

Netfinity Manager

Quick Beginnings



Netfinity Manager

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Note

Before using this information and the product it supports, be sure to read the general information under Appendix B, "Notices" on page 53.

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About This Book

This book provides the installation and startup instructions for Netfinity Manager. This book also provides instructions for the use of Netfinity's individual services.

Who Should Read This Book

This book is for anyone who will be installing and using the Netfinity Manager for local or remote hardware systems management.

The user should have general knowledge of the operating system, network operations, and database functions.

Chapter 1. Welcome to Netfinity

Netfinity is a group of distributed applications designed to enhance the hardware systems-management capabilities of a network. Netfinity has a flexible, modular design that allows for a variety of system-specific installations. Each of these installation configurations provides a set of Netfinity services that enables the user to perform, locally, a variety of powerful hardware systems-management and monitoring functions.

Netfinity Manager provides powerful hardware systems-management capabilities, including access to all systems on the network that are running Netfinity Manager or Client Services for Netfinity Manager. In addition to all standard Client Services for Netfinity Manager functions, Netfinity Manager also features bidirectional file and directory transfers (not available on systems running Client Services for Netfinity Manager for NetWare), remote screen captures, and remote command-line sessions. Netfinity Manager also enables the user to export data collected by System Information Tool, System Profile, Software Inventory, and System Monitor to a DB2, Lotus Notes, or SQL or DB2 via an open database connectivity (ODBC) database (ODBC export is available on Windows NT systems only). Finally, Netfinity Manager enables some services to be started at scheduled times and dates for simplified, automated systems management.

Netfinity Manager also provides two powerful features that enable the user to access the Netfinity Manager system and all Netfinity systems in the managing system's network from a system that is not attached to the managing system's network:

- Serial Connection Control

Use the Serial Connection Control service to use a Netfinity Manager system's modem to establish a connection with any Netfinity system that has a modem. Once this connection is established, the Netfinity Manager has full access to Netfinity services, just as though the remote system were part of the managing system's network.

- Netfinity Manager for Web

The Netfinity Manager for Web enables access and remote control of the Netfinity Manager system over the Internet, using any system that has an Internet connection and a World Wide Web (WWW) browser. With the Netfinity Manager for Web, the Netfinity systems can be accessed and managed from anywhere in the world.

Road Map

Use Table 1 to find the information you need to get started with Netfinity.

Table 1. Getting Started Road Map

If you want to ...	Refer to ...
Install Netfinity	Chapter 4, "Installing Netfinity Manager" on page 12
Know the general audience	"About This Book" on page v
Learn about installation options	Appendix A, "Installation Options" on page 48
Learn about Netfinity database support	Chapter 5, "Netfinity Database Support" on page 20
Learn about system requirements	Chapter 2, "System Requirements" on page 4
Read about Netfinity	Chapter 1, "Welcome to Netfinity" on page 1
Start the installation program	Chapter 3, "Starting the Installation Program" on page 9
Start Netfinity	Chapter 6, "Starting Netfinity" on page 37

Conventions

Knowing the conventions used in this book will help you use it more efficiently.

Boldface	Indicates the name of an item you need to select or the name of a command.
<i>Italics</i>	Indicates new terms, book titles, or variable information that must be replaced by an actual value.
Monospace	Indicates an example (such as a fictitious path or file name) or text that is displayed on the screen.

Chapter 2. System Requirements

The minimum system requirements for Netfinity Manager depend on the operating system.

- If Netfinity Manager for OS/2 is being installed, see “Netfinity Manager for OS/2 System Requirements.”
- If Netfinity Manager for Windows 95 is being installed, see “Netfinity Manager for Windows 95 System Requirements” on page 5.
- If Netfinity Manager for Windows NT is being installed, see “Netfinity Manager for Windows NT System Requirements” on page 7.

Netfinity Manager for OS/2 System Requirements

The minimum system requirements for Netfinity Manager for OS/2 are:

- OS/2 Version 3.0 or later
- Approximately 19 MB*—22 MB of hard disk space (space required depends on system configuration)
- A LAN adapter card and one or more of the following communications protocols:
 - IBM TCP/IP for OS/2 version 1.2 or later (required for Netfinity Manager for the Web)
 - NetBIOS

Note: Netfinity’s NetBIOS requirements are three names, two sessions, and nine network control blocks (NCBs).

 - IPX
 - SNA

Netfinity supports the following SNA protocol stacks:

* When referring to hard-disk-drive capacity, MB means 1 000 000 bytes; total user-accessible capacity may vary depending on operating environment.

Operating System	Supported SNA Stack
OS/2	IBM Communications Manager/2 version 1.11
Windows 95	PCOMM 4.1
Windows NT	<ul style="list-style-type: none"> - IBM Communications Server for Windows NT - Microsoft SNA Server version 2.11 with Service Pack 1 and WCPIC32.DLL dated 01/22/97 or later. This DLL is available from Microsoft.

Note: Systems using Netfinity Manager with Microsoft SNA Server cannot communicate with systems running the Microsoft SNA Server client. Netfinity supports only server-to-server communications between systems running Microsoft SNA Server software. However, Netfinity systems running Microsoft SNA Server can communicate with Netfinity systems using any of the other supported SNA stacks.

- A 9600 baud or greater modem (optional).

Note: Serial Connection Control will not function on systems that do not have a properly installed and configured modem.

Netfinity Manager for Windows 95 System Requirements

The minimum system requirements for Netfinity Manager for Windows 95 are:

- Microsoft Windows 95
- Approximately 17 MB—20 MB of hard disk space (space required depends on system configuration)
- A LAN adapter card and one or more of the following communications protocols:
 - TCP/IP (must be WinSock Version 1.1-compatible; required for Netfinity Manager with Web Enhancement)
 - NetBIOS
 - Note:* Netfinity’s NetBIOS requirements are two names, one session, and five network control blocks (NCBs).
 - IPX
 - SNA

Netfinity supports the following SNA protocol stacks:

Operating System	Supported SNA Stack
OS/2	IBM Communications Manager/2 version 1.11
Windows 95	PCOMM 4.1
Windows NT	Microsoft SNA Server version 2.11 with Service Pack 1 and WCPIC32.DLL dated 01/22/97 or later. This DLL is available from Microsoft.

Note: Systems using Netfinity Manager with Microsoft SNA Server cannot communicate with systems running the Microsoft SNA Server client. Netfinity supports only server-to-server communications between systems running Microsoft SNA Server software. However, Netfinity systems running Microsoft SNA Server can communicate with Netfinity

systems using any of the other supported SNA stacks.

- A 9600 baud or greater modem (optional).

Note: Serial Connection Control will not function on systems that do not have a properly installed and configured modem.

Netfinity Manager for Windows NT System Requirements

The minimum system requirements for Netfinity Manager for Windows NT are:

- Microsoft Windows NT version 4.0 or later
- Approximately 17 MB—20 MB of hard disk space (space required depends on system configuration)
- A LAN adapter card and one or more of the following communications protocols:
 - TCP/IP (must be WinSock Version 1.1-compatible; required for Netfinity Manager with Web Enhancement)
 - NetBIOS

Note: Netfinity's NetBIOS requirements are two names, one session, and five network control blocks (NCBs).

 - IPX
 - SNA

Netfinity supports the following SNA protocol stacks:

Operating System	Supported SNA Stack
OS/2	IBM Communications Manager/2 version 1.11
Windows 95	PCOMM 4.1
Windows NT	Microsoft SNA Server version 2.11 with Service Pack 1 and WCPIC32.DLL dated 01/22/97 or later. This DLL is available from Microsoft.

