

Lucent Technologies
Bell Labs Innovations



DEFINITY[®] Network Management Release 3.0 for UNIX

User Documentation
Installation and Getting Started

March 2000

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Introduction

This chapter contains resources and notices that are pertinent to the **DEFINITY Network Management (DNM)** products.

The **DEFINITY Network Management CD-ROMs** section lists the contents of the product CD-ROMs that are delivered to customers.

The **Lucent Resources** section describes the services that are available from the Sales and Design Support Center (SDSC), NetCare Professional Services (NPS), and Technical Services Center (TSC).

The **References** section contains Lucent contact information, including web sites, phone numbers, and email addresses. The section also contains contact information for third-party vendors.

The **System Security** section defines the precautions that customers must take to maintain the security of their networks and systems. The section also contains information on toll fraud security.

The **Year 2000 Compliance** section contains the Lucent policy to meet the year 2000 requirements for the manufacture and sales of its products after September 26, 1996.

DEFINITY Network Management CD-ROMs

Lucent Technologies delivers the DEFINITY Network Management (DNM) products *and* the user documentation to customers on two separate CD-ROMs, which are entitled:

- DEFINITY Network Management for UNIX
- DEFINITY Network Management Proxy Agent

The contents of each of the CD-ROMs are listed below:

DEFINITY Network Management Release 3.0 for UNIX

- Product software and Versant database
- DNM Online Help System integrated in the product software
- DNM User Documentation for UNIX, Installation and Getting Started
- PA001 Administration Request form

DEFINITY Network Management Proxy Agent Release 3.0

- Proxy Agent software
- Proxy Agent User Documentation for Installation and Administration
- PA001 Administration Request form

You should print the documentation and PA001 forms directly from the CD-ROM *before* they install the DNM software.

Lucent Resources

Lucent Technologies provides customers with a variety of planning, consulting, and technical services.

The **account executives** are the customers' primary source to obtain information and explore custom options to meet their specific business needs.

Note: The DEFINITY Network Management products are a **software-only** offer. Therefore, **customers** are solely responsible for the purchase and maintenance of all third-party hardware and software that are required to run the DEFINITY Network Management products.

The DEFINITY Solutions web site contains the system requirements and other provisioning and connectivity information for the DNM products. Refer to ["Lucent References" on page 17](#) for the web address.

The sections below briefly describe the resources and services that are available to customers.

Sales and Design Support Center (SDSC)

The Sales and Design Support Center (SDSC) works with customers and account teams to develop detailed solutions for connectivity to the DEFINITY and other supported systems. The SDSC also designs network configurations to support the DEFINITY Network Management products.

NetCare Professional Services (NPS)

NetCare Professional Services (NCG) is available to work with customers to design and build a **turn-key** network management system.

NetCare offers the consulting services listed below:

- Plan and design a custom network system
- Purchase and configure SCO-certified hardware and external devices for the Proxy Agent computer and the Network Management System (NMS) platforms
- Install and set up the UnixWare Operating System
- Connect and administer all devices, ports, and cards
- Install and integrate the DEFINITY Network Management products on the NMS platform
- Train users on the operation and management of the products

Technical Services Center (TSC)

The Technical Services Center (TSC) provides support for the DEFINITY Network Management products to account teams, field technicians, and customers.

The TSC works with the customer and the Lucent field technicians to perform the tasks below and to ensure that the products are properly installed and working:

- Platform Acceptance Test from the Proxy Agent computer
- Installation Support for the DEFINITY Network Management products
- Technician Verification checklist
- Customer Acceptance checklist

Time and materials charges

The Technical Services Center (TSC) will **bill** customers for support on a time and materials basis if the following conditions exist:

- Customers do not have a current maintenance agreement
- Customers do not procure and install the required systems and software as defined in the Project Provisioning Package
- Customers request support that is outside the purchase agreement

The Technical Services Center (TSC) does **not** support hardware or software that customers purchase from third-party vendors.

References

This section contains references to web sites, phone numbers, and email addresses for Lucent Technologies and third-party vendors.

The contact information is listed in the sections below:

- ["Lucent References" on page 17](#)
- ["Vendor References" on page 20](#)

Customers can access web sites that are **outside** the Lucent fire wall.



CAUTION:

The owners of the web sites may change the universal resource location (URL) for a specific web site address **without** notice. The reference information will be updated with each new release of the DEFINITY Network Management products.

Lucent References

The table below contains Lucent web sites, phone numbers, and email addresses for various sources. Some of the web sites are inside the firewall and are **not** accessible to customers.

Table 1. Lucent Resource sites

Source	Web Sites
DEFINITY Solutions	Systems Management site: http://www.bcs.lucent.com/salesmarket/definity/sysmgmt
Toll Fraud Intervention	1-800-643-2353
IntraWorks Catalog	DEFINITY Network Management User Document Set: http://www.lucent.com/enterprise/documentation
	(1 of 2)

Table 1. Lucent Resource sites

Source	Web Sites
NetCare Professional Services (NPS)	Email: dnmconsulting@lucent.com Consulting offer: http://www.netcaredata.com/solutions/consult.shtml
Technical Services Center (TSC)	Technical Support: 1-800-242-2121, ext. 8-6767 Fax for PA001 form: 1-303-804-3367 Connectivity Guide: http://www.dc.tsc.bcs.lucent.com/html/table1/htm
Tier IV Support Registry	International Customer only: Fax for PAOO1 form: (U.S. code) 303-538-5506
	<i>(2 of 2)</i>

Table 2. Lucent Resource sites INSIDE firewall

Project Development Team R&D Bell Labs	DEFINITY Network Management (DNM) internal web site: http://info.dr.lucent.com/defnm
Documentation and Training Information Development	DNM 3.0 project web site: http://pubnet.lucent.com/project/dnm3_0.htm
DEFINITY Enterprise Management Support	http://dfmpa1.dr.lucent.com
Project Provisioning Package	http://dfmpa1.dr.lucent.com/docs/snmp30.doc
Sales and Design Support Center (SDSC)	Phone: 1-888-297-4700, prompt 6 Main site (requires a password): http://www.bcs.lucent.com/tech_info/sdsc

Vendor References

The table below contains the web sites for third-party vendors.

Table 3. Vendor web sites

Vendor	Web Sites
AIX	AIX patches: http://service.software.ibm.com/support/rs6000
Computone I/O cards	Main site: http://www.computone.com
Equinox	Main site: http://www.equinox.com
Hewlett Packard	Main site: http://www.hp.com OpenView site: http://www.openview.hp.com
IBM	Main site: http://www.ibm.com
Microport	Main site: http://www.mport.com
Microsoft	Main site: http://www.microsoft.com
Remedy ARS	Main site: http://www.remedy.com
Santa Cruz Organization, Inc. (SCO)	Main site: http://www.sco.com UnixWare certified hardware: http://wdb1.sco.com/chwp/owa/hch_search/form Upgrade patch: ftp://ftp.sco.com/UW21
	<i>(1 of 2)</i>

Table 3. Vendor web sites

Vendor	Web Sites
Sun Microsystems, Inc.	Main site: http://www.sun.com Solutions site: http://sunsolve.sun.com
Telamon TelAlert	Main site: http://www.telamon.com
Tivoli	Main site: http://www.tivoli.com
Versant	Main site: http://www.versant.com
	<i>(2 of 2)</i>

System Security Notices

Customers are **solely** responsible for the security of their system, network, and access to hardware and software.

The sections below define the precautions that all customers should take to maintain the security of their systems.

Network Security

The DEFINITY Network Management products use the standard security features on the UNIX and NT operating systems.

Lucent **strongly** recommends that customers use passwords to prohibit access to their systems and to routinely change those passwords to maintain security.



SECURITY ALERT:

Customers should always change passwords immediately after external vendors have completed installation, maintenance, troubleshooting, or other tasks on their system.

Toll Fraud Security

Although the DEFINITY Network Management products are generally not at risk for toll fraud, **customers** are solely responsible for the security of their entire telecommunications systems.

Toll Fraud is the unauthorized use of a company's telecommunications system by unauthorized parties. Unauthorized parties are persons other than the company's employees, agents, subcontractors, or persons working behalf of on the company.

Note: Toll fraud can result in substantial additional charges for the company's telecommunications services.

The company's system manager is responsible for the security of the company's system, which includes programming and configuring the equipment to prevent unauthorized use.

Lucent Disclaimer

Lucent Technologies does **not** warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunications services or facilities accessed through or connected to it. Lucent Technologies will **not** be responsible for any charges that result from such unauthorized use.

Lucent Fraud Intervention

If customers suspect that they are a victims of toll fraud and need technical assistance, customers should refer to the ["Lucent References" on page 17](#) for the Toll Fraud Intervention phone number.

Year 2000 Compliance Notice

The Business Communication System (BCS) part of Lucent Technologies makes the following statement with respect to any product manufactured and sold by Lucent BCS in connection with a product's operation in the year 2000.

Any product or version/release of a product that is introduced as generally available on or after September 30, 1996, will be year 2000 compliant or Lucent BCS will make it year 2000 compliant at our cost.

Any other product, depending on the specific product and its release or version, will fit into one of the following categories:

- The product is year 2000 compliant.
- If the product is not year 2000 compliant, Lucent BCS will provide an upgrade path to a generally available release that is year 2000 compliant at a reasonable cost to the customer; or
- If the product is not year 2000 compliant, and no upgrade path to a generally available release that is year 2000 compliant is available, Lucent BCS will evaluate whether there are potential modifications to the product that will make it year 2000 compliant, and if Lucent BCS determines that such modifications are economically practical, Lucent BCS will offer such modifications to the customer at a reasonable cost; or
- If the product is not year 2000 compliant, and if Lucent BCS determines that it is not economically practical to make the product year 2000 compliant, Lucent BCS will inform the customer of this fact and offer migration options at a reasonable cost.

1 DNM-UNIX Overview

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Introduction

This chapter contains an overview of the primary features in the **DEFINITY Network Management Release 3.0 for UNIX** and pertinent information on the topics listed below:

- New features
- Supported systems
- System requirements for NMS platforms and software

In addition, this chapter describes the target audiences for *DEFINITY Network Management Release 3.0 for UNIX User Documentation Installation and Getting Started* and outlines the organization of this book.

Software-only offer

The DEFINITY Network Management and Proxy Agent products are **software only** offer. **Lucent Technologies** is *solely* responsible for the support and maintenance of the product software.

Customers are *solely* responsible for the purchase, support, and maintenance of third-party hardware and software products that are *required* for this offer.

Product Overview

The DEFINITY Network Management (DNM) product and the DNM Proxy Agent provide a complete solution to manage network resources from a central point of entry.

These products provide users with a view of the health and performance of their network systems. The DEFINITY Network Management and Proxy Agent products work together as an integrated application.

Proxy Agent product

The DEFINITY Network Management Proxy Agent is a protocol conversion resource. The Proxy Agent software resides on a stand-alone personal computer and operates on the SCO UnixWare Operating System available from Microport.

The Proxy Agent uses serial ports to collect configuration and management data from supported systems. The Proxy Agent converts the data into the Simple Network Management Protocol (SNMP).

In addition, the Proxy Agent generates SNMP traps when supported systems generate alarms.

The Proxy Agent then communicates the SNMP data to the DEFINITY Network Management (DNM) product that resides on the Network Management System (NMS) network server. The NMS network server can be either a UNIX system or a Windows NT system.

DNM product

The DEFINITY Network Management (DNM) product provides users with graphical and tabular tools to monitor the status and performance of a network of supported systems and external devices.

The DNM product collects configuration, fault, and performance data from the Proxy Agent via Simple Network Management Protocol (SNMP) and displays the data in text, tables, and graphic formats.

The primary features of the DEFINITY Network Management product include:

- **Graphical User Interface (GUI)** -- The DNM main window contains a navigation tree that lists all the supported system and displays a colored alert symbol that indicates highest exception level. Users can expand the list to view all of the configuration components and specific alert symbols for each component.
- **Configuration** -- Users can view the configuration and administered properties of all supported systems (managed nodes) in both a graphic view and a table view.
- **Administration** -- Users define the system-wide parameters for the features below:
 - **Data collection** -- Users define the parameters for the data to be collected from each system, including the type of data, the schedule for collecting data, and the length of time to store the data.
 - **Exception logging** -- Users define the conditions to log exceptions for performance thresholds, faults, and system errors.

- **Exception alerting** -- Users specify the alert levels for exceptions from each supported system. Alerts levels may include exceptions that are critical, major, minor, or warning. The alert level and location of the exception display in the main window as long as the exception exists.
- **Report Manager** -- Users can define the parameters for individual reports for all or selected systems. The report options include:
 - Performance
 - Configuration
 - Exceptions

Users can immediately view the reports on screen in both the table and chart formats or direct the output of reports to a printer or to an HTML or ASCII file.

- **Scheduled Reports** -- Users can schedule reports to run on a daily, weekly, or monthly basis, and edit and delete schedules as needed.

The DEFINITY Network Management product runs on the network server platforms below that are required for the current release:

- HP OpenView that runs on Sun Solaris or HP-UX
- Tivoli TME 10 NetView that runs on AIX

NMSI program

The Network Management System Integration (NMSI) program is one of the programs in the DEFINITY Network Management (DNM) software. The purpose of NMSI is to integrate the DNM product into the OpenView and NetView operating systems.

This integration allows users to monitor their Lucent telecommunication systems and data networks from the same workstation.

NMS maps

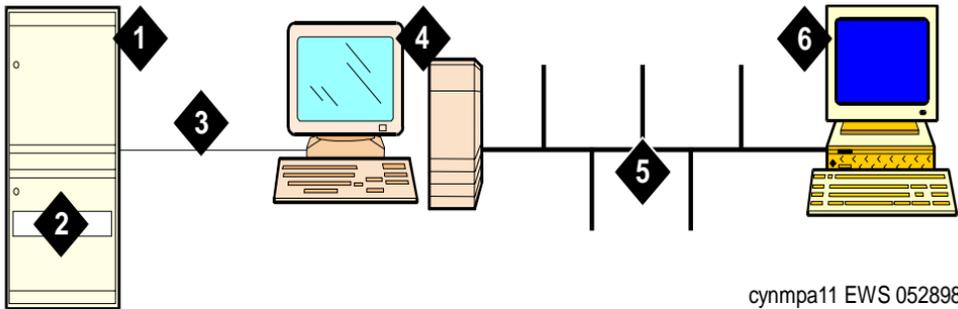
NMSI uses the Auto-Discovery program to find managed nodes (supported systems).

The NMSI uses the data received from Auto-Discovery to create and update the NMS maps, which include:

- NMS Root map
- DEFINITY map
- DEFINITY USA and State maps
- Custom maps

Network configuration

The figure below shows an *example* of the network configuration between a DEFINITY system, the Proxy Agent computer, and an NMS network server.



cynmpa11 EWS 052898

- 1 *DEFINITY system*
- 2 *Netcon channel or system access ports on the DEFINITY system*
- 3 *Dial-up connection between DEFINITY system and the Proxy Agent modem*
- 4 *Proxy Agent stand-alone computer and Proxy Agent product*
- 5 *Internet TCP/IP connection (LAN or WAN) between the Proxy Agent and the NMS server*
- 6 *UNIX Network server where the DEFINITY Network Management (DNM) product resides. The server can be one of the platforms listed below*
 - *OpenView that runs on Sun Solaris or HP-UX;*
 - *NetView that runs on AIX*

Figure 1. Network configuration

New Features

This section contains a brief description of the new features, improvements, and changes to DEFINITY Network Management for release 3.0.

- Support for the SNMP traps and alarm traps from the systems listed below:
 - DEFINITY releases 7.1 and 8.1, including Survivable Remote Processors (SRPs)
 - Multipoint Conferencing Unit (MCU) release 6.0
- Support for alarm traps from the systems listed below:
 - DEFINITY Audix release 4.0
 - INTUITY Audix releases 4.4 and 5.0
 - INTUITY Interchange releases 5.2 and 5.3
 - Call Management System (CMS) R3V8
 - Conversant release 7.0
- New system architecture that consolidates Fault and Performance Management into one DNM product
- Revised the applications listed below:
 - Added a new DNM Main window and navigation tree
 - Added graphic and table views to the Configuration application
 - Revised the Administration application
 - Revised the Report Manager application
 - Revised the Task Scheduler application
- Added support for the Windows NT platform

- Added the user documentation listed below to the DEFINITY Network Management CD-ROMs for UNIX and NT:
 - User Documentation for UNIX, Installation and Getting Started
 - User Documentation for NT, Installation and Getting Started
 - PA001 Administration Request forms
- Revised PA001 Administration Request forms (Rev. 12/99) to reflect the data that users enter at the installation prompts. For security reasons, the PA001 forms do **not** contain login and passwords data.

Supported Systems

DEFINITY Network Management Release 3.0 supports **both** SNMP traps and alarm traps for the systems listed below:

- DEFINITY PBX release 4.0 and DEFINITY ECS releases 5.0 through 8.1
- Survivable Remote Processors (SRPs)
- Multipoint Conferencing Unit (MCU) release 6.0.

DNM treats SRPs and MCUs as DEFINITY systems.

DEFINITY Network Management Release 3.0 supports **only** alarm traps from the systems listed below:

- DEFINITY Audix releases 3.1 through 4.0
- INTUITY Audix release 4.3 through 5.0 (with or without the remote maintenance board)
- INTUITY Interchange release 5.1 through 5.3
- Call Management System (CMS) R3V6 through R3V8
- Conversant release 7.0

System Requirements

The sections below outline the hardware and software products that are required for DEFINITY Network Management Release 3.0 for UNIX.

NMS Platform Requirements

DEFINITY Network Management Release 3.0 for UNIX operates on the Network Management System (NMS) platforms below:

- HP OpenView releases 5.0 and 6.0 that run on
 - Sun Solaris release 2.6 or
 - HP-UX release 11.0
- Tivoli TME 10 NetView release 5.1 that runs on AIX release 4.3
- DNM Proxy Agent Release 3.0

Customers should work with their Lucent account team to determine the hardware requirements that meet their business and performance specifications.

The Lucent account team uses the DOSS Configurator to configure the hardware requirements for the Network Management System (NMS) platforms.

CAUTION:

Customers are solely responsible for upgrading their network platforms to meet the NMS platform requirements for DEFINITY Network Management Release 3.0 for UNIX.

Overview of the User Documentation

The sections below briefly outline the chapter contents in DEFINITY Network Management Release 3.0 for UNIX User Documentation Installation and Getting Started (this book).

The individual chapters provide the essential information to install, administer, and get started on the DNM product. The chapters contain screen layouts, field descriptions, and step-by-step procedures.

Target Audiences

The target audiences for the User Documentation include both technical users and general users at all levels.

- System administrators
- Network managers
- Technical Services Center engineers
- Lucent field technicians and installers
- Lucent consulting groups, NetCare, SDSC, and others
- Lucent account executives and project teams
- Global Services Organization and local support vendors for international customers

All users need to have working knowledge of the hardware and software listed below:

- UNIX systems
- SCO UnixWare Operating System
- Network Management Systems (NMS) platforms, OpenView and NetView
- Hardware connectivity
- Software installation and integration

In addition, the User Documentation is an essential resource for users who are unfamiliar with the purpose and operation of the DEFINITY Network Management product.

Customer Pre-Installation Tasks

The information in [Chapter 2, "Customer Pre-Installation Checklist"](#) outlines the tasks that customers must complete prior to the installation of the DNM-UNIX.

The pre-installation tasks also include the platform patches that customers must install on the NMS network server.

UNIX Installation

The information in [Chapter 2, "UNIX Installation"](#) contain the essential checklists to install DNM on UNIX and post installation checklists to ensure the system is functioning properly.

The chapter contains the procedures to install a new DNM product and to upgrade earlier releases of the DNM product.

This chapter also contains the procedures to:

- Backup and restore the current database
- Execute Auto-Discovery
- Remove the DNM-UNIX product

System Administration

The information in [Chapter 3, "System Administration"](#) allows **system administrators** to manage the options below:

- Control the NMSI polling of Proxy Agents
- Override the default location submaps that are administered on the Proxy Agent
- Execute system commands to start and stop the DNM product and to view the system health status
- Execute database commands
- Edit system configuration files to customize the DNM product
- Integrate third-party products for alarm notification
- Install the Auto-Discovery patch on Trouble Trackers

Getting Started on DNM for UNIX

The information in [Chapter 4, "Getting Started on DNM for UNIX"](#) contains the login procedure and briefly outlines the features in Network Management System (NMS) and the DEFINITY Network Management (DNM) product.

The chapter includes the sections below:

- Log in and exit DNM
- Description of the NMS map, including color schemes for system icons and connections lines
- Execute commands from the NMS maps
- Description of the DNM product
- Description of the online help system
- Description of the DNM main window and navigation tree
- Description of the Configuration window
- Description of the Report Manager
- Description of the Task Scheduler
- Description of the Administration window

2 UNIX Installation

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Introduction

This chapter contains the procedures to install the **DEFINITY Network Management Release 3.0** product as a new or upgrade installation.

Pre-installation tasks

Customers must complete all of the pre-installation tasks **before** the new DEFINITY Network Management (DNM) product can be installed or upgraded. Refer to chapter 2, "[Customer Pre-Installation Checklist](#)" on page 43.

Installation checklists

The section entitled "[Customer Pre-Installation Checklist](#)" on page 43 contain the checklists below:

- The installer completes the **Installation Tasks Checklist** during the installation.
- The installer and the TSC complete **Technical Verification Checklist** after the installation.
- The TSC and the customer complete **Customer Acceptance Checklist** after the installation.

Installation prompts

The section entitled "[Installation Prompts](#)" on page 51 explains the prompts that the installation script displays during the installation process.

Users must enter the requested information. The completed PA001 should contain the information requested by the installation prompts.

Installation procedures

The installation procedures are divided into separate sections for either a new installation or an upgrade to the current release:

- For a **new** installation, refer to ["Install the New DNM Product" on page 55](#)
- For an **upgrade** installation, refer to one of the sections below that matches the release number of the product currently installed:
 - ["Upgrade DNM 2.0.1 and Later" on page 62](#)
 - ["Upgrade Fault Management 1.4 and Earlier" on page 71](#)

User documentation

The installation script for this release automatically copies the *DEFINITY Network Management User Documentation for UNIX* to the **lucntdoc** directory.

Users can access the **Lucent Technologies Documentation** (this book) and the PA001 forms from either the OpenView **Fault** menu or the NetView **Monitor** menu.

Online help system

The new online help system is integrated in the DEFINITY Network Management 3.0 product.

User can access the help system from any screen in DNM or from the Help option on the menu bar.

Customer Pre-Installation Checklist

Customers must complete all the tasks listed in the pre-installation checklist below *before* the DEFINITY Network Management product can be installed.

- 1 Install or upgrade the Network Management System (NMS) platform and operating system on the network. Refer to "[NMS Platform Requirements](#)" on [page 35](#) and the vendor documentation.
- 2 Install the patches for the Solaris or HP-UX platforms. Install the patches before installing the DEFINITY Network Management product on the NMS platform. Refer to "[Operating System Patches](#)" on [page 44](#).
- 3 Check with vendors to make sure you have the latest recommended patch set for Open view/ Net view.
- 4 Connect the Proxy Agent serial connection to the managed nodes.
- 5 Connect the Proxy Agent TCP/IP connection to the Network Management System (NMS) through the local area network (LAN) or the wide area network (WAN). Refer to the vendor documentation.
- 6 Verify that the updated **PA001 Administration Request** form (Rev. 12/99) is completed and faxed to the Technical Services Center (TSC) or International Technical Assistance Center (ITAC).

Note: After the DNM installation, **system administrators** can execute the appropriate tasks in [Chapter 3, "System Administration"](#).

Operating System Patches

Customers must install the platform patches before they install or upgrade the DEFINITY Network Management product. The software programs require these patches to enable the JAVA multi-threaded environment.



CAUTION:

See your vendor to ensure the latest Y2K compliant patch for your operating system is installed.

The CD-ROM entitled, ***DEFINITY Network Management Release 3.0*** contains the patches for the Solaris and HP-UX platforms. These patches are in compressed tar format:

- **Solaris 2.6**

- 105490-07

- **HP-UX 11.x**

- PHCO_17792

- PHCO_19491

- PHKL_14750

- PHKL_17038

- PHKL_17935

- PHKL_18543

- PHKL_19800

- PHKL_19942

PHNE_17586

PHNE_18878

PHNE_19037

PHSS_15853

PHSS_17535

PHSS_18430

PHSS_19593

PHSS_19748

bundle: Y2K-1100

Customers can install the patches that come with the DEFINITY Network Management product. However, these patches may not be the current version for the platform.

Therefore, we recommend that **customers** download the current versions of the platform patches from the vendor web site, rather than install the patches from the DEFINITY Network Management CD-ROM. Refer to ["Vendor References" on page 20](#).



CAUTION:

The platform patches are the property of the vendor. Therefore, **customers** must contact their vendor representative for support.

See also

For procedures to install patches, refer to the systems administrator's guide for the appropriate NMS platform.

Installation Checklists

The installation checklists contain the tasks that installation technicians must complete to install the DEFINITY Network Management product.

The ["Installation Tasks Checklist" on page 47](#) contains the tasks that installers must execute **during** the installation process.

The ["Technical Verification Checklist" on page 49](#) contains the **post installation** tasks that the installation technician and the engineer at the Technical Services Center (TSC) must complete to insure that the Proxy Agent is properly administered and functioning.

The ["Customer Acceptance Checklist" on page 50](#) contains the **post installation** tasks that the engineer at the TSC and the customer must complete to insure that the customer can operate the Proxy Agent and accepts the installation as complete.

The checklists only contain references to procedures. If installers are unfamiliar with the DEFINITY Network Management applications, then they should read the introduction sections that precede the procedures.

