AVAYA

DEFINITY® Network Management Release 4.0 for NT/Windows 2000

Installation and Getting Started

Contents

Resources and Notices

Introduction

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

Avaya Resources

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

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

Note: DNM and DPA are a *software-only* offers. Therefore, *customers* are solely responsible for the purchase and maintenance of all third-party hardware and software that are required to run these products.

The DEFINITY Solutions web site contains the system requirements and other provisioning and connectivity information for DNM. Refer to "Avaya References" on page 9 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 client teams to develop detailed solutions for connectivity to the DEFINITY system and other supported systems. The SDSC also designs network configurations to support DNM and DPA.

Lucent Worldwide Services (LWS)

Lucent Worldwide Service (LWS) is available to work with customers to design and build a *turn-key* network management system.

Lucent Worldwide Service offers the consulting services listed below:

- Plan and design a custom network system
- Purchase and configure UnixWare-certified hardware and external devices for DPA
- Install and set up the UnixWare Operating System on the DPA platform
- Connect and administer all devices, ports, and cards
- Install and integrate the DEFINITY Network Management products on NT/Windows 2000s
- Train users on the operation and management of the products

Technical Services Center (TSC)

The Technical Services Center (TSC) provides support for DNM and DPA to client teams, field technicians, and customers.

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

- Platform Acceptance Test from the DPA 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 Avaya and third-party vendors.

The contact information is listed in the sections below:

Customers can access web sites that are *outside* the Avaya 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 DNM and DPA.

Avaya References

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

Table 1. Avaya resource sites

Source	Web Sites
DEFINITY Enterprise Management Support	DEFINITY Proxy Agent internal web site: **http://aem-support.dr.avaya.com**
DEFINITY Solutions	Systems Management site: **http://toolsa.bcs.avaya.com/~sysmgmt/**
Documentation and Training Information Development	DNM 4.0 project website: **http://pubnet.avaya.com/Projects/DNM/**
IntraWorks Catalog	DEFINITY Network Management User Document Set: **http://prodpubs.avaya.com/repubdoc.htm**
Lucent Worldwide Service (LWS)	Email: **dnmconsulting@lucent.com** Consulting offer: **http://www.esight.com/cgi-bin/gx.cgi/AppLogic+dns.home**
Project Provisioning Package	**http://aem-support.dr.avaya.com/**
	(1 of 2)

Table 1. Avaya resource sites

Source	Web Sites
Sales and Design Support Center (SDSC)	Phone: 1-888-297-4700, prompt 6 Main web site (requires a password) http://sdsc.avaya.com
Technical Services Center (TSC)	Technical Support: **1-800-242-2121, ext. 4-1080 or 720-444-1080** Fax for PA001 form: **1-303-804-3367** Connectivity Guide: **http://associate2.avaya.com/tech_info/tso/**
Tier IV Support Registry	International Customers only: Fax for PA001 form: **(U.S. code) 303-538-5506**
Toll Fraud Intervention	**1-800-643-2353**
	(2 of 2)

Table 2. Avaya resource sites INSIDE Firewall

Source	Web Sites
Documentation and Training Information Development	DNM 4.0 project web site: **http://pubnet.avaya.com/Projects/DNM/**
DEFINITY Enterprise Management Support	**http://aem-support.dr.avaya.com/**
Project Provisioning Package	**http://aem-support.dr.avaya.com/**
Sales and Design Support Center (SDSC)	Phone: **1-888-297-4700, prompt 6** Main site (requires a password): **http://sdsc.avaya.com**

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://techsupport.services.ibm.com/rs6000/support**
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.microport.com**
Microsoft	Main site: **http://www.microsoft.com**
Remedy ARS	Main site: **http://www.remedy.com**
Caldera International, Inc. (Caldera)	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**
	(1 of 2)

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**
	(2 of 2)

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 NT/Windows 2000 operating systems.

Avaya *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 DNM and DPA 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 on behalf of 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.

Avaya Disclaimer Avaya 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. Avaya will *not* be responsible for any charges that result from such unauthorized use.

Avaya Fraud Intervention If customers suspect that they are a victims of toll fraud and need technical assistance, customers should refer to the for the Toll Fraud Intervention phone number.

