NORTEL NETWORKS

Preside Multiservice Data Manager

Remote Network Communication System

User Guide

241-6001-013

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User Guide

Publication: 241-6001-013
Document status: Standard
Document version: 15.1RSUP
Document date: August 2004

Printed in Canada

Publication history

August 2004

15.1RSUP Standard
Commercial availability except for MPE support which will be available in a future release.

Contents

About this document

The following topics are discussed in this section:

Who should read this document and why

This document is for network operators and administrators who are responsible for network management. This guide describes the activities that you can perform when you are accessing the Passport workstation from a remote location.

What you need to know

This document assumes a familiarity with Network Control System (NCS) commands and responses and local VT100 commands.

How this document is organized

241-6001-013 *Preside MDM Remote Network Communication System User Guide* contains the following sections:

- "Remote Network Communication System" (page 15) introduces remote access and discusses its advantages.

- “Starting RNCS” (page 19) explains how to start a Remote Access session.
- “RNCS commands and utility reference” (page 23) describes the commands you can use during a Remote Access session.

What’s new in this document

The following feature was added to this document:

- support for the alarms command to an MPE 9500 over remote network communications

Text conventions

This document uses the following text conventions:

- `nonproportional spaced plain type`

  Nonproportional spaced plain type represents system generated text or text that appears on your screen.

- **nonproportional spaced bold type**

  Nonproportional spaced bold type represents words that you should type or that you should select on the screen.

- *italics*

  Statements that appear in italics in a procedure explain the results of a particular step and appear immediately following the step.

  Words that appear in italics in text are for naming.

- `[optional_parameter]`

  Words in square brackets represent optional parameters. The command can be entered with or without the words in the square brackets.

- `<general_term>`

  Words in angle brackets represent variables which are to be replaced with specific values.

- UPPERCASE, lowercase

  Uppercase and lowercase letters that appear in UNIX commands and parameters must be matched exactly. The system matches upper and lowercase characters differently.

- |

  This symbol separates items from which you may select one; for example, ON|OFF indicates that you may specify ON or OFF. If you do not make a choice, a default ON is assumed.

- ...

  Three dots in a command indicate that the parameter may be repeated more than once in succession.

The term absolute pathname refers to the full specification of a path starting from the root directory. Absolute pathnames always begin with the slash (/) symbol. A relative pathname takes the current directory as its starting point, and starts with any alphanumeric character (other than /).

Related documents

See the following documents for related information:

- 241-6001-301 *Preside MDM Customization Administrator Guide*
- 241-6001-303 *Preside MDM Administrator Guide*
- 241-1001-506 *DPN-100 Alarm Console Indications*

Chapter 1
Remote Network Communication System

This section introduces Remote Network Communication System (RNCS) and discusses its advantages. After reading this section you will understand the following:

- what RNCS is
- the advantages of using RNCS
- how you can use RNCS
- what you need before you can use RNCS

Network Management System

The Preside Multiservice Data Manager (MDM) is a UNIX-based product that runs on a SPARCstation (referred to as the MDM workstation). It runs various network management tools that assist network operators in the day-to-day maintenance of their network.

Remote Network Communication System

The Preside Multiservice Data Manager supports ASCII terminal access to the network via a DPN-based Network Control System (NCS) OA destination or by a Passport Group destination, through a subsystem called Remote Network Communication System (RNCS).

Note: RNCS is supported on DPN and Passport devices only.

Remote Network Communication System (RNCS) Utility

The rnsmclarm utility is used in a Nortel Networks Multiservice Provider Edge (MPE) network to extract alarms from Preside Multiservice Data Manager (MDM) and display them, redirect them to a file or pipe them to another system.