Note: Systems using Netfinity Manager with Microsoft SNA Server cannot communicate with systems running the Microsoft SNA Server client. Netfinity supports only server-to-server communications between systems running Microsoft SNA Server software. However, Netfinity systems running Microsoft SNA Server can communicate with Netfinity systems using any of the other supported SNA stacks.

- A 9600 baud or greater modem (optional).

Note: Serial Connection Control will not function on systems that do not have a properly installed and configured modem.

Note: To most effectively manage Windows NT systems, any user that will be using Netfinity on a Windows NT system (locally or remotely) should have administrator-level access to the system.

Chapter 3. Starting the Installation Program

The Netfinity installation program is identical for Netfinity Manager for OS/2, Netfinity Manager for Windows 95, and Netfinity Manager for Windows NT. However, the process used to start the installation program differs depending on which operating system is running.

- If OS/2 is running, see “Starting the Netfinity Manager for OS/2 Installation Program.”
- If Windows 95 is running, see “Starting the Netfinity Manager for Windows 95 Installation Program” on page 10.
- If Windows NT 3.51 or NT 4.0 is running, see “Starting the Netfinity Manager for Windows NT Installation Program” on page 10.

Starting the Netfinity Manager for OS/2 Installation Program

To start the Netfinity Manager installation program on a system that is running OS/2:

1. Start the computer with the OS/2 operating system.
2. Start an OS/2 full-screen or OS/2 window session.
3. Place the Netfinity CD into the CD-ROM drive.
4. Make the CD-ROM drive the active drive.

For example, if the CD-ROM drive is drive letter D, type

D:

at the command prompt and then press **Enter**.

5. Make the Netfinity Manager for OS/2 directory the active directory.

Type

CD OS2\MANAGER

and then press **Enter**.

6. Start the installation program.

Type

INSTALL

and then press **Enter**.

To complete the installation, see Chapter 4, “Installing Netfinity Manager” on page 12.

Starting the Netfinity Manager for Windows 95 Installation Program

To start the Netfinity Manager installation program on a system that is running Windows 95:

1. Start the computer.
2. Place the Netfinity CD into the CD-ROM drive.
3. Select the **Start** button.
4. Select **Run...** from the Start button menu.
5. Type

`x:\WIN95\MANAGER\NETFINST`

where *x* is the drive letter of the CD-ROM drive in the **Command Line** field and then select **OK**.

To complete the installation, see Chapter 4, “Installing Netfinity Manager” on page 12.

Starting the Netfinity Manager for Windows NT Installation Program

To start the Netfinity Manager installation program on a system that is running Windows NT 3.51:

1. Start the computer with Windows NT 3.51.
2. Place the Netfinity CD into the CD-ROM drive.
3. Select the **File** pull-down menu from the Program Manager.

4. Select **Run...** from the File pull-down menu.
5. Type
x:\WINNT\MANAGER\NETFINST
where *x* is the drive letter of the CD-ROM drive in the **Command Line** field and then select **OK**.

To start the Netfinity Manager installation program on a system that is running Windows NT 4.0:

1. Start the computer with Windows NT 4.0.
2. Place the Netfinity CD into the CD-ROM drive.
3. Select the **Start** button.
4. Select **Run...** from the Start button menu.
5. Type
x:\WINNT\MANAGER\NETFINST
where *x* is the drive letter of the CD-ROM drive in the **Command Line** field and then select **OK**.

To complete the installation, see Chapter 4, "Installing Netfinity Manager" on page 12.

Chapter 4. Installing Netfinity Manager

Instructions on how to install Netfinity Manager follow.

1. Choose a drive and directory from which the Netfinity program files will be copied.

Type in the **Directory to Install from** field the drive and directory name where the Netfinity program files are located. The default is the drive and directory from which the Netfinity installation program was started.

2. Choose a drive and directory in which to install the Netfinity files.

Enter the drive and directory name to which the Netfinity program files will be copied. The default is **C:\NETFIN** (on systems running OS/2) or **C:\WNETFIN** (on systems running Windows 95 or Windows NT).

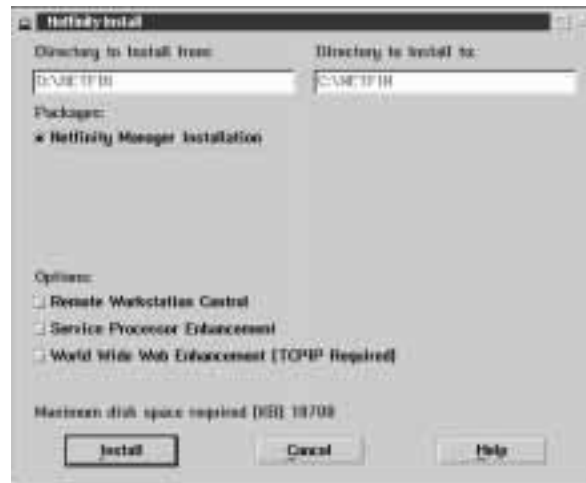


Figure 1. The Netfinity Installation Program

3. Select installation options.

There is only one installation configuration for Netfinity Manager. However, the Netfinity installation program offers several installation options. Each option enables additional specialized feature of this product.

The available installation options are:

- **Advanced System Management Support**
Select **Advanced System Management Support** to install the Advanced System Management service on this system.
- **Capacity Manager**
Select **Capacity Management** to install the Capacity Management service on this system.
- **Remote Workstation Control**
Select **Remote Workstation Control** to enable the Remote Workstation Control service on this system.
- **Update Connector Manager (NT 4.0, TCPIP, and Web Browser Required)**
Select **Update Connector Manager (NT 4.0, TCPIP, and Web Browser Required)** if the Netfinity Manager is being installed on a system that will be used to manage system updates on client systems using updates that are available from the IBM selection server.
- **World Wide Web Enhancement (TCPIP Required)**
Select **World Wide Web Enhancement (TCPIP Required)** if the Netfinity Manager is being installed on a system that will be used to manage other Netfinity systems, and can be accessed and controlled remotely over the Internet using a World Wide Web browser.

4. Install Netfinity Manager.

When an installation configuration has been chosen, select **Install**. The installation program copies all program files required by the installation configuration. A window appears,

displaying the name of the file currently being copied, as well as the percentage of the installation that is complete.

Note: Select **Cancel** to halt the installation process.

Network communication drivers and the following Netfinity services are installed:

- Alert Manager
- Alert On LAN Configuration (available only on systems running Windows 95 or later or Windows NT 4.0 or later)
- Capacity Management (available only on systems running Windows NT 4.0 or later)
- Cluster Manager (available only on systems running Windows NT 4.0 or later)
- Critical File Monitor
- DMI Browser (requires DMI Service Layer)
- ECC Memory Setup (requires ECC memory)
- Event Scheduler
- File Transfer
- Power On Error Detect
- Predictive Failure Analysis (requires PFA-enabled hard disk drive)
- Process Manager
- RAID Manager (requires RAID adapter)
- Remote Session
- Remote System Manager
- Remote Workstation Control
- Screen View
- Security Manager
- Serial Connection Control
- Service Configuration Manager
- Service Processor Manager
- Service Manager
- Software Inventory
- System Diagnostics Manager
- System Information Tool
- System Monitor
- System Partition Access (requires System Partition)
- Update Connector Manager (available only on systems running Windows NT 4.0 or later)

- System Profile
- Web Manager Configuration (installed only if the Netfinity Manager Installation with Web Enhancement installation configuration is selected)

Note: The graphical user interface (GUI) program files for DMI Browser, ECC Memory Setup, System Partition Access, RAID Manager, and Predictive Failure Analysis will be installed regardless of whether the system has a DMI Service Layer, ECC Memory, a System Partition, a RAID adapter, or a PFA-enabled disk drive. This enables a network administrator to remotely access these services on other systems within a network. However, the base program that enables local use of the service will be installed only if the required hardware or system configuration is present.