Introduction

DEFINITY Network Managment (DNM) and DEFINITY Proxy Agent (DPA) provide a complete solution to manage network resources from a central point of entry. These products provide you with a view of the health and performance of your network systems.DNM and DPA work together as an integrated application.

Software-only offer

DNM and DPA are *software-only* offers. **Avaya** 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 Description

DEFINITY Proxy Agent

DPA is a protocol conversion resource. It resides on a stand-alone personal computer and operates on the UnixWare operating system.

DPA uses serial ports and TCP/IP ports to collect configuration and management data from supported systems. It converst the data into the Simple Network Management Protocol (SNMP). In addition, DPA generates SNMP traps when supported systems generate alarms and system errors.

DPA then communicates the SNMP data to DNM, which resides on the Network Management System (NMS) network server. The NMS network server can be NT/Windows 2000.

DEFINITY Network Management

DNM provides you with graphical and tabular tools to monitor the status and performance of a network of DEFINITY systems.

The primary features of DNM include:

- **Graphical User Interface (GUI)** -- The DNM main window contains a navigation tree that lists all the supported systems and displays a colored alert symbol that indicates highest exception level. You can expand the list to view all of the configuration components and specific alert symbols for each component.

  a **Configuration** -- You can view the configuration and administered properties of all supported systems (managed nodes) in both a graphic view and a table view.

  b **Administration** -- You define the system-wide parameters for the features below:

    – **Data collection** -- You 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** -- You define the conditions to log exceptions for performance thresholds, faults, and system errors.

    – **Exception alerting** -- You 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 exits.

    c Report Manager -- You can define the parameters for individual reports for all or selected systems. The report options include:

- – Performance
- – Board
- – Exceptions

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

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

- **Online help system** -- The online help system is integrated in DNM. You can access help from either the menu or the Help button on the screens.

New Features

New features, improvements, and changes to DNM for Release 4.0 include:

- DNM 4.0 collects and provides reports for 3 new IP parameters:
    - IP Codecs (last-hour and yesterday peak for collection)
    - IP DSP Resources (last-hour and yesterday peak for collection)
    - IP Signaling groups (last-hour and yesterday peak for collection)

Collection types include hourly, daily peaks, and weekly peaks for the IP information. The data reflects all regions with MEDPRO and IP Media Processor resources administered on the DEFINITY system.

- DNM 4.0 collects and provides measurements for integrated and non-integrated announcements, including the new VAL announcement board information, by board location, for hourly, daily peaks, and weekly peaks.

Network Configuration Scenarios

The figure below shows an *example* of the network configuration between a DEFINITY system, the DPA computer, and the NT/Windows 2000 on which DNM runs.
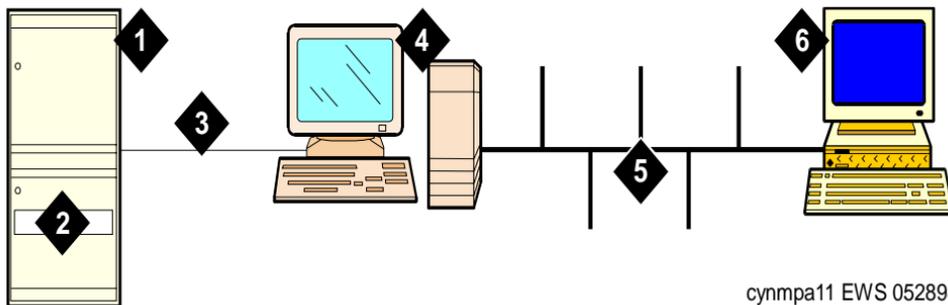
cynmpa11 EWS 052898

1 *DEFINITY system*

2 *Netcon channel or system access ports on the DEFINITY system*

3 *Dial-up connection between DEFINITY system and the DEFINITY Proxy Agent modem*

4 *DEFINITY Proxy Agent stand-alone computer and DEFINITY Proxy Agent product*

Figure 1. Network configuration

5 *Internet TCP/IP connection (LAN or WAN) between the DEFINITY Proxy Agent workstation and the NT/Windows 2000 workstation*