What you can do with RNCS

On the ASCII terminal, you can connect to either a DPN NCS OA destination or a Passport Group destination for the purpose of

- issuing operator commands to the network
- dumping a list of currently active alarms (i.e. SET alarms)
- dumping a list of history or recent alarms (i.e. MSG, SET and CLR alarms)
- starting a log of alarms
- translating the alarm codes into a textual description of the problem and possible solutions using the remote NTP viewer (RNTP) command
- optionally executing macros
- extracting the Preside Multiservice Data Manager alarms with the *rncsalarm* utility and displaying them on a screen, dumping them to a file, or piping them to another process. For the instructions to use the rncsalarm utility, see “rncsalarm utility” (page 40).

  Note: Only one connection to the network can exist at any one time.

On the ASCII terminal, you may extract MPE alarms with the RNCS utility for the purpose of

- dumping a list of currently active alarms (i.e. SET alarms)
- extracting the Preside Multiservice Data Manager alarms with the *rncsalarm* utility and displaying them on a screen, dumping them to a file, or piping them to another process. For the instructions to use the rncsalarm utility, see “rncsalarm utility” (page 40).

What you need to get started

Before you call into the Preside Multiservice Data Manager workstation for the first time, you need to have the following information:

- the address of the workstation—that is its DNA
- a remote access userid and password
- your terminal type
- your NCS-MDI interface mnemonic
- your NCS capability ID
- your NCS password

You also require one of the following:

- a remote ASCII terminal with cursor control (for example, a VT100)
- a remote host supporting a VT100 emulation (for example, a PC)

Installing and starting RNCS

For details on installing and enabling RNCS, refer to the 241-6001-303 *Preside MDM Administrator Guide*.

Chapter 2
Starting RNCS

This section explains how to start Remote Network Communication System (RNCS). Since you do not have a Preside Multiservice Data Manager (MDM) workstation available on-site, your system administrator has configured RNCS to provide support for your ASCII terminal over the network. With RNCS, you can access the network remotely through MDM from your ASCII terminal to perform network management tasks.

This section contains the following information:

RNCS command line options

RNCS is usually configured as a shell process invoked from a remote login system like X.25 PAD (through SunLink X.25 configuration) or rlogin (through the user account configuration or startup script). In this context, RNCS supports the following option:

```
-T <minutes>
```

If the specified number of minutes expires with no active commands being processed, RNCS automatically terminates to free up the network resources and connections reserved for it.

Starting an RNCS session

Use the following procedure to access the Preside Multiservice Data Manager (MDM) workstation. Before using this procedure, your MDM system administrator must configure a remote access userid to provide support for your ASCII terminal over the network.

Procedure steps

1 Type the DNA of the MDM workstation.

The following appears on the screen:

```
Welcome to Remote Network Communication System (RNCS)

login:

password:
```

2 Supply your remote access userid and password at the prompts. The password was set by your system administrator as the system was configured. Consult your system administrator if you have any questions about the userid and password.

The following text appears on the screen:

```
You are now connected to the MDM Workstation.
Answer the prompts that follow this message to access
the network, either via an NCS OA or <Passport or MPE
9500> Group destination.
Just press return after each prompt if you want the
default.
The default responses appear in brackets in the prompt.
Type help for details on local commands.
For further assistance, call your system
administrator.
```

3 The following prompts appear in sequence. Answer them or press return to select the default—it appears in brackets beside the prompt.

```
TERMINAL = (VT100)
```
The terminal type must match one of the preset definitions.

```
DESTINATION = (?)[NCS OA or <Passport or MPE 9500>
Group]
```
Press return or enter **?** to obtain a list of NCS OAs and Passport Groups to choose from.

`CAPABILITY = ()[capability ID]`
You are not able to proceed until you enter a value.

`PASSWORD = ()[password]`
You are not able to proceed until you enter a value.

Note: When you enter this information, the system attempts to connect you to the destination that you specify. If the attempt fails, you are prompted again for destination, capability ID and password.

`Connecting to <destination>...`

and then

`<OA name or Group>-#>`

appears on the screen when you are connected to the destination. You can now enter any operator command or invoke UNIX macros (if you have UNIX access).

where:

`<OA name or Group>` is the OA to which you are connected.
`#` is the command number.