5. Configure the Network Drivers.

If the installation configuration allows for network access, enter information regarding the communication protocols that are supported by the system. The Network Driver Configuration window will appear.



Figure 2. Netfinity Installation — Network Driver Configuration Window

Follow these steps to continue configuring the system:

- a. Enter a System Name.

Enter a name for the system in the **System Name** field. This name will help other Netfinity Manager users identify the system on the network.

- b. Select a Network Driver.

Select one of the available Network Drivers that are displayed in the **Network Drivers** field. Once selected, the Network Driver will assign a network address to the system.

Notes:

- 1) The fields that appear beneath the **Driver Enabled** check box will change depending on which Network Driver has been selected.
- 2) When enabling the IPX or TCP/IP Network Driver, the network address cannot be altered and it will not appear on the screen. No field will appear beneath the **Driver Enabled** check box if the IPX or TCP/IP Network Driver is selected.
- 3) When enabling the NetBIOS Network Driver, a network address will be selected and displayed in the **Network Address** field. To change this default name, enter any 1-8 character address. However, this address *must* be unique to the system. If this NetBIOS address is identical to the NetBIOS address of another system on the network, it will prevent Netfinity from starting properly.
- 4) When enabling the Serial Netfinity driver, identify the system with a Unique Machine Dialup Name. This name can be up to 32 characters long, and must be unique to the system. If this name is not unique, it can prevent remote Netfinity Managers from using the Serial Connection Control service to access the system.

- c. Enable the Network Driver.

When all required information has been entered, select the **Driver Enabled** check box to activate the driver on startup.

If the system supports multiple network interfaces, add additional network drivers by repeating steps b and c.

- d. Identify the system with System Keywords (optional).

To make full use of the Remote System Manager's discovery process, identify the system (and each of the Netfinity systems that are on the network) with descriptive system keywords. Enter these keywords in the appropriate **System Keywords** fields.

- e. Select Netfinity Options (optional)

The Netfinity Options window contains special options that affect Netfinity network operations. Available options include:

- Force Remote Logons

If the **Force Remote Logons** option is enabled, the system will not be able to save the User ID/Password combinations that were used when accessing remote systems. This will force a manual log on each time a remote system is accessed.

- Service Execution Alerts

If the **Service Execution Alerts** option is enabled, the Netfinity Service Manager will generate a Netfinity alert whenever one of *the user's* Netfinity services is started by a remote user. The alert includes the name of the service that was run and information about the user that started the service.

- Show Network Support

If the Show Network Support option is being enabled, the Netfinity Support Program (or Network Interface) will be visible as a minimized icon at the bottom of the display (Windows 3.1, Windows for Workgroups, or Windows NT 3.51 only), as a minimized process in the Windows NT 4.0 or Windows 95 taskbar, or in the OS/2 task list. This enables the user to shutdown the

Netfinity Support Program. If the Netfinity Support Program is to remain invisible to the user, do not enable this option.

- **Require User Authorization for Screen Access**

If the Remote User Authorization for Screen Access option is enabled, a remote user cannot use either Remote Workstation Control or Screen View on your system without your permission. When this option is enabled and a remote user attempts to use one of these services on your system, a window will pop up on your desktop alerting you that a remote user is attempting to use the Remote Workstation Control or Screen View service and asking whether you want to permit this user to use this service on your system. You can select **Yes** or **No**. If you do not make a selection within 15 seconds (for example, if you are not sitting at your system when the access attempt is made), Netfinity will automatically prevent the remote user from using the service on your system.

To implement one or more of the available Netfinity Options:

- 1) Select **Options...**
 - 2) Select the Netfinity options to be enabled.
 - 3) Select **Save**.
- f. Set the Network Timeout Value (optional).

The **Network Timeout** field shows the number of seconds that Netfinity will attempt to communicate with a remote system that is not responding. If Netfinity does not establish contact with the remote system within this time, it cancels the communication attempt. The Network Timeout default setting is 15 seconds. This default setting may not need to be altered.

g. Save the configuration and continue.

Select **Save** to save the configuration. Then, select **Exit** to continue.

Note: The configuration can be changed later by selecting the Network Driver Configuration object from the Netfinity folder.

6. After finishing configuring the system for network access, the installation program displays a list of changes that must be made to the system configuration files, and asks whether the installation program should make the changes. For example, if Netfinity Manager for Windows 95 is being installed, the installation program will display a list of changes that must be made to the CONFIG.SYS file.

Select either **Yes** or **No**.

Note: These changes must be made to the system configuration for Netfinity to run correctly.

- If **Yes** is selected, the changes are automatically made to the system configuration.
- If **No** is selected, the commands are saved to a file named CONFIG.NEW in the destination directory (and to AUTOEXEC.NEW, if appropriate) so that they can be added later.

7. The installation is now complete. Shutdown and restart the system for the system configuration changes to take effect.

Chapter 5. Netfinity Database Support

Netfinity supports the collection and export of a vast amount of system-specific data to a Netfinity database. Netfinity databases can be created on database management systems using DB2, Lotus Notes, or Microsoft SQL. Microsoft SQL is supported via ODBC, and is available on systems running Netfinity Manager for OS/2, Windows 95, or Windows NT. If the system supports ODBC, the user can access and export DB2 data via ODBC as well. Once support for one or more of these databases has been installed along with Netfinity Manager, data can be exported from these Netfinity services:

- Alert Manager
- Software Inventory
- System Information Tool
- System Profile
- System Monitor

Information on how to install and configure support for database export follows.

- If support for DB2 database export is being installed, see “DB2 Database Support.”
- If support for Lotus Notes database export is being installed, see “Lotus Notes Database Support” on page 27.
- If support for ODBC database export is being installed, see “ODBC Database Support” on page 30.

DB2 Database Support

Support for DB2 database export is automatically configured during installation of the Netfinity Manager. However, the database system itself must be configured. Instructions for configuring the database follow.

A raw data dump to a file is also available and will run without a database.

System Requirements

The minimum requirements for Netfinity database export are:

- Netfinity Manager for OS/2:
 - DB2 Client Version (refer to Table 2 on page 35)
 - DB2 Version (refer to Table 2 on page 35)
- Netfinity Manager for Windows 95:
 - DB2 Client for Windows 95 (refer to Table 2 on page 35)
 - DB2 Version (refer to Table 2 on page 35)
- Netfinity Manager for Windows NT:
 - DB2 Client for Windows NT (refer to Table 2 on page 35)
 - DB2 Version (refer to Table 2 on page 35)

Attention:

Using Netfinity database support with systems running unsupported versions of DB2 or the DB2 Client may cause unpredictable results and may halt the system.

See the *DB2 Installation Guide* for general requirements and supported protocols.

Installing and Configuring the Database

The following information describes the steps to install and configure the DB2 database.

Note: If your primary system is OS/2, refer to “Installing the database on OS/2” on page 22.

1. Start a DB2 command window.

Note: If it's not already running, start the DB2 database manager.

2. Type the following command:

```
DB2 CREATE databasename ON d
```

where

- *databasename* is the name of the database
- *d* is the drive where the database is created

3. Press **Enter**.
4. Next, you must configure the tables for ODBC database support so the tables can be configured. For information on configuring the database for ODBC, refer to, "ODBC Database Configuration" on page 31. For information on creating the tables, refer to, "Creating the Netfinity Tables" on page 32.
5. Finally, you must bind the database. For information on binding the database, refer to, "Activating the Database"

Installing the database on OS/2

1. Insert the Netfinity CD into the CD-ROM drive (in this example, drive D; individual drive letters might be different).
2. Start an OS/2 window or full-screen session.
3. Make the CD-ROM drive the active drive.