6 *DEFINITY Network Management (DNM) running on NT/Windows 2000*

The following figure shows an example of the network configuration over IP between a DEFINITY system and an NMS network server.

cynmpa15 LJK 080701
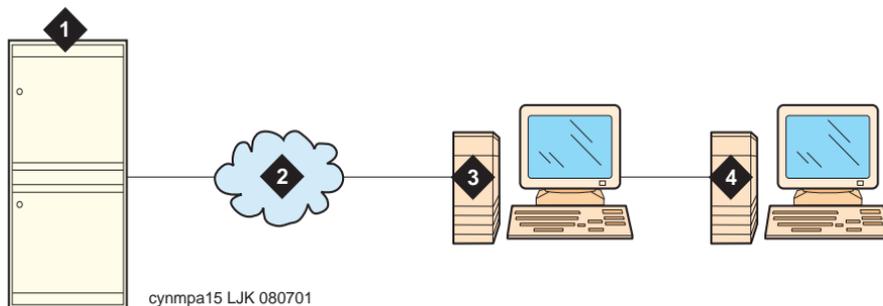
1 *DEFINITY system with CLAN circuit pack*

2 *Internet connection (LAN or WAN)*

3 *DEFINITY Proxy Agent stand-alone computer and DEFINITY Proxy Agent product*

4 *DEFINITY Network Management (DNM) running on NT/Windows 2000*

Figure 2. Network over IP configuration

Supported Systems

DNM Release 4.0 supports *both* SNMP V2 set/get requests and SNMP V1 alarm traps for the systems listed below:

- DEFINITY G3 Release 4.0 and DEFINITY ECS Releases 5.0 through 9.x
- Survivable Remote Processors (SRPs)
- Multipoint Conferencing Unit (MCU) Release 6.0.
- IP600
- DEFINITY One

DNM treats SRPs and MCUs as DEFINITY systems.

System Requirements

DNM 4.0 for NT/Windows 2000 operates on Microsoft Windows NT/Windows 2000 4.0 (Service Pack 4 and greater) and Windows 2000 systems.

DNM 4.0 for NT/Windows 2000 operates with:

- DEFINITY Proxy Agent Release 4.0
- Symantec pcAnywhere Release 9.2.

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

The Avaya client team uses the GES/SAP Configurator to configure the hardware requirements for the NT/Windows 2000 platform.

⚠ CAUTION:
Customers are solely responsible for upgrading their network platform to meet the platform requirements for DNM 4.0 for NT/Windows 2000, including Symantec pcAnywhere Release 9.2

DEFINITY Network Management CD-ROMs

Avaya delivers the product software and documentation to customers on two separate CD-ROMs, which are entitled:

- DEFINITY Network Management for NT/Windows 2000
- DEFINITY Proxy Agent

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

DEFINITY Network Management Release 4.0 for NT/Windows 2000

- Product software and Versant database
- DNM Online Help System integrated in the product software
- *DNM for NT/Windows 2000 Installation and Getting Started* manual
- PA001 Administration Request form

DEFINITY Proxy Agent Release 4.0

- DEFINITY Proxy Agent software
- *DEFINITY Proxy Agent Installation and Administration* manual
- PA001 Administration Request form

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

Customer Pre-Installation Checklist

Customers must complete all of the pre-installation tasks *before* DNM can be installed or upgraded.

1 Install or upgrade Windows NT/Windows 2000 platform.
   Refer to "System Requirements" on page 24 and the vendor documentation. (See also Understanding pcAnywhere Security)

2 Connect the DPA computer's serial connection to the managed nodes.

3 Connect the DPA computer's TCP/IP connection to the NT/Windows 2000 system through the local area network (LAN) or the wide area network (WAN). Refer to the vendor documentation.

4 Verify that the updated **PA001 Administration Request** form (Rev. 10/01) is completed and faxed to the Technical Services Center (TSC).

Note: After the DNM installation, *system administrators* can execute the appropriate tasks in Chapter 4, "System Administration".

Understanding pcAnywhere Security

Before you install a copy of Symantec's pcAnywhere on any of your computers, read this section.