The TERMINAL prompt is only displayed upon initial access to RNCS. If you exit from the destination and want to access another, or the same network element, you will only be prompted again for the INTERFACE, CAPABILITY, and PASSWORD values. The default values for these prompts will be the values used at the previous login, except for the PASSWORD prompt which you must always provide.

The destination network element to which you connect appears as the prompt when you log into the destination. A command number, separated from the network element name by a hyphen, appears with the name. The command number is in the range of 1 to 999 and can be used for command recall. For details, refer to “RNCS commands and utility reference” (page 23).

During the session, the screen may interrupt you with output while you are entering a command. Wait until the screen stops scrolling and then enter the rest of the command.

UNIX access

Your Preside Multiservice Data Manager system administrator must configure specific initialization parameters for you to have UNIX access. You do not have the ability to change these parameters. Refer to the 241-6001-303 *Preside MDM Administrator Guide* or contact your system administrator for further information.

Chapter 3
RNCS commands and utility reference

This section discusses commands that can be used with Remote Network Communication System (RNCS).

This section contains the following information:

Command entry

With RNCS, you can enter commands for a network element destination, or commands local to RNCS. If you have the proper capability you can enter commands or macros to be executed by the UNIX shell.

Local commands

There are several local commands that you can use. These commands provide command input and recall, macro control and alarms management. All command input is case insensitive and must be terminated by a carriage return. The local commands are

help	Displays help information on local commands.
prefix	Sets or resets a command prefix—used for all subsequent commands until it is changed, removed, or aborted.
rntp	Displays fault code descriptions from the NTP 241-1001-506 *DPN-100 Alarm Console Indications*.
alarms	Sets or resets the display of alarms as well as the filtering of alarm presentation.
macro	Displays a list of all macros started at this terminal and their uniqueID. Also allows for the termination of any macro that is currently running.
exit	Terminates the current connection and returns you to the interface selection prompt.
history	Displays the last 20 commands.
more	Controls the output of commands to the network and help commands, by using the UNIX *more* functionality.
logs	Allows for the filtered display of either active or recent alarms, by automatically invoking a macro.

Help command

You can use the help command to either display the local commands for which help is available, or to display help on a specific command.

Help on local commands

Use the following command to display the local commands for which help is available.

```
help
```

Help on specific commands

Use the following command to display help on a specific command.

```
help <command>
```

where
`<command>` is the command you require information on.

The command description appears on the screen. Due to the small screen size of a VT100 terminal, this help is limited to a brief summary of the command syntax. A more complete description of each command is provided here for reference purposes.

Example
```
help prefix
```

Displays information on the prefix command.

Prefix command

You can define up to 20 command prefixes. If your system administrator has configured a home directory for you to preserve the command prefix data during login sessions, these prefixes are preserved between sessions. When you are defining prefixes, if you do not specify a prefix number, the next available one, if any, is used.

Note: This command is not supported for MPE 9500.

The prefix command allows you to define or undefine a text string to be appended to all subsequent NCS commands. Up to 20 prefix commands may be defined. A common use of this feature is to define the NCS route to a remote network element so all further commands are sent to that component. This feature is a shortcut to reduce typing repetitive commands.

All currently defined prefixes will automatically be stored in the file: *$HOME/MagellanNMS/RNCSPrefixes.cfg.* These prefixes will automatically be restored the next time you start an RNCS session.

Note: When specifying a prefix, you must enter a period "." before the prefix number (#). For example, to call up a prefix 6, you must enter ".6".

To remove the prefix, enter a period "." followed by the return key. This will allow you to continue entering RNCS commands.

Defining a prefix

Use the following command to define a prefix.

```
prefix [<#>] define <text>
```

A prefix is defined with the provided text. This prefix can be up to 60 characters in length. If the optional number is not provided, the next available prefix number is used. You are not able to define a prefix if a prefix already exists for the number specified in the command. You must first undefine the prefix before defining a new one.