Installation Tasks Checklist

Users should complete the installation tasks in the order presented below.

- 1 Verify that the customer has completed the pre-installation tasks and installed the current versions of the Solaris or HP-UX patches. Refer to ["Customer Pre-Installation Checklist" on page 43](#).
- 2 Assemble the required materials and information, including:
 - Root name and password
 - Directory path for the file or archive device to backup the database for an upgrade installation
 - Directory path for the Adobe Acrobat Reader *if* the reader is already installed
 - Completed PA001 form
 - CD-ROMs DEFINITY Network Management Release 3.0 for UNIX
 - Printed copy of the DNM 3.0 for UNIX User Documentation (this book)
 - Technical Services Center (TSC) number: **1-800-242-2121**, ext. **8-6767**

Note: To upgrade DNM 2.0 and later, users can either backup the database before they install DNM 3.0 or during the installation of DNM 3.0.

In either event, users should restore the database after the installation. Refer to ["Backup and Restore the Database" on page 78](#).

3 Complete the appropriate installation procedure:

- ["Install the New DNM Product" on page 55](#)
- ["Upgrade DNM 2.0.1 and Later" on page 62](#)

If users backed up the existing database, then execute the **restore** command in the procedure to ["Backup and Restore the Database" on page 78](#)

- ["Upgrade Fault Management 1.4 and Earlier" on page 71](#)

4 If problems occur, refer to ["Installation Error Messages" on page 76](#).

5 Complete the procedures to ["Execute Auto-Discovery" on page 81](#).

6 If problems occur, refer to ["Auto-Discovery Errors and Problems" on page 86](#).

7 Verify that the DNM installation and the NMS integration were successful. Refer to the sections below in the [Chapter 4, "Getting Started on DNM for UNIX"](#):

- ["Description of the NMS Maps" on page 126](#)
- ["Execute Commands from NMS Maps" on page 145](#)

Note: After the DNM-UNIX installation, system administrators or root users can execute the tasks in [Chapter 3, "System Administration"](#).

Technical Verification Checklist

At the completion of the DNM installation, the engineer at the Technical Services Center (TSC) validates the tasks on the Technical Verification Checklist below:

- 1 Verify that the **customer** completed and faxed PA001 Administration Request form (Rev. 12/99) to the TSC.
- 2 Verify that the **TSC** has updated the System Management database with the current data from the PA001 form.
- 3 Verify that Auto-Discovery works on the public or private network. Refer to ["Execute Auto-Discovery" on page 81](#)
- 4 Generate an exception event. Verify the object colors for the exception status correctly displays on the root map, submaps, and DEFINITY Network Management screens. Refer to ["Description of the NMS Maps" on page 126](#).
- 5 In addition, check the information below:
 - Verify that the Proxy Agent and the NMS can receive alarms from each managed node
 - Verify that the TSC and the NMS can receive alarms from each managed node
- 6 For Lucent legacy systems that are connected to a Trouble Tracker, telnet to the Trouble Tracker and verify the status of the legacy systems. Refer to ["Execute Commands from NMS Maps" on page 145](#).

Customer Acceptance Checklist

At the completion of the DNM installation, the engineer at the Technical Services Center (TSC) works with the customer to complete the tasks on the Customer Acceptance Checklist below.

- 1 Review the sections in [Chapter 3, "System Administration"](#) with the customer.
- 2 Review the sections in [Chapter 4, "Getting Started on DNM for UNIX"](#) with the customer.
- 3 Request the customer to log in to the DEFINITY Network Management product and complete the tasks below:
 - Access various screens in the applications: Configuration, Administration, Report Manager, and Task Scheduler
 - Access Help topics for various screens in each application

Installation Prompts

The installation script for this release has been **revised** in order to simplify the process and to make the installation of the DEFINITY Network Management (DNM) product more automatic.

PA001 form

The completed **PA001 Administrative Request** form contains most of the information that is specific to the customer's system.

Installers must refer to the various sections on PA001 form in order to enter the information that is requested at the installation prompts.

Default options

The sections below describe the prompts in the order presented in the installation script.

Lucent **strongly** recommends that installers select the default options where appropriate.

The default options allow users to maintain consistency when upgrading to new releases. The installation script overwrites previous settings during the installation process.

Backup the Database Prompt

The installation script **only** displays the prompt to back up the database if a database already exists. This could be due to an upgrade from DPM 2.0.1 or a reinstall of DNM 3.0.

After backing up the database (or skipping the backup step) you can select whether to retain the existing database or to create a new empty database.

Users can either backup the database before they install DNM 3.0 or during the installation of DNM 3.0.

If users backed up the database, then they must restore the database after the DNM 3.0 product is installed. Refer to "[Backup and Restore the Database" on page 78](#)."

Printer Command Prompt

The Report Manager in the DNM product supports a printer connected to the NMS network server. The printer command prompt allows users to either accept the default command or enter a different command.

To respond to the prompt, users should refer to the PA001 form, go to the *Network Management System (NMS)* section, and enter the selected option from the **Printer Command** field.

Telnet Command Prompt

The DNM products allow access to DEFINITY systems through a telnet session to a Proxy Agent. The telnet command prompt allows users to either accept the default command or enter a different command.

To respond to the prompt, users should refer to the PA001 form, go to the *Network Management System (NMS)* section, and enter the selected option from the **Proxy Agent Telnet Command** field.

HTML Report Location Prompt

The Report Manager in the DNM product requires a URL to store HTML reports. Users can enter one of the options below:

- Accept the default URL
- Enter a URL for a local web server
- Enter a URL for a remote web server

To respond to the prompt, users should refer to the PA001 form, go to the *Network Management System (NMS)* section, and enter the selected option from the **HTML Report Location** field.

Modifications Prompt

For the DNM product to work properly, the installation script must change the environment variables in the **/etc/profile** directory and make CDE modifications on the system.

Users should accept the modifications.

Adobe Acrobat Reader Prompt

In this release, the installation script copies the user documentation (this book) and the blank PA001 forms to the **doc** subdirectory.

- for Solaris: /opt/lucent/DEFINITY/doc
- for AIX: /usr/lucent/DEFINITY/doc

The installation script prompts for the directory path to install the Adobe Acrobat Reader:

- For a new installations, users select the **default** directory path to install the reader.
- If the reader is already installed in a different directory, then users must enter the directory path where the reader is installed.

The script for the reader requires users to **accept** the license agreement and to reconfirm the directory where the reader is installed.

Install the New DNM Product

This section contains the procedure to install a new DEFINITY Network Management Release 3.0 for UNIX .

Required materials

Users need the following materials and information:

- Root login and password
- Completed PA001 form
- Adobe Acrobat Reader directory path, *if* already installed
- CD-ROM entitled, DEFINITY Network Management Release 3.0 for UNIX



WARNING:

Installation of the DEFINITY Network Management software requires a system reboot following installation.

Procedure

Complete the procedure below to install the *new* DEFINITY Network Management product on the NMS network server.

- 1 At the UNIX *login* prompt, log in as the root user:
 - Type **[root login]**
 - Press **ENTER**
- 2 At the *Password* prompt,
 - Type **[root password]**
 - Press **ENTER**

- 3 Insert the CD-ROM entitled, **DEFINITY Network Management Release 3.0 for UNIX**, into the CD-ROM drive and close the drive.
- 4 Some operating systems may automatically mount the CD-ROM. To manually mount the CD-ROM, at the UNIX prompt, execute **one** of the options (a,b,or c) below:
 - a For the **SOLARIS** platform, the system automatically mounts the CD-ROM. If the CD-ROM fails to mount, then
 - Type **mountall**
 - Press **ENTER**
 - b For the **HP-UX** platform:
 - Type **mount -r /dev/dsk/[device_name] /cdrom**
 - Press **ENTER**
 - c For the **AIX** platform:
 - Type **mount -v cdrfs -r /dev/cd0 /cdrom**
 - Press **ENTER**
- 5 At the UNIX prompt, change to the CD-ROM root directory. i.e. For the **SOLARIS** platform typically: **cd /cdrom/cdrom0**
- 6 Change to DNM product directory:
 - Type **cd DNM**
 - Press **ENTER**

7 At the UNIX prompt, type the **INSTALL** command **exactly** as shown below:

- Type **.INSTALL**
- Press **ENTER**

Result: The system displays the prompt: Do you want to install
DEFINITY Network Management 3.0 Software? [yes]

8 To install the DNM product,

- Type **Y** (yes)
- Press **ENTER**

Result: Installation script displays a message checking patches and kernel tunable parameters . This may take several minutes.

9 **Printer Command Prompt.** The system displays a message that describes the print command. Then the system displays the prompt:

```
Enter Printer Command [lp %file].
```

On the PA001 form, go to the *Network Management System (NMS)* section and refer to the **Printer Command** field.

At the UNIX prompt, execute **one** of the options (a or b) from the PA001 form:

- a To accept the *default* printer command, press **ENTER**
- b To enter the printer command from the PA001 form:
 - Type **[printer command]**
 - Press **ENTER**

- 10 Telnet Command Prompt.** The system displays a message that describes access to a DEFINITY ECS switch through a telnet session to a Proxy Agent. When users execute a telnet session from the DNM product, the system appends the target host name to the telnet command string. Then the system displays the prompt:

```
Enter Telnet command [xterm -e telnet]?
```

On the PA001 form, go to the *Network Management System (NMS)* section and refer to the **Proxy Agent Telnet Command** field.

Execute one of the options (a or b) below:

- a To accept the default telnet command, press **ENTER**
 - b To enter a different telnet command,
 - Type the **[command]**
 - Press **ENTER**
- 11 HTML Report Location Prompt.** The system displays a message that describes access by a web browser to the HTML reports. Then the system displays the prompt:

```
Enter URL [file:///opt/lucent/DEFINITY]?
```

On the PA001 form, go to the *Network Management System (NMS)* section and refer to the **HTML Report Location** field.

At the UNIX prompt, execute **one** of the options (a, b, or c) from the PA001 form:

- a To accept the default URL, *file:///opt/lucent/DEFINITY*, press **ENTER**
- b Enter the URL for a web server from the PA001 form.

- 12 Modifications Prompt.** The system displays a message that describes the environment variables and the required modifications that the installation script needs to make. Then the system displays the prompt:

```
Make the /etc/profile and CDE modifications? [yes]
```

To make the modifications, press **ENTER**

- 13 Adobe Acrobat Reader Prompt.** The system displays a message that the user documentation can be viewed by installing the Adobe Acrobat Reader or entering the directory if the reader is already installed. Then the system displays the prompt:

```
Enter Adobe Acrobat Reader directory (leave blank to  
install)
```

Execute **one** of the options (a or b) below:

- a To install the Acrobat Reader, go to step [14](#)
 - b If the Acrobat Reader is already installed, then go to step [15](#)
- 14** To install the Acrobat Reader, execute steps (a through e) below:

- a At the prompt, press **ENTER**

Result: The system displays the prompt: Install default configuration, Acrobat Reader 3.01 for [platform and release]? [y]

- b To continue, press **ENTER**

Result: The system displays the Adobe Acrobat Reader script NOTICE TO USER. At the end of the notice, the system displays the prompt: Do you accept the terms and conditions of this license agreement?

c Read the notice. At the prompt,

- Type **accept**
- Press **ENTER**

Result: The system installs the Acrobat Reader. Then the system displays the confirmation prompt:

```
Enter directory where Reader was just installed:  
[/opt/Acrobat3]?
```

d To confirm the directory, press **ENTER**

e Then go to step [16](#)

15 If the Acrobat Reader is already installed, then execute steps (a through c) below:

a Enter the directory path where the Acrobat Reader resides:

- Type **[directory path]**
- Press **ENTER**

Result: The system displays a confirmation prompt:

```
Enter directory where Reader is installed:  
[directory path]?
```

b To confirm the directory, press **ENTER**

c Then go to step [16](#)

- 16 Continue the DNM Installation.** The system displays the message and prompt:

```
All prerequisites have been met, do you want to
continue with the installation of DEFINITY Network
Management 3.0 software for [platform and release
number] [yes]?
```

To continue the DNM installation, press **ENTER**

Result: The system displays a series of messages that confirm the installation of the software files, database files, web-based reports, and the DNM online HELP documentation. This may take several minutes. Then the system displays the message:

```
Please reboot the system now to complete the
installation and automatically start the DEFINITY
Network Management processes.
```

- 17** To return to the *root (/)* directory:

- Type **cd /**
- Press **ENTER**

- 18** Use the **eject** or **umount** commands to unmount the CD-ROM:

- 19** Remove the CD-ROM from the drive.

- 20** Reboot the system.

- 21** Complete the procedures in the section entitled, [*"Execute Auto-Discovery" on page 81.*](#)

Upgrade DNM 2.0.1 and Later

This section contains the procedure to **upgrade** an existing DEFINITY Network Management (DNM) release 2.0.1 or later.

Before installing an upgrade, check with the customer to:

- 1 Verify that the Solaris and HP-UX patches have been installed. If not, the **customer** must install the patches before the installer can install the DEFINITY Network Management product.
- 2 Verify that the existing Versant database has been backed up. If not, request the file name or device name needed to backup the database.

Required materials

Users need the following materials and information:

- Root login and password
- Completed PA001 form
- File name or device name to backup the database
- Directory path for Adobe Acrobat Reader, **if** already installed
- CD-ROM for DEFINITY Network Management Release 3.0

Procedure

Complete the procedure below to upgrade DEFINITY Network Management 2.0.1 or later to the current release. Install the product on the NMS network server.

- 1 Close all windows and applications. Log off the network server.
- 2 **Optional.** Hook up the archive device to backup the database.
- 3 At the UNIX *login* prompt, log in as the root user:
 - Type **[root login]**
 - Press **ENTER**
- 4 At the *Password* prompt,
 - Type **[root password]**
 - Press **ENTER**
- 5 Insert the CD-ROM entitled, **DEFINITY Network Management Release 3.0**, into the CD-ROM drive and close the drive.
- 6 Some operating systems may automatically mount the CD-ROM. TO manually mount the CD-ROM, at the UNIX prompt, execute **one** of the options (a, b, or c) below :
 - a For the **SOLARIS** platform, the system automatically mounts the CD-ROM. If the CD-ROM fails to mount, then
 - Type **mountall**
 - Press **ENTER**
 - b For the **HP-UX** platform:
 - Type **mount -r /dev/dsk/[device_name] /cdrom**
 - Press **ENTER**

c For the **AIX** platform:

- Type `mount -vcdvfs -r /dev/cd0 /cdrom`
- Press **ENTER**

7 Change to the CD-ROM directory. i.e. typically for the

SOLARIS platform: `cd /cdrom/cdrom0`

8 To change into DNM product directory:

- Type `cd DNM`

9 At the UNIX prompt, type the **INSTALL** command **exactly** as shown below:

- Type `.INSTALL`
- Press **ENTER**

Result: The system displays the prompt: Do you want to install
DEFINITY Network Management 3.0 Software? [yes]

10 To install the DNM product, press **ENTER**

11 **Backup the Database Prompt.** The system displays a recommendation to backup the existing DEFINITY database. Then the system displays the prompt:

```
Would you like to backup the database at this time  
[yes]?
```

Execute one of the options (a or b) below:

- a To backup the database,
 - Press **ENTER**
 - Complete steps [12](#) and [13](#)

- b** To skip backup:
 - Type **N** (no)
 - Press **ENTER**
 - Then go to step [14](#)

12 The systems displays the prompt:

```
Backup the DEFINITY database to what file or device
(enter a complete path) [ ]?
```

To backup the database to a file or device,

- Type **[file path or device path]**
- Press **ENTER**

Result: The system displays the confirmation prompt: Are you sure you want to backup the database to [file path or device path]? [yes]?

13 Execute **one** of the options (a or b) below,

- a** To confirm the file or device path,
 - Press **ENTER**
 - Go to step [14](#)
- b** To re-enter the file or device path,
 - Type **N** (no)
 - Press **ENTER**
 - Repeat steps [12](#) and [13](#)
 - Then go to step [14](#)

Result: The system lists the size of the database and the backup space required. Next, the system displays a grid that tracks the progress of the task. Next, the system displays the message below:

```
Backup has completed successfully.
```

- 14** Then the system displays the message and prompt below:

```
During installation, the existing database can be
upgraded or it can be removed and a new empty database
created.
```

```
Continue with the existing database [yes]?
```

Execute **one** of the options (a or b) below:

- a** To upgrade the existing database, press **ENTER**
- b** To create a new, empty database,
 - Type **N** (no)
 - Press **ENTER**

- 15 Printer Command Prompt.** The system displays a message that describes the print command. Then the system displays the prompt:

```
Enter Printer Command [lp %file].
```

On the PA001 form, go to the *Network Management System (NMS)* section and refer to the **Printer Command** field.

At the UNIX prompt, execute **one** of the options (a or b) from the PA001 form:

- a** To accept the *default* printer command, press **ENTER**

b To enter the printer command from the PA001 form:

- Type **[printer command]**
- Press **ENTER**

16 Telnet Command Prompt. The system displays a message that describes access to a DEFINITY ECS switch through a telnet session to a Proxy Agent. When users execute a telnet session from the DNM product, the system appends the target host name to the telnet command string. Then the system displays the prompt:

```
Enter Telnet command [xterm -e telnet]?
```

On the PA001 form, go to the *Network Management System (NMS)* section and refer to the **Proxy Agent Telnet Command** field.

Execute one of the options (a or b) below:

- a** To accept the default telnet command, press **ENTER**
- b** To enter a different telnet command,

- Type the **[command]**
- Press **ENTER**

17 HTML Report Location Prompt. The system displays a message that describes access by a web browser to the HTML reports. Then the system displays the prompt:

```
Enter URL [file:///opt/lucent/DEFINITY]?
```

On the PA001 form, go to the *Network Management System (NMS)* section and refer to the **HTML Report Location** field.

At the UNIX prompt, execute **one** of the options (a, b, or c) from the PA001 form:

- a To accept the *default URL*, **file:///opt/lucent/DEFINITY**, press **ENTER**
- b Enter the URL for a web server from the PA001 form:

- 18 Modifications Prompt.** The system displays a message that describes the environment variables and the required modifications that the installation script needs to make. Then the system displays the prompt:

```
Make the /etc/profile and CDE modifications? [yes]
```

To make the modifications, press **ENTER**

- 19 Adobe Acrobat Reader Prompt.** The system displays a message that user documentation can be viewed by installing the Adobe Acrobat Reader or entering the directory if the reader is already installed. Then the system displays the prompt:

```
Enter Adobe Acrobat Reader directory (leave blank to  
install): [ ]?
```

Execute **one** of the options (a or b) below:

- a To install the Acrobat Reader, go to step [20](#)
- b If the Acrobat Reader is already installed, go to step [21](#)

- 20** To install the Acrobat Reader, execute steps (a through e) below:

- a At the prompt, press **ENTER**

Result: The system displays the prompt: Install default configuration, Acrobat Reader 3.01 for [platform and release]? [y]

b To continue, press **ENTER**

Result: The system displays the Adobe Acrobat Reader script NOTICE TO USER. At the end of the notice, the system displays the prompt:

```
Do you accept the terms and conditions of this
license agreement?
```

c Read the notice. At the prompt,

- Type **accept**
- Press **ENTER**

Result: The system installs the Acrobat Reader. Then the system displays the confirmation prompt:

```
Enter directory where Reader was just installed:
[/opt/Acrobat3]?
```

d To confirm the directory, press **ENTER**

e Then go to step [22](#)

21 If the Acrobat Reader is already installed, then execute steps (a through c) below:

a Enter the directory path where the Acrobat Reader resides:

- Type **[directory path]**
- Press **ENTER**

Result: The system displays a confirmation prompt:

```
Enter directory where Reader is installed:
[directory path]?
```

b To confirm the directory, press **ENTER**

c Then go to step [22](#)

22 Continue the DNM Installation. The system displays the message: All prerequisites have been met, do you want to continue with the installation of DEFINITY Network Management 3.0 Software for [platform and release number] [yes]?

To continue the DNM installation, press **ENTER**

Result: The system displays a series of messages that confirm the installation of the software files, database files, web-based reports, and the DNM online HELP documentation. This may take several minutes. Then the system displays the message:

```
Please reboot the system now to complete the
installation and automatically start the DEFINITY
Network Management processes.
```

23 To return to the *root (/)* directory:

- Type `cd /`
- Press **ENTER**

24 Use the **eject** or **umount** commands to unmount the CD-ROM:

25 Remove the CD-ROM from the drive.

26 Reboot the system.

27 Complete the procedures in the section entitled, "[Execute Auto-Discovery](#)" on [page 81](#).

Upgrade Fault Management 1.4 and Earlier

To upgrade from DEFINITY G3 Fault Management 1.4 and earlier, installers must complete the upgrade tasks described below.

The DEFINITY Network Management release 3.0 cannot be installed over Fault Management 1.4 and earlier.

Upgrade Tasks

Installers should complete the upgrade tasks listed below:

- 1 Upgrade the operating system and platform to meet the requirements for DEFINITY Network Management 3.0. Refer to ["System Requirements" on page 35](#) and the vendor documentation.
- 2 Complete the ["Customer Pre-Installation Checklist" on page 43](#).
- 3 Install the appropriate ["Operating System Patches" on page 44](#).
- 4 Complete the procedure to ["Remove Fault Management 1.4 and Earlier" on page 72](#).
- 5 Complete the ["Installation Tasks Checklist" on page 47](#).
- 6 Complete the procedure to ["Install the New DNM Product" on page 55](#).

Remove Fault Management 1.4 and Earlier

Complete the procedure below to remove the Fault Management 1.4 and earlier products.

Required Materials

Users need the following materials and information:

- Root login and password
- CD-ROM for DEFINITY G3 Fault Management Release 1.4 or earlier

Procedure

- 1 Close all windows and applications. Log off the network server.
- 2 At the UNIX *login* prompt, log in as the root user:
 - Type **[root login]**
 - Press **ENTER**
- 3 At the *Password* prompt:
 - Type **[root password]**
 - Press **ENTER**
- 4 Insert the CD-ROM entitled, **DEFINITY G3 Fault Management 1.4** (or the CD-ROM for release that is currently installed), into the CD-ROM drive and close the drive.

- 5 At the UNIX prompt, execute **one** of the options (a, b, or c) below to mount the CD-ROM on the appropriate platform:
- a For the **SOLARIS** platform, the system automatically mounts the CD-ROM. If the CD-ROM fails to mount, then:
 - Type **mountall**
 - Press **ENTER**
 - b For the **HP-UX** platform:
 - Type **mount -r /dev/dsk/[device_name] /cdrom**
 - Press **ENTER**
 - c For the **AIX** platform:
 - Type **mount -vcdvfs -r /dev/cd0 /cdrom**
 - Press **ENTER**

Result: The system mounts the CD-ROM. This takes a few seconds, so **wait** until the LED light stops blinking. Then, the system displays the UNIX prompt.

- 6 At the UNIX prompt, change to the CD-ROM root directory. i.e. For the **SOLARIS** platform typically: **cd /cdrom/cdrom0**

7 At the prompt, type the remove command:

- Type **.REMOVE_G3FM**
- Press **ENTER**

Note: The above prompt is an example. The system will display the **actual** platform name and release number that is currently installed on the NMS.

8 To remove the product:

- Type **Y** (yes)
- Press **ENTER**

Result: The system displays the prompt: Are you sure you want to do this? [no].

9 To continue the removal process:

- Type **Y** (yes)
- Press **ENTER**

Result: The system displays a series of messages about the preserved programs, removing the Acrobat Reader, and logging off the system. This may take a few minutes.

Then the system displays the message: G3FM Application has been removed from your system.

10 To return to the *root (/)* directory:

- Type **cd /**
- Press **ENTER**

11 Use the **eject** or **umount** commands to unmount the CD-ROM:

12 Remove the CD-ROM from the drive:

- Type **exit**
- Press **ENTER**

Result: The system exits the root directory and displays the UNIX login prompt: `login:`

13 Complete the tasks and procedures below:

- ["Customer Pre-Installation Checklist" on page 43](#)
- ["Install the New DNM Product" on page 55](#)

Installation Error Messages

During installation, the system may display the messages below. Execute the suggested to solution to correct the error.

Message **You must be root to run the DEFINITY Network Management Installation command.**

Solution: Request root permissions from the system administrator.

Message **[Operating System] [OpenView] [NetView] release not supported by this release of DEFINITY Network Management.**

Solution:

- a Upgrade the operating system and platform hardware. Refer to resources below:
 - ["System Requirements" on page 35](#)
 - ["Customer Pre-Installation Checklist" on page 43](#)
 - Vendor installation documentation
- b Reinstall the DNM product

Message **DEFINITY Network Management Installation failed.**

Solution:

- a Ensure that the ["Customer Pre-Installation Checklist" on page 43](#) has been completed successfully.
- b View DNM Installation log: /var/dnminstall.log
- c Reinstall the DNM product

Backup and Restore the Database

Only the **system administrator** or root user should execute the procedure to backup and restore the database.

Users can execute the **BackupDEF** utility to backup the database during installation or at any time after the product is installed.

Users can execute the **RestoreDEF** utility to restore the database from the backup file or the archive device.

Required materials

Users need the following materials and information:

- Root login and password
- File name or device name to backup the database

Procedure

Complete the procedure below to backup and restore the database.

- 1 Close all windows and applications.
- 2 **Optional.** Hook up the archive device to backup the database.
- 3 At the UNIX *login* prompt, log in as the root user:
 - Type **[root login]**
 - Press **ENTER**
- 4 At the *Password* prompt:
 - Type **[root password]**
 - Press **ENTER**

5 Execute the shutdown command for the DNM product:

- Type **ProcStartup -K**
- Press **ENTER**

Result: The system displays the message: Shutdown successful.