Type D: and then press **Enter**.

4. Type the following command at the OS/2 prompt:

```
NETFINDB CREATE /DBNAME=databasename /DRIVE=d
```

where *databasename* is the name of the database and *d* is the drive where the database will be located.

Note: If any part of the database already exists, the utility program will create only the portions of the database that are missing.

5. Press **Enter**.

Activating the Database

The following information describes how to connect, bind and grant privileges to the database.

1. **Connecting to the Database**
 - a. Start a DB2 command window.
 - b. Type the following command:

```
DB2 CONNECT TO databasename
```

where *databasename* is the name of the database as specified in the database installation step.

c. Press **Enter**.

2. Bind the package and the database

To prepare SQL statements stored in the bind file and store the package in the database, perform the following steps from a system on which Netfinity Manager for OS/2, Netfinity Manager for Windows 95, or Netfinity Manager for Windows NT has been installed:

- a. Open a DB2 command window.
- b. In the DB2 command window, type the following command:

```
DB2 BIND x:\directory\DB2SQLC0.bnd
```

where *x:\directory* is the name of the drive and directory where Netfinity is installed.

c. Press **Enter**.

Granting and Revoking Database Privileges

The following information describes how to grant and revoke database privileges.

Note: If your primary system is OS/2, refer to “Database Privileges on OS/2 Systems” on page 24.

1. Start a DB2 command window.

Notes:

- a. If it is not already running, start the DB2 database manager.
- b. If you are not connected to the DB2 Netfinity database now, connect to the database.

2. Type the following command:

```
DB2 GRANT privilegecode ON TABLE tablename TO userid
```

where

- *privilegecode* is one of the following privilege codes:
 - ALL
 - ALL PRIVILEGES

Note: Grants all the appropriate privileges, except CONTROL, on the database.

- ALTER
- CONTROL
- DELETE
- INDEX
- INSERT
- REFERENCES
- SELECT
- UPDATE
- *tablename* is the name of the table as specified during database installation. A listing of the Netfinity database table names can be found in the *Netfinity User's Guide* (Appendix H: Netfinity Rational Database Tables).

Note: The Netfinity Database Administration Tool can also be used to GRANT or REVOKE privileges. For information on using the Database Administration Tool, refer to "Creating the Netfinity Tables" on page 32.

- *userid* is the user ID to be granted access

3. Press **Enter** to execute the command.

To revoke privileges, substitute REVOKE for GRANT in the command line.

Database Privileges on OS/2 Systems

1. Use the GRANT EXECUTE command to enable Netfinity to access the database.

Type the following command at the OS/2 prompt:

```
DB2 GRANT EXECUTE ON PACKAGE NETFIN.DB2SQLC0 TO PUBLIC
```

and then press **Enter**.

Note: Specify PUBLIC or authorize only specific manager systems. To limit access to the database, substitute the authorization name of the managing system for PUBLIC.

2. Use the CONNECT RESET command to disconnect current users from the database.

Type the following command at the OS/2 prompt:

```
DB2 CONNECT RESET
```

and then press **Enter**.

3. Use the NETFINDB GRANT command to grant (or revoke) database privileges

To grant or revoke table privileges on OS/2:

- a. Insert the Netfinity CD into the CD-ROM drive (in this example, drive D; individual drive letters might be different).

- b. Make the CD-ROM drive the active drive.

Type **D:** and then press **Enter**.

- c. Type the following command:

```
NETFINDB GRANT /ID=id PUBLIC  
/DBNAME=databasename /PRIV=privilegecode
```

where

- *id* is the user ID to be granted access,
- *databasename* is the name of the database as specified during NETFINDB execution,
- *privilegecode* is one of the following privilege codes:
 - ALL
 - ALTER
 - CONTROL
 - DELETE
 - INDEX
 - INSERT
 - REFERENCES
 - SELECT
 - UPDATE

- d. Press **Enter** to execute the command.

Note: Use PUBLIC or authorize only a specific ID or group name. Netfinity Manager update programs use the

DB2SQLC0 package and do not require specific table privileges.

To revoke privileges, substitute REVOKE for GRANT in the command line.

To configure Netfinity to discontinue export data via ODBC for use on DB2, refer to “ODBC Database Support” on page 30.

Cataloging the Database in the Managing System

If the manager is using a remote database, catalog the node the database resides on and then catalog the database to that node.

Once this step has been completed, the name of the Netfinity database will appear in the System Information Tool’s Database Selection window.

Deleting the Database

The following information describes how to delete the database for all the systems.

Note: If your primary system is OS/2, refer to “Deleting Database on OS/2.”

1. Start a DB2 command window.

Note: If not already running, start the DB2 database manager.

2. Type

DB2 DROP DATABASE *databasename*

where

databasename is the name of the database as specified during the database installation.

3. Press **Enter**.

Deleting Database on OS/2

1. Insert the Netfinity Manager CD into the database server CD-ROM drive (in this example, the CD-ROM drive is E).
2. Start an OS/2 window or full-screen session.
3. Make the CD-ROM drive the active drive.

Type **E:** and press **Enter**.

4. Type the following command at the OS/2 prompt:

```
NETFINDB DELETE /DBNAME=databasename
```

where *databasename* is the name of the database as specified during NETFINDB execution.

5. Press **Enter**.

To configure Netfinity to discontinue export data via ODBC for use on DB2, refer to “ODBC Database Support” on page 30.

Lotus Notes Database Support

To enable the Netfinity Manager to export system data to a Lotus Notes database, the following must be done:

1. Install the Netfinity database template on the Lotus Notes server.
2. Enable Netfinity Managers to export to the Lotus Notes server.

Instructions on installing the Lotus Notes database template and enabling the Netfinity Manager to export to the Lotus Notes database follow.

System Requirements

The minimum requirements for Netfinity Lotus Notes database export are:

- Lotus Notes (refer to Table 2 on page 35)
- Lotus Notes client (refer to Table 2 on page 35)

Please consult the *Notes Administrator's Guide* for general system requirements and supported communications protocols.

Installing the Database

To enable Netfinity to export system data to a Lotus Notes database, install the Netfinity database template on the Lotus Notes server. During Netfinity Manager installation, a Lotus Notes database template file (named NETFINDB.NTF) was copied to the Netfinity

program directory. To install the database template on the Lotus Notes server:

1. Copy NETFINDB.NTF from the Netfinity Directory Program to the Notes data directory on the Lotus Notes server.
2. Start Lotus Notes on the server.
3. Select **New Database...** from the Notes File pull-down menu.
This opens the New Database window.
4. Select Netfinity Database from the **Template** selection list.
5. Select the **Inherit Future Design Changes** check box.
This enables future releases of Netfinity to automatically apply changes to this Netfinity database.
6. Select Local from the **Servers** selection list.
Note: When installing the database on a remote server, select the name of the remote server from the **Servers** list.
7. Type in the **Filename** field
NETFINDB.NSF
8. Type in the **Title** field
Netfinity Database
9. Select **New** to create the database and close the New Database window.
10. Select the Netfinity Database icon from the Lotus Notes workspace.
11. Select **Database** from the File pull-down menu.
12. Select **Access Control...** from the Database pull-down menu.
13. Set the Access Level for all Netfinity Managers that will be exporting data to this database to **Editor**.
14. Select the **Can Delete Documents** check box.
15. Select **OK**.

Once the Lotus Notes database is installed, enable Netfinity Managers to export to the Lotus Notes server.