⚠️ SECURITY ALERT:
Customers are responsible for the security of their data network and for preventing unauthorized individuals from accessing it. Therefore, exercise caution when using

pcAnywhere. Having it installed does not pose a security risk; it must be up and running, and be configured to receive calls, before a remote user can enter the system. In addition, pcAnywhere offers a number of security features.

Follow these guidelines to protect PCs with pcAnywhere installed:

1 Unplug the modem from the phone jack when pcAnywhere is not in use.

2 Only run pcAnywhere when necessary.

3 Do NOT publish the phone number for the modem that people use to access the computer.

4 Change your password after Avaya personnel leave your site and after Avaya personnel terminate a remote service session.

5 Configure the following pcAnywhere security options:

   a Require login names for callers.

   b Make passwords case sensitive.

   c Log all failed connection attempts.

   d Set a maximum number of login attempts per call.

   e Allow time to enter the complete login.

   f Disconnect if inactive.

6 Configure pcAnywhere to log remote call and online sessions.

For more information on pcAnywhere, including acquisition and security, see

Introduction

This chapter contains the procedures to install **DEFINITY Network Management (DNM) Release 4.0** as a new or upgrade installation.

User documentation

The installation script for this release automatically copies *DEFINITY Network Management for NT/Windows 2000 Installation and Getting Started* to the **doc** subdirectory where the you installed DNM.

You can access the **Avaya Documentation** (this book) and the PA001 form from **Start > Programs > Avaya > DNM User Documentation**. Prior to installation, you can view this document through the CD auto run menu.

Online help system

The new online help system is integrated into DNM. You can access the help system from any screen in DNM or from the Help option on the menu bar.

Installation Checklist

Installers must complete the installation tasks in the order presented below.

1. Verify that the customer has completed the pre-installation tasks and installed the current release of the Windows NT/Windows 2000 platform. Refer to "Customer Pre-Installation Checklist" on page 26.

2. Assemble the required materials and information, including:

   - System administrator login and password
   - Completed PA001 form
   - DEFINITY Network Management Release 4.0 for NT/Windows 2000 CD-ROM
   - Printed copy of this book
   - Technical Services Center (TSC) number: see Table 1 on page 9

3. Complete the installation procedure:

   - "Adding DEFINITY Proxy Agents" on page 40

4. Verify the DNM installation.
   Refer to the sections below in Chapter 5, "Getting Started":

Note: After the DNM-NT/Windows 2000 installation, system administrators or root users can execute the tasks in Chapter 4, "System Administration".

Technical Verification Checklist

At the completion of the DNM installation, the engineer at the Technical Services Center (TSC) must complete the tasks below to insure that DEFINITY Proxy Agent (DPA) is properly administered and functioning:

1 Verify that the *customer* completed and faxed PA001 Administration Request form (Rev. 08/01) 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 DPA is administered to DNM. Refer to "Adding DEFINITY Proxy Agents" on page 40.

4 Generate an exception event. Verify the object color for the exception status correctly displays on the DNM screens.

5 In addition, check the information below:

- Verify that DPA and DNM can receive alarms from each managed node
- Verify that the TSC can receive alarms from each managed node

6 Verify that DEFINITY Proxy Agent telnet feature works.

Customer Acceptance Checklist

At the completion of the DNM installation, the engineer at the TSC and the customer must complete the following tasks to insure the that customer can operate DPA and accepts the installation as "complete."

1 Review the sections in Chapter 4, "System Administration" with the customer.

2 Review the sections in Chapter 5, "Getting Started" with the customer.

3 Request the customer to log in to DNM 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

Installing DNM

This section contains the procedure to install a new DEFINITY Network Management 4.0 for NT/Windows 2000. The installation script simplifies the installation process and makes the installation of DNM more automatic.

Required materials

You need the following materials and information:

- System administrator login and password
- Completed PA001 form
- CD-ROM entitled, DEFINITY Network Management Release 4.0 for NT/Windows 2000

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.

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

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

Starting the Installation

Complete the procedure below to install the *new* DEFINITY Network Management
product on the Windows NT/Windows 2000 network server.