6 Execute one of the options (a or b) below:

a To *backup* the database:

- Type **BackupDEF [input_file_path] or [input_device_path]**
- Press **ENTER**

Result: The system backs up the database and displays the messages

```
Backup was completely successful.
```

Then, the system displays the prompt: Would you like to do another level of backup on database 'DEFINITY'? [default = no]

b To *restore* the database:

- Type **RestoreDEF [input_file_path] or [input_device_path]**
- Press **ENTER**

Result: The system displays a series of messages, which takes several minutes. Then the system displays the prompt:

```
During the roll forward, would you like to apply records from the database's current log file in addition to any archived records? [default = yes]
```

- At the prompt, type **N** (no) and press **ENTER**

Result: The system restores the database and displays the message:

```
Restore was completely successful.
```

```
Then, the system displays the prompt: Would you like to do
another level of restore on database 'DEFINITY'?
[default = no]
```

- 7 At the prompt, answer “no”

- Press **ENTER**
- Go to step [8](#)

- 8 At the UNIX prompt, log off the system:

- Type **exit**
- Press **ENTER**

Result: The system displays the UNIX login prompt: login:

Execute Auto-Discovery

The Auto-Discovery feature integrates the system data from the managed nodes into the Network Management System (NMS) integration application.

Auto-Discovery creates and updates the icons and submaps from data received from the applications listed below:

- Proxy Agents that are connected to managed nodes
- Trouble Trackers that are connected to legacy equipment

Users must log in to the NMS network server and execute Auto-discovery through the NMS user interface.

Log in to the NMS Desktop

To execute Auto-Discovery, users must first log in to the Desktop on the Network Management System (NMS) network server.

Required materials

Users need the following materials and information:

- NMS system name (uname - n)

Procedure

Complete the procedure below to log-in to the Desktop in either the OpenView or NetView platform.

1 In a UNIX console window, set up DNM environment:

- Type `./etc/lucent/DEFINITY/ENV`
- Press **ENTER**

Result: The system displays the UNIX prompt.

2 Start the NMS user interface:

a For **OpenView**:

- Type `$OV_BIN/ovw&`
- Press **ENTER**

b For **NetView**:

- Type `$OV_BIN/nv6000`
- Press **ENTER**

3 Complete the appropriate procedure below:

- ["Execute Auto-Discovery on Public Networks" on page 83](#)
- ["Execute Auto-Discovery on Private Networks" on page 84](#)

Execute Auto-Discovery on Public Networks

The procedure below is **required** to execute Auto-Discovery on the public networks.

- 1 At the Root map, select **one** of the options (a or b) from the menu bar:
 - a On OpenView, click **Fault > DEFINITY > Execute Auto-Discovery**
 - b On NetView, click **Monitor > DEFINITY > Execute Auto-Discovery**

Result: The system executes Auto-Discovery and logs the events in the *Events Categories* window.

- 2 To view the events in the *Events Categories* window,
 - Click **All Events**
 - Scroll down the list to find the message: Auto-Discovery Completed Successfully.
- 3 If appropriate, complete the procedure to ["Execute Auto-Discovery on Private Networks" on page 84](#)
- 4 Verify that the DNM installation and the NMS integration were successful. Refer to [Chapter 4, "Getting Started on DNM for UNIX"](#).

Execute Auto-Discovery on Private Networks

The procedure in this section is *optional*. Users should execute the procedure only for private networks.

For private networks, users must manually administer the fields in the Simple Network Management Protocol (SNMP) configuration file. Auto-Discovery uses these fields to access the SNMP data from the Proxy Agent.

Required materials

Users need the completed PA001 form. Refer to the *Proxy Agent* section and the fields listed below:

- Proxy Agent IP network address
- SNMP Get Community String
- SNMP Set Community String

Procedure

Complete the procedure below to execute Auto-Discovery on private networks.

- 1 Access the SNMP Configuration window from the NMS user interface.
- 2 If selected, turn-off the button: **USE PROXY TO ACCESS TARGET**
- 3 On the PA001 form, go to the *Proxy Agent* section and refer to the **Network Managers** fields.

In the *SNMP Configuration* window, enter the data from the PA001 form in the fields below. Do *not* change any other fields:

- In the *Target* field, type [IP address] for the Proxy Agent
- In the *Community String* field, type [private “get” name]
- In the *Set Community String* field, type [private “set” name]

Execute Auto-Discovery on Private Networks

- Click: **ADD**
- Click: **OK**

Result: The system updates the fields and displays the *Root* map.

- 4 At the *Root* map, select **one** of the options below from the menu bar:
 - a On OpenView, select **Fault > DEFINITY > Execute Auto-Discovery**
 - b On NetView, select **Monitor > DEFINITY > Execute Auto-Discovery**

Result: The system executes Auto-Discovery and logs the events in the *Events Categories* window.

- 5 To view the events In the *Events Categories* window,
 - Click **All Events**
 - Scroll down the list to find the message: Auto-Discovery Completed Successfully.
- 6 Verify that the DNM installation and the NMS integration were successful. Refer to [Chapter 4, "Getting Started on DNM for UNIX"](#).

Auto-Discovery Errors and Problems

This section contains typical Auto-Discovery errors messages and problems, as well as solutions to resolve the problems.

Vendor documentation

Users should also refer to the vendor documentation to resolve hardware and software problems with:

- UNIX system
- SCO UnixWare operating system
- OpenView and NetView operating systems
- Sun Solaris platform
- HP-UX platform
- AIX platform
- Other hardware and software products from third-party vendors

Message

Auto-Discovery currently in progress, current request ignored

Solutions:

- Execute Auto-Discovery at a later time.
- Review the *Applications Alert Event* log and the *Events Categories* window to further troubleshoot events that may be related.

Message Read Only Map - Auto-Discovery Terminated**Solutions:**

- Execute Auto-Discovery from a read-write submap.
- Review the *Applications Alert Event* log and the *Events Categories* window to further troubleshoot events that may be related.

Problem Auto-Discovery did not find a Proxy Agent.

Cause: Auto-Discovery does not recognize the Proxy Agent as a SNMP managed node.

Solutions: Answer the questions below:

- a Do you have permission to use Auto-Discovery? If not, see the system administrator.
- b Is the Proxy Agent running? If not, start the Proxy Agent and execute Auto-Discovery.
- c Is the Proxy Agent release 3.0? If not, Auto-Discovery does not recognize earlier releases.
- d Is the Proxy Agent accessible from a node in the NMS seed file? If not, ask the system administrator to manually add the Proxy Agent.
- e Is the Proxy Agent in the IP Internet map structure for the Proxy Agent? If not, verify that the correct version of the Proxy agent product is installed and running on the Proxy Agent PC.
- f Does the active submap have read/write permission? If not, open a different submap with read/write permissions.

Problem **A user deleted an icon, but Auto-Discovery keeps displaying the icon on the submap.**

Cause: The user did not delete the managed node from the Proxy Agent.

Solution: On the Proxy Agent, delete the node name from the Managed Node screen.

Problem **A user administered the same managed node name on multiple Proxy Agents. However, NMS submap only shows the connection between the managed node and one of the Proxy Agents.**

Cause: Auto-Discovery can manage only one instance of a managed node name and disregards all but the last instance.

Solutions:

- a To administer **one** managed node on **one** Proxy Agent, delete the managed nodes from all but one Proxy Agent.
- b To administer the **same** managed node on **multiple** Proxy Agents, delete the managed node from all but one Proxy Agent. Then, rename the managed node to a different name each time you administer the managed node on multiple Proxy Agents.

Examples:

Denver 1 -- the original node name for a managed node on Agent 1

Denver 2 -- the same managed node, but renamed on Agent 2

Denver 3 -- the same managed node, but renamed on Agent 3

Problem **Icons display on the Root map instead of on submaps.****Causes:**

- Auto-Discovery recognized a custom submap icon as a Root map
or
- The submap was removed or was never created

Solution: Use either of the solutions below to create a new submap:

- a Use the Save Map command to make a copy of a similar submap. Then modify the new submap.
- b Open a new submap at the right level, then:
 - Move automatically-created icons to the new submap
 - Create the appropriate custom icons
 - Remove any custom-created icons that Auto-Discovery placed on the Root map
 - Run Auto-Discovery to update the custom-made icons on the new submap.

Remove the DNM Product

This section contains the procedure to remove the DEFINITY Network Management Release 3.0 for UNIX from the Network Management System (NMS) network server.

Generally, the main reason to remove the software would be to restore data that has been lost or corrupted.

Remove command

For the DNM 3.0 release, the **REMOVE** command is added to the DNM command directory. Users can remove the DNM 3.0 product from the system without having to mount the DNM 3.0 product CD-ROM.

The **REMOVE** command deletes files that are essential to run the DNM product and preserves auxiliary software and files generated from the products.

The command **deletes** the files listed below:

- All executable files
- Configuration files
- Versant software and database
- Documentation files that are stored in the default directory
- All product configuration data in the Network Management System (NMS) configuration and registration files
- SNMP configuration files for each Proxy Agent and the managed nodes

The command **preserves** the Adobe Acrobat Reader software.

Required materials

Users need the following information and materials:

- Root login and password
- File name or device name to backup the database

Procedure

Only the **system administrator** or root users should execute the procedure to remove the DEFINITY Network Management product.

The remove script prompts you to backup the database to a file or an archive device.

- 1 Close all windows and applications. Log off the network server.
- 2 **Optional.** Hook up the archive device to backup the database.
- 3 At the UNIX *login* prompt, log in as the root user:
 - Type **[root login]**
 - Press **ENTER**
- 4 At the *Password* prompt,
 - Type **[root password]**
 - Press **ENTER**

Result: The system displays the UNIX prompt.

- 5 In a Unix console window, set up DNM environment:
 - Type **./etc/lucent/DEFINITY/ENV**
 - Press **ENTER**

Result: The system displays the prompt: Do you want to remove the DEFINITY Network Management 3.0 software [no]?

6 To remove the product,

- Type **Y** (yes)
- Press **ENTER**

Result: The system displays the prompt: Are you sure [yes]?

7 To continue the removal process, press **ENTER**

8 **Backup the Database Prompt.** The system displays a recommendation to backup the existing DEFINITY database. Then the system displays the prompt:

```
Would you like to backup the database at this time  
[yes]?
```

Execute one of the options (a or b) below:

a To backup the database,

- Press **ENTER**
- Complete steps [9](#) and [10](#)

b To remove the database,

- Type **N** (no)
- Press **ENTER**
- Then go to step [11](#)

9 Backup File or Device Prompt. The systems displays the prompt:

```
Backup the DEFINITY database to what file or device
(enter a complete path) [ ]?
```

To backup the database to a file or device,

- Type **[file path or device path]**
- Press **ENTER**

Result: The system displays the confirmation prompt: Are you sure you want to backup the database to [file path or device path]? [yes]?

10 Execute *one* of the options (a or b) below,

a To confirm the file or device path,

- Press **ENTER**
- Go to step [11](#)

b To re-enter the file or device path,

- Type **N** (no)
- Press **ENTER**
- Repeat steps [9](#) and [10](#)
- Then go to step [11](#)

Result: The system lists the size of the database and the backup space required. Next, the system displays a grid that tracks the progress of the task. Next, the system displays the message below:

```
Backup has completed successfully.
```

- 11 Then the system displays a series of messages that log the removal of the files from the system.

Result: Finally, the system displays the prompt: `DEFINITY Network Management 3.0 software has been removed from your system.`

- 12 At the UNIX prompt, log off the system:

- Type **exit**
- Press **ENTER**

Result: The system exits the root directory and displays the UNIX login prompt: `login:`

3 System Administration

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Introduction

Only the **system administrator** or root users should edit the files described in this section.

The information allows system administrators to manage the options below:

- Control the NMSI polling of Proxy Agents
- Override the default location submaps that are administered on the Proxy Agent
- Execute system commands to start and stop the DNM product and to view the system health status
- Execute database commands
- Edit system configuration files to customize the DNM product
- Integrate third-party products for alarm notification
- Install the Auto-Discovery patch on Trouble Trackers

Note: DEFINITY Network Management environment
(`./etc/lucent/DEFINITY/ENV`) should be set up before using any
commands in this section.

System Location File

From the NMS workstation, system administrators can edit the **Location** file to:

- Override the location submaps that are administered on Proxy Agents and
- Set up locations for legacy systems that are managed by a Trouble Tracker

Location file

To administer the Location file, edit the file:

- `$OV_MAIN_PATH/OneVision/DG3Poll/Location`

Format

Each line in the Location file contains the format described below:

- System name
- White space <blank>
- Location
 - If **generic**, **usa**, **custom**, and **legacy** are entered in this line the NMSI places the system icon on the appropriate NMS map.
 - If **hide** is entered in this line, the NMSI does not display the system icon on any map.
- White space <blank>
- One of the options below:
 - State name if the Location is **usa**
 - Custom name if the Location is **custom**
 - Null string ("") if the Location is **generic**
- Enter double quotes ("") in any of the non-white space.

The lines below are examples of valid entries in the lines:

- USA and State maps: **defty1<tab>usa<blank>"Colorado"**
- Custom map and custom name: **defty2<tab>custom<tab>Africa**
- Generic map: **defty3<tab>generic<blank><blank>""**

Any changes made in the Location file override the location submaps for the ***individual*** managed node (system name) that are administered on the Proxy Agent.

System Commands

System administrators or root users can execute the commands in the sections below from the directory: **\$DNM_BIN_DIR**

Start and Stop Commands

The DEFINITY Network Management processes normally start from UNIX **inittab**. The commands in the table below gives the system administration additional control of the DNM processes.

Table 4. Start and Stop commands

Command	Description
ProcStartup -K	Stops the DNM system and prevents it from starting at system boot.
ProcStartup -r	Restarts a stopped DNM system and enables it to start at system boot.

System administrators can view a log of system startups and shutdowns from:
\$DNM_LOG_DIR/ProcMgr.log

System Health Commands

The table below contains the system health commands.

Table 5. System Health commands

Command	Description
ProcStartup -s	Prints process status
ProcStartup -g	Opens a graphical monitor of process status

Database Commands

The table below contains the DNM backup and restore commands .

Table 6. Versant database commands

Command	Description
BackupDEF	A DNM command to back up the DEFINITY database to a file or archive device. Refer to "Backup and Restore the Database" on page 78.
RestoreDEF	A DNM command to restore the DEFINITY database from a file or archive device. Refer to "Backup and Restore the Database" on page 78.

System Configuration Files

The table below contains files that the **system administrator** can edit to customize the DEFINITY Network Management product. Any changes made to the files take effect when the system is restarted.



CAUTION:

System administrators should back up these files **before** they edit them. Validation is **not** trivial.

- PMPProp - Specifies the system properties:
 - DB parameters
 - Port assignments
 - SNMP parameters
 - Print options
 - Others
- UserScripts - Identifies executable files to run when specified exceptions occur on the managed node

Administer the Alarm Notification

Only the **system administrator** or a root user who knows UNIX shell programming should edit the scripts to enable the alarm notification features.

Script directories

The scripts reside in the directories below:

- **\$OV_MAIN_PATH/OneVision/bin**

The **bin** directory contains the sample scripts listed below:

- Definity_ARS
- AUDIX_ARS
- CMS_ARS
- CONVERSANT_ARS
- TT_ARS

Alarm notification options

System administrators can choose to use the pager or email features in the DEFINITY Network Management (DNM) product or edit the scripts to enable third-party products such as:

- Telemon, *TeleAlert*
- Remedy, *Alarm Response Service (ARS)*

CAUTION:

Customers are **solely** responsible for the purchase, installation, and maintenance of third-party software products.

Description of Alarm Notification Options

The tables below outline the alarm notification options that are available in the DNM product or from third-part vendors.

DNM options

The table below contains the description of product options within the DEFINITY Network Management product.

Table 7. DNM notification options

Option	Description
CU Pager	Pages the system administrator and sends a code that identifies the type of alarm, alert, or error received from the managed system.
Email	Sends an email message to the system administrator that contains detailed information for the alarm, alert, or error received from the managed system.

TeleAlert options

The table below contains the descriptions of the notification options in Telemon's TeleAlert product.

Table 8. TeleAlert notification options

Option	Description
Alpha Page	<p>Pages the system administrator and sends a code that identifies the type alarm, alert, or error received from the managed system.</p> <p>The alpha page also confirms that the system administrator received the page. The page repeats until the system administrator responds to the page.</p>
Voice Page	<p>Sends a voice page to the system administrator and sends a code that identifies the type of alarm, alert, or error received from the managed system.</p> <p>The alpha page also confirms that the system administrator received the page. The page repeats until the system administrator responds to the page.</p>
AUDIX	<p>Calls the system administrator's AUDIX number and leaves a voice message that contains the detailed information for the alarm, alert, or error received from the managed system.</p>

*Description of Alarm Notification Options***Remedy ARS option**

The table below contains the description of the notification option in Remedy's ARS product. The sample script only supports ticketing.

The Remedy ARS product supports voice page and email notification.

Table 9. Remedy ARS notification option

Option	Description
Ticket	Creates a trouble ticket that contains the historical information for the alarm, alert, or error received from the managed system.

Definity_ARS Script

The NMSI looks for the **Definity_ARS** script when one of the following events occur:

- NMSI receives an alarm trap from the managed nodes listed below:
 - DEFINITY
 - MCU
- NMSI receives an exception event from the DNM application for these managed nodes

Then the NMSI calls the script and passes the values listed below to the alarm notification program. If a value is **not** defined, then the NMSI assigns the alarm the string "NULL_FIELD."

Alarm notification values:

- 1 System name
- 2 Error description
- 3 New status severity
- 4 Old status severity
- 5 Product ID
- 6 Alarm sequence number
- 7 Alarming Port
- 8 Maintenance object name
- 9 On board fault
- 10 Type of alarm

- 11 Alternate name for the device
- 12 Describes the external device
- 13 Product Identifier of external device
- 14 Building location of external device
- 15 Address of external device
- 16 Restart date time
- 17 Restart level
- 18 Restart carrier
- 19 Restart craft demand
- 20 Restart escalated
- 21 Restart interchange
- 22 Restart unavailable
- 23 Restart cause
- 24 Restart speA release
- 25 Restart speB release
- 26 Restart speA update
- 27 Restart speB update

AUDIX_ARS Script

The NMSI looks for the **AUDIX_ARS** script when one of the following events occur:

- NMSI receives an alarm trap from the managed nodes listed below:
 - DEFINITY Audix
 - INTUITY Audix
 - INTUITY Interchange
- NMSI receives an exception event from the DNM application for these managed nodes

Then the NMSI calls the script and passes the values listed below to the alarm notification program. If a value is **not** defined, then the NMSI assigns the alarm the string "NULL_FIELD."

Alarm notification values:

- 1 System name
- 2 Product ID
- 3 Alarm sequence number
- 4 Source of the alarm:
 - DEFINITY (for DEFINITY Audix)
 - INTUITY
 - INTERCHANGE
- 5 Error description
- 6 New status severity

- 7 Old status severity
- 8 Alarm location
- 9 Alarm date
- 10 Alarm time
- 11 Resource
- 12 Fault code
- 13 Module ID
- 14 Event number
- 15 Count number

CMS_ARS Script

The NMSI looks for the **CMS_ARS** script when one of the following events occur:

- NMSI receives an alarm trap from the Call Management System (CMS)
- NMSI receives an exception event from the DNM application for the CMS

Then the NMSI calls the script and passes the values listed below to the alarm notification program. If a value is **not** defined, then the NMSI assigns the alarm the string "NULL_FIELD."

Alarm notification values:

- 1 System name
- 2 Product ID
- 3 Alarm sequence
- 4 Error description
- 5 New status severity
- 6 Old status severity
- 7 Product type
- 8 Version
- 9 ID value
- 10 Number
- 11 Name

CONVERSANT_ARS Script

The NMSI looks for the **CONVERSANT_ARS** script when one of the following events occur:

- NMSI receives an alarm trap from the Conversant system
- NMSI receives an exception event from the DNM application for the Conversant system

Then the NMSI calls the script and passes the values listed below to the alarm notification program. If a value is **not** defined, then the NMSI assigns the alarm the string "NULL_FIELD."

Alarm notification values:

- 1 System name
- 2 Product ID
- 3 alarm number
- 4 Error description
- 5 New status severity
- 6 Old status severity
- 7 Location
- 8 Date
- 9 Time
- 10 Resource
- 11 Fault code
- 12 Module ID
- 13 Event number
- 14 Count number

Install the Auto-Discovery Patch on Trouble Tracker

The NMSI application contains the Auto-Discovery patch that allows you to monitor early releases of the Lucent legacy systems below from a Trouble Tracker:

- DEFINITY G1 and G2
- DIMENSION
- System 75 and 85
- Monitor 1

Only the **system administrator** or root user should execute the procedure to install the Auto-Discovery Patch on a Trouble Tracker.

Auto-Discovery patch

The Auto-Discovery patch allows the NMSI to find the legacy systems that are connected to a Trouble Tracker and create the Lucent Legacy map on OpenView or NetView. When you execute the Auto-Discovery command, the NMSI updates the objects on the legacy map with the current alarm status.

The NMSI also provides telnet access to the Trouble Tracker, where you can view alarm and error information for the legacy systems.

You **cannot** view system or alarm data for legacy equipment from either the NMS legacy map or the DEFINITY Network Management (DNM) product.

3 System Administration

Install the Auto-Discovery Patch on Trouble Tracker

Auto-Discovery run time The **default** run time for the Auto-Discovery patch is set for midnight. The run time for system maintenance or backup on the Trouble Tracker may **also** be set for midnight.

If the run time for the Trouble Tracker is set for midnight, then change the run time for Auto-Discovery to a different time to avoid conflicts between the run times.

Required materials You need the following materials and information:

- Trouble Tracker documentation
- Trouble Tracker Root password

Procedure Complete the procedure below to:

- Install the Auto-Discovery patch on the Trouble Tracker and
- Change the default run time for Auto-Discovery (optional)

The procedure does not contain all the steps for each task, but provides a guideline to complete the tasks.

- 1 At the UNIX prompt, use the **ftp** or **rcp** command to copy the **TTautodisc** file to the **\$TTASDIR** on the Trouble Tracker.

The Auto-Discovery patch resides in file:

– **\$OV_MAIN_PATH/OneVision/bin**

Log-in to the Trouble Tracker as the **ttas** user.

Result: The system displays the *Trouble Tracker* main menu.

Install the Auto-Discovery Patch on Trouble Tracker

2 To access the UNIX prompt,

- Type **!sh**
- Press **ENTER**

Result: The system displays a UNIX prompt.

3 At the prompt,

- Type **./TTautodisc -i**
- Press **ENTER**

Result: The system displays prompt for the *root* password.

4 At the Trouble Tracker prompt,

- Type: **[root password]**
- Press **ENTER**

Result: The system displays the UNIX prompt.

5 At the prompt,

- Type **./TTautodisc**
- Press **ENTER**

Result: The system access the file and then displays the UNIX prompt.

6 To exit the file,

- Type **exit**
- Press **ENTER**

Result: The system configures the legacy equipment. Then, the system closes the file and displays the main *Trouble Tracker* main menu.

Install the Auto-Discovery Patch on Trouble Tracker

7 Optional. Change the run time for Auto-Discovery.

From the *Trouble Tracker* main menu, escape to the UNIX shell,

- Type `!sh`
- Press **ENTER**

Result: The system displays the UNIX prompt.

8 At the prompt,

- Type `crontab -l > /tmp/ct`
- Press **ENTER**

Result: The system displays the UNIX prompt.

9 Use *iv*, or another editor, to edit the file and change the run time for Auto-Discovery.

Note: The systems displays time in the military (24-hour) format, with the minutes first, followed by the hour. For example: **00 24** indicates 12:00 midnight

- Type `vi /tmp/ct`
- Press **ENTER**

Result: The system displays the time in *TTautodisc* line: 00 24.

3 System Administration*Install the Auto-Discovery Patch on Trouble Tracker*

10 Edit the time on the *TTautodisc* line and type the new time in the military format, minutes first, without the brackets. Example: 30 04 (4:30 a.m.)

- Type **[minutes] [hour]**
- Press **ENTER**
- Press **ESC** to exit the edit mode

Result: The system displays the UNIX prompt.

11 At the UNIX prompt, re-register the new time,

- Type **crontab < /tmp/ct**
- Press **ENTER**

Result: The system displays the UNIX prompt.

- Type **crontab -l**
- Press **ENTER**

Result: The system updates the *cron* file. Then, the system displays the UNIX prompt.

12 Log-off the Trouble Tracker.

Result: The system displays the UNIX prompt.

13 Execute Auto-Discovery from the Trouble Tracker.

4 Getting Started on DNM for UNIX

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Introduction

This chapter describes the purpose and navigational instruction for the windows within the **DEFINITY Network Management Release 3.0** application. In this chapter you will learn about the following windows and processes:

- Log in to DNM
- NMS maps
- Map commands
- DNM overview
- Online Help system
- DNM main window
- Access Applications
- Configuration
- Administration
- Report Scheduler

Note: To better view the graphics in this chapter, use your zoom tool. Most graphics are best viewed at 200%, but this may vary depending on your monitor screen size and resolution setting.

Log in and Exit DNM

When users start DEFINITY Network Management, the system initiates the data refresh programs that update the system configuration and event information. The Network Management System (NMS) receives system configuration and management data from the Proxy Agents.

If DNM does **not** retrieve all of the data in an allotted time, then the system displays a message on the DNM main window and stops retrieving data.

The system will start DNM with the existing cache data from prior DNM sessions, if available.

Procedure

Complete the procedure below to log in and exit the DNM product and log off the NMS from the root map.

