnostics Menu	/NCPMON /SNADIAG.NCP
L – LAN Management	Diagnosis	IBM LAN Manager	/LAN
I – Information Database	Diagnosis	Help Message and Error Codes	/CODES
LO – Activity Log	*Obsolete*	Standard $LOG command	
SR – Session Replay Facility	Diagnosis	SNA Session Replay Facility	/SNASRF
CE – Command Entry	*Obsolete*	Standard CMD command	

Table 1-2. Administration Functions

Old Option/Function	Shortcut	Parameter Group in ICS
N.CF.M – Focal Point/Entry Point Management		
FP – NEWS Focal Point Management	/SNAFPA	
EP – NEWS Entry Point Management	/SNAEPA	
CF – Control File Category Maintenance	/SNACFA	
EV – Event Recording and Performance Options		
F – Set Filters for Event Recording	/ICS	CNMFILTERS
P – Set Performance Objectives for Alert Generation	/ICS	CNMPERFOBJ
SMF – Set SMF Recording Options	/ICS	SMFT37
C – Set Control File Cache Options	/ICS	NSCNTLCACHE
DB – NEWS Database Functions		
L – Set NEWS Database Logging Options	/ICS	CNMLOGGING NEWSDBOPTS
M – NEWS Database Maintenance	/SNADBA	
MS.S.NM – NetMaster Administration Menu		
N – Set/Alter NEWS Services Defaults	/ICS	CNM
T – Set/Alter NTS Services Defaults	/ICS	SAW

Summary of New and Enhanced Features in Version 3.3

SOLVE:NetMaster for SNA Version 3.3 included the following new and enhanced features:

- APPN support:
  - NCS displays
  - NEWS RUNCMD support
  - NTS session awareness and tracing
- Frame relay support
- NCP V7R4 support
- Real-time attentions monitored from Unicenter TNG Event Management Console
- NEWS Control Functions Menu redesigned to provide access to sub-menus for previously existing options
- Registered SOLVE:NetMaster for SNA regions can be automatically restarted

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Migrating to Version 4.0

This chapter describes how to migrate your installation's data to NetMaster for SNA Version 4.0 from Version 3.3.

This chapter discusses the following:

- Minimum Maintenance Level
- Log File Compatibility
- Region Compatibility
- SMP Dataset Name Changes
- Migrating to Version 4.0
- Reviewing ICS Parameters

Minimum Maintenance Level

Version 5.0 is the minimum maintenance level of both Management Services and Automation Services that NetMaster for SNA Version 4.0 can operate with.

Management Services and Automation Services provide a central core of functions and services for this product.

Log File Compatibility

The physical format of the activity log files for all products has changed with Management Services 5.0. You can no longer use your old Management Services log files.

Note

There are no conversion utilities provided for converting old-format log files to the new format.

You can still browse activity logs across regions with different Management Services levels. From Management Services 5.0, you can browse the following types of activity logs in other regions:

- Management Services 4.0 or 4.1
- Automation Services 4.0

This browsing facility is available in both directions between regions.

Customized Log Procedures

$LOGPROC and $LOGBROW are now $LOPROC and $LOBROW respectively. You cannot customize $LOPROC or $LOBROW, because they are not written in Network Control Language (NCL).

If you have modified $LOGPROC, you need to write a log exit routine incorporating your changes.

For further information about log exits, see the *Management Services Administrator Guide*.

Region Compatibility

The NCS component includes the ability to display data from remote regions linked using INMC. In NetMaster for SNA 3.3, remote data was obtained using the Remote Operator Facility (ROF). Data is now obtained using APPC RPC functions.

Where remote data is required and the two regions are at different NetMaster for SNA versions, the following restrictions apply:

- NetMaster for SNA 4.0 is backward compatible. A Version 4.0 region can obtain data from a Version 3.3 region, provided that:
  - The Version 3.3 system is running Management Services 4.1, with APARs Z67301, Z67302, and Z67303 applied.

    These APARs provide components that are required for APPC RPC functions on the remote system(s).
  - The Version 4.0 system (running Management Services 5.0) has APAR Z67304 applied.

    This APAR corrects problems with displays on remote systems.
- NetMaster for SNA 3.3 is not forward compatible, that is, it cannot obtain data from a Version 4.0 region.

SMP Dataset Name Changes

NetMaster for SNA now fully conforms with the dataset naming conventions used by all members of the Unicenter NetMaster product family that are installed using the procedures documented in the *Unicenter Mainframe Installation and Setup Instructions*. Because of this, the SMP DDDEF names and the low-level qualifiers of all datasets have changed, as shown in Table 2-1 and Table 2-2.

Table 2-1. SMP Target Zone Libraries

Library	Version 3.3	Version 4.0
Load Library	LOAD	SNLOAD
NCL/OML	NSTEXEC	SNTEXEC
Samples	INSTAL	SNSAMP
Macros	MACROS	SNMACROS

.

Table 2-2. SMP Distribution Zone Libraries

Library	Version 3.3	Version 4.0
Object Library	NMLOAD	SN1LOAD
NCL/OML	NS1EXEC and NS2EXEC	SN1EXEC
Samples	NMINSTAL *	SN1SAMP
Macros	NMMACLIB	SN1MACLB

* The dataset low-level qualifier for NMINSTAL was BASE.INSTALL

Migrating to Version 4.0

To migrate to Version 4.0 from Version 3.3, perform the following tasks before starting up your region:

- *Task 1—Migrate Files*
- *Task 2—Review SNA Initialization Procedure ($NSINIT)*
- *Task 3—Review Alert Forwarding Procedures*

Caution

Before proceeding with your migration tasks, ensure that you have done the following:

- Completed the installation and setup tasks described in the *Unicenter Mainframe Installation and Setup Instructions*.
- Reviewed the migration tasks described in the *Management Services 5.0 Release and Migration Guide*.