- If the Netfinity Manager system is running Netfinity Manager for OS/2, ensure that the Lotus Notes directories are included in the CONFIG.SYS file's LIBPATH, PATH, and DPATH statements. If the directories are not included in these statements, it is not possible to export to the Lotus Notes database.
- If the system is running Netfinity Manager for Windows NT, ensure that the Lotus Notes directory path is included in the Global Windows NT environment settings.
- If the system is running Netfinity Manager for Windows 95, ensure that the Lotus Notes directories are included in the AUTOEXEC.BAT file's PATH statement. If the directories are not included in this statement, it is not possible to export to the Lotus Notes database.

Once these steps have been completed, export system information from Netfinity to an easy-to-browse Lotus Notes database.

Browsing the Netfinity Lotus Notes Database

To browse the data contained in the Netfinity Lotus Notes database:

1. Open the Netfinity Database object in the Lotus Notes Workspace.
2. Select from the View pull-down menu the section of the Netfinity database to be browsed.

The Netfinity database is divided into sections that contain data gathered by specific Netfinity services. Select the name of the service that gathers the data to be viewed (for example, **Alert Logs**).

Note: Some menu selections will contain submenus.

3. Information contained in the part of the Netfinity database that has been selected is now listed in the window. For more detailed information about any displayed data item, double-click on the data item.
4. Some data items can be expanded to reveal additional information. These items are identified by a plus sign (+) in the left side border of the Notes window, beside the name of the

data item. To expand the data item, select the item and then select **Expand** from the View pull-down menu.

ODBC Database Support

Netfinity supports exporting data via ODBC for use on SQL or DB2 database systems.

Note: ODBC database export is available only on systems that are running Netfinity Manager.

System Requirements

The minimum requirements for Netfinity ODBC database export are:

- Windows NT (refer to Table 2 on page 35)
 - ODBC (refer to Table 2 on page 35)
 - ODBC support for one or more of the following database management systems (DBMS - refer to Table 2 on page 35):
 - IBM DB2
 - Microsoft SQL Server
- Windows 95, with:
 - ODBC (refer to Table 2 on page 35)
 - ODBC support for one or more of the following database management systems (DBMS - refer to Table 2 on page 35):
 - IBM DB2
 - Microsoft SQL Server
- OS/2 (refer to Table 2 on page 35)
 - Microsoft SQL Server (using the Visigenic driver provided with Microsoft SQL Server)
 - or*
 - IBM DB2

Note: The ODBC database name must not be longer than 8 characters.

ODBC Database Configuration

This section describes the procedures you must complete before Netfinity can create the Netfinity Database Tables using ODBC.

1. Define the NETFIN ID so the Netfinity Database Administration can create the Netfinity Database tables with a table qualifier of NETFIN.

Warning: NETFIN is a restricted user ID. The password is not retained by Netfinity Database Administration after use. Do not use this ID for exports.

Notes:

- a. On OS/2 and Windows '95, NETFIN must either be the owner of the database or must be given administrator authority.
- b. On Windows NT, when exporting to DB2, NETFIN must either be the owner of the database or be defined as a system administrator through NT's User Manager for Domains or NT's User Manager.

On Windows NT, when exporting to MS SQL, NETFIN must be the owner of the database or be given **table create rights**.

2. Create the database with the appropriate relationship with the NETFIN ID.
3. Make a database ODBC source either using the ODBC tools shipped with the operating system or the database.
4. On Windows NT, configure the Netfinity Support Program to export data using the ODBC database.
 - a. Open **Services** through the **Control Panel**
 - b. Select **Netfinity Support Program** from the **Services** field, then select **Startup...**
 - c. Select **Automatic** from the **Startup Type** button group.
 - d. Select **This Account** from the **Log On As field** group. Enter in the **This Account** field, the username of the account that made this database an ODBC source.

e. Select **OK**.

Note: If the Event Scheduler or Alert Manager will be used to export data using ODBC, continue to have the ID which made the database an ODBC source logged on during the time Event Scheduler will be exporting data.

Creating the Netfinity Tables

To create the tables needed to enable Netfinity to export data:

1. Open the Netfinity Database Administration service.

The Netfinity Database Administration service is found in the Netfinity program group (see Figure 3). Open this icon to open the Netfinity Database Administration window.

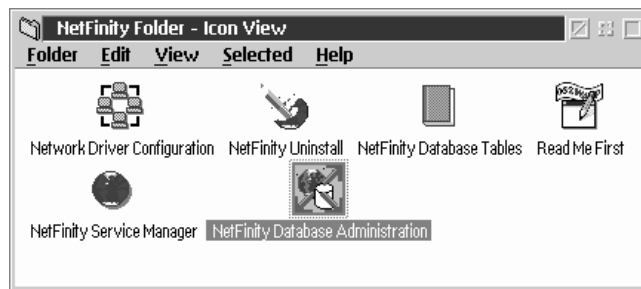


Figure 3. The Netfinity program group on an OS/2 Warp Version 4.0 system

2. Select a DBMS.

Select from the **Select DBMS** listing, the name of the DBMS which Netfinity will be using to export data.

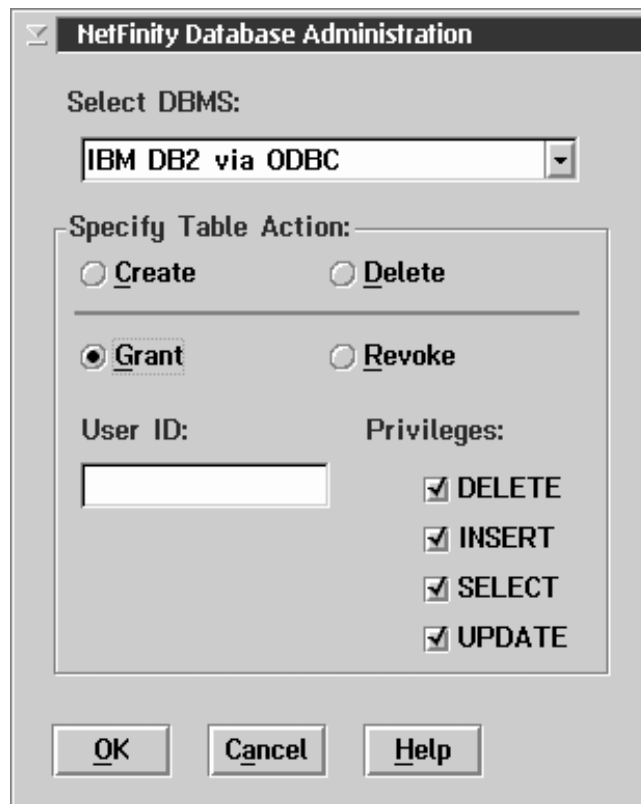


Figure 4. The Netfinity Database Administrator window

3. To create the Netfinity table groups within the database, select **Create** and then select **OK** to open the Database Server window.

The following table actions are also available:

- Delete

To remove the Netfinity table groups from the database, select **Delete** and then select **OK** to open the Database Server window.

- Grant

Permits access to a database for a specified user ID. To grant access:

- a. Select **Grant**.
 - b. Type in the **User ID** field the user ID that will be permitted to access the database.
 - c. Select privileges for this ID.
All privileges (Insert, Delete, Select, and Update) are selected by default. A user ID must have all of these privileges to export data to the database.
 - d. Select **OK** to open the Database Server window.
- Revoke
Disables access to a database for a specified user ID. To revoke access:
 - a. Select **Revoke**.
 - b. Type in the **User ID** field the user ID that will have access to the database revoked.
 - c. Deselect privileges to be revoked for this ID.
All privileges (Insert, Delete, Select, and Update) are selected by default. A user ID must have all of these privileges to export data to the database. Some or all of these privileges can be revoked.
 - d. Select **OK** to open the Database Server window.
4. Select the database within which the table groups will be created.
 5. Select **OK**.
This opens the Netfinity Database Access window.
 6. Type in the **User ID** field
netfin
netfin is the qualifier name of the Netfinity database.
 7. Type in the **Password** field the password that enables access to the Netfinity database.
 8. Select **OK**.