1 Start the installation in any of the following ways:

- **From CD-ROM autorun menu**
- **From My Computer > CD-ROM > DNM > setup.exe**
- **From Start > Run > enter your CD-ROM Drive:\DNM\setup.exe**

2 Welcome Screen
Click **Next**

3 Select Components Screen
The DNM software requires all four listed components to be installed. Those
components that need to be installed at this time are already checked. Any
components which are not checked have already been installed and do not need to be
installed now. You can force a component to be re-installed by manually checking the
desired component.
Click **Next**

Installing the Java Runtime Environment

4 (If the Java Runtime Environment Installation component was **not** selected, skip to step 10)
This will install **Java™ Runtime Environment** 1.1.7. Do you wish to continue?
Click **Yes**

5 **Java Runtime Environment** 1.1.7 Setup – **Welcome Screen**
Click **Next**

6 **Software License Agreement** Screen
Click **Yes**

7 **Select Components Screen**
Click **Next**

8 **Start Copying Files** Screen
Click **Next**

9 **Setup Complete** Screen
Click **Finish**

10 **Information dialog box**
DNM Setup is running the Java Runtime Environment installation.
Click **OK** when JRE installation has completed.
Click **OK**

Installing the Versant ODBMS

11 (If the Versant ODBMS Installation component was **not** selected, skip to step 14)
   Versant Custom Installation Screen

   – Set Location – choose the directory for Versant application files

   – Installation Options – Versant ODBMS must be checked

   – Custom Client Install – Full Install must be selected
     Click **Install**

12 DB Directory Screen
   Choose the directory where the database will reside
   Click **Next**

13 Versant Modifications Screen
   Click **Next**

14 I**nformation dialog box**
   Installation Completed Successfully
   Click **OK**

Installing the Java Versant Interface

15 (If the Java Versant Interface Installation component was **not** selected, skip to step 22)

Warning dialog box

During the following JVI installation, DNM requires these options be selected

– Versant ODBMS Version = 5.2.2

– Process Model = 2p (default)

– JDK Environment = JDK 1.1 (default)
   Click **OK**

16 J/Versant Installation Screen
Click **Next**

17 Select ODBMS Version Screen
Choose the "Versant 5.2.2" option.

⚠ CAUTION:

This option is NOT the default option and must be manually selected. Failure to specify the correct option will be detected later during DNM Application setup, but will require you to reinstall the Java Versant Interface.

18 Select Versant Process Model Screen
Choose the default setting of "2p"
Click **Next**

19 Select the Java Environment Screen
Choose the default setting of "JDK 1.1"
Click **Next**

20. **Java/Versant Custom Installation** Screen
    Set Location - choose the directory for the Java/Versant application files
    Click **Install**

21. **Versant Modifications** Screen
    Click **Next**

22. **Information dialog box**
    Installation Completed Successfully
    Click **OK**

23. (If Versant ODBMS and Java Versant Interface components were not installed, skip to step 23)
    Versant Install Requires Reboot Screen
    Choose the "Yes" option to select an immediate system reboot
    Click **Finish**

⚠ CAUTION:

After the system is rebooted, the DNM installation program must be run again to complete the DNM setup. When the system has rebooted, log in again as Administrator and run the DNM software installation program again to continue with the DNM installation procedure.

Installing the DNM Component

24. **Choose Destination Location** Screen
    Browse… - choose the directory for the DNM application files
    Click **Next**

25. **Select Program Folder** Screen
    Choose the Program Folder name for the DNM shortcuts on the Start menu.
    Click **Next**

26. **Enter Information** Screen **(SNMP trap port)**
    Enter the SNMP trap port number from the PA001 form.
    Click **Next**

27. **Enter Information** Screen **(Printer Command)**
    Enter the printer device information from the PA001 form.
    Click **Next**

28. **Enter Information** Screen **(Telnet Command)**
    Enter the telnet command from the PA001 form.
    Click **Next**

29. **Information Screen**
    Click **Next**

30. E**nter Information** Screen **(Report URL)**
    Enter the URL for DNM reports from the PA001 form.
    Click **Next**