- 1 At the UNIX *login* prompt:
 - Type **[login name]**
 - Press **ENTER**
- 2 At the *Password* prompt,
 - Type **[your password]**
 - Press **ENTER**

Result: The system displays the UNIX prompt.

- 3 At the window prompt, execute one of the options (a, b or c) below:
- a For **OpenView** on the **Solaris** platform, the system *may* display the prompt: `Setup display:` To determine the workstation name,
 - Type `uname - n`
 - Press **ENTER**
 - Result:** The system displays the workstation name.
 - Type `DISPLAY=[workstation name]:0.0`
 - Press **ENTER**
 - Type `export DISPLAY`
 - Press **ENTER**
 - b For **OpenView** on the **HP-UX** platform,
 - Type `$OV_BIN/ovw&`
 - Press **ENTER**
 - c For **NetView** on the **AIX** platform,
 - Type `$OV_BIN/nv6000`
 - Press **ENTER**

Result: The system starts the Desktop and displays the *Root* map and *Events Categories* window.

- 4 At the *Root* map, double-click a DEFINITY icon.

Result: The system displays the submap for the selected system.

- 5 On the submap, double-click an icon for a specific managed node.

Result: The system displays the *DNM splash* screen and the startup messages that track the time to complete the process. This may take several minutes. Then, the system displays the DNM main window and navigation tree for the system groups.

- 6 To exit DEFINITY Network Management from the menu bar on any screen, click **File > Exit**

Result: The system exits the product and displays the *Root* map.

- 7 To log off the NMS,
 - click **File > Close**

Result: The system displays the UNIX *login* prompt.

Description of the NMS Maps

The Network Management System Integration (NMSI) program is one of the programs in the DEFINITY Network Management (DNM) software. The purpose of NMSI is to integrate the DNM product into the OpenView and NetView operating systems.

This integration allows users to monitor their Lucent telecommunication systems and data networks from the same workstation.

NMS maps

NMSI uses the Auto-Discovery program to find and transmit system data from the managed nodes (supported systems) to the NMSI programs.

The NMSI uses the data received from Auto-Discovery to create and update the NMS maps, which include:

- NMS Root map
- DEFINITY map
- DEFINITY USA and State maps
- Custom maps

The sections below describe the *objects* (system icons and connection lines) that display on the map and the color schemes that indicate the current status of the objects.

**Lucent Legacy
map**

NMSI also creates and updates the Lucent Legacy map *if* users installed the Auto-Discover patch on the Trouble Tracker. Refer to ["Install the Auto-Discovery Patch on Trouble Tracker" on page 113](#) for more information.

The patch allows a Trouble Tracker to send SNMP traps to the NMS. The SNMP traps contain the names of the legacy systems and the current status of the systems.

NMSI updates the Lucent Legacy map with the current status of the systems below:

- DEFINITY G1 and G2
- Audix 3.0 and earlier
- DIMENSION
- System 75 AND 85
- Monitor 1

Neither the DNM or the Proxy Agent products support the legacy systems. Users must telnet the Trouble Tracker to view the alarm and system data for the legacy systems.

Root Map

The *root* map on the Network Management System (NMS) is the initial user interface to the DEFINITY Network Management (DNM) product. The NMSI program creates additional maps and makes them subordinate to the root map.

Proxy Agent submaps

NMSI places executable icons for the new maps on the root map. These icons represent the default location *submaps* that users administered on the Proxy Agent for the managed nodes. The submaps options include: Generic, USA and associated State maps, and Custom.

The icon names that display on the root map are:

- **DEFINITY MAP** identifies a Generic submap.
- **DEFINITY USA MAP** identifies the USA map and associated State submaps.
- Any name that users assign to a **Custom** submap. Users can create many custom maps and assign different names for each map. The root map displays an individual icon for each custom submap.

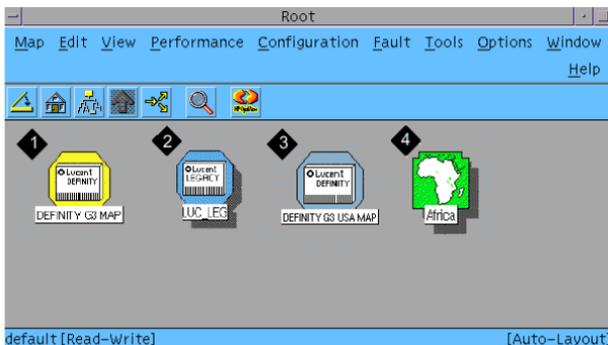
4 Getting Started on DNM for UNIX

Root Map

Legacy submap If users installed the Auto-Discovery patch on a Trouble Tracker during the DNM installation, then Auto-Discovery creates a legacy map.

The icon name that displays on the root map is: ["Lucent Legacy Map" on page 134.](#)

The figure below shows the NMS root map with the executable icons that represent the submap types. Users can double-click the icon to open the NMS map.



1. *DEFINITY Generic Submap icon*

2. *Lucent Legacy Submap icon*

3. *DEFINITY USA Submap icon*

4. *DEFINITY Custom Submap icon*

Figure 2. NMS Root Map

DEFINITY Map

In the figure below, the generic DEFINITY Map shows the Proxy Agent icons and connection lines to system icons for each supported managed node.

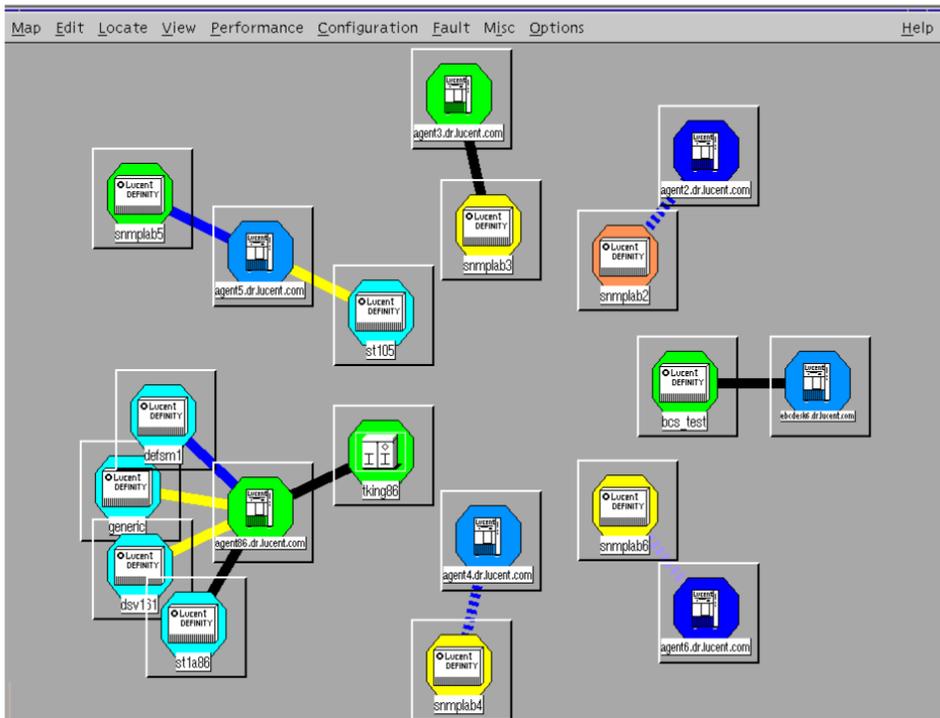


Figure 3. Generic Submap

DEFINITY USA Map

The USA map displays executable system icons in the states where the managed nodes are located. The system icons on the USA map access the State map for the selected managed nodes.

The figure below shows the DEFINITY USA map and icons in different states.



Figure 4. DEFINITY USA map

State Map

The figure below shows the State map with a Proxy Agent icon and a connection line to a system icon for the managed node located in that state.

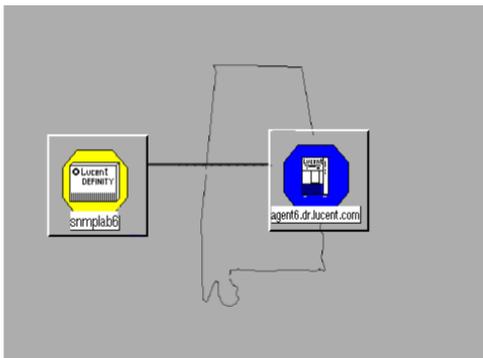


Figure 5. State map

Custom Map

Custom maps show Proxy Agent icon and connection lines to system icons for each supported managed node. Users can use create many custom maps with different names to organize the managed nodes by categories.

The figure below shows a custom map with the system icon name in the title bar.

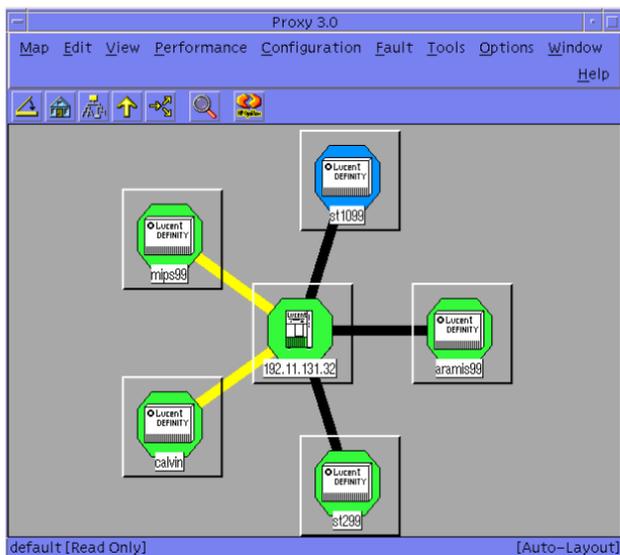


Figure 6. Custom Submap

System Icons

As shown in the figures above, the NMSI creates Proxy Agent icons and individual system icons for each managed node. The system icons identify the type of managed node that users administered on the Proxy Agent:

- DEFINITY G3 or ECS
- Multipoint Conferencing Unit (MCU)
- DEFINITY Audix
- INTUITY Audix
- INTUITY Interchange
- Call Management System (CMS)
- Conversant

The NMSI also creates a distinct system icon for DEFINITY Survivable Remote Processors (SRP).

Connection Lines

Also shown in the figures above, the NMSI draws *connection lines* between the Proxy Agent icon and its supported system icons. The connection lines identify the type of connection between the Proxy Agent and the managed nodes:

- Solid line indicates a **static** connection
- Dashed line indicates a **dynamic** connection

Root Map Colors

The default colors for the Network Management Systems, specifically OpenView and NetView, add color to the *objects* displayed on the **Root** map. The color indicates the current status of the objects.

The table below contains the current status and the **default** color schemes for both OpenView and NetView.

Table 10. Root map colors

Status	OpenView Color	NetView Color
Unknown	Dark Blue	Light Blue
Normal	Green	Green
Warning	Light Blue	Pink
Minor	Yellow	Yellow
Major	Orange	Orange
Critical	Red	Red

NMS Colors

The Network Management System (NMS) adds additional colors to the system icons and connection lines on the maps listed below:

- DEFINITY Map
- DEFINITY USA Map and associated State maps
- Custom maps

DNM support

DNM **only** supports SNMP traps and alarm traps from the Proxy Agent for the systems below:

- DEFINITY G3 PBX release 4.0 and DEFINITY ECS releases 5.0 through 8.1
- Survivable Remote Processors (SRPs)
- Multipoint Conferencing Unit (MCU) release 5.0 through 6.0.

DNM treats SRPs and MCUs as DEFINITY systems.

NMSI support

The NMS Integration (NMSI) program on DNM **only** supports alarm traps from the Proxy Agent for the systems below:

- DEFINITY Audix releases 3.1 through 4.0
- INTUITY Audix release 4.3 through 5.0 (with or without the remote maintenance board)
- INTUITY Interchange release 5.1 through 5.3
- Call Management System (CMS) R3V6 through R3V8
- Conversant release 7.0

The DNM maps only provide **telnet** support to the products above.

Legacy system support

If the Auto-Discovery patch is installed on a Trouble Tracker, then the Network Management (NMS) programs on OpenView and NetView **only** support alarm traps from Trouble Trackers that manage the Lucent legacy systems listed below:

- DEFINITY G1 and G2
- DIMENSION
- System 75 and 85
- Monitor 1

The DNM maps only provide **telnet** support to the Trouble Tracker.

The legacy system icons and Trouble Tracker connection lines display on the Lucent Legacy map.

**Proxy Agent
icon colors**

The table below contains the Proxy Agent icon colors that display on DNM maps. The colors indicate whether or not the Proxy Agent is responding to requests.

Table 11. Proxy Agent Object colors

Object	OpenView Color	NetView Color
Proxy Agent icon	<p>Dark Blue = Unknown. Proxy Agent is not responding</p> <p>Green = Normal</p> <p>Cyan = Warning. Proxy Agent is responding, but is not honoring SNMP requests. Indicates that the SMNP community string for the NMS is incorrect.</p> <p>Red = Major. Proxy Agent failed to forward an alarm to INADS on its last try.</p>	<p>Cyan = Unknown. Proxy Agent is not responding</p> <p>Green = Normal</p> <p>Pink = Warning. Proxy Agent is responding, but is not honoring SNMP requests. Indicates that the SMNP community string for the NMS is incorrect.</p> <p>Red = Major. Proxy Agent failed to forward an alarm to INADS on its last try.</p>

DEFINITY object colors DNM maintains a list of active exceptions for the systems listed below:

- DEFINITY G3 and ECS
- Multipoint Conferencing Unit (MCU)
- Survivable Remote Processor (SRP)

DNM treats the MCUs and SRPs as DEFINITY systems.

The table below contains the DEFINITY icon colors and the Proxy Agent line connections that display on the DNM maps.

Table 12. DEFINITY Object colors

Object	OpenView Color	NetView Color
DEFINITY icon	Dark Blue = Unknown. Proxy Agent is not responding	Cyan = Unknown. Proxy Agent is not responding
MCU	Green = Normal	Green = Normal
SRP	Salmon = Dispatched	Lime Green = Dispatched
	Cyan = Warning	Pink = Warning
	Yellow = Minor	Yellow = Minor
	Orange = Major	Orange = Major
	Red = Critical	Purple = Major
		<i>(1 of 2)</i>

Table 12. DEFINITY Object colors

Object	OpenView Color	NetView Color
Line connections to DEFINITY icons	Black = Up Red = Down or Other Yellow = Init (initiating) Cyan = Off Salmon = Idle for dynamic connection	Black = Up Red = Down or Other Yellow = Init (initiating) Cyan = Off Green = Idle for dynamic connection
		<i>(2 of 2)</i>

Other system object colors

The NMSI **only** supports alarm traps from the Proxy Agent for the systems below:

- DEFINITY Audix releases 3.1 through 4.0
- INTUITY Audix release 4.3 through 5.0 (with or without the remote maintenance board)
- INTUITY Interchange release 5.1 through 5.3
- Call Management System (CMS) R3V6 through R3V8
- Conversant release 7.0

The DNM maps only provide **telnet** support to the products above.

The table below contains the other system icon colors and the Proxy Agent line connections that display on the DNM maps.

Table 13. Other system object colors

Object	OpenView Color	NetView Color
Other system icons for:	Dark Blue = Unknown. Proxy Agent is not responding	Cyan = Unknown. Proxy Agent is not responding
DEFINITY Audix	Green = Normal	Green = Normal
INTUITY Audix	Salmon = Dispatched	Lime Green = Dispatched
Interchange	Cyan = Warning	Pink = Warning
CMS	Yellow = Minor	Yellow = Minor
Conversant	Orange = Major	Orange = Major
Line connections to other system icons	Black = Up. Proxy Agent is running and available to receive alarm traps. Red = Proxy Agent is stopped and cannot receive alarm traps.	Black = Up. Proxy Agent is running and available to receive alarm traps. Red = Proxy Agent is stopped and cannot receive alarm traps.

Legacy system object colors If the Auto-Discovery patch is installed on a Trouble Tracker, then the Network Management (NMS) programs on OpenView and NetView **only** support alarm traps from Trouble Trackers that manage the Lucent legacy systems listed below:

- DEFINITY G1 and G2
- DIMENSION
- System 75 and 85
- Monitor 1

The DNM maps only provide **telnet** support to the Trouble Tracker.

The table below contains the other Lucent Legacy system icon colors and the Trouble Tracker line connections that display on the Lucent Legacy map.

Table 14. Legacy system object colors

Object	OpenView Color	NetView Color
Lucent Legacy system icon	<p>Dark Blue = Unknown. Proxy Agent is not responding</p> <p>Green = Normal</p> <p>Salmon = Dispatched</p> <p>Cyan = Warning</p> <p>Yellow = Minor</p> <p>Orange = Major</p>	<p>Cyan = Unknown. Proxy Agent is not responding</p> <p>Green = Normal</p> <p>Lime Green = Dispatched</p> <p>Pink = Warning</p> <p>Yellow = Minor</p> <p>Orange = Major</p>
Line connections to Lucent Legacy system icon	Black = Up. Proxy Agent is running and available to receive alarm traps.	Black = Up. Proxy Agent is running and available to receive alarm traps.

Execute Commands from NMS Maps

The NMS Integration (NMSI) program allows users to execute various commands from any of the NMS maps. Most of the commands perform operations on the systems that display on the selected map.

Users can execute the commands in three ways:

- Select a command from a menu
- Double-click an object on the map
- Select objects from the third mouse button

The sections below explain the commands and the execution options.

Description of Commands

The table below lists the commands that users can execute from any NMS map. The *Description* column describes the result of the command.

Based on the result of the command, the NMSI updates the NMS maps, changes the color of the status, and displays the appropriate NMS and DNM windows.

Table 15. NMS Map commands

Command	Description
Network Management Application (DNM product)	<p>This command displays the DNM main window that contains the systems group navigation tree and configuration and status window.</p> <p>If users execute this command for a specific DEFINITY on the NMS map, then the command opens the DNM main window only for the selected DEFINITY.</p>
Report Generator	This command displays the Report Generator window in the DNM product.
Exception Report	<p>This command displays the results of a DNM Exception report.</p> <p>If users execute this command for a specific DEFINITY on the map, then the report shows exceptions only for the selected DEFINITY.</p>
Lucent Technologies Documentation	<p>This command opens the Adobe Acrobat Reader and displays the main menu.</p> <p>Users access the <i>DNM User Documentation for UNIX</i> (this book) and PA001 forms from the main menu.</p>
	<i>(1 of 5)</i>

Table 15. NMS Map commands

Command	Description
Execute Auto-Discovery	<p>This command instructs the NMSI to locate the Proxy Agents in the network.</p> <p>The NMSI interrogates the Proxy Agents for the current data from the managed nodes and updates the NMS maps.</p>
Acknowledge Alert	<p>This command turns off alerting for a selected system icon and changes the color status to normal.</p>
Set Alert to Minor	<p>This command sets the alert level to Minor for the managed nodes listed below:</p> <ul style="list-style-type: none">• DEFINITY Audix• INTUITY Audix• INTUITY Interchange• Call Management System (CMS)• Conversant• Trouble Tracker• Lucent Legacy system
	<i>(2 of 5)</i>

Table 15. NMS Map commands

Command	Description
Show Managed Nodes	<p>This command displays the Managed Nodes list for a Proxy Agent. The list contains the current settings for all the managed nodes administered on the specific Proxy Agent, including:</p> <ul style="list-style-type: none">• Node Type and Node Name• Connection Type (static or dynamic), Connection Status, and Timeout minutes for dynamic connections• Submap type• Object Label which is the Node Name
Connection Status	<p>This command displays the Connection Status window for a DEFINITY, MCU, or Survivable Remote Processor (SRP). The title bar on the window contains the name of the managed node.</p> <p>The Connection Status list contains the information below:</p> <ul style="list-style-type: none">• Connection Type (static or dynamic)• Connection State (Up, Off, etc.)• Counters for connection statistics• Alarm Forward Status
	<i>(3 of 5)</i>

Table 15. NMS Map commands

Command	Description
Start Connection	<p>This command instructs the Proxy Agent to start a connection to a DEFINITY, MCU, or SRP.</p> <p>The NMSI sets the connection state to init (initiating), which signals the Proxy Agent to connect to the managed node. The NMSI also changes the color of the connection line to the init color to indicate the current status.</p>
Stop Connection	<p>This command drops the connection between a Proxy Agent and a DEFINITY, MCU, or SRP.</p> <p>The NMSI sets the connection state to off, which signals the Proxy Agent to drop the connection. The NMSI changes the color of the connection line to warning or unknown.</p> <p>When the Proxy Agent drops the connection, NMSI again changes the color of the connection line to off.</p>
Telnet to Proxy Agent	<p>This command displays the telnet window to the Proxy Agent.</p> <p>From the telnet window, users can log in to the Proxy Agent and initiate an emulation session to cut-through to the managed node.</p>
	<i>(4 of 5)</i>

Table 15. NMS Map commands

Command	Description
Telnet to Trouble Tracker	<p>This command displays the telnet window to the Trouble Tracker.</p> <p>From the telnet window, users can log in to the Trouble Tracker and initiate an emulation session to cut-through to the Lucent legacy system.</p>
Refresh Alarms and Errors	<p>This command retrieves the status of systems that have dynamic connections to the Proxy Agent.</p> <p>The NMSI request DNM to update exception data for alarms and errors for selected DEFINITY, MCU, and SRP systems. After DNM updates the alarm and error data, the NMSI updates the system icons on the NMS maps.</p> <p>In addition, the NMSI adds an item called PBX MIB Values to the OpenView <i>Fault</i> menu and NetView <i>Monitor</i> menu.</p> <ul style="list-style-type: none"> • When users select a DEFINITY icon from a map and the PBX MIB Values from the menu, the NMSI displays a list of DEFINITY MIB groups. • When users select one of the DEFINITY MIB groups from the list, the NMSI displays the values of the objects in the MIB group for the selected DEFINITY.
	(5 of 5)

Access Commands from the Menu Bar

When users install the DNM product, the NMSI adds a DEFINITY submenu in the OpenView *Fault* and *Performance* menus and the NetView *Monitor* and *Performance* menus.

Table

The table below lists the command and indicates which menu contains the command. The table also indicates when the command is enabled.

Table 16. Access commands from the menu bar

Command	Fault or Monitor Menu	Performance Menu	When enabled
Network Management Application (DNM product)	Yes	Yes	Always
Report Generator	Yes	Yes	Always
Exception Report	Yes	Yes	Always
Lucent Technologies Documentation	Yes	Yes	Always
Execute Auto-Discovery	Yes	Yes	Always
Acknowledge Alert	Yes	No	For any system icon, except DEFINITY, MCU, or SRP icons
			(1 of 3)

Table 16. Access commands from the menu bar

Command	Fault or Monitor Menu	Performance Menu	When enabled
Set Alert to Minor	Yes	No	When any system icon is selected, except DEFINITY, MCU, or SRP icons
Show Managed Nodes	Yes	Yes	When a Proxy Agent icon is selected
Connection Status	Yes	Yes	When a Proxy Agent connection line is selected for DEFINITY, MCU, or SRP icon
Start Connection	Yes	Yes	When a Proxy Agent connection line is selected for DEFINITY, MCU, or SRP icon
			(2 of 3)

Table 16. Access commands from the menu bar

Command	Fault or Monitor Menu	Performance Menu	When enabled
Stop Connection	Yes	Yes	When a Proxy Agent connection line is selected for DEFINITY, MCU, or SRP icon
Telnet to Proxy Agent	Yes	Yes	When a Proxy Agent icon is selected
Telnet to Trouble Tracker	Yes	Yes	When a Trouble Tracker icon is selected
Refresh Alarms and Errors	Yes	No	When a DEFINITY, MCU, or SRP icon is selected
			(3 of 3)

Procedure Complete the procedure below to execute a command from the menu bar.

This procedure uses the **Show Managed Nodes** command as an example.

- 1 At an NMS map, click a **Proxy Agent** icon.
- 2 Execute the appropriate command (a or b) below from the menu bar:
 - a On *OpenView*, click **Fault > Show Managed Nodes**
 - b On *NetView*, click **Monitor > Show Managed Nodes**

Result: The system displays a window that contains the *Managed Node List* for the selected Proxy Agent.

- 3 To exit the window, click the **Close** button

Result: The system redisplay the NMS map.

Access Commands from the Mouse Menu

For OpenView maps, the NMSI creates a menu on the **button 3** mouse menu that allows users to access certain commands for objects on the NMS map. The objects include system icons and connection lines.

The NetView maps do **not** provide this feature.

Table

The table below shows the button 3 menu that is associated for each object on the NMS map.

Table 17. Access commands from the mouse menu

Object	Commands on button 3 menu
Proxy Agent icon	Show Managed Nodes Telnet to Proxy Agent Acknowledge Alert
Icons for: DEFINITY MCU SRP	Network Management Application (DNM product) Exception Report Refresh Alarms and Errors Telnet to Proxy Agent
Proxy Agent connection lines to: DEFINITY, MCU, and SRP icons	Connection Status Start Connection Stop Connection
	<i>(1 of 2)</i>

Table 17. Access commands from the mouse menu

Object	Commands on button 3 menu
Icons for DEFINITY Audix, INTUITY Audix, INTUITY Interchange, CMS, and Conversant	Telnet to Proxy Agent Acknowledge Alert Set Alert to Minor
Trouble Tracker icon Legacy systems icons	Telnet to Trouble Tracker Acknowledge Alert Set Alert to Minor
	<i>(2 of 2)</i>

Note: The button 3 menu does **not** contain commands for Proxy Agent connection lines to the system icons for DEFINITY Audix, INTUITY Audix, INTUITY Interchange, Call Management System (CMS), and Conversant. The Proxy Agent only supports alarm traps from these systems and, therefore, does not collect system status or configuration data.

Procedure Complete the procedure to access commands on the button 3 menu.