As the information is processed, a “Creating tables” status message should be displayed. When the operation completes, a “Requested Action Completed” message should be displayed.

Supported and Certified Databases

The following table shows databases and operating systems that are certified for use with this release of Netfinity Manager.

Table 2 (Page 1 of 2). Supported Netfinity Databases. Reference by operating system and database client version

Product	Windows 95	Windows NT 3.51	Windows NT 4.0	OS/2 Warp Connect	OS/2 Warp 4.0
IBM DB2 Version 2.1.2	Yes	Yes	Yes	Yes	Yes
IBM DB2 Universal Database 5.0	Yes	Yes	Yes	Yes	Yes
ODBC - IBM DB2 Version 2.1.2	Yes, DB2 Driver	Yes, DB2 Driver	Yes, DB2 Driver	Yes, DB2 Driver	Yes, DB2 Driver
ODBC - IBM DB2 Universal Database 5.0	Yes, DB2 Driver	Yes, DB2 Driver	Yes, DB2 Driver	Yes, DB2 Driver	Yes, DB2 Driver
ODBC - Microsoft SQL Version 6.0	Yes, Microsoft SQL Driver	Yes, Microsoft SQL Driver	Yes, Microsoft SQL Driver	Yes, Visigenic Driver Version 1.10	No
ODBC - Microsoft SQL Version 6.5	Yes, Microsoft SQL Driver	Yes, Microsoft SQL Driver	Yes, Microsoft SQL Driver	No	No
Lotus Notes Version 4.5.2	Yes	Yes	Yes	Yes	Yes
Lotus Notes Version 4.5.3a	Yes	Yes	Yes	Yes	Yes
Lotus Notes Version 4.6	Yes	No	Yes	No	No
Lotus Notes Version 4.6a	Yes	No	Yes	No	No

Table 2 (Page 2 of 2). Supported Netfinity Databases. Reference by operating system and database client version

Product	Windows 95	Windows NT 3.51	Windows NT 4.0	OS/2 Warp Connect	OS/2 Warp 4.0
Oracle Version 7.3	Yes, Oracle Driver Version 2.0.3.1.1	Yes, Oracle Driver Version 2.0.3.1.1	Yes, Oracle Driver Version 2.0.3.1.1	No	No
Oracle Version 8.0	Yes, Oracle Driver Version 8.0.3.0.0	No	Yes, Oracle Driver Version 8.0.3.0.0	No	No
Sybase SQL Version 11.0	Yes, Sybase Driver Version 10.0.3T4	Yes, Sybase Driver Version 10.0.3T4	Yes, Sybase Driver Version 10.0.3T4	No	No

Note: The above applies to Netfinity Release 5.2.

Chapter 6. Starting Netfinity

To start Netfinity:

1. Open the Netfinity folder or program group.

During installation of Netfinity Manager, a Netfinity folder (OS/2, Windows 95 or Windows NT 4.0 only) or a Netfinity program group (Windows NT 3.51 only) was added to the Desktop. The Netfinity folder or program group contains the Netfinity Service Manager object.

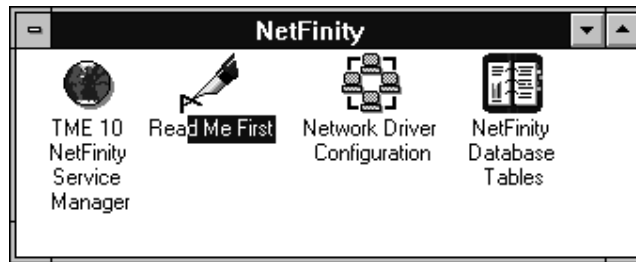


Figure 5. The Netfinity Folder

Notes:

- a. In your Netfinity folder or program group is a document titled *Read Me First*, which contains information about Netfinity that might not be covered in your documentation.
- b. The Netfinity folder also contains the Network Driver Configuration object, which allows you to reconfigure your network protocols and system keywords, and the Netfinity Database Tables object, which contains a handy online reference for all of the data tables in the Netfinity database. For more information on Netfinity's database support see and Chapter 5, "Netfinity Database Support" on page 20.
- c. The Netfinity folder also contains a Netfinity Database Administration object. You can use Netfinity Database Administration to configure Netfinity database support. For more information on Database Administration, see "ODBC Database Support" in *Netfinity Manager Quick Beginnings*

2. Start the Netfinity Service Manager.

To start the Netfinity Service Manager, use mouse button 1 to double-click on the Netfinity Service Manager object.

Netfinity Service Manager

All Netfinity services that are supported by the system can be started from the Netfinity Service Manager window. The services that are available for use depend on the installation configuration that was selected during installation.

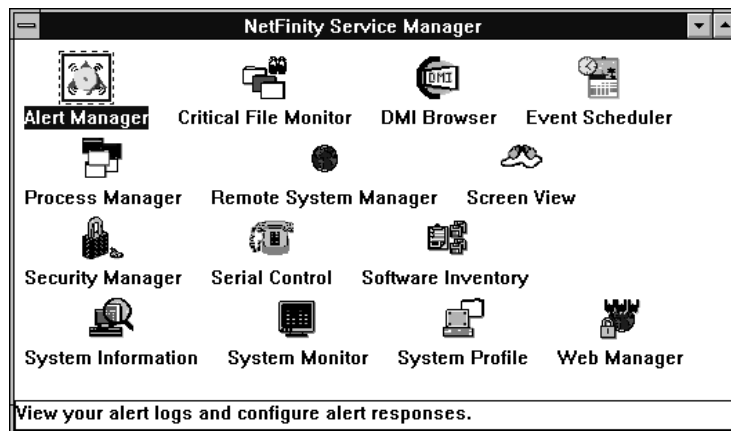


Figure 6. Netfinity Service Manager

To start any Netfinity service that appears in the Service Manager window, double-click on the icon for that service. To start a Netfinity service on a remote system, use the Remote System Manager service.

Netfinity Service Descriptions

Each Netfinity service consists of a base program and a graphical user interface (GUI). The service base programs enable the individual services to be accessed remotely by the Netfinity Manager, but do not allow for local access. The service GUIs, when functioning along with their respective base program, enable access to the service.

Some services are available only on systems with certain system configurations. These services are:

- Alert On LAN Configuration (available only on systems running Windows 95 or later or Windows NT 4.0 or later)
- Capacity Management (available only on systems running Windows NT 4.0 or later)
- Cluster Manager (available only on systems running Windows NT 4.0 or later)
- DMI Browser (requires DMI Service Layer)
- ECC Memory Setup (requires ECC memory)
- Predictive Failure Analysis (requires a PFA-enabled hard disk drive)
- RAID Manager (requires a RAID hard disk drive subsystem)
- System Partition Access (requires a built-in System Partition)
- Update Connector Manager (available only on systems running Windows NT 4.0 or later)

Brief descriptions of each of the Netfinity services follow. Complete instructions on how to use each of these services can be found in the service-specific chapters of the *Netfinity Manager User's Guide*.

Alert Manager

The Alert Manager is an extendable facility that allows receiving and processing of application-generated alerts. A variety of actions can be taken in response to alerts, including logging alerts, notifying the user, forwarding the alert to another system, executing a program, playing a WAV file (available only on multimedia

systems), generating an SNMP alert message, dialing out to a digital pager service (available only on systems that have a modem), or taking an application-defined action. Actions are user-definable, using a highly flexible action management interface.