31 (If this is a new DNM installation for this node, skip to step 31)
Question dialog box
Do you wish to erase your existing DNM database? *(WARNING: this deletes any existing information)*
Click **Yes** to retain your existing data
Click **No** to delete your existing data and create a new empty DNM database

32 The DNM setup will perform the following actions, which could take several minutes:
 - prepare the DNM 4.0 database
 - copy DNM User Documentation
 - prepare class files for web-based reports

33 **Setup Complete** Screen
Leave the box checked to begin using DNM immediately
Click **Finish**

Adding DEFINITY Proxy Agents

DNM collects configuration, fault, and performance data from DPA through SNMP. DNM requires you to enter the names of their DEFINITY Proxy Agents and administer the UDP port on which DNM will receive traps.

Procedure   Add DEFINITY Proxy Agents to be supported by DNM:

Start > Programs >DEFINITY Network Management > Add New DEFINITY Proxy Agents

1 In the IP Address field, enter the IP address (or network name) of the DEFINITY Proxy Agent from the PA001 form.

2 In the Read Community field, enter the SNMP read community string of the DEFINITY Proxy Agent from the PA001 form. The default is public.

3 In the Write Community field, enter the SNMP write community string of the DEFINITY Proxy Agent from the PA001 form. The default is g3pa.

4 Click Send
The status line should indicate that DPA was successfully added to the system.

Repeat steps 1 though 4 for additional DEFINITY Proxy Agents on the PA001 form. When all agents have been added, close the window.

Note: PA001 form needs to be updated to include IP addresses for DEFINITY Proxy Agents and Community Strings.

It may take several hours before supported nodes and basic configuration alarm and error data can be collected.

Removing DNM

This section contains the procedure to remove DEFINITY Network Management Release 4.0 for NT/Windows 2000 from the network server.

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

Only the *system administrator* or root users should execute the procedure to remove DNM.

DNM Package Removal

Removal is accessed through:

Control Panel > Add/Remove Programs

To uninstall the components that were added during DNM installation, remove each of the following packages *in the specified order*:

1 DEFINITY Network Management

2 J/Versant Interface 2.3.3

3 Versant ODBMS 5.2.2

4 Java Runtime Environment 1.1

Note: The Versant Database must be removed manually. The default for this file is:
C:\VERSANT\DB

Removal *preserves* the Adobe Acrobat Reader software.

Introduction

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

The information in this section allows system administrators to manage the options below:

- Execute system commands to start and stop DNM and to view the system health status
- Execute database commands
- Edit system configuration files to customize DNM

System Commands

System administrators can execute these commands.

Start and Stop Commands

The commands in the following table give the system administrator additional control of DNM background processes.

Note: The Graphical User Interface (GUI) will shut down when background processes are stopped.

Table 4. Start and Stop commands

Description	Commands
Stops DNM background processes and allows it to start on reboot.	**Start > Settings > Control Panel> Services > DNM Background Processes > click Stop**
Restarts DNM background processes immediately.	**Start > Settings > Control Panel > Services > DNM Background Processes > click Start**

System Health Commands

Administrators and root users can print a process status to check the system health.

Procedure From the Windows Command Prompt :

1 Type: **cd %DNM%**

2 Press: **Enter**

3 Type: **dnmstatus**

4 Press: **Enter**

   Result: Prints process status.

Backing Up and Restoring the Database

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

Backup and Restore should *only* be started after DNM background processes have been stopped.

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

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

Backup

Required materials	You need the following materials and information:

- System administrator login and password
- File name or device name to back up the database

Procedure   Complete the procedure below to back up the database.

1 Close all windows and applications.

2 Optional. Hook up the archive device to back up the database.

3 From the **Windows Command Prompt**

- Type: **cd %DNM%**
- Press **Enter**
- Type: **backupdef (filename)**

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

```
Backup was completely successful.
```

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

- Enter **no**

Restore

Required materials	You need the following materials and information: • System administrator login and password • File name or device name to restore from the database
Procedure	Complete the procedure below to restore the database.

1 Close all windows and applications.

2 From the **Windows Command Prompt:**

- Type: **cd %DNM%**
- Press **Enter**
- Type: **restoredef (filename)**

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

- Enter **no**

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]

- Enter **no**

System Configuration Files

The list below contains files that the **system administrator** can edit to customize DNM. 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.