The procedure uses the Proxy Agent icon and Show Managed Nodes as an example.

- 1 At an NMS map on OpenView, click a **Proxy Agent** icon.
- 2 On the mouse, click **button 3**

Result: The system displays a window that contains the commands for the Proxy Agent icon:

```
Show Managed Nodes
Telnet to Proxy Agent
Acknowledge Alert
```

- 3 In the window, click **Show Managed Nodes**

Result: The system displays a window that contains the *Managed Node List* for the selected Proxy Agent.

- 4 To exit the window, click the **Close** button

Result: The system redisplay the NMS map.

Access Commands by Double-Clicking Objects

Users can also access a few commands by double-clicking certain objects (system icons and connections lines) on the NMS map. The NMSI displays only **one** command when users double-click an object. The table below contains the objects and the commands that are executed by double-clicking the object.

Table 18. Access commands by double-clicking objects

Object	Command
Icons for: DEFINITY, MCU, and SRP	Network Management Application (DNM product)
Proxy Agent connection line to: DEFINITY, MCU, and SRP	Connection Status
Icons for: Proxy Agent, Audix, Interchange, CMS, and Conversant	Telnet to Proxy Agent
Trouble Tracker icon Legacy system icons	Telnet to Trouble Tracker

Note: Users can **not** access commands by double-clicking Proxy Agent connection lines to the system icons for: DEFINITY Audix, INTUITY Audix, INTUITY Interchange, Call Management System (CMS), and Conversant.

The Proxy Agent only supports alarm notification from these systems, and therefore, does not collect system status or configuration data.

DNM Graphical Overview

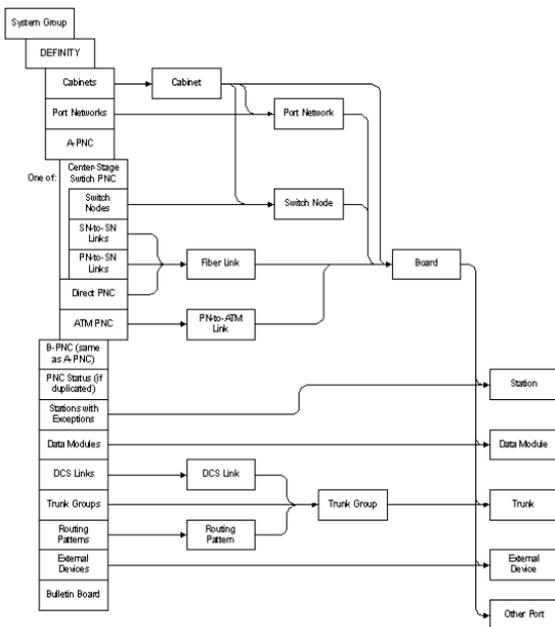


Figure 8. DNM Graphical overview

Online Help System

The online help system replaces the user guide for the DEFINITY Network Management product.

The help screens contain the information listed below:

- Description and purpose of the screen
- Procedure to complete appropriate tasks on the screen
- Links to Related topics for more information

Help menu

The Help options on the menu bar contain the selections listed below:

- **Help Topics** -- Displays the Table of Contents that lists all of the help topics on the system. Users can also access the index to search for topics or keywords.
- **Current Pane** -- Displays the help topic for the current screen
- **About DEFINITY Network Management 3.0** -- Displays a window that contains the software version, date, and lists the applications that are installed.

Help button

A Help button is also available on many tabs or panels in a window and on dialog screens. Help button displays a window that contains the help topic for the current screen.

Tip box

A Tip box is designated with a light bulb and contains help information and guidelines for making selections on the current screen. The Tip box displays only on screens where additional information may be pertinent.

DNM Main Window and Navigation Tree

The DNM main window and navigation tree is the first window to display after the splash screen. You can access the **DEFINITY Network Management** application from the Windows Start Menu. The figure below is an example of the DNM main window.

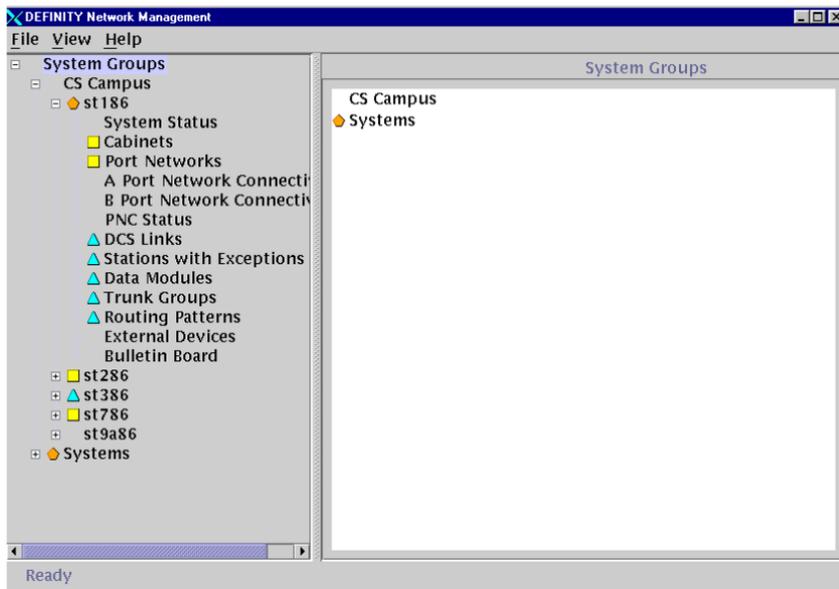


Figure 9. DEFINITY Network Management main window

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DNM Main Window and Navigation Tree

Window components

The DNM main window is vertically split into two panes and opens to the systems root tree in the left pane and displays the systems **Configuration and Status** in the right pane.

- The **left pane** contains the navigation tree for the DNM application. The tree shows all nodes that are monitored or administered by DNM. The tree changes depending on the selection you make.
- The **right pane** displays the detailed information for each node in the tree. You can view the information in a table or graphic format. The right pane is also referred to as the "display" pane.
- The **splitter bar** separates the left and right panes. You can drag the bar to increase or decrease the size of the panes.
- A **scroll bar** appears in each pane when the data in the panes exceed the viewing area.
- The **menu bar** spans both panes across the top of the window.
- The **status bar** spans both panes across the bottom of the window.

The display pane often shows either a table or graphic view of the component selected in the tree (left pane). You can toggle between the two views.

Tree pane organization

The tree pane organizes the DEFINITY management information into a hierarchy of components. In the figure above, the tree nodes are organized by levels:

- The first level is the System Groups.
- The second level lists the Systems Group names.
- The third level list the system names within each Systems Group.
- The fourth level lists the components of the individual systems.

Tree pane operation

You can expand and contract the levels of the tree nodes:

- The **plus sign (+)** indicates that the tree is contracted. To expand the node, click the plus sign.
- The **minus sign (-)** indicates that the tree is expanded. To contract the node, click the minus sign.

Alert icons

The DNM tree node displays alert icons whenever an alert occurs on any of the system components. The alert icon changes color to indicate the highest alert severity on an individual component.

The alert icons display from the lowest level to the highest level on the tree. The higher levels on the tree display the alert icon for the highest alert severity for all components in the lower levels.

The shape and color of the alert icons indicate the severity of the alert:

Red star = Critical

Orange pentagon = Major

Yellow square = Minor

Cyan triangle = Warning

Blank area = Normal

Menu Options

The DNM Main Window contains the following menu options:

- File
 - **Administration**: Opens the DNM Administration Window
 - **Report Manager**: Opens the DNM Report Manager
 - **Exit**: Exits the DNM application
- View
 - **Refresh**: Refreshes the contents of the window if the displayed information has changed.
- Help
 - **Help Topics**: Displays the Help Table of Contents
 - **Current Pane**: Accesses help on the panel in the display pane
 - **About the DEFINITY Network Management**: Displays information about the DNM application

Configuration

The DNM Configuration windows are used to graphically display system configuration information from the DNM main window. From these windows you may browse managed nodes, their configuration, and administered properties.

Configuration Windows

- DNM Configuration Windows
- System Display
- System Status Display
- System Group Graphic Display
- System Group Table Display
- Cabinet Display
- Detailed Cabinet Display
- Board Display
- Board Display-ATM
- Port Networks Display
- Port Network Display
- Port Network Connectivity Table - Center Stage Display
- Port Network Connectivity Graphical - Center Stage Display
- Switch Node Display
- Port Network Connectivity Tabular- Direct Connect
- Port Network Connectivity Graphical - Direct Connect
- Fiber Link Display

- Port Network Connectivity Tabular - ATM
- Port Network Connectivity Graphical - ATM
- Port Network ATM Link Display
- Port Network Connectivity (PNC) - Status Display
- DCS Connectivity Display
- DCS Link Display
- Stations Display
- Data Modules Display
- Routing Patterns Display
- Routing Pattern Display
- Trunk Groups Display
- Trunk Group Display
- External Devices Display
- Bulletin Board Display
- Busyout/Release Results Display

**Command
Buttons**

The Configuration windows offer one or more of the following command buttons:

- **Boards** Displays the Board Report or Board for selected DEFINITY
- **Busyout** Sends the busy out command to the system for the selected board
- **Change ATM** Displays a dialog box to set the ATM switch name
- **Close** Closes this window
- **Details** Displays for the selected system (default)
- **Exceptions** Displays all exceptions for the selected category
- **Graphic View/Table View** Toggle between the graphic and table data views
- **Inventory** Displays the Inventory Report for the selected category
- **Refresh Alarms/Errors** Requests a refresh of alarm and error data
- **Refresh Configuration** Requests a refresh of the configuration data
- **Release** Sends the release command to the system for the selected board
- **Telnet ATM** Displays a login dialog box for the ATM switch
- **Telnet Proxy** Displays a login window for the Proxy Agent
- **Update** Requests a status update from the selected category

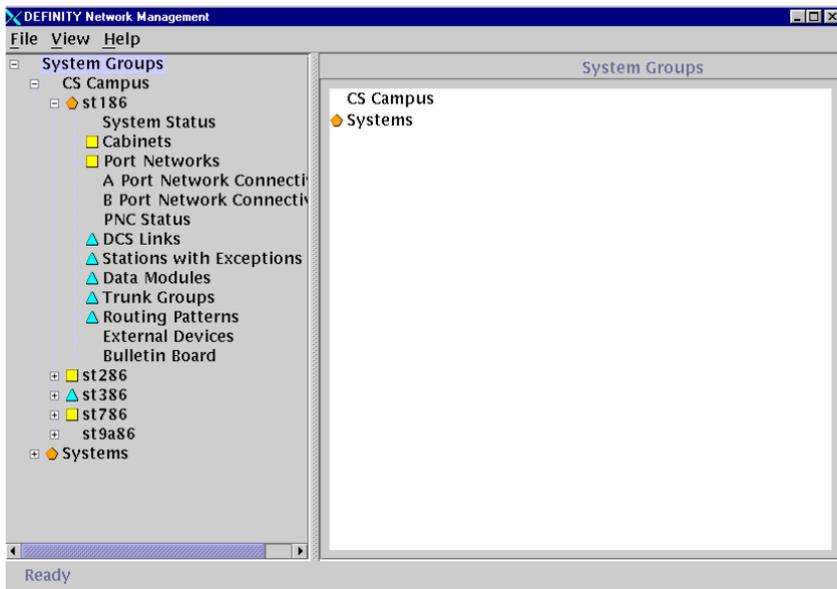
System Group Table Display

When the DNM application is launched from the Start Menu, the display window opens to the System Group tabular display for the first defined system group.

DEFINITY Network Management 3.0 allows you to put DEFINITY's into arbitrary groups. For example, you can group DEFINITY's by geographical location, you can put DEFINITY's that are in the same network into the same group, or you can group the DEFINITY's according to who is responsible for managing them.

This table view displays the **Configuration and Status** window for the selected system group, provides an alert summary, and a configuration table as shown in the figure below.

4 Getting Started on DNM for UNIX

System Group Table Display*Figure 10. System Group Display*

System Group Graphic Display

This window allows you to view a map of all DEFINITY's within a chosen system group.

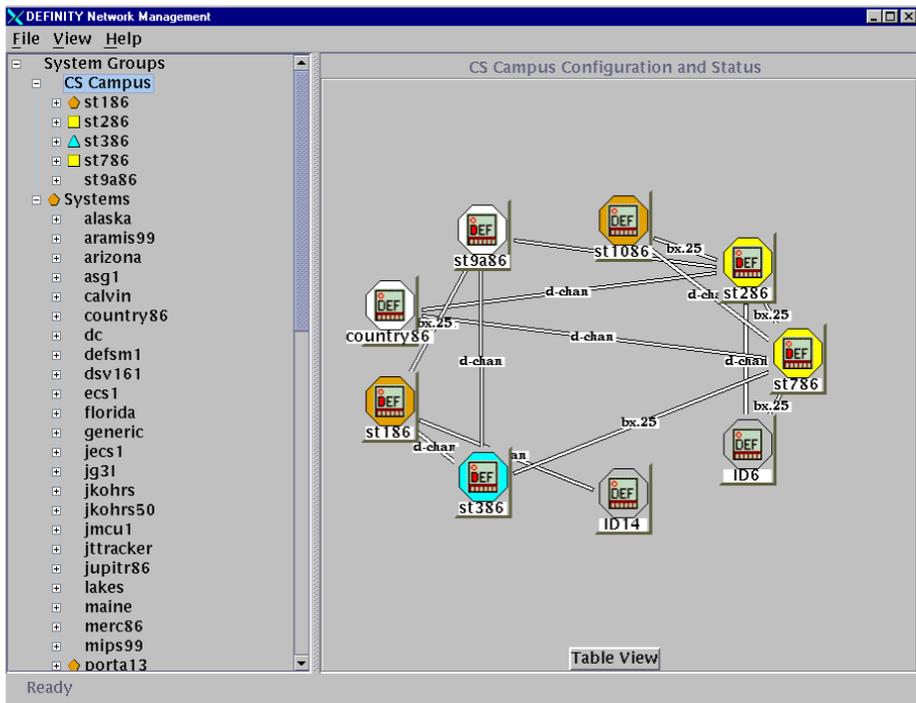


Figure 11. System Group Graphic Display

This graphic view contains the following operational characteristics:

- Each icon is color-coded according to the most severe active exception on each DEFINITY.
- For the selected DEFINITY icon on the map, you can access the DEFINITY component status display via a pull-down menu or mouse button. The choices in the pull-down menu will be the same as those available in the DEFINITY tree node. The pull-down menu also contains the following choices:
 - **System**: displays the System Display for the selected system
 - **Telnet to Proxy**: displays a login window for the Proxy Agent.
- You can access the DEFINITY configuration display by double-clicking on the desired DEFINITY icon.
- A DCS link between any two DEFINITYs indicates the signaling type (ISDN, X.25) and is color-coded for the most severe active exception on the link. The signaling type is indicated via a tool tip.
- You can access the DCS link display through a pop-up menu on a selected link between two DCS-connected DEFINITYs.

Note: Double-clicking on an icon defaults to the first item in the pull-down menu for that icon. Double-clicking on a link defaults to the first item in the pop-up menu for that link.

System Display

The **System Display** includes a listing of system components (such as Cabinets, Port Networks, Trunk Groups, and so on) and any corresponding alerts for the selected system.

The screenshot shows the DEFINITY Network Management interface. On the left is a tree view of system groups. The main area displays a table of system components and a summary of alerts.

System Groups (Left Panel):

- System Groups
 - Systems
 - alaska
 - arizona
 - asg1
 - dc
 - ecs1
 - florida
 - lakes
 - maine
 - sanfran
 - snmplab1
 - snmplab4
 - texas
 - wash

Alerts Summary (Top Right):

Alerts	Severity	Count
★	Critical	0
⊙	Major	0
■	Minor	40
▲	Warning	24

Systems Table (Main Area):

Name	Type	Release	PBX ID	Version	Update ID	Update State
alaska	DEFINITY		0	ecs		
arizona	DEFINITY		0	ecs		
asg1	DEFINITY		0	ecs		
dc	DEFINITY		0	ecs		
ecs1	DEFINITY		0	ecs		
florida	DEFINITY		0	ecs		
lakes	DEFINITY		0	ecs		
maine	DEFINITY		0	ecs		
sanfran	DEFINITY		0	ecs		
snmplab1	DEFINITY		0	ecs		
snmplab4	DEFINITY	G3slV4+m	0	G3V4l.03.0.048.3	none	none in memory
texas	DEFINITY		0	ecs		
wash	DEFINITY		0	ecs		

Buttons at the bottom: **Graphic View**, **Exceptions ...**, **Details ...**

Figure 12. System Display

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System Status Display

System Status Display

This window separates DEFINITY status data from the System Display. This window is used often as it provides information regarding occupancies, busied trunks/stations, and offers access to the most recent exceptions.

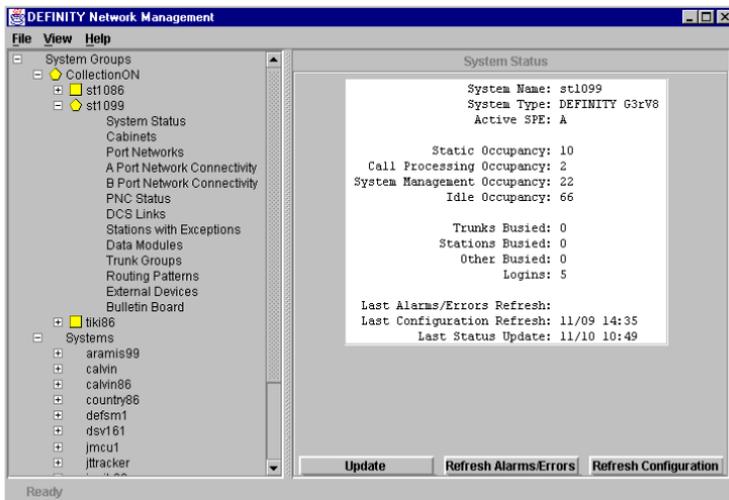


Figure 13. System Status Display

Note: As current system status must be retrieved from the system, there will be a delay as you wait for the data.

Cabinet Display

This window allows you to quickly locate a DEFINITY by providing specific layout, type, and building location as shown in the sample below.

The screenshot shows the 'DEFINITY Network Management' application window. The left pane displays a tree view of system groups, with 'System Groups' expanded to show 'CS Campus' and 'Systems'. The 'Cabinets' folder under 'CS Campus' is selected. The right pane, titled 'Cabinets Configuration and Status', displays system information for 'st186' and a table of cabinets.

System Information:

- System Name: st186
- System Type: DEFINITY G3rv6

Alerts Summary:

Alerts	Sev...	Count
★	Cri...	0
●	Major	0
■	Minor	1
▲	War...	169

Cabinets Table:

Top Row: 1 of 2

	Cab	Layout	Type	Building	Floor	Room	Car A
▲	1	five-carrier	PPN				PN-01
■	17	five-carrier	EPN				PN-06

Buttons: Exceptions ... Details ...

Figure 14. Cabinets Display

Detailed Cabinet Display

When the **Details** button is selected in the **Cabinet Configuration and Status** window, the Cabinet Configuration and Status Display appears with an attached cabinet graphic display or a board table display on the right side of the window.

You can toggle between the graphic and table displays via the **Table View** and **Graphic View** buttons in this window. The graphic display shows the location and type of each board in the selected Cabinet, and each board is colored to indicate its alert level. Board displays can be accessed from any board in the graphic display or in the board table.

The Detailed Cabinet Display includes carrier information and board information such as the board type and total number of ports in addition to the alert summary and location information.

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Detailed Cabinet Display

DEFINITY Network Management

File View Help

Cabinet Configuration and Status

System Name: st1086
Cabinet: 3
Layout: five-carrier
Type: EPN
Building:
Floor:
Room: 32v08

Alerts	Severity	Cabinet	Boards
★	Critical	0	0
⬢	Major	0	0
⬢	Minor	0	0
▲	Warning	0	0

Carriers

Top Row: 1 of 5

ID	Type	PN/SN
A	expansion-control	PN-04
B	port	PN-04
C	port	PN-04
D	port	PN-05
E	port	PN-05

Inventory ... Graphic View

Exceptions ... Details ... Close

Boards

Top Row: 1 of 38

Location	Type	Code	Vintage	Ports	Used	TTI	Unused
03A MAINT	MAINTENANCE	TN775C	000003	2	0	0	2
03A TONCLK	TO NE/CLOCK	TN768	000009	0	0	0	0
03A01	ATM PNC EI	TN2305	HW00 FW007	0	0	0	0
03A17	ATM TRUNK	TN2305	HW02 FW068	248	0	0	248
03A19	DS1 INTERFACE	TN464F	000018	32	31	0	1
03B00	TO NE DETECTOR	TN748D	000007	3	3	0	0
03B01	TO NE/CLOCK	TN768	000009	0	0	0	0
03B02	ATM PNC EI	TN2305	HW00 FW068	0	0	0	0
03B04	DIGITAL LINE	TN754	000014	8	8	0	0
03B05	DATA LINE	TN726B	000001	8	0	0	8
03B07	DIGITAL LINE	TN754C	000002	8	2	0	6
03B10	TO NE DETECTOR	TN748D	000003	3	3	0	0
03B11	CONTROL-LAN	TN799	000003	17	1	0	16
03B15	CO TRUNK	TN747B	000009	8	2	0	6
03B19	DS1 INTERFACE	TN464F	000018	32	31	0	1
03B20	DS1 INTERFACE	TN464F	000010	32	31	0	1
03C00	MAINTENANCE/TEST	TN771D	000006	4	3	0	1
03C02	ANALOG LINE	TN746B	000010	16	1	0	15
03C03	BRI LINE	TN556C	000002	24	1	0	23
03C11	DIGITAL LINE	TN2224	000004	24	24	0	0
03C13	BRI LINE	TN2198	000003	24	24	0	0
03C15	ANALOG LINE	TN746B	000010	16	16	0	0
03C20	DS1 INTERFACE	TN464F	000018	32	24	0	8
03D00	TO NE DETECTOR	TN748D	000007	3	3	0	0

Ready

Figure 15. Detailed Cabinet Tabular Display

Board Display

From the Cabinet display, any board (except an ATM trunk board) may be displayed as in the sample figure below. The **Board Display** shows the configuration information, an alert summary, and port information specific to the selected board.

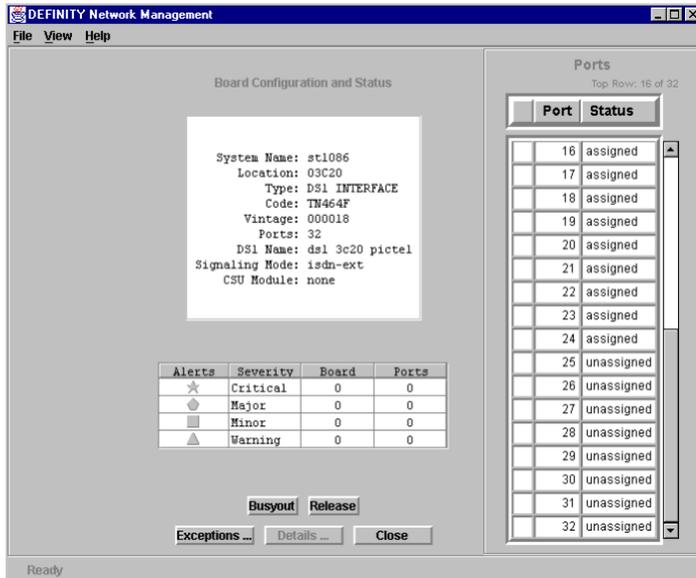


Figure 17. Board Display

Note: The Busyout and Release buttons must be configured to correspond with the Proxy Agent.

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Board Display - ATM

Board Display - ATM

The **ATM Board Display** provides board information such as board name and location, and circuit information including alert indicator, port number, trunk group number, and signaling group number.

Board Configuration and Status

System Name: st1099
 Location: 01D16
 Name: st10 1d16 ces
 Sync Capable? n
 Type: ATM TRUNK
 Code: TN2305
 Vintage: HW00 FW103
 Ports: 248

Alerts	Severity	Board	Ports
★	Critical	0	0
⬢	Major	0	0
■	Minor	0	0
▲	Warning	0	0

Buttons: Busyout, Release, Exceptions ..., Details ..., Close

Status: Ready

Ports (Top Row: 1 of 83)

Port	Trunk Group	Signaling Group
104	98	98
105	98	98
106	98	98
107	98	98
108	98	98
109	98	98
110	98	98
111	98	98
112	98	98
113	98	98
114	98	98
115	98	98
116	98	98
117	98	98
118	98	98
119	98	98
120	98	98
121	98	98

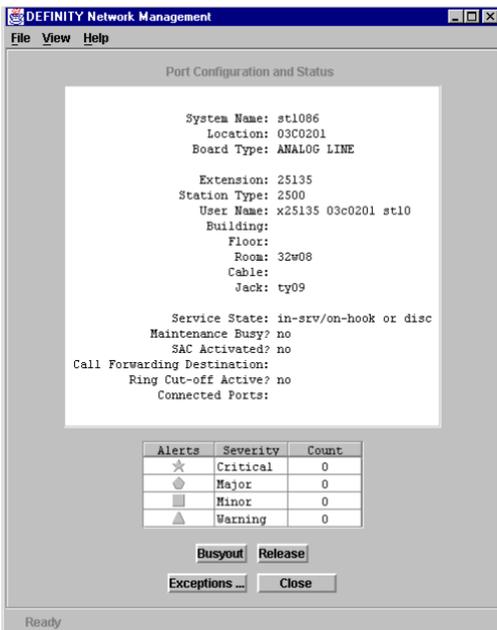
Figure 18. Board Display ATM

Port Display - General

The **Port Display** provides an alert summary for the selected port and port configuration information such as the location, board type, identifier, and second equipment type for the BRI port. The above information is included with specific data fields for the following windows:

- Port Display Station
 - station: extension/type/name
 - location of: building/floor/room/cable/jack
 - current service state: busy/sending/forwarding
- Port Display Trunk
 - trunk group: number/type/name/communications type/signaling type
 - current service state
- Port Display Data Module
 - data module: extension/type/name/call forwarding extension
 - current service state
- Port Display External Device
 - device: description/identifier/building/address/alarm level

4 Getting Started on DNM for UNIX

Port Display - General*Figure 19. Port Display General*

Port Networks Display

The **Port Networks Display** shows a list of a DEFINITY's port networks and their locations.