Removing or deleting a prefix

Use the following command to delete a prefix from the prefix table.

```
prefix <#> undefine
```

The prefix entry specified by the input number is deleted from the prefix table.

Displaying all defined prefixes

Use the following command to display a list of all currently defined prefixes.

```
prefix list
```

Displaying syntax for the prefix command

Use the following command to display the syntax for the prefix command.

```
prefix ?/help
```

Syntax for the prefix command is displayed.

The prefix text associated with the prefix request by <#> is displayed as part of the next prompt. Data may be appended to this prefix before executing as either a local or NCS command. If no prefix exists for the requested prefix number, the terminal prompt is redisplayed.

If you have selected a prefix but decide to deselect usage of the prefix, you may enter a period (.) followed by a carriage return to abort the prefix and redisplay the terminal prompt. The command number is not incremented.

RNTP command

Use the following command to display fault code descriptions.

```
rntp [ xxxxxxxx ]
```

OR

```
rntp [ xxxx xxxx ]
```

This command displays a short description of the fault code you specify from NTP 241-1001-506 *DPN-100 Alarm Console Indications*.

Note: This command is not supported for MPE 9500.

Alarms command

You can enable or disable the display of active alarms at your terminal in terse, normal or full display format. This allows you to select the desired format of alarms, as well as filtering only a desired subset of the complete alarm stream for presentation. You can also select between the DPN NCS alarm mode or the common alarm mode for DPN alarms.

Note 1: All Passport alarms are displayed using the common alarm mode, regardless of the alarm mode that is set.

Note 2: These commands are not supported for MPE 9500.

All currently defined alarm filters (*component IDs, severities, fault codes*) and display formats (*alarm mode, alarm format*) will automatically be stored in the file: *$HOME/MagellanNMS/RNCSFilters.cfg.* These prefixes and formats will automatically be restored the next time you start an RNCS session.

During configuration of your remote access userid, your system administrator assigns it a customer ID (CID). This CID value is not to be confused with your Operator Capability ID (CNM ID) which is used to screen your commands and prevent access to unauthorized devices.

Alarms are only displayed from your RNCS if the following conditions are met:

- The alarm CID matches your RNCS userid CID.

  Note: The setting CID=0 is a special wildcard customer ID, which matches the CID on all incoming alarms. System administrators normally assign CID=0 to RNCS userids in non Virtual Private Network (VPN) environments.

- The alarm originated from the OA to which you are connected, or to any OA which is subordinate to the one you are connected to. Note that no such filtering takes place when you are connected to a Passport Group destination.

  — If there is no connection to a Network Model, alarm filtering cannot be performed and all alarms will be shown.

  — If a Network Model is available but is not configured correctly, alarms will not be displayed properly.

- The alarm matches any filters which you may have additionally specified.

Filters can be defined to screen incoming alarms according to component ID, severity, and fault code. These filters are preserved between sessions.

Turning the alarm display on or off

Use the following command to enable or disable the presentation of alarms at your terminal.

`alarms on/off`

DEFAULT: OFF

Note 1: You must issue the *alarms off* command before you can issue either the *alarms dump* or the *alarms history* command.

Note 2: This command is subject to the restrictions and filtering capabilities described in the section “Alarms command” on page 27. These same restrictions and capabilities also apply to the *alarms dump* and *alarms history* commands.

Setting the alarm mode

Use the following command to request either DPN or COMMON display modes. DPN alarms can either be displayed in DPN or common mode. Passport alarms are only displayed in common mode even if DPN display mode is set.

```
alarms mode common/dpn
```

DEFAULT: DPN

Setting the alarm format

Use the following command to select the desired format for alarm presentations. TERSE format consists of a one-line summary alarm. NORMAL format consists of the TERSE format plus any operator data. FULL format consists of the NORMAL format plus any expert and comment data.

```
alarms format terse/normal/full
```

DEFAULT: TERSE

When the COMMON alarm mode is selected, TERSE and FULL are the only available alarm formats.