Also, an extensive, detailed log is kept of all alerts received by the Alert Manager. Logged information available from the log includes date and time the alert was received, type and severity of the alert, the ID of the application that generated the alert, as well as any text that was generated and any action taken by the Alert Manager. Individual or multiple alerts can be selected from the log and printed for later reference, or deleted once problems are corrected. This service is available for both stand-alone and network use.

Alert On LAN Configuration

Use the Alert on LAN configuration service to configure monitoring options of Alert on LAN-capable systems locally and remotely. Systems with Alert on LAN capability provide critical status information about system states. The data is reported by hardware or software (depending upon whether the systems in currently powered on or not) using TCP/IP.

Capacity Management

Capacity Management is an easy to use resource management and planning tool for network managers and administrators, allowing remote performance monitoring of every server on the network.

Cluster Manager

Cluster Manager is a powerful application designed to enhance the cluster management capabilities of the Microsoft Cluster Server (MSCS) administration console, included with Microsoft Windows NT version 4.0 Enterprise Edition. Cluster Manager builds on the power of MSCS, providing an integrated graphical interface that enables you to quickly and easily monitor and manage the clustered systems on your network. This service is available only on systems running Windows NT Workstation 4.0.

Critical File Monitor

Critical File Monitor enables the user to be warned whenever critical system files on the system are deleted or altered. Critical File Monitor makes it simple to generate Netfinity alerts when an important System File (such as the CONFIG.SYS file) changes date, time, size, or when it is deleted or created. Critical File Monitor can also be used to monitor any other files that reside on a Netfinity system.

DMI Browser

DMI Browser enables the user to examine information about the DMI-compliant hardware and software products installed in or attached to the system.

ECC Memory Setup

The ECC Memory Setup allows for monitoring of ECC memory single-bit errors, and can automatically “scrub,” or correct, the ECC memory when errors are detected. Also, a running count of single-bit errors can be kept, and can set a single-bit error threshold that will cause a nonmaskable interrupt (NMI) if the ECC single-bit error threshold is exceeded. This service is available for both stand-alone and network use by any system that has ECC memory.

Event Scheduler

Use Event Scheduler to automate many Netfinity services. With Event Scheduler, the user can automatically gather and export System Information Tool, System Profile, and Software Inventory data, distribute or delete files, restart systems, execute commands, and access and manage System Partitions on all of the Netfinity systems on the network. Scheduled events can be performed one time only, or can be performed according to a user-defined schedule.

File Transfer

Use the File Transfer service to easily send, receive, or delete files or entire directories to and from remote Netfinity systems on the network.

Power-On Error Detect

The Power-On Error Detect service immediately warns the user when a remote Netfinity system has start-up problems, enabling the user to react quickly to problems and minimize downtime.

Predictive Failure Analysis

The Predictive Failure Analysis (PFA) service enables continual monitoring and managing of PFA-enabled hard disk drives. A PFA-enabled hard disk drive features hardware designed to help detect drive problems and predict drive failures before they occur, thus enabling the user to avoid data loss and system downtime.

Process Manager

Use Process Manager to view detailed information about all processes that are currently active on any system. It is also possible to stop or start processes and generate Netfinity alerts if a process starts, stops, or fails to start within a specified amount of time after system startup.

RAID Manager

The RAID Manager service enables the user to monitor, manage, and configure an assortment of Redundant Arrays of Independent Disk (**RAID**) adapters and arrays without requiring the RAID system to be taken offline to perform maintenance. Use the RAID Manager to gather data about the system's RAID array and RAID adapter, rebuild failing drives, add (or remove) logical drives, perform data integrity tests, and many other RAID system tasks. This service is available for both stand alone and network use by any system that has a supported RAID adapter.

Remote Session

Use Remote Session to establish a fully-active command session with any remote Netfinity system.

Remote System Manager

Use Remote System Manager to access and manage any Netfinity service on any Netfinity system in the network. The Netfinity system on the network is organized into easy-to-manage logical

groups that can be updated automatically using the auto-discovery feature.

Remote Workstation Control

Remote Workstation Control enables you to monitor or control the screen display of a remote Netfinity system. Once you initiate a Remote Workstation Control session with another Netfinity system, you can passively monitor events that are occurring on the display of the remote system or actively control the remote system's desktop. When you initiate an active Remote Workstation Control session, all mouse clicks and keystrokes entered on your system are automatically passed through to the remote system. With Remote Workstation Control, you can remotely start programs, open and close windows, enter commands, and much more.

Screen View

The Screen View service takes a "snapshot" of any remote Netfinity system's graphic display and displays it on the screen. These snapshots can then be saved as bitmaps and viewed later.

Security Manager

The Security Manager can prevent unauthorized access to some or all of the Netfinity services. It uses incoming user ID and password combinations, and is available for network use only.

Serial Connection Control

The Serial Connection Control service enables remote Netfinity Managers to access the system through a phone line and modem. With the Serial Connection Control service, the user does not have to be attached to a network to benefit from Netfinity's outstanding remote system access, monitoring, and management capabilities.

Note: The system *must* have a properly installed and configured modem that supports at least 9600 baud for the Serial Connection Control service to function.

Service Configuration Manager

Service Configuration Manager enables you to save the configuration of a Netfinity service from a selected system to a service configuration file (SCF). Once created, SCF files can be used by Event Scheduler to restore the configuration back to the same system, or it can be used (in conjunction with Event Scheduler) to propagate that configuration on whatever other similar systems you choose.

Service Processor Manager

Service Processor Manager enables you to configure and monitor many features of your system's Advanced Systems Management Adapter. This service enables you to dialout and directly access and control a remote system's Advanced Systems Management Adapter. With Service Processor Manager you can configure Advanced Systems Management Adapter events (such as POST, loader, and O/S timeouts; critical temperature, voltage, and tamper alerts; redundant power supply failures).

Software Inventory

Software inventory enables the user to create and manage software product dictionaries that can be used to easily maintain an inventory of all application programs installed on the system.

System Diagnostics Manager

System Diagnostics Manager enables you to initiate a variety of diagnostic tasks on systems that support ROM based diagnostics. The results of all previously run diagnostic sessions are stored on the system and can be examined using System Diagnostics Manager to help diagnose and resolve system problems.

System Information Tool

The System Information Tool enables quick and convenient access to detailed information on the hardware and software configurations of the system. System Information Tool gathers information about almost any computer; however, the most detail is provided when this service is used with IBM computers. This service is available for both stand-alone and network use.

System Monitor

The System Monitor provides a convenient method of charting and monitoring the activity of a number of components in a system, including processor usage, disk space used, and ECC memory errors. These convenient monitors are detachable and scalable, enabling only the monitors needed to remain available at all times. Use System Monitor's Threshold Manager to set threshold levels for any of the monitored components. When exceeded, these thresholds will generate user-configured alerts.

Data is continually collected from the time the system starts. A sophisticated data-handling technique is used to weigh the individual values, average concurrent samples, and post single values that accurately reflect long-term system activity. This technique allows system activity records to be maintained without creating enormous data files. This service is available for both stand-alone and network use.

System Partition Access

The System Partition Access allows for greatly simplified System Partition file handling, both locally and remotely. Individual files and entire directories can be renamed or deleted from the System Partition. Individual files can be renamed, deleted, or copied into the System Partition. Also, the entire partition can be backed-up, restored, or deleted. This service is available for both stand-alone and network use by any system that has a System Partition.

System Profile

The System Profile provides a convenient notebook of pertinent data about a particular user or system. It features many predefined fields for extensive user-specific data, including name, address, office number and location, and phone number. System Profile also includes many predefined fields for system-specific data that might not be available to System Information Tool, including model and serial numbers and date of purchase. Finally, there are many user-definable "miscellaneous" fields that can be used to hold any data the user or administrator requires.