The screenshot shows the DEFINITY Network Management interface. The left pane shows a tree view of system groups, with 'CollectionON' expanded to show 'st1086'. The main window is titled 'Port Networks Configuration and Status' and contains the following information:

System Name: st1086
System Type: DEFINITY G3rV8

Alerts	Severity	Count
★	Critical	0
⬇	Major	0
■	Minor	0
▲	Warning	0

Below this is a table titled 'Port Networks' with the following data:

PN	Type	Cab	Carriers	Building	Floor	Room
1	PPN	1	A,C,D			32w 08
2	EPN	2	A,B,C			32w08
3	EPN	2	D,E			32w08
4	EPN	3	A,B,C			32w08
5	EPN	3	D,E			32w08
6	EPN	4	A,B,C			32w08
7	EPN	4	D,E			32w08
8	EPN	5	A,B,C			32w08
9	EPN	5	D,E			32w08

At the bottom of the window, there are buttons for 'Exceptions ...' and 'Details ...'. The status bar at the bottom left shows 'Ready'.

Figure 20. Port Networks Display

4 Getting Started on DNM for UNIX

Port Network Display

Port Network Display

The **Port Network Display** provides information for a selected port network.

DEFINITY Network Management

File View Help

Port Network Configuration and Status

System Name: tiki186
 Port Network: 1
 Type: CHC
 Cabinet: 1
 Carriers: A,B,C,D,E
 Building:
 Floor:
 Room:

Alerts	Severity	PN	Boards
★	Critical	0	0
⊙	Major	0	0
■	Minor	0	0
▲	Warning	0	17

Boards Top Row: 1 of 49

Location	Type	Code	Vintage	Ports	Used	TTI	Unused
01A01	PROCESSOR	TN798B	000003	4	4	0	0
01A02	TONE/CLOCK	TN2182B	000092	8	8	0	0
01A03	DIGITAL LINE	TN754C	000003	8	8	0	0
01A04	ANALOG LINE	TN746B	000002	16	16	0	0
01A05	CO TRUNK	TN747B	000025	8	8	0	0
01A06	AUXILIARY TRUNK	TN763D	000003	4	1	0	3
01B02	DIGITAL LINE	TN754B	000003	8	8	0	0
01B03	DIGITAL LINE	TN754B	000016	8	8	0	0

Exceptions ... Details ... Close

Ready

Figure 21. Port Network Display

Port Network Connectivity Table Display – Center Stage

Port Network Connectivity Table Display - Center Stage lets you view a DEFINITY's port networks and switch nodes, and the connectivity between them.

The screenshot shows the DEFINITY Network Management application window. The title bar reads "DEFINITY Network Management". The menu bar includes "File", "View", and "Help".

The left-hand tree view shows a hierarchy of nodes under "st186" and "st286". The "st286" node is expanded, showing sub-nodes like "System Status", "Cabinets", "Port Networks", "A Port Network Connect", "B Port Network Connect", "PNC Status", "DCS Links", "Stations with Exception", "Data Modules", "Trunk Groups", "Routing Patterns", "External Devices", and "Bulletin Board".

The main display area is titled "A Port Network Connectivity and Status". It contains the following information:

- System Name:** st286
- System Type:** DEFINITY G3rv8
- PNC:** A

Below this is an "Alerts" table:

Alerts	Sev...	Count
★	Cri...	0
◆	Major	0
■	Minor	0
▲	War...	0

Below the alerts is a "Switch Node Links" table:

Link	SN-1	SNI-1	SN-2	SNI-2
6	1	01E07	2	12E07
7	1	01E13	3	13E13
8	1	01E09	2	12E09
9	1	01E08	3	13E08
10	2	12E13	3	13E09
29	2	12E14	3	13E15

The right-hand panel contains "Switch Nodes" and "Port Network Link" sections, each with a table and a "Node" or "Link" button. The "Switch Nodes" table shows a single row with the value "1". The "Port Network Link" table shows a single row with the value "1".

At the bottom of the window, there are buttons for "Graphic View", "Exceptions ...", and "Details ...". The status bar at the very bottom shows "Ready".

Figure 22. Port Network Center Stage Connectivity Display

*Switch Node Display***Switch Node Display**

The **Switch Node Display** provides alert counts for the selected switch node, the system name, type (DEFINITY, MCU, or SRP) and release, the switch node number, the PNC, carrier, location information, and board information.

DEFINITY Network Management

File View Help

Switch Node Configuration and Status

System Name: st286
 System Type: DEFINITY G3rV8
 Switch Node: 1
 PNC: A
 Carrier: E
 Building: CS_1
 Floor: ABC_DE
 Room: CS_1

Alerts	Severity	Count
★	Critical	0
⬇	Major	0
■	Minor	0
▲	Warning	0

Boards Top Row: 1 of 16

Location	Type	Code	Vintage
01E01	EXPANSION INTRFC	TN570C	000002
01E02	SWITCH NODE INTF	TN573B	000005
01E04	SWITCH NODE INTF	TN573B	000005
01E05	SWITCH NODE INTF	TN573B	000003
01E06	SWITCH NODE INTF	TN573B	000003
01E07	SWITCH NODE INTF	TN573B	000003
01E08	SWITCH NODE INTF	TN573B	000003
01E09	SWITCH NODE INTF	TN573B	000003
01E10	SWITCH NODE CLOCK	TN572	000010
01E13	SWITCH NODE INTF	TN573B	000003
01E16	SWITCH NODE INTF	TN573B	000004
01E17	SWITCH NODE INTF	TN573	000011
01E18	SWITCH NODE INTF	TN573	000011

Exceptions ... Details ... Close

Ready

Figure 23. Switch Node Display

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Port Network Connectivity Graphical Display – Center Stage

Port Network Connectivity Graphical Display – Center Stage

This window contains a graphical display of nodes for each port network.

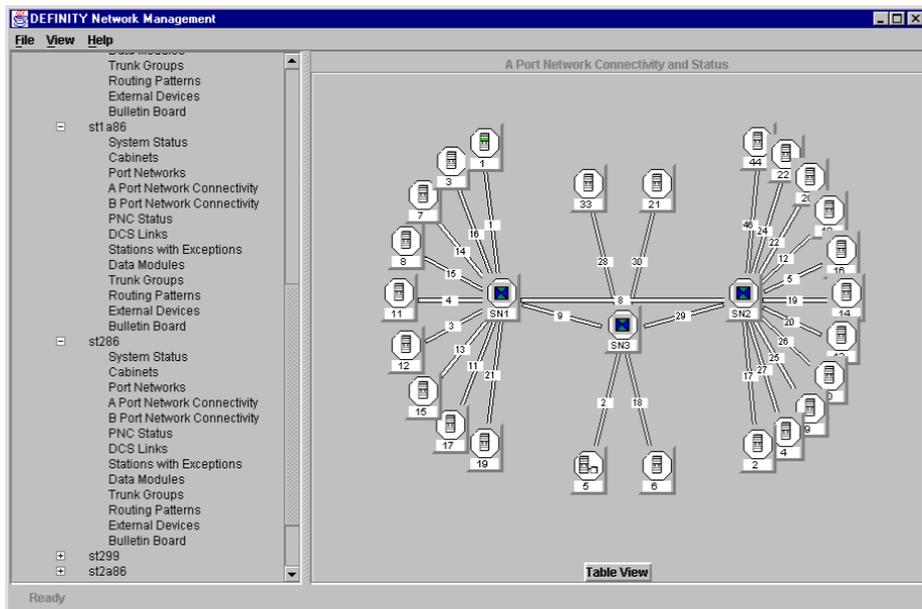


Figure 24. Port Network Center Stage Connectivity Graphical Display

This window provides the following operational characteristics:

- On a DEFINITY PNC map, DNM displays a node of each port network (PN), clearly distinguishing between processor port network (PPN) and expansion port network (EPN), and a port number label.
- For each port network on a PNC map, each node is color-coded according to the most severe active exception on that node.
- For a selected port network, you can access the Port Network Display via a pop-up menu.
- For a center-stage switch PNC, port networks (PNs), switch nodes (SNs), SN-to-SN links, and PN-to-SN links are shown. The link is labeled with the fiber link number.
- For a center-stage switch PNC, the link between the SN and PN shows when the port network number uses DS1 facilities via a tool tip.
- You can access the Switch Node Display via a pop-up menu on a switch node icon on the PNC map.
- You can access the Fiber Link Display via a pop-up menu on a link on the PNC map.
- Information such as location, DS1, or SRP, can be displayed via a tool tip when the cursor is placed on a port network icon or link.

Note: Double-clicking on an icon defaults to the first item in the pull-down menu for that icon. Double-clicking on a link defaults to the first item in the pop-up menu for that link.

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*Port Network Connectivity Table Display – Direct Connect***Port Network Connectivity Table Display – Direct Connect**

The **Port Network Connectivity Table Display – Direct Connect** shows the port networks and the links that connect them directly to one another. Information such as the fiber link number and the DS1 location is also provided in this window.

The screenshot shows the DEFINITY Network Management interface. On the left is a tree view of network components. The main window is titled "A Port Network Connectivity and Status".

System Information:

- System Name: st186
- System Type: DEFINITY G3rV6
- PNC: A

Alerts Table:

Alerts	Severity	Count
★	Critical	0
☆	Major	0
■	Minor	0
▲	Warning	0

Port Network Links Table:

Link	PN-1	EI-1	DS1-1	PN-2	EI-2	DS1-2	DS1C Type
1	1	01C02		6	17A01		

Buttons at the bottom: **Graphic View**, **Exceptions ...**, **Details ...**

Figure 25. Port Network Connectivity Table Display - Direct Connect

Fiber Link Display

The **Fiber Link Display** provides an alert summary for the selected fiber link and associated boards, fiber link configuration information including the first and second endpoint port network numbers or switch node numbers , and board information.

The screenshot shows the 'DEFINITY Network Management' window with the 'Fiber Link Configuration and Status' tab selected. The window is divided into several sections:

- System Information:**
 - System Name: st299
 - System Type: DEFINITY G3rV8
 - Fiber Link: 2
 - PMC: A
 - Endpoint 1: SN-3
 - Endpoint 2: PN-5
- Alerts Table:**

Alerts	Severity	Link	Boards
★	Critical	0	0
⊕	Major	0	0
■	Minor	0	0
▲	Warning	0	0
- Boards Table:**

Top Row: 1 of 4

Location	PN_SN	Type	Code	Vintage
05A01	PN-5	EXPANSION INTRFC	TN570B	000008
05A02	PN-5	DS1 CONVERTER	TN1654	000003
13B05	SN-3	DS1 CONVERTER	TN1654	000003
13E02	SN-3	SWITCH NODE INTF	TN573B	000003
- Navigation Buttons:**
 - Exceptions ...
 - Details ...
 - Close

The status bar at the bottom left indicates 'Ready'.

Figure 26. Fiber Link Display

4 Getting Started on DNM for UNIX

Port Network Connectivity Graphical Display – Direct Connect

Port Network Connectivity Graphical Display – Direct Connect

This window contains a graphical display of nodes for each port network.

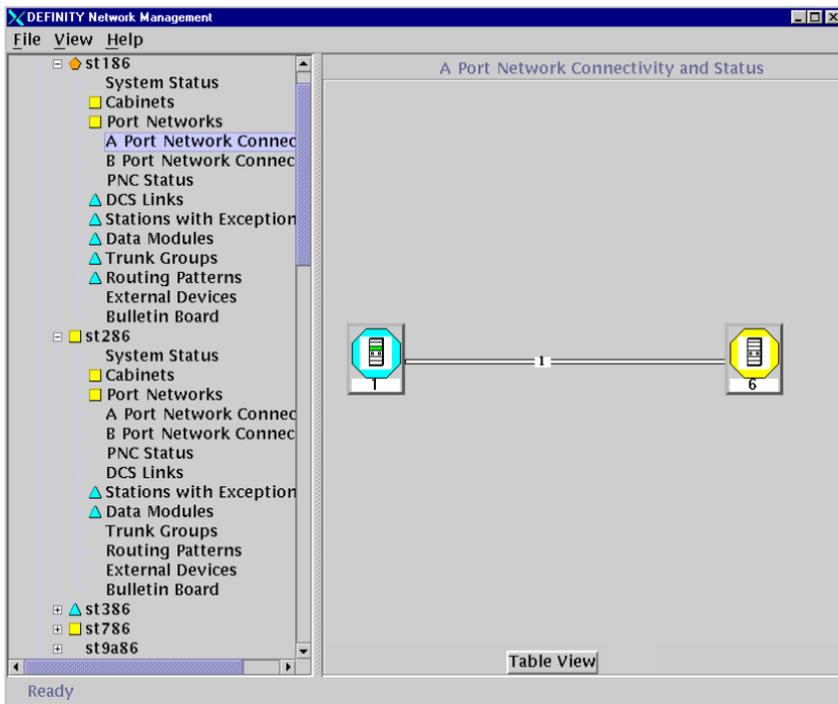


Figure 27. Port Network Direct Connect Graphical Display

This window provides the following operational characteristics:

- On a DEFINITY PNC map, DNM displays a node of each port network (PN), clearly distinguishing between processor port network (PPN) and expansion port network (EPN), and a port number label.
- For each port network on a PNC map, each node is color-coded according to the most severe active exception on that node.
- For a selected port network, you can access the Port Network Display via a pop-up menu.
- For a direct-connect port network, the links are labeled with the fiber link numbers.
- You can access the Fiber Link Display via a pop-up menu on a link on the PNC map.
- Information such as location, DS1, or SRP, can be displayed via a tool tip when the cursor is placed on a port network icon or link.

Note: Double-clicking on an icon defaults to the first item in the pull-down menu for that icon. Double-clicking on a link defaults to the first item in the pop-up menu for that link.

Port Network Connectivity Table Display – ATM

The **Port Network Connectivity and Status window** provides connectivity information for the selected port network connection.

The screenshot shows the DEFINITY Network Management interface. The main window is titled "A Port Network Connectivity and Status". It displays the following system information:

- System Name: st1086
- System Type: DEFINITY G3rV8
- PNC: A

Below this information is a summary table of alerts:

Alerts	Severity	Count
★	Critical	0
⬢	Major	0
■	Minor	0
▲	Warning	0

The main section of the window is titled "Port Network Connections" and displays a table of connections. The table has the following columns: Connection, Name, PN, Board, Atm Switch, AFI, Format, and Address. The data is as follows:

Connection	Name	PN	Board	Atm Switch	AFI	Format	Address
1	Port Net 1	1	01C01	UNKNOWN	47	ICD ATM	0005
3	Port Net 2	2	02A01	UNKNOWN	47	ICD ATM	0005
4	Port Net 3	3	02E01	UNKNOWN	47	ICD ATM	0005
5	Port Net 4	4	03A01	UNKNOWN	47	ICD ATM	0005
6	Port Net 5	5	03E01	UNKNOWN	47	ICD ATM	0005
7	Port Net 6	6	04A01	UNKNOWN	39	DCC ATM	840F
8	Port Net 7	7	04E01	UNKNOWN	39	DCC ATM	840F
9	Port Net 8	8	05A01	UNKNOWN	39	DCC ATM	840F
10	Port Net 9	9	05E01	UNKNOWN	39	DCC ATM	840F
11	Port Net 10	10	06A01	UNKNOWN	39	DCC ATM	840F

At the bottom of the window, there are buttons for "Graphic View", "Exceptions...", and "Details...".

Figure 28. Port Network Connectivity Table Display - ATM

4 Getting Started on DNM for UNIX

Port Network ATM Link Display

Port Network ATM Link Display

The **Port Network ATM Link Display** provides information for the selected port network link.

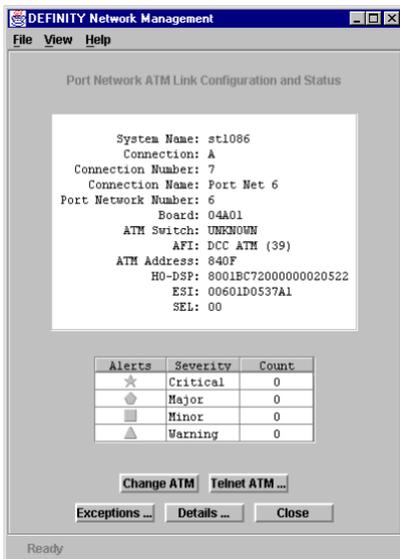


Figure 29. Port Network ATM Link Display

Port Network Connectivity Graphical Display – ATM

The **Port Network Connectivity Graphical Display - ATM** shows a graphical display of nodes for each port network.

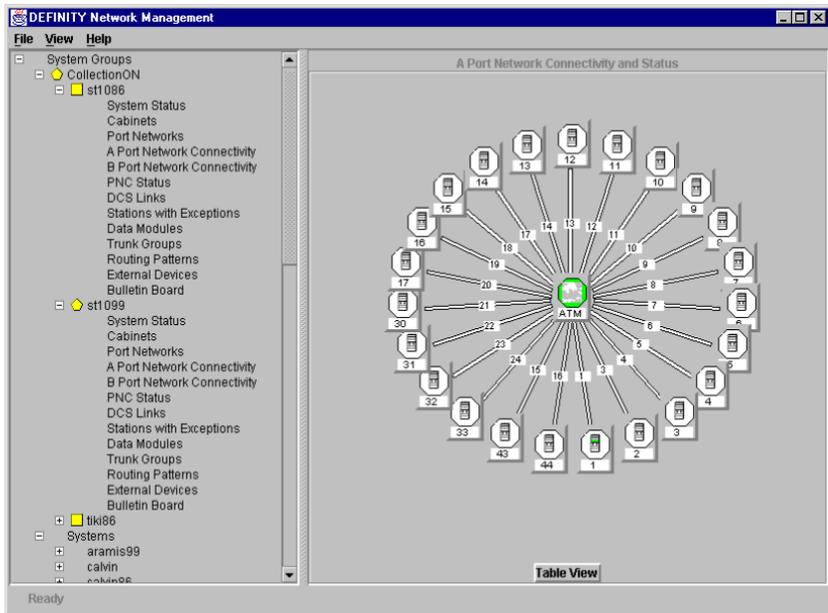


Figure 30. Port Network ATM Connectivity Graphical Display

This window provides the following operational characteristics:

- On a DEFINITY PNC map, DNM displays a node of each port network (PN), clearly distinguishing between processor port network (PPN) and expansion port network (EPN), and a port number label.
- For each port network on a PNC map, each node is color-coded according to the most severe active exception on that node.
- For a selected port network, you can access the Port Network Display via a pop-up menu.
- For ATM port network connectivity, DNM displays a symbol representing the ATM network and the ATM link labeled with the link number and ATM switch name.
- You can access the ATM port network link display by via a pop-up menu on an ATM link on the PNC map.
- You can Telnet to an ATM switch via a pop-up menu on an ATM switch icon.
- Information such as ATM switch name and SRP, can be displayed via a tool tip when the cursor is placed on a port network icon or link.

Note: Double-clicking on an icon defaults to the first item in the pull-down menu for that icon. Double-clicking on a link defaults to the first item in the pop-up menu for that link.

PNC Status Display

The **PNC Status Display** includes information such as, flags on the system and PNC health.

The screenshot shows the DEFINITY Network Management application window. The title bar reads "DEFINITY Network Management". The menu bar includes "File", "View", and "Help".

The left sidebar shows a tree view of system groups. Under "CollectionON", there is a sub-group "st1086" and another sub-group "st1099". The "st1099" group is expanded, showing sub-items: System Status, Cabinets, Port Networks, A Port Network Connectivity, B Port Network Connectivity, PNC Status, DCS Links, Stations with Exceptions, Data Modules, Trunk Groups, Routing Patterns, External Devices, and Bulletin Board.

The main window is titled "Port Network Connectivity Status". It contains a text area with the following information:

```

System Name: st1099
System Type: DEFINITY G3rV8
Software Locked: no
Standby Busyed: no
Standby Refreshed: yes
Interchange Disabled: no
Last Status Update: 11/10 11:30
  
```

To the right of the text area is a "PNC Status" section. It has a "Top Row: 1 of 8" indicator and two tabs: "A-PNC" and "B-PNC". Below the tabs is a table with the following data:

Mode	standby	active
State of Health	functional	functional
Inter PN Index		
Archangel Link Faults	0	0
Neighbor Link Faults	0	0
Hardware Faults	0	0
SNI Peer Link Faults		
DS1C Facility Faults		

At the bottom right of the PNC Status section is an "Update" button. The status bar at the bottom left of the window shows "Ready".

Figure 31. PNC Status Display

DCS Connectivity Display

The **DCS Connectivity Display** provides the DCS Connectivity configuration information, an alert indicator showing alert counts for all DCS components on the selected link, and DCS Links information.

DEFINITY Network Management

File View Help

- System Groups
 - CS Campus
 - st186
 - System Status
 - Cabinets
 - Port Networks
 - A Port Network Conn
 - B Port Network Conn
 - PNC Status
 - DCS Links
 - Stations with Excepti
 - Data Modules
 - Trunk Groups
 - Routing Patterns
 - External Devices
 - Bulletin Board
 - st286
 - st386
 - st786
 - st9a86
 - Systems
 - alaska
 - defsm1
 - dsv161
 - ecs1

DCS Connectivity and Status

System Name: st186
 System Type: DEFINITY G3rV6
 PBX ID: 1

Alerts	Sev...	Count
★	Cri...	0
⬢	Major	0
■	Minor	0
▲	War...	1

DCS Links

Top Row: 1 of 3

Far-end System	Far-end PBX ID	Signaling Type	# T
	14	d-chan	
▲ st386	3	d-chan	
st9a86	9	d-chan	

Exceptions ... Details ...

Ready

Figure 32. DCS Connectivity Display

4 Getting Started on DNM for UNIX

*DCS Link Display***DCS Link Display**

The **DCS Link Display** provides DCS link configuration information, and trunk groups information.

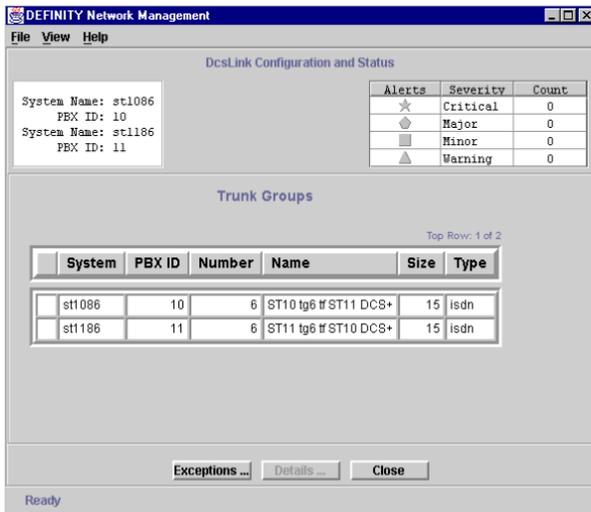


Figure 33. DCS Link Display

4 Getting Started on DNM for UNIX Stations with Exceptions Display

Stations with Exceptions Display

The **Stations with Exceptions Display** provides station information, an alert indicator showing alert counts for all stations with exceptions, and stations with exceptions information.

The screenshot displays the 'Stations with Exceptions Display' interface. On the left is a tree view of system groups, with 'st1099' selected. The main area is divided into two sections:

Stations Configuration and Status

System Name: st1099
System Type: DEFINITY G3rV8

Alerts	Severity	Count
★	Critical	0
⊙	Major	0
■	Minor	0
▲	Warning	124

Stations with Exceptions

Top Row: 1 of 50

Extension	Location	Type	Name
▲ 26127	04D1107	8410B	4D1107_TARTS22
▲ 26209	06C1117	8410B	6C1117_TARTS22
▲ 26210	06C1118	8410B	6C1118_TARTS22
▲ 26211	06C1119	8410B	6C1119_TARTS22
▲ 26213	06C1121	8410B	6C1121_TARTS22
▲ 26214	06C1122	8410B	6C1122_TARTS22
▲ 26215	06C1123	8410B	6C1123_TARTS22
▲ 26216	06C1124	8410B	6C1124_TARTS22
▲ 26409	05D1301	7505D	5D1301_TARTS22
▲ 26411	05D1302	7505D	5D1302_TARTS22
▲ 26413	05D1303	7505D	5D1303_TARTS22
▲ 26415	05D1304	7505D	5D1304_TARTS22
▲ 26417	05D1305	7505D	5D1305_TARTS22

Buttons: Exceptions ... Details ...

Figure 34. Stations with Exceptions Display

4 Getting Started on DNM for UNIX

*Data Modules Display***Data Modules Display**

The **Data Modules Display** provides information including the system name, system type (DEFINITY, MCU, or SRP) and release, an alert indicator, and Data Modules configuration information.

The screenshot displays the 'Data Modules Configuration and Status' window. On the left is a tree view of system groups. The main area is divided into two sections: 'Data Modules Configuration and Status' and 'Data Modules'.