Filtering according to severity

Use the following command to add or delete a severity from the list of severities to be used to filter the alarms stream.

```
alarms filter add/delete severity <severity> ...
```

DEFAULT: ALL SEVERITIES

In DPN mode, valid severities are: NONE, MINOR, MAJOR, DEGRADE, or OVERLOAD.

In COMMON Mode, valid severities are: WARNING, MINOR, MAJOR, CRITICAL or UNKNOWN.

Up to 5 severities may be added or deleted at any time. Duplicates are accepted and ignored. If you try to delete a non-existent severity, an error message is generated. If you have deleted all severities from the filter, or there are currently no severity filters defined, then ALL severities are accepted for display, subject to other filter definitions.

Filtering according to component ID

Use the following command to define component IDs from which alarms are to be filtered. Five component IDs (one per command) may be added or deleted.

```
alarms filter add/delete comp <mnemonic>
```

DEFAULT: ALL MODULES AND THEIR SUBCOMPONENTS

One component ID must be provided with this command. A duplicate component ID is noted to you and ignored. If you try to delete a non-existent component ID, an error message is generated. If you have deleted all component IDs from the filter, or if there are currently no component filters defined, then ALL modules and their subcomponents are accepted for display, subject to other filter definitions.

You can use the wildcard character (*) to see alarms for components that begin with the same characters. For example, to see alarms from components beginning with *a1*, set the filter using the wildcard character as follows:

```
alarm filter add comp pm a1*
```

To see any alarm from module a1, set the filter as above, except with a blank space before the asterisk. The command is as follows:

```
alarm filter add comp pm a1 *
```

Note: Wildcards only work when placed at the end of device mnemonics. Using the wildcard in forms such as **a* or *a*12* will not work.

Filtering according to fault codes

Use the following command to add or delete a fault code from the list of fault codes to be used to filter the alarms stream. Up to five fault codes may be added or deleted at any time. Duplicates are accepted and ignored. If you try to delete a non-existent fault code, an error message is generated.

```
alarms filter add/delete fault code <fault code>...
```

DEFAULT: ALL FAULT CODES

If you have deleted all fault codes from the filter, or there are currently no fault code filters defined, then ALL fault codes are accepted for display, subject to other filter definitions.

Turning the alarm filter on or off

Use the following command to disable or enable the alarm filter without having to disable the alarm stream first. If the alarm stream is not active, this will have no affect until the alarm stream is enabled.

```
alarms filter on/off
```

DEFAULT: ON

Displaying the current status of the alarm stream

Use the following command to display the current status of the alarm stream along with any or all filter definitions.

```
alarms display
```

Listing active alarms

Use the following command to view a list of active SET alarms.

```
alarms dump
```

Note 1: The *alarms off* command must be issued before you can issue the *alarms dump* command.

Note 2: This command is subject to the restrictions and filtering capabilities described in the section “Alarms command” on page 27. These same restrictions and capabilities also apply to the *alarms on* and *alarms history* commands.

Listing history alarms

Use the following command to view a list of history alarms. This list may consist of SET, CLR and MSG alarms.

```
alarms history
```

Note 1: The *alarms off* command must be issued before you can issue the *alarms history* command.

Note 2: This command is subject to the restrictions and filtering capabilities described in the section "Alarms command" on page 27. These same restrictions and capabilities also apply to the *alarms on* and *alarms dump* commands.

Displaying alarm command syntax

Use the following command to display the alarm command syntax.

```
alarms ?/help
```

Defined alarm filters are preserved between login sessions.

Macro commands

You can use macro commands to display a list of all macros started at this terminal and their unique ID. These commands are described in the sections that follow.

Note: These commands are not supported for MPE 9500.

Displaying currently running macros

Use the following command to list all the currently running macros and their associated ID.

```
macro list
```

Terminating a macro

Use the following command to terminate the requested macro indicated by <*macro_id*>.

```
macro kill <macro_id>
```

Running macros

You can execute macros if your RNCS userid is configured for UNIX access. A macro is any executable file on the UNIX disk. This, for example, may be a C-Shell script or a C-program.