- PMProp -Specifies the system properties:
  - Database parameters
  - Port assignments
  - SNMP parameters
  - Print options
  - Others
- User's Scripts -Identifies executable files to run when specified exceptions occur on the managed node.

Administer the Alarm Notification

Only the *system administrator* should edit the scripts to enable the alarm notification features.

Script directories The scripts reside in the "scripts" subdirectory of the DNM installation directory. The default installation will place these scripts under:

Program Files/Avaya/DNM/scripts

As DNM detects exceptions it will execute the script file:

• DEFINITY_ARS.bat

Alarm notification options System administrators can choose to customize the standard alerting scripts included on the DNM CD, or administrators can create their own scripts for exception alerting/notification with third party products such as:

• Telamon, *TelAlert*
• Remedy, *Action Request System (ARSystem)*

To customize the sample script, the sample must first be copied into the

"DEFINITY_ARS.bat" file.

⚠ 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 sample scripts available in DNM or from third-party vendors. These scripts are samples and will need to be customized for your environment.

DNM options   The table below contains the description of product options within DNM.

Table 5. DNM notification options

Option	Description
Email	Sends an email message to the system administrator that contains detailed information for the exception received from the managed system.

TelAlert options   The table below contains the descriptions of the notification options in Telamon's TelAlert product.

See also   Table 3 on page 12

Table 6. TelAlert notification options

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

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 additional forms of alerting.
See also	Table 3 on page 12

Table 7. 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

DNM looks for the **DEFINITY_ARS** script when an exception event is created for DEFINITY and MCU managed nodes.

Then DNM calls the script and passes the values listed below to the alarm notification program. If a value is *not* defined, then DNM 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

5 Getting Started

Introduction

This chapter explains how to start DNM and access the online help for more information on how to use the product.

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.

DNM Graphical Overview
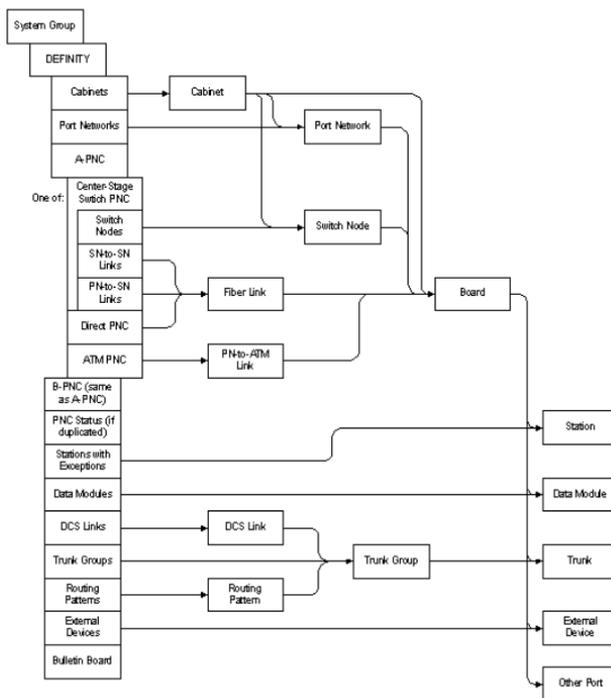
Figure 3. DNM Graphical overview

Starting the DNM Client

To start DNM, choose **Start > Programs > Avaya > DEFINITY Network Management** from the Windows Start menu.

Starting the Online Help

The online help system replaces the user guide in DNM.

Purpose of the Help system

DNM's online help system provides information you may find helpful when using DNM day-to-day. The help screens contain the information listed below:

- Procedures for completing common DNM activities
- Descriptions of DNM screens
- Links to related topics for more information

Starting the Help system

To start DNM's online help system, choose Help Topics from the Help menu.

A Help button is also available on many tabs, panels, and dialog boxes. Clicking the Help button displays the help topic for the current screen.

Using the Help system

DNM's help system works the same way the help systems work in most Windows-based applications. If you would like help learning how to use the help system, start the Help system and then click the topic called "How to use the online help."

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