Data Modules Configuration and Status

System Name: st1099
System Type: DEFINITY G3rV8

Alerts	Severity	Count
★	Critical	0
◆	Major	0
■	Minor	0
▲	Warning	0

Data Modules

Top Row: 1 of 39

Extension	Location	Type	Name
20000	01C0601	pdm	PMS Data Link
20002	01C1601	data-line	definity snmp
20005	03B0407	pdm	DNA data module to dsv75
20011	03B0701	pdm	DCS X.25 to ST11
24001	01C0901	system-port	ST-10 System-port 1
24002	01C0902	system-port	ST-10 System-port 2
24003	01C0903	system-port	ST-10 System-port 3
24004	01C0904	system-port	ST-10 System-port 4
24005	01C0905	system-port	ST-10 System-port 5
24006	01C0906	system-port	ST-10 System-port 6
24007	01C0907	system-port	ST-10 System-port 7
24008	01C0908	system-port	ST-10 System-port 8
24009	01C0502	adm-t	

Buttons: Exceptions ... Details ...

Figure 35. Data Modules Display

Routing Patterns Display

The **Routing Patterns Display** provides Routing patterns information including the system name, type (DEFINITY, MCU, or SRP) and release, an alert indicator, and Routing Patterns configuration information.

Routing Patterns Configuration and Status

System Name: aramis99
System Type: DEFINITY G3s1V8

Alerts	Severity	Count
✘	Critical	0
⚠	Major	0
⚠	Minor	0
▲	Warning	0

Top Row: 1 of 45

Number
1
2
3
6
9
15
16
17
18
20
21
22
23
24
25
26
30

Exceptions ... Details ...

Figure 36. Routing Patterns Display

Routing Pattern Display

The **Routing Pattern Display** focuses on the selected Routing Pattern. In addition to the information provided in Routing Patterns Display, this window also includes specific Trunk Groups configuration information.

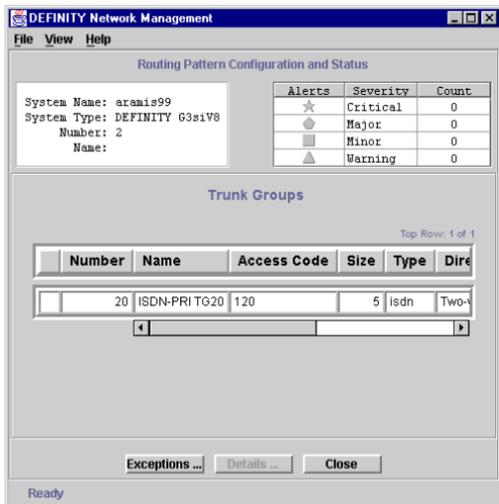
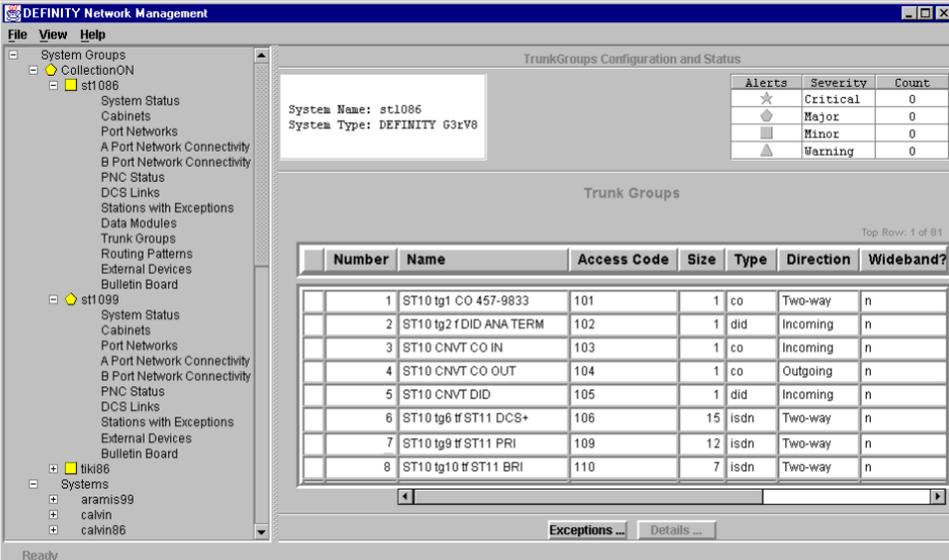


Figure 37. Routing Pattern Display

4 Getting Started on DNM for UNIX

*Trunk Groups Display***Trunk Groups Display**

The **Trunk Groups Display** provides Trunk Groups information including the system name, system type (DEFINITY, MCU, or SRP) and release, a summed alert count, and Trunk Group configuration information.



DEFINITY Network Management

File View Help

System Groups
 CollectionON
 st11086
 System Status
 Cabinets
 Port Networks
 A Port Network Connectivity
 B Port Network Connectivity
 PNC Status
 DCS Links
 Stations with Exceptions
 Data Modules
 Trunk Groups
 Routing Patterns
 External Devices
 Bulletin Board
 st11099
 System Status
 Cabinets
 Port Networks
 A Port Network Connectivity
 B Port Network Connectivity
 PNC Status
 DCS Links
 Stations with Exceptions
 External Devices
 Bulletin Board
 tiki86
 Systems
 aramis99
 calvin
 calvin86

TrunkGroups Configuration and Status

System Name: st1086
 System Type: DEFINITY G3rV8

Alerts	Severity	Count
★	Critical	0
⬇	Major	0
■	Minor	0
▲	Warning	0

Trunk Groups

Top Row: 1 of 81

Number	Name	Access Code	Size	Type	Direction	Wideband?
1	ST10 tg1 CO 457-9833	101	1	co	Two-way	n
2	ST10 tg2 fDID ANA TERM	102	1	did	Incoming	n
3	ST10 CNVT CO IN	103	1	co	Incoming	n
4	ST10 CNVT CO OUT	104	1	co	Outgoing	n
5	ST10 CNVT DID	105	1	did	Incoming	n
6	ST10 tg6 If ST11 DCS+	106	15	isdn	Two-way	n
7	ST10 tg9 If ST11 PRI	109	12	isdn	Two-way	n
8	ST10 tg10 If ST11 BRI	110	7	isdn	Two-way	n

Exceptions ... Details ...

Ready

Figure 38. Trunk Groups Configuration and Status Display

4 Getting Started on DNM for UNIX

Trunk Group Display

Trunk Group Display

The **Trunk Group Display** focuses on the selected Trunk Group providing configuration information (including hold time for ACA), Alert summary information, and Trunks with Exceptions information.

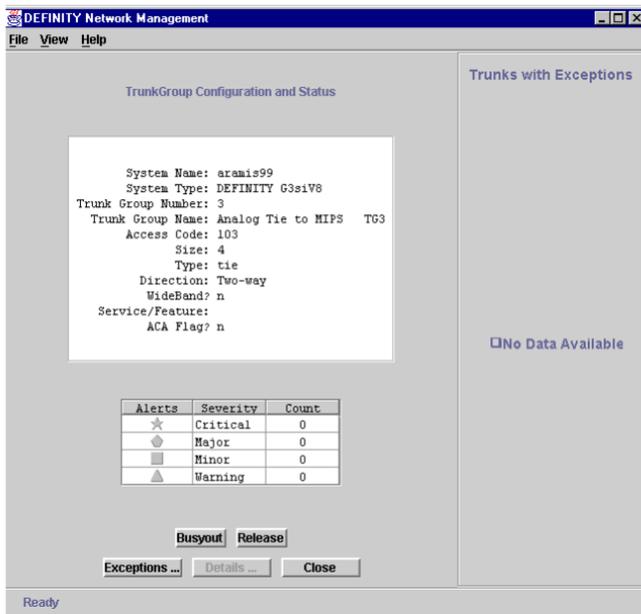


Figure 39. Trunk Group Display

4 Getting Started on DNM for UNIX

*External Devices Display***External Devices Display**

The **External Devices Display** provides External Devices information such as, system name, type (DEFINITY, MCU, or SRP) and release, alert counts for all external devices, and External Devices configuration information.

DEFINITY Network Management

File View Help

External Devices Configuration and Status

System Name: aramis99
System Type: DEFINITY G3siY8

Alerts	Severity	Count
★	Critical	0
◆	Major	0
■	Minor	0
▲	Warning	0

External Devices

Top Row: 1 of 8

Location	Name	Description
01D1201	rfa	rectifier fault alarm cabinet 3 1d1201
01D1202	acfail	ac failure alarm cabinet 3 1d1202
01D1203	biu	battery interface unit alarm cab3 1d1203
01D1204	bod	battery on discharge alarm cab3 1d1204
02C1901	rfa	rectifier fault alarm cabinet 1 2c1901
02C1902	acfail	ac failure alarm cabinet 1 2c1902
02C1903	cab1biu	battery interface unit alarm cab1 2c1903
02C1904	bod	battery on discharge alarm cab1 2c1904

Exceptions ... Details ...

Ready

Figure 40. External Devices Display

4 Getting Started on DNM for UNIX

Busy Out/Release Results Display

Busy Out/Release Results Display

The **Busy Out Results** or **Busy Release Results Display** summarizes the results of a busy out or release of a board or trunk group.



Figure 41. Busy Out Results

Bulletin Board Display

The **Bulletin Board Display** provides the message date and message text in table format.

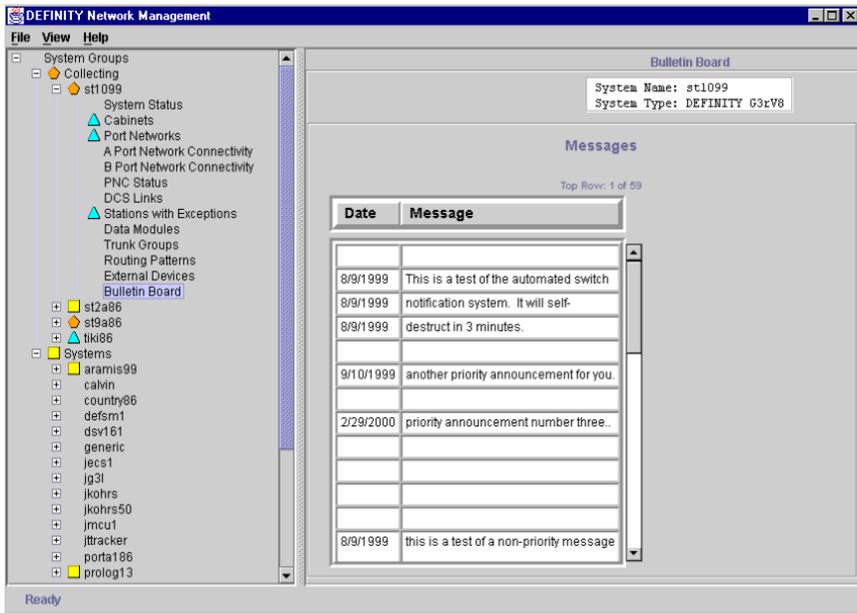


Figure 42. Bulletin Board Display

Report Manager

The DNM Report Manager Window is used to create, edit, run, and view system reports. It also includes a scheduling window to schedule reports to run automatically, and a window to create and edit trunk group lists.

The DNM Report Manager Window contains a Navigation Pane on the left and a Display pane on the right.

The Navigation Pane displays the following tree structure:

Description of the Report Manager Window Panes

Report Manager

- **Report Definitions:** The Report Definitions displays a list of the currently defined reports and lets you create new reports and edit and delete existing reports.
- **Scheduled Reports:** The Scheduled Reports displays a list of the current report schedules and lets you edit and delete schedules.
- **Trunk Group Lists:** The Trunk Group Lists displays a list of the current trunk group lists for DNM, and lets you create, edit and delete new trunk group lists.

How to Access the DNM Report Manager

To Open the Report Manager:

- From the DNM Administration Window, select **File > Report Manager**.
- To select a report, highlight a row in the table.

To close the Report Manager:

- From the Report Manager Window, select **File > Close**.

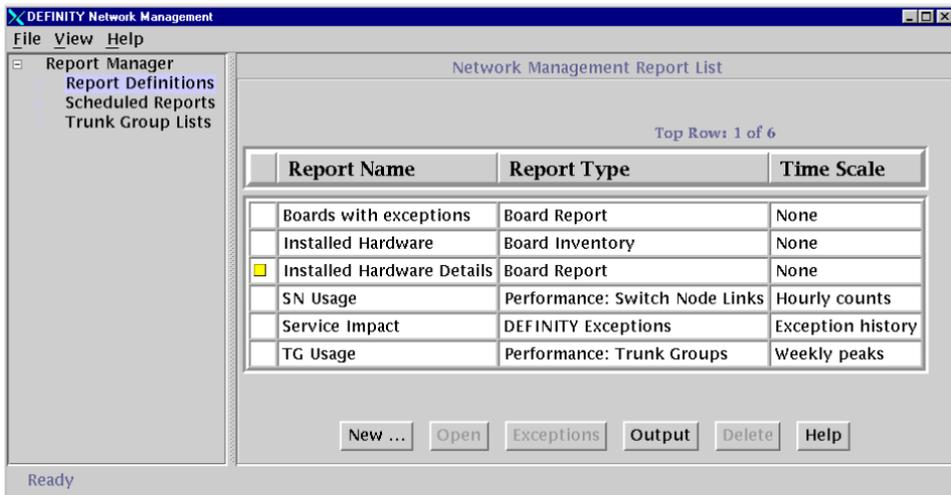


Figure 43. Reports Pane

The Report List shows a table with four columns:

- 1 An icon indicating alert level, if there is an active exception representing failure to run a scheduled report. See below under Task Scheduler.
- 2 Report name.
- 3 Report type, e.g. "Processor Occupancy".
- 4 Time scale, e.g. "Daily peaks" for performance, or "Active" for exceptions

4 Getting Started on DNM for UNIX

*New Report Dialog***New Report Dialog**

The New Report Dialog prompts you for the report type and name of a new report, and brings up the Report dialog shown below.

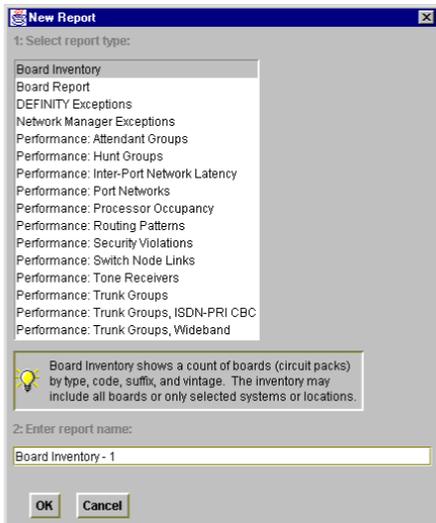


Figure 44. New Report Dialog

A selection list offers available report types. You must select one. The default is the first type in the list.

New Report Dialog

Using the **OK** button will verify that the report name is unique, create a new report, close the New Report dialog, and bring up the Report dialog.

The **Cancel** button will close the dialog and discards any changes.

There are three main types of reports in the DNM Report Manager:

- Performance Reports
- Exception Reports
- Board Reports.

All reports have a list of fields or table columns to include in the report, and a specification of up to three columns to sort. They also have some features specific to each report.

Exception Reports have a severity threshold and **Performance Reports** have a set of chart options for graphical output.

Report Definition Dialog

The Report Definition Dialog box lets you specify properties of a report, and then save the report, run it, or schedule it to run at a later time.

Note: The the Report Definition Dialog box will vary depending on the type of report chosen.

Buttons

The following buttons are used in the Report Dialog:

- Save
 - Writes the report properties to the database. This button is active for new reports that have not yet been saved, and for any report in which you have made a modification since the last read or write.
- Run Now
 - Runs the report on demand. While the report is running a progress dialog will keep you informed of approximate percent completed, and offer a cancel button to interrupt report processing. An information dialog will report success if there is no other output to the screen. Failure to run the report will bring up a warning dialog describing the reason for the failure
- Schedule
 - Brings up the Schedule dialog. The Schedule button creates a new scheduled task for the report definition under edit. To modify an existing schedule, go to the Scheduled Reports pane, select a task from the table, and open it.

- Reset
 - Resets the report definition to the most recently saved version in the database. If this is a new report that has not yet been saved, resets its initial defaults.
- Cancel
 - Closes the window after warning you of unsaved changes.
- Help
 - Brings up a help window describing the tab currently shown.

4 Getting Started on DNM for UNIX

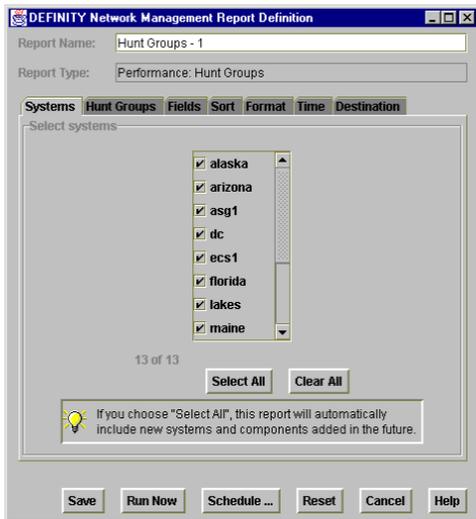
*Performance Report***Performance Report**

Figure 45. Report Definition Dialog: Performance type: Systems Tab

For the Performance Report, the Report Definition Dialog box contains seven tabs:

- 1 **Systems** tab -lets you select from a list of systems known to the DNM application.
- 2 **Component Selection** tab (for example:**Trunk Group** or **Hunt Group**) - lets you select from a list of subcomponent trunk groups corresponding to the previous choices made. This is not applicable to all report types.
- 3 **Fields** tab- lets you select from a list of data fields in the selected report type.
- 4 **Sort tab** -lets you specify the order of rows in a table.
- 5 **Format** tab- lets you configure chart or table output format for the report.
- 6 **Time** tab- lets you specify the interval the report should cover.
- 7 **Destination** tab- lets you specify where the report output will be sent.

4 Getting Started on DNM for UNIX

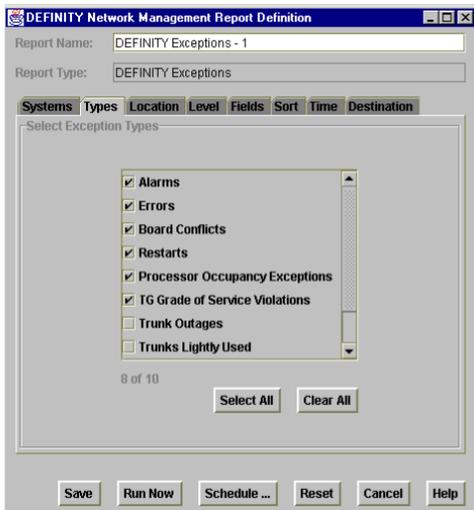
*Exception Report***Exception Report**

Figure 46. DEFINITY Exception Report Definition Dialog Types Tab

For the Exception Report, the Report Definition Dialog box contains eight tabs:

- 1 **Systems** tab - allows you to select from a list of systems known to the DNM application.
- 2 **Types** tab - allows you to choose the types of Exceptions that you want to include in your report.
- 3 **Location** tab- lets you specify the location for the types of exceptions included in your report. (i.e. Hardware location or Switch node number)
- 4 **Level** tab - lets you select one of more alert levels for your exception report.
- 5 **Fields** tab - allows you to choose the data fields to include in your report.
- 6 **Sort** tab - allows you to choose how this information will be sorted.
- 7 **Time** tab (Exception Report) - lets you choose current exceptions or history of exceptions.
- 8 **Destination** tab - allows you to choose the report output destination.

When defining an exception report for DEFINITY, use all eight tabs. When defining an exception report for DNM you will see only the following tabs:

- 1. **Level** tab
- 2. **Fields** tab
- 3. **Sort** tab
- 4. **Time** tab (Exception Report)
- 5. **Destination** tab

Board Report

There are two types of Board Reports available:

- **Board Report Dialog** - allows you to specify properties of a Board report (for individual boards) and then save the report, run it, or schedule it to run at a later time.
- **Board Inventory** - shows counts of boards by type and board code and is identical to the Board Report except for the list of fields and the absence of a Board Type tab.
- For the Board report, the Report Definition Dialog box contains six tabs:
 - 1 **Systems** tab
 - 2 **Location** tab (Board Report) - lets you choose the location for the types of boards included in your report. (i.e. Port network number)
 - 3 **Board Type** tab - asks you to choose to include/exclude information for:
 - only boards with unassigned ports
 - all boards
 - types to be included
 - codes to be included
 - 4 **Fields** tab
 - 5 **Sort** tab
 - 6 **Destination** tab

4 Getting Started on DNM for UNIX

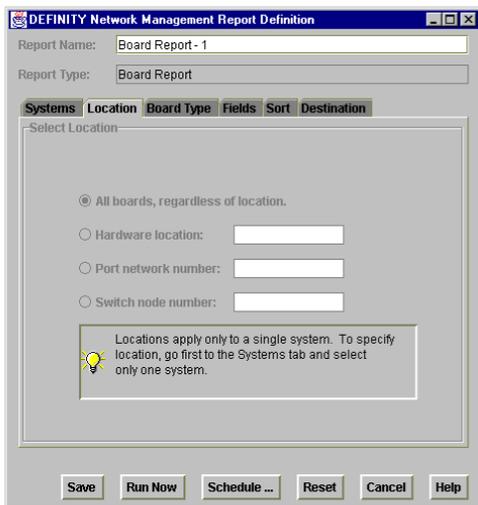
Board Report

Figure 47. Board Report Location Tab

4 Getting Started on DNM for UNIX

Report Output Interface

Report Output Interface

The Report Output dialog is a file chooser that lists stored output of previous report runs, and allows you to open one file and view the output.

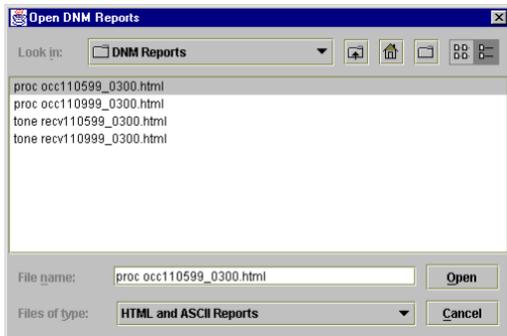


Figure 48. Report Output Dialog

4 Getting Started on DNM for UNIX

Trunk Group List Management

Trunk Group List Management

The Trunk Group List pane shows an overview of currently defined TG lists at all systems and allows you to edit, delete, and create new lists.

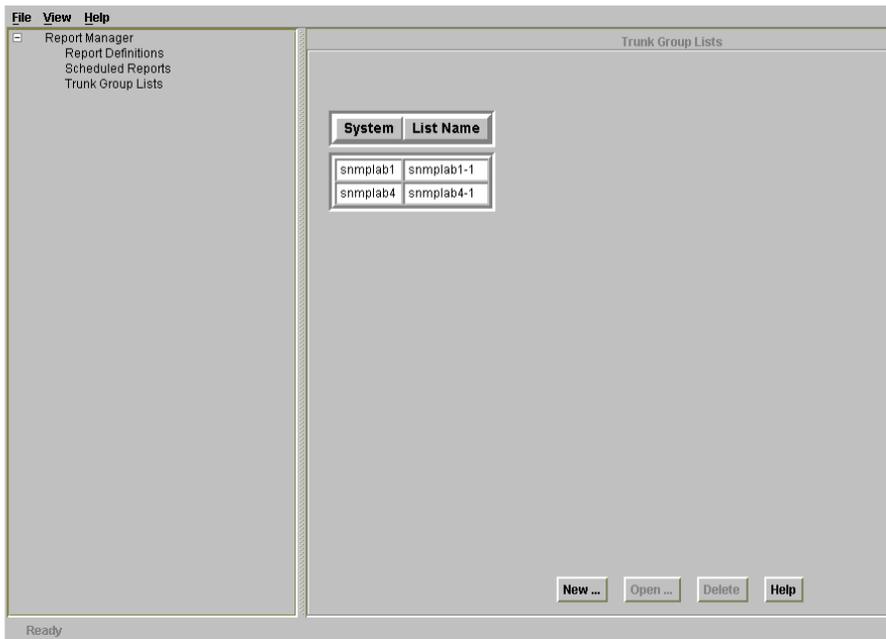


Figure 49. Trunk Group Lists Pane

4 Getting Started on DNM for UNIX

Task Scheduler

Task Scheduler

In DNM 3.0 the Task Scheduler is used to schedule reports.

The Schedule List shows an overview of currently scheduled tasks, and allows you to edit or delete schedules. An alert indicator shows an active Scheduled Report Failure exception.

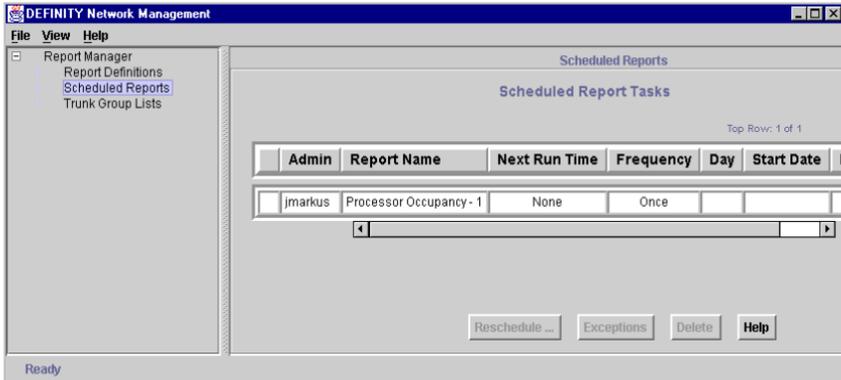


Figure 50. Schedule Pane

Buttons

- **Reschedule:**

- Initialized with the properties of the selected task. This button is inactive unless a task is selected. Equivalent to **File->Open**

- **Delete:**

- Removes the task from the schedule. This button is inactive unless a task is selected. Equivalent to **Edit->Delete**.