RNCS recognizes the dollar sign ($) to mean that the rest of the line is either a macro name or a UNIX command, possibly with optional arguments. A full description of macros is provided in the NTP 241-6001-301 *Preside MDM Customization Administrator Guide*.

Example
$dpnup

invokes the dpnup macro located in */opt/MagellanNMS/cfg/macros/nms*.

When you run a macro, you can continue to enter other operator commands while the macro is running. Output from the macro is still presented as required, and may be interspersed with other output.

After each macro invocation, RNCS responds with a macro-id unique to that macro, if *macro feedback* is enabled. If you want to terminate any long–running macro, you can use the *kill* <*macro-id*> command.

Controlling macro messages

You can turn off the macro start and stop messages with the following:

```
macro feedback off
```

This turns off the following macro start and stop messages.
Macro start message:
macro id = xxxx. Enter “macro kill xxxx” to terminate
Macro stop message:
xxxx <macro name> terminated

You can turn the macro start and stop messages on again with the following:

```
macro feedback on
```

This option will automatically be stored in the file:
$HOME/MagellanNMS/RNCSOptions.cfg when you exit from RNCS. This option, and all other options found in the file, will automatically be restored the next time you start an RNCS session.

SNMP commands

You can type SNMP commands from RNCS by prefixing @ to the command. To get information on how to obtain the list of available SNMP devices and the current list of commands for each device, type the following command:

```
@help
```

The help text indicates the various command formats and how to obtain help on a specific command.

Note: These commands are not supported for MPE 9500.

Exit command

Use the following command to close the connection to the destination and to clean up any background processes which may be running.

```
exit
```

You return to the DESTINATION = (?) prompt, and may enter a new destination.

To stop the program completely, repeat the following command.

```
exit
```

The program is stopped completely and the call to your ASCII terminal is cleared.

History command

Each operator command has a command number in the range of 1 to 999 associated with it. You can use this command number to retrieve any of the last 20 commands for display and possible re-execution. You are not permitted to edit commands but you are able to append text to the end of the command.

Note: These commands are not supported for MPE 9500.

Command recall syntax

The *history* command displays the last 20 commands entered during any one session while logged on to a destination. Any one of these commands may be recalled for re-execution.The command history is reset when you exit from the current destination.

Displaying the last 20 commands entered

Use the following command to display the last 20 commands that were entered.

```
history
```

The last 20 commands are displayed. The command number and text of each command is presented on a separate line.

If less than 20 commands have been executed when the command history is requested, only those *n* commands executed are displayed.

Displaying a specific command

Use the following command to display a specific command.

! <#>

where

<#> is the command number (1-999) contained in the command prompt of the original command, and displayed in the command history. For example, typing !3 displays the 3rd command.

You may select any of the previous 20 commands with this command. The command text is presented as part of the command prompt. Data may be appended to the recalled command before executing.

Displaying the last entered command

Use the following command to recall the last entered command.

! !

The command text is presented as part of the command prompt. Data may be appended to the recalled command before executing.

Escaping from recalled command text

Use the following command to escape from any recalled command text. By entering the *period* (.) character, you may escape from any recalled command text.

period (.)

The default command prompt is displayed, and the recalled command text is not displayed again until you specifically request it. The command number is not incremented.

Recall and re-execute the last entered command

Use the following command to recall and immediately re-execute the last entered command.

=

The command text is redisplayed, but you are not given the opportunity to append any data to it.

Displaying commands one screenful at a time

The *more* command controls the output from network operator commands and from RNCS help commands. When the *more* option is enabled, the output from operator commands and from help commands is displayed one screenful at a time. Use the following command to enable the *more* option.

```
more on
```

With *more* enabled, press the spacebar to advance the output to the next screenful of data.

> ***Note:*** When *more* is enabled, wait for the completion of the command being executed before entering a new command; otherwise, the output from the new command will be blocked.