Update Connector Manager

Use Update Connector Manager to quickly and easily gather information about various updates that are available for your client systems. Once available updates are discovered, use Update Connector Manager to apply updates to your systems remotely. Updates can be applied to individual systems, or you can apply multiple updates to multiple systems, all from Netfinity Manager. You can also use Update Connector Manager to remove previously applied updates. Update Connector Manager also includes a scheduler that you can use to discover, apply, or remove updates automatically and periodically.

Web Manager Configuration

Use the Web Manager Configuration service to limit access to the Netfinity Manager for Web to user-specified TCP/IP host or ranges of TCP/IP host addresses. Enable or disable the Netfinity Manager for Web and specify the TCP/IP port number to which the Netfinity Web server functions.

Delaying Netfinity Startup on OS/2 Systems

In some cases, it might be necessary for you to delay the automatic startup of the Netfinity Network Interface (NETFBASE.EXE) in order to allow other time-sensitive applications to start up correctly or to allow your system to fully configure itself prior to beginning network operations. NETFBASE.EXE includes a parameter (WAIT) that enables you to specify the number of seconds that NETFBASE.EXE will wait before starting.

During Netfinity installation, the Netfinity Network Interface object is placed in the Startup folder. To configure Netfinity to wait a specified number of seconds before starting:

1. Shut down the Netfinity Network Interface if it is running.
2. Open the Startup folder.
3. Using mouse button 2, click on the Netfinity Network Interface object. This will open the Netfinity Network Interface context menu.

4. Select **Settings** to open the Netfinity Network Interface **Settings** notebook.
5. Type in the **Parameters** field
WAIT:x
where *x* is the number of seconds that you want the Netfinity Network Interface to wait before starting.
6. Close the Netfinity Network Interface **Settings** notebook.

With the WAIT parameter set to *x*, whenever you start your system, the Netfinity Network Interface will wait *x* seconds before starting.

Note: This feature is available only on systems that are running OS/2.

Appendix A. Installation Options

This appendix describes methods for performing automated installations of Netfinity and creating customized Netfinity installations.

Automated Installation

If the system has a CID-enabled (CID stands for customization, installation, and distribution) software distribution manager utility (such as LAN CID, included with IBM Network Transport Services/2), Netfinity can be installed on systems within the network by using the Netfinity installation program command line parameters and response file. First, a source directory must be created for the installation.

To create a source directory for a Client Services for Netfinity Manager installation:

1. Create a source directory for the program files.
2. Copy the files from the appropriate *Client Services for Netfinity Manager* directory location on the CD-ROM.

For example, when creating a source directory to distribute Netfinity Services for OS/2, copy all of the files from the *Client Services for Netfinity Manager for OS/2* directory into the created directory.

To create a source directory for a Netfinity Manager installation:

1. Create a source directory for the program files.

Important:

Be sure to copy the Services source files before the Manager source files because the *Netfinity Manager* directory contains some files that will overwrite files from the *Client Services for Netfinity Manager* directory. Only Netfinity Manager installations can be done from this directory.

2. Copy the files from the appropriate *Client Services for Netfinity Manager* directories.

For example, when creating a source directory to distribute Netfinity Manager for OS/2, copy all of the files from the *Client Services for Netfinity Manager for OS/2* into the directory.

3. Copy the files from the appropriate *Netfinity Manager* directory.

For example, when creating a source directory to distribute Netfinity Manager for OS/2, copy all of the files from the *Netfinity Manager for OS/2* into the directory.

After an installation source directory has been created, use a response file and the Netfinity installation program's command line parameters. The Netfinity installation program supports the following command line parameters:

/R: *drive+path+filename* Specifies the drive, path, and file name of the response file. See the NETFBASE.RSP file (located in the directory in which Netfinity was installed) for an example of a response file with comments on the included parameters.

/S: *drive+path* Specifies the drive and path to install *from*. This is the directory to which the files were copied.

/T: *drive* Specifies the drive to install *to*. Default is the current startup drive.

/TU: *drive+path* Specifies the drive and path of the CONFIG.SYS file to update. The default is to change the CONFIG.SYS in the root directory of the drive specified in the /T parameter (or the startup drive). This parameter is ignored if the *ChangeConfig* parameter in the response file is FALSE.

For example, the line:

```
NETFINST /R:NETFBASE.RSP /S:Y:\NETFIN  
/T:C /TU:D:\
```

will install Netfinity using the options in the response file NETFBASE.RSP, using the directory files. *from* the directory Y:\NETFIN, to drive C: (the directory to which the files are installed is taken from

the response file), and will modify the CONFIG.SYS file in the D:\ directory.

Note: For information on how to use a CID-enabled software distribution manager, refer to the publications provided with the individual CID-enabled product.

Customized Installation

For security reasons, all users may not need to have access to all services. User access can be restricted by creating a customized installation that will prevent some services from being installed.

To create a customized installation, the INSTALL.INI file must be edited. For example, when creating a customized Netfinity Manager for Windows 95 or NT installation, edit the INSTALL.INI file that is found on Netfinity Manager directory.

The INSTALL.INI file has three sections, separated by the line

[==]

The first section contains the installation configuration that can be selected during installation. There can be no more than eight choices. Each choice takes up two lines. The first line is the text that is displayed next to the installation configuration radio button. The second line is a list of the options in the third section that will be installed when this choice is selected for installation.

For example:

```

;IBM SysMgt Install Script, Version 2 (Do not remove this comment line)
Netfinity Manager Installation [Manager 16900]
    Advanced System Management Support [ServProc 450]
    Capacity Manager Enhancement [CapMgt 5600]
    Remote Workstation Control [RWC 2000]
    World Wide Web Enhancement (TCPIP Required) [WebManager 3000] IsTcpi
[==]
Netfinity Manager CD for Windows 95/NT
[==]
NetFinity Admin
NULL Manager
    CL 0 1 NETFBASE.EXE
    CCL 0 1 NETDOM.INI
    CCL 0 1 NETNODES.INI
    CCL 0 1 INSTALL.BAT
    CCL 0 1 NETFINST.EXE
    CCL 0 1 INSTALL.INI
    CCL 0 1 WININST.HLP
    CL 0 1 APCKINST.DLL
;Screen Capture GUI
;NULL Manager
;    CL 0 1 SAVEG.EXE
;    CL 0 1 SAVEG.HLP

```

This INSTALL.INI will create a Netfinity Manager installation configuration that also installs Advanced System Management, Capacity Manager, Remote Workstation Control, and Netfinity World Wide Web enhancement.

The second section contains the names of the CD that this installation script will use.

The third section contains the list of options that can be installed. These are the options that are selected by the choices in the first section. The options are consecutively numbered starting at 1, so any inserted options will change the number of all following options. Each option uses the following format:

Option Name
Dll-entrypoint
option file
option file
...
install command
install command
...

Option Name An identifying comment by the installation program. All options must have a different Option Name. This is only used for identification.

Dll-entrypoint Used to determine whether an option is valid for a given target machine. In most cases, it should be the reserved string "NULL."

The easiest way to customize an installation is to simply put a semi-colon in front of any service that you want to remove from the installation.

To add a line item in a specific section, add all the necessary item information in the format shown in the following example.

Before:

```
Screen Capture GUI
NULL Manager
    CL 0 1 SAVEG.EXE
    CL 0 1 SAVEG.HLP
```

After:

```
Screen Capture GUI
NULL Manager
    CL 0 1 SAVEG.EXE
    CL 0 1 SAVEG.HLP
    CL 0 1 CUSTOM.INI
```

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