- **Help:**

- Brings up a help window for the Schedule Pane.

Schedule Dialog

The Schedule Dialog allows you to schedule a report for later execution, or to modify an existing report schedule. The Schedule Dialog consists of two tabs:

Schedule tab

This tab allows you to specify the frequency and run times of a scheduled report.

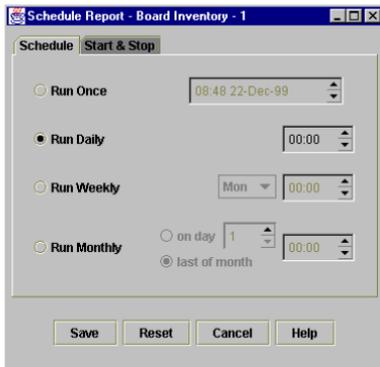


Figure 51. Schedule Tab

**Start and Stop
tab**

This tab allows you to specify start and stop times between which a schedule is in effect.

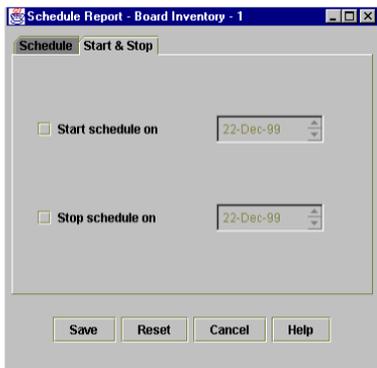


Figure 52. Start and Stop Tab

4 Getting Started on DNM for UNIX Administration

Administration

The DNM Administration Window provides you with the capability to view and change a number of parameter settings. The DNM Administration Window contains a Navigation pane on the left and a Display pane on the right.

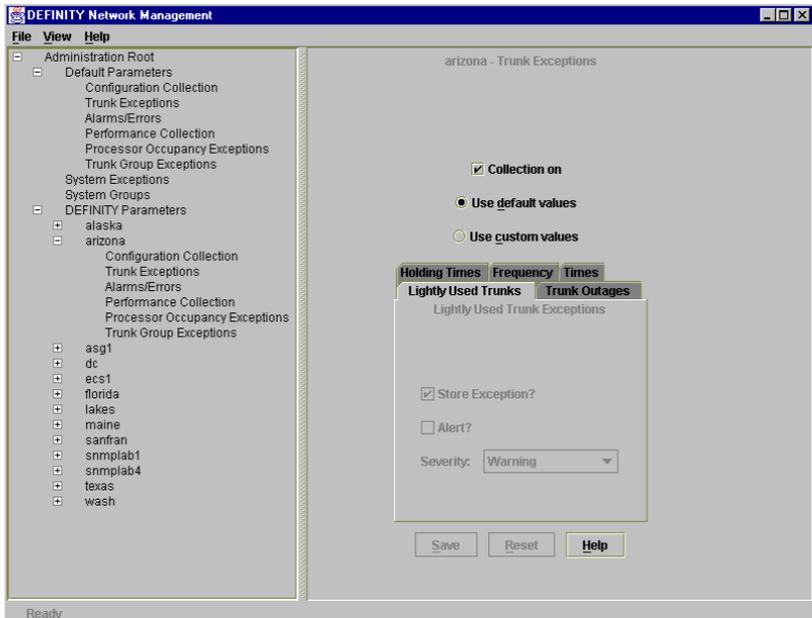


Figure 53. DNM Main Window

In the DNM Main Window, the DNM Administration window can be accessed from the **File** menu.

The DNM Administration window allows you to configure the following types of data:

- [Alarms and Errors](#)
- [Trunk Exceptions](#)
- [Configuration Collection](#)
- [Trunk Group Exceptions](#)
- [Performance Collection](#)
- [System Exceptions](#)
- [Processor Occupancy Exceptions](#)
- [System Groups](#)

How to Open the DNM Administration Window

- 1 Select a node in the Navigation Pane.
- 2 Click **File > Administration**.

System Exceptions

The System Exceptions panel is used to administer the number of days that all exception records are stored.

The screenshot displays the 'System Exceptions' panel. On the left, a tree view shows the hierarchy: System Groups > Collecting > st1099 > Stations with Exceptions. The main area is titled 'Stations Configuration and Status' and shows the following information:

System Name: st1099
System Type: DEFINITY G3rV8

Alerts	Severity	Count
★	Critical	0
⦿	Major	0
■	Minor	0
▲	Warning	124

Below this is a table titled 'Stations with Exceptions' showing a list of stations. The table has columns for Extension, Location, Type, and Name. The first row is highlighted.

Extension	Location	Type	Name
▲ 26127	04D1107	8410B	4D1107_TARTS22
▲ 26209	06C1117	8410B	6C1117_TARTS22
▲ 26210	06C1118	8410B	6C1118_TARTS22
▲ 26211	06C1119	8410B	6C1119_TARTS22
▲ 26213	06C1121	8410B	6C1121_TARTS22
▲ 26214	06C1122	8410B	6C1122_TARTS22
▲ 26215	06C1123	8410B	6C1123_TARTS22
▲ 26216	06C1124	8410B	6C1124_TARTS22
▲ 26409	05D1301	7505D	5D1301_TARTS22
▲ 26411	05D1302	7505D	5D1302_TARTS22
▲ 26413	05D1303	7505D	5D1303_TARTS22
▲ 26415	05D1304	7505D	5D1304_TARTS22
▲ 26417	05D1305	7505D	5D1305_TARTS22

At the bottom right of the main pane, there are buttons for 'Exceptions ...' and 'Details ...'.

Figure 54. System Exceptions Panel

There are two tabs in this panel:

- **Collection Failure:** Allows you to define actions to be taken when there is a collection failure.
- **Report Failure:** Allows you to define actions to be taken by the system when there is a scheduled report failure.

How to Open the System Exceptions Panel

- 1 Open the DNM Administration Window.
- 2 From the Navigation pane, select **Administration > System Exceptions**.

How to Set the System Exceptions Collection Failure

- 1 Open the System Exceptions panel.
- 2 Select the **Collection Failure** tab.
- 3 Set the following fields:
 - **Maximum number of days to store exception records:** Enter the maximum number of days for storing exception records. Valid values are 0-999. The default is 30 days. The maximum is 999 days.

Note: The longer the exception records are to be stored, the larger the database. Use this to manage the size of the database and lengths of time exception records are stored.

- **Store Exception:** check to store exception data.
- **Alert:** check to store the alert status.
- **Severity:** select the level of severity: critical, major, minor, warning. The default is minor.

- 4 Click **Save** to save your changes or **Reset** to reset the fields to their previous values.

How to Set the System Exceptions Report Failure

- 1 Open the System Exceptions panel.
- 2 Select the **Report Failure** tab.
- 3 Set the following fields:
 - **Maximum number of days to store exception records:** Enter the maximum number of days for storing exception records. Valid values are 0-999. The default is 30 days. The maximum is 999 days.

Note: The longer the exception records are to be stored, the larger the database. Use this to manage the size of the database and lengths of time exception records are stored.

- **Store Exception:** check to store exception data.
 - **Alert:** check to store the alert status.
 - **Severity:** select the level of severity: critical, major, minor, warning. The default is minor.
- 4 Click **Save** to save your changes or **Reset** to reset the fields to their previous values.

4 Getting Started on DNM for UNIX

Configuration Collection

Configuration Collection

The Configuration Collection panel is used to set parameters for collecting configuration data. It contains two tabs, as follows:

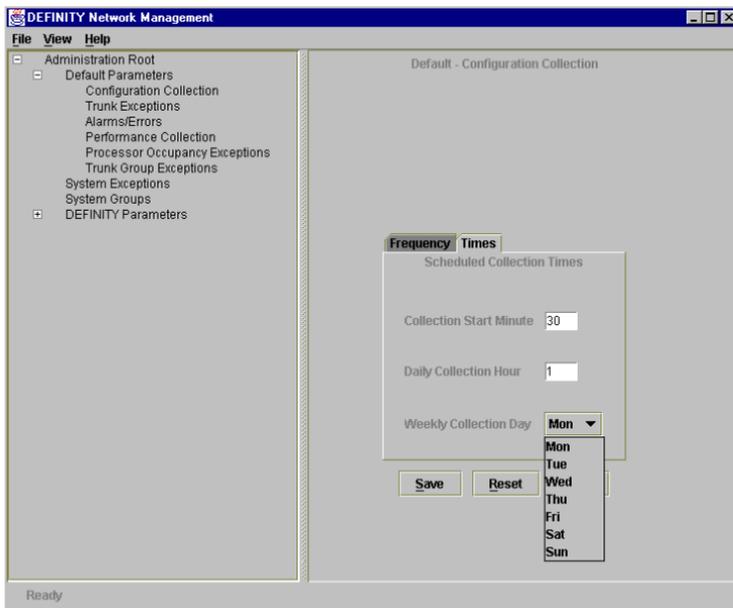


Figure 55. Configuration Data Collection Panel

- **Frequency:** Allows you to set configuration collection frequency parameters.
- **Times:** Allows you to set a schedule for collection of configuration data.

If you are viewing the Configuration Collection panel under the DEFINITY Parameters tree node, the following fields are also available:

- **Collection on:** sets whether or not configuration data collection is turned on. Check to turn on. Uncheck to turn off.
- **Use default values:** sets whether or not default values are used. Check to use default values.
- **Use custom values:** sets whether or not custom values are used. Check to use custom values.

How to Set Configuration Collection Frequency

- 1 From the Navigation Pane, select **Configuration Collection**.
- 2 Click the **Frequency** tab.
- 3 Set the frequency for collection of configuration data by selecting **Daily** or **Weekly**.
- 4 Click **Save** to save your changes or **Reset** to reset the fields to their previous values

How to Set the Configuration Collection Times

- 1 From the Navigation Pane, select **Configuration Collection**.
- 2 Click the **Times** tab.
- 3 Set the schedule for collection of configuration data by filling in the following fields:
 - **Collection Start Minute**: set the minute within the hour when configuration collection should start. Valid entries are 0-59. The default is 30.
 - **Daily Collection Hour**: set the hour in the day when the configuration collection should start. Valid entries are 0-23 (24 hr. format). The default is 1.
 - **Weekly Collection Day**: select the day during the week when the configuration collection should occur.
- 4 Click **Save** to save your changes or **Reset** to reset the fields to their previous values.

Trunk Exceptions

The Trunk Exceptions panel is used to administer trunk exceptions.

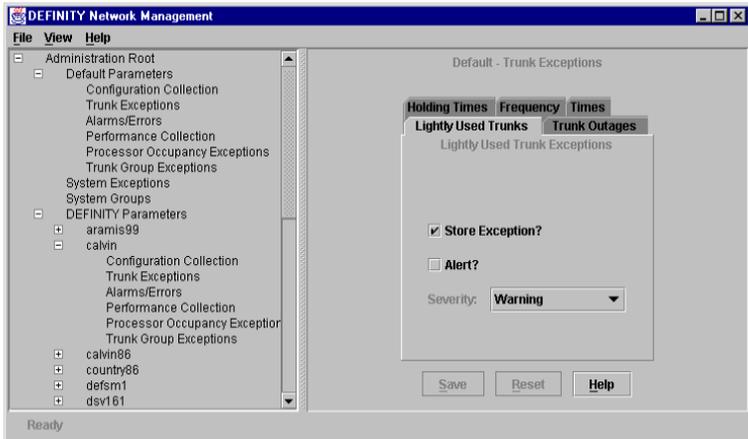


Figure 56. Trunk Exceptions Panel

There are five tabs in this panel as follows:

- **Lightly Used Trunks:** Allows you to control the logging and alerting to be taken for lightly used trunk exceptions
- **Trunk Outages:** Allows you to control the logging and alerting to be taken for trunk outage exceptions

Trunk Exceptions

- **Holding Times:** Allows you to control the logging and alerting to be taken for ACA referrals for long and short holding times
- **Frequency:** Allows you to control the logging and alerting to be taken for trunk collection frequency parameters, i.e. daily or weekly.
- **Times:** Allows you to control the logging and alerting to be taken for a schedule for collection of trunk exceptions, i.e. the minute of the hour or the hour of the day.

If you are viewing the Trunk Exceptions panel under the DEFINITY Parameters tree node, the following fields are also available:

- **Collection on:** sets whether or not trunk exception collection is turned on.
- **Use default values:** sets whether or not default values are used.
- **Use custom values:** sets whether or not custom values are used.
- **ACA Status:** an ACA status label indicates whether or not ACA is enabled on the selected system. If this is not turned on at the switch, the information will not be collected.

**How to Set
Trunk and
Holding Time
Exceptions**

- 1 From the Navigation Pane, select **Trunk Exceptions**.
- 2 Click the appropriate tab to select the type of exception you wish to set:
 - **Lightly Used Trunks** tab
 - **Trunk Outages** tab
 - **Holding Times** tab

- 3 Configure the following fields:
 - **Store Exception:** check to store exception data.
 - **Alert:** check if you wish to be alerted when these exceptions occur.
 - **Severity:** select the level of severity: critical, major, minor, warning.
- 4 Click **Save** to save your changes or **Reset** to reset the fields to their previous values.

How to Set the Trunk Exceptions Frequency and Times

- 1 From the Navigation Pane, select **Trunk Exceptions**.
- 2 Click the appropriate tab:
 - **Frequency** tab.
 - **Times** tab
- 3 For the Frequency tab: set the collection frequency as **Daily** or **Hourly**.

For the Times tab: Set the schedule for collection of trunk exceptions by filling in the following fields:

- **Collection Start Minute:** set the minute within the hour when trunk exception collection should start. Valid entries are 0-59. The default is 7.
 - **Daily Collection Hour:** set the hour in the day when the trunk exception collection should start. Valid entries are 0-23 (24 hr. format). The default is 1.
- 4 Click **Save** to save your changes or **Reset** to reset the fields to their previous values.

4 Getting Started on DNM for UNIX

Alarms and Errors

Alarms and Errors

The Alarms and Errors panel is used to set parameters for alarms and errors.

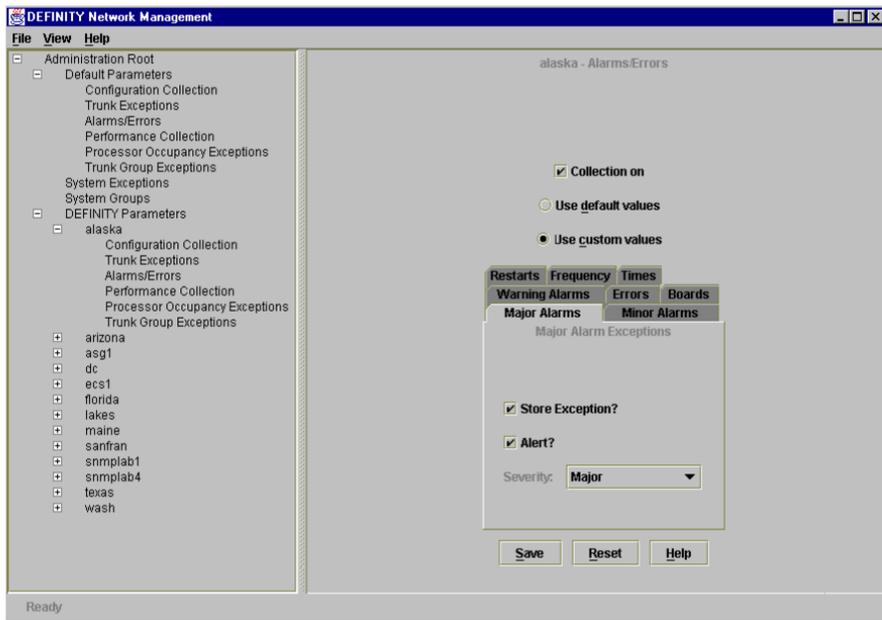


Figure 57. Alarms and Errors Panel

4 Getting Started on DNM for UNIX

Alarms and Errors

There are eight tabs in this panel as follows:

- **Major Alarms:** Allows you to set actions to be taken for major alarm exceptions
- **Minor Alarms:** Allows you to set actions to be taken for minor alarm exceptions
- **Warning Alarms:** Allows you to set actions to be taken for warning alarm exceptions
- **Errors:** Allows you to set actions to be taken for error exceptions
- **Boards:** Allows you to set actions to be taken for board conflict exceptions
- **Restarts:** Allows you to set actions to be taken for cold restart exceptions
- **Frequency:** Allows you to set actions to be taken for alarm and error collection frequency parameters
- **Times:** Allows you to set actions to be taken for a schedule for collection of alarm and error exceptions

If you are viewing the Alarms and Errors panel under the DEFINITY Parameters tree node, the following fields are also available:

- **Collection on:** controls whether or not alarms, errors, and restarts exception is turned on.
- **Use default values:** sets whether or not default values are used. Check to use default values.
- **Use custom values:** sets whether or not custom values are used. Check to use custom values.

Performance Collection

The Performance Collection panel is used to set parameters for performance data collection.

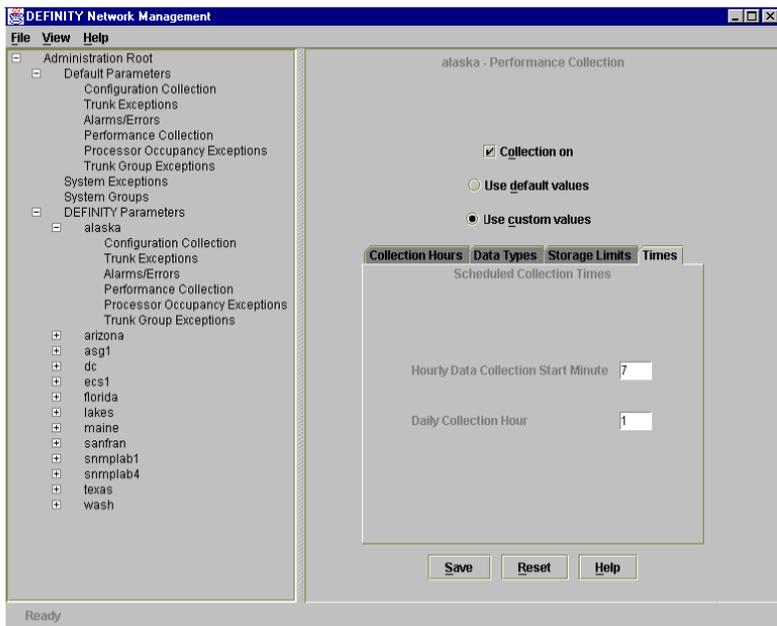


Figure 58. Performance Data Collection Panel

There are four tabs in this panel as follows:

- **Collection Hours:** Allows you to set the schedule for collection of performance data.
- **Data Types:** Allows you to select the types of performance data to be collected.
- **Storage Limits:** Allows you to set the storage limits for performance data that is collected.
- **Times:** Allows you to set when performance data is to be collected.

If you are viewing the Performance Collection panel under the DEFINITY Parameters tree node, the following fields are also available:

- **Collection on:** sets whether or not performance collection is turned on. Check to turn on. Uncheck to turn off.
- **Use default values:** sets whether or not default values are used. Check to use default values.
- **Use custom values:** sets whether or not custom values are used. Check to use custom values.

4 Getting Started on DNM for UNIX

Processor Occupancy Exceptions

Processor Occupancy Exceptions

The Processor Occupancy Exceptions panel is used to log processor occupancy data.

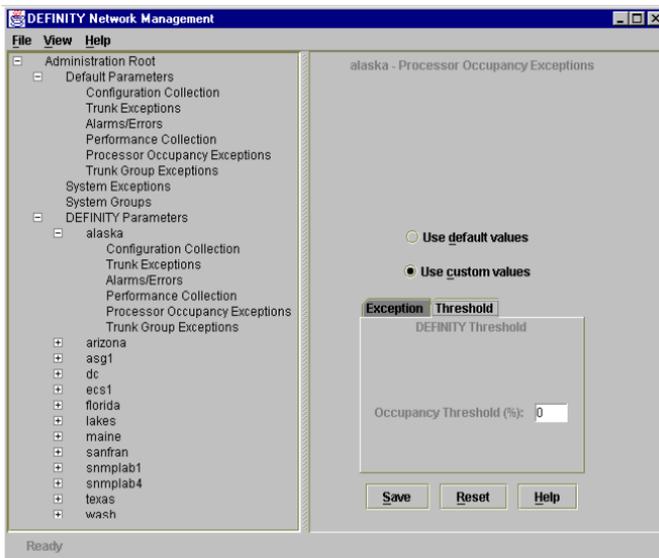


Figure 59. Processor Occupancy Panel

There are two versions of this panel.

Note: The Thresholds for these screens are based on the call processing portion of the Processor Occupancy.

The Default Processor Occupancy Exception Panel contains three tabs as follows:

- **G3r Threshold:** Allows you to set call processing occupancy threshold parameters for G3r DEFINITY systems.
- **Non-G3r Threshold:** Allows you to set occupancy threshold parameters for Non-G3r DEFINITY systems.
- **Exception:** Allows you to set how to administer processor occupancy exceptions.

The DEFINITY Processor Occupancy Exception Panel contains two tabs as follows:

- **Exception:** Allows you to set how to administer DEFINITY processor occupancy exceptions.
- **Threshold:** Allows you to set occupancy threshold parameters for DEFINITY systems.

If you are viewing the Processor Occupancy Exceptions panel under the DEFINITY Parameters tree node, the following fields are also available:

- **Collection on:** sets whether or not processor occupancy is turned on. Check to turn on. Uncheck to turn off.
- **Use default values:** sets whether or not default values are used. Check to use default values.
- **Use custom values:** sets whether or not custom values are used. Check to use custom values.

4 Getting Started on DNM for UNIX

Trunk Group Exceptions

Trunk Group Exceptions

The Trunk Group Exceptions panel is used to configure trunk group exceptions.

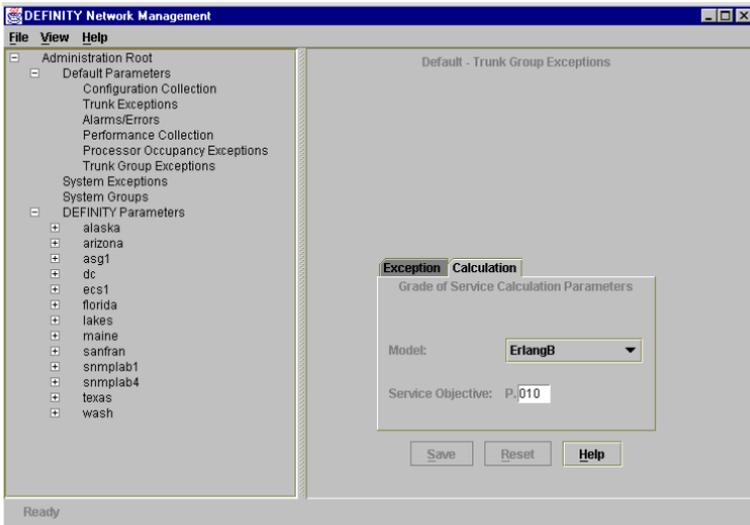


Figure 60. Trunk Group Exceptions Panel

This window contains two tabs as follows:

- **Exception** tab: Allows you to set the fields for administering this type of exception.
- **Calculation** tab: Allows you to set the fields for the traffic model and service objective to use.

If you are viewing the Trunk Group Exceptions panel under the DEFINITY Parameters tree node, there is a table display. The table contains a row for each non-wideband trunk group in the DEFINITY configuration. You can edit the rows in the table.

System Groups

The System Groups Administration panel is used to set up and organize system groups.

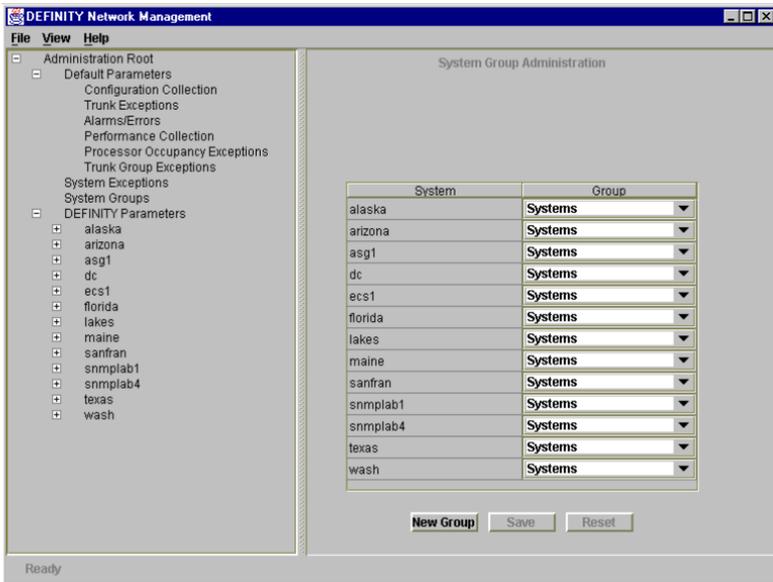


Figure 61. System Group Administration

By default, all systems belong to the Systems group. This panel lets you set up new system groups and move systems into different system groups.

System Groups need to be set up such that all Distributed Communications Service (DCS) Nodes associated with a specific DCS network belong to a unique system group. If there is only a single DCS network being managed, systems can be left in the default systems group. If nodes are not DCS network connected, systems may be grouped according to your needs.

The System Groups Administration panel contains a list of systems and the corresponding group to which each system belongs.

How to Create a System Group

- From the System Group Administration panel, click the New Group button.
- The New Group dialog box is displayed.
- Enter a new system group name and click OK.
- In the System Group Administration panel, use the drop-down list to change the system group for a particular system.
- Click Save to save your changes or Reset to reset the fields to their previous values.

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