Task 1—Migrate Files

This section describes the migration tasks for each of the Version 4.0 files that has a back-level equivalent.

Do not share a back-level file with a Version 4.0 region. Do not use it with a Version 4.0 region and then use it with a back-level system.

To migrate your files to Version 4.0, perform the following subtasks:

- *Subtask 1.1—Migrate the NEWSFILE File*
- *Subtask 1.2—Migrate the NSCNTL File*
- *Subtask 1.3—Migrate the NTSLOG File*

Subtask 1.1—Migrate the NEWSFILE File

The format of the NEWSFILE file is unchanged. Copy the entire file to the Version 4.0 file, using the REPRO function of the Access Method Services operating system utility.

Subtask 1.2—Migrate the NSCNTL File

The format of the NSCNTL file is unchanged. However, the contents of the file have changed for the following reasons:

- The use of ICS parameters in Version 4.0
- Support for record-level change control

Because of these changes, you need to migrate your NSCNTL file to the Version 4.0 file, even if you have not made any modifications to your back-level file.

To migrate your NSCNTL file using the $SNNSCNV utility procedure:

Step 1. Start the Version 4.0 region, using the distributed Version 4.0 NSCNTL file.

Step 2. Enter **=O** at a ===> prompt. The Operator Console Services (OCS) panel is displayed.

Step 3. Enter **$SNNSCNV DSN=*datasetname*** at the ==> prompt. The procedure reads the old NSCNTL file, produces a report, and displays it on your screen.

Step 4. Scroll through the migration report, reading the explanatory text and observing categories that are highlighted to indicate a change.

Note

To print the migration report for easy reference, press F11 (Print).

Step 5. To migrate your old NSCNTL file to Version 4.0, press F6 (Migrate). The NSCNTL : Record Migration List panel is displayed.

Note

F6 (Migrate) is displayed only if both of the following apply:

- The target NSCNTL file, that is the file allocated to this region, with the current product version, has update access. The Migration Summary section of the report instructs you how to enable migration if the file is read-only.
- There are records (SNAMS focal points and entry points or CNM code points) that qualify for migration.

If you have changed any of the Cat 004 Process-ID Definitions in your old NSCNTL file for Automation Services, these changes are no longer required. These definitions are:

- AL0001, AL0002, AL0003, AL0010
- EV0001, EV0002, EV0003, EV0004

Step 6. Type **C** beside each record that you want to copy to your new NSCNTL file and press ENTER. The migration utility updates the Status column to show the effect of this action. The new status shown for each record is as follows:

- Copied—if the record did not already exist in the new file
- Replaced—if the record already existed in the new file

For further information, see the comments contained within the utility.

Subtask 1.3—Migrate the NTSLOG File

The format of the NTSLOG file is unchanged. Copy the entire file to the Version 4.0 file, using the REPRO function of the Access Method Services operating system utility.

Task 2—Review SNA Initialization Procedure ($NSINIT)

The NetMaster for SNA initialization procedure, $NSINIT, is used for site-specific definitions, for example, NTS DEFCLASS statements.

If you have customized your $NSINIT procedure in Version 3.3, you need to do this:

Step 1. Review your Version 3.3 file, and apply your local modifications to the Version 4.0 file in TESTEXEC.

Note

Many of the statements from Version 3.3 have been replaced by ICS parameter groups. Therefore you cannot simply migrate your Version 3.3 $NSINIT file.

Step 2. Update the SNAINIT parameter group in ICS to action your changes. See the *Administering NetMaster for SNA* chapter in the *NetMaster for SNA Administrator Guide* for details.

Task 3—Review Alert Forwarding Procedures

In Version 3.3, you could forward NEWS Dynamic Attentions to the Unicenter TNG Event Management Console as traps. In Version 4.0, Dynamic Attentions are replaced by the Alert Monitor, and the method of forwarding alerts is different.

If you forwarded Dynamic Attentions in Version 3.3, do the following:

Step 1. Remove the following statements from your customized NMREADY member:

```
&CONTROL NOUCASE
$NSCALL OPT=ACTION ACTION=START TYPE=TNGTRAP +
PARMS='DESTADDR=IP-host DESTPORT=162 +
COMMNAME=community-name'
```

Step 2. Replace them with $AMEVFWD commands. See the *Advanced Configuration Tasks* chapter in the *NetMaster for SNA Administrator Guide* for details.

Reviewing ICS Parameters

After starting up your region, review all NetMaster for SNA specific parameter groups to ensure that they meet your site requirements. To do this:

Step 1. Enter **/ICS** at a ===> prompt. The ICS : Customization Parameters panel is displayed.

Step 2. Enter **S** beside a NetMaster for SNA specific parameter group (application ID $SN). The ICS : Initialization Parameters panel for the parameter group is displayed.

Step 3. If you need to make any changes, press F4 (Update) and then make the changes (see the online help).

Step 4. Repeat Steps 2 and 3 for each NetMaster for SNA specific parameter group.

See the *NetMaster for SNA Implementation Guide* and the *NetMaster for SNA Administrator Guide.*