Attempting to display alarms while the *more* option is enabled, will affect the behavior of the output resulting from an operator command or from the help command.

Use the following command if you want to disable the *more* option.

```
more off
```

This option will automatically be stored in the file: *$HOME/MagellanNMS/RNCSOptions.cfg.* This option, and all other options found in the file, will automatically be restored each time you start an RNCS session.

Logs command

The *logs* command invokes a macro which provides similar functionality to the *alarms dump* (display of active alarms) and *alarms history* (display of recent alarms) commands. In addition to this functionality, the *logs* command can be run while new network alarms are being monitored with *alarms on* enabled, and can be supplied with its own set of filters and settings. This functionality allows you to view alarms on selected components while monitoring the network as a whole.

> ***Note:*** These commands are not supported for MPE 9500.

When the *logs* command is in progress, it appears as a macro and can be displayed using the *macros list* command to get the process ID, and can be terminated using the *macros kill* <*pid*> command.

All command line options specified with the *logs* command remain in effect only for the duration of command, and in no way affect the *global* filters and settings which are saved to and restored from the *$HOME/MagellanNMS/RNCSFilters.cfg* file, between RNCS sessions.

> ***Note:*** Even though the *logs* command invokes a macro, it is accessible to RNCS users who are restricted from having UNIX access.

Use the following command to invoke the *Logs* macro:

```
logs  -d | -h  [-f <format>] [-m <mode>] [-n
<faultcode>] [-s <severity>] [-i <comp>] [-i <comp> ]
... ]
```

where:

`-d` displays active (SET) alarms

`-h` displays recent (MSG, SET and CLR) alarms

`-f <format>` sets the log output display format. Enter TERSE, NORMAL or FULL. The default is TERSE.

`-m <mode>` sets the log display mode. Enter DPN or COMMON. The default is DPN.

`-n <faultcode>` is any valid 8 digit faultcode

`-s <severity>` is the severity of the log.

Valid entries for DPN mode are: NONE, DEGRADE, OVERLOAD, MINOR and MAJOR.

Valid entries for COMMON mode are: UNKNOWN, WARNING, MAJOR, CRITICAL.

-i <comp> sets the network element component ID, which must be quoted. The wildcard (*) asterisk can also be used, only as the right-most character.

Example

"`PM R1 PE 10 *`" - alarms for all ports of all PIs associated with PE 10.
"`PM R1 PE 1 PI 1 PO 1`" - only alarms for the specified port.
"`PM R1 *`" - all alarms for R1
"`PM R1*`" - all alarms for any module whose name starts with "R1"

Disruptive commands

RNCS contains an optional feature called the Disruptive Command Safeguard. The Disruptive Command Safeguard searches the input command strings and checks for the existence of keywords which are considered disruptive. This is an optional feature, and the choice as to whether or not to enable it is made at installation time by the Preside Multiservice Data Manager (MDM) system administrator.

Note: These commands are not supported for MPE 9500.

If you have disruptive command capability and issue a disruptive command, you are prompted to confirm or cancel that command. If you do not have this capability, the command is rejected by the module and no message is issued.

Example

Your MDM system administrator has configured the Disruptive Command Safeguard file (*/opt/MagellanNMS/cfg/DCS.cfg*) to contain:
FORMAT 6 SWITCHING DEVICE PRIVILEGED Disk formatting will cause instability

When DPN receives the command:
R72 2 DISK 0 FORMAT 2 1 R70 2 SEC 512 DIR 1000
and if you have SWITCHING DEVICE PRIVILEGED capability or greater, you are prompted with:
Disk formatting will cause instability
Continue (y/n)?

Disruptive keywords

The following is the list of keywords that are considered disruptive, by default. Contact your system administrator for other keywords that may be added to this list.

- ACTIVATE
- COMMIT
- CONFIRM
- DEREGISTER
- DISABLE
- ERASE
- FILTER
- FORMAT
- LOAD (refer to Note)
- REFUSE
- REGISTER
- RELOAD
- RESET
- RESTART
- STOP

Note: If any one of these keywords is preceded by either QUERY or DISPLAY, the keyword is not considered disruptive. For example, DISPLAY COMMITTED and QUERY LOAD are not considered disruptive, although LOAD and COMMITTED are normally considered disruptive.

rncsalarm utility

The rnsmclarm utility can be used to extract alarms from Preside Multiservice Data Manager (MDM) and display them, redirect them to a file or pipe them to another system. You can also use the Alarm Display tool to save alarms to a file, however, an operator must be logged in to MDM.

To use the rncsalarm utility, a local or remote GMDR server must be accessible. GMDR server access is made through surveillance service selection.

Consider the following alternatives to the rncslarm utility for extracting Passport and DPN-100 alarms from MDM:

- using the Alarm and Status API described in 241-6001-203 *Preside MDM Alarm and Status API Reference Guide*

  Because of its field selection and filtering capabilities, and its regular (parsable) output format, the Alarm and Status API is a better source of information, especially for alarms that need to be processed by other applications, such as an umbrella management system.

- using alarm on-switch alarm spooling facilities

  For devices that support it, spooling of alarms is a more reliable way of collecting alarms for later analysis.

When it is run without the -d and -h options (the default situation), the rncsalarm utility continuously receives matching alarms from a specified GMDR server and displays them in a specified format and mode. When it is run with the -d and -h options, the rncsalarm utility dumps the matching contents of the Active Alarm list (-d option) or the Alarm History list (-h option).

Command syntax

The command syntax for the rnscalarm utility is as follows:

```
/opt/MagellanNMS/bin/rncsalarm \
[-d] \
[-h] \
[-f TERSE|NORMAL|FULL] \
```

```
[-m DPN|COMMON] \
[-i “<component name>”]... \
[-n <NTP index>]* \
[-s <severity>]* \
[-l <server name>] \
[-H <server host>]
```

where:

[-d] dumps the matching Active Alarms

[-h] dumps the matching alarms from the Alarm History list

[-f TERSE|NORMAL|FULL] displays the alarms in TERSE, NORMAL, or FULL format. By default, alarms are dumped in TERSE format. For an explanation of the common alarm format see 241-6001-011 *Preside MDM Fault Management User Guide*.

[-m DPN|COMMON] displays the alarms in DPN or COMMON mode. By default the mode is DPN. For an explanation of these modes, see 241-6001-011 *Preside MDM Fault Management User Guide*.

[-i “<component name>”]... displays only the alarms for components that match the specified component name. Adding an asterisk (*) after the component name displays all alarms matching the specified component name. You can specify up to 5 -i options. When you specify more than one component name, alarms matching any of the component names are displayed. The component name must be specified in API format, with blank separators and no slashes. For example, EM TOTO LP 2, not EM/TOTO/LP/2.

[-n <NTP index>]* displays only the alarms whose NTP index matches the specified NTP index. You can specify up to 5 -n options.

[-s <severity>]* displays only the alarms whose severity matches a specified alarm severity. Valid severities in DPN mode display are: NONE, DEGRADE, OVERLOAD, MAJOR, and MINOR. For COMMON mode display, valid severities are: UNKNOWN, WARNING, MAJOR, MINOR and CRITICAL. You can specify up to 5 -s options.

[-l <server name>] lets you name an alternate GMDR server to connect to. By default, the server name used is GMDR.

[-H <server host>] lets you override the host on which the connected GMDR server is running. By default, the host that has been selected for Surveillance Access with the Service Selection tool is used as the host on which the GMDR server is running.

> ***Note:*** If -i, -n, and/or the -s options are specified, only alarms matching all specified sets of filters are displayed.

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Preside Multiservice Data Manager

Remote Network Communication System

User Guide

Release R15.1

Publication: 241-6001-013
Document status: Standard
Document version: 15.1RSUP
Document date: August 2004
Printed in Canada

NORTEL NETWORKS