# Global Navigator

## Server Installation Manual

NEC Unified Solutions, Inc.

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# 1

# Introduction

This chapter provides information on the following topics.

Chapter topics



## About This Guide

This manual describes the procedures required to install and implement the Global Navigator 6.0 server. This version of Global Navigator is for use with the Red Hat Enterprise Linux ES Version 3 operating system and uses the MySQL relational database version 4.0.20-standard.

NOTE

*Global Navigator 6.0 is NOT compatible with SCO UNIX or Open Server.*

IMPORTANT

*Perform the procedures in the appropriate sections and subsections in the order suggested. It is important that you follow all procedures in the sequence listed.*

## How This Guide is Organized

*Chapter 1 Introduction* — This chapter contains a description of Global Navigator and the conventions used in this document. Also included is a list of other important documents you should be familiar with.

*Chapter 2 Requirements* — This chapter lists the materials and information you need to perform the Global Navigator installation.

*Chapter 3 Installation* — This chapter includes procedures for installing the various components of Global Navigator, including the Linux Red Hat operating system and the Global Navigator server software. Also included are information and procedures needed to properly secure the server.

*Chapter 4 Database and Hardware Conversion* — This chapter describes how to perform a **database** or **hardware** conversion from Global Navigator 3.x/4.x/5.x to Global Navigator 6.0.

*Chapter 5 Peripherals* — This chapter includes procedures for installing and configuring the Modem, Digiboard, Wallboard, and the Webmin administration program

*Chapter 6 Troubleshooting and Maintenance* — This chapter provides information on troubleshooting and maintenance of the Global Navigator 6.0 Server.

## Using This Guide

This guide is designed to help make Global Navigator easy to install. This guide contains examples of screens and step-by-step instructions for the procedures you need to perform.

### Document Conventions

This guide uses the following document conventions listed in Table 1-1.

***Table 1-1*** *Document Conventions*

| When you see | It means | Example |
|---|---|---|
| **Boldfaced** | • Field names | Enter the ID in the **Name** field. |
| | • Button names | Click **Save**. |
| | • Drop-down list names | Select the names from the **Employees** drop-down list. |
| | • Commands, keywords, or other user input | Enter **login admin** at the command prompt. |

| When you see | It means | Example |
|---|---|---|
| Capitalized | • Menu names<br>• Window names<br>• Dialog box names | From the File menu, choose **Save**.<br>From the Directory window, select **Edit > Modify**.<br>Click **OK** to save and close the Account Properties dialog box. |
| Menu > Submenu (boldfaced font) | • Menu paths | Select **Edit > Modify**. |
| CTRL+S<br>CTRL+Shift+S | • Shortcut keys | Press **CTRL+S** to save your changes. |
| F2 | • Function keys | Press **F1** to access the online help. |
| Click<br>Right-click | • Click the left mouse button<br>• Click the right mouse button | Click **OK** to save your changes.<br>Right-click and select **Delete** from the shortcut menu. |

### Procedures

Step-by-step instructions are numbered. Simply follow the numbered steps to perform the desired function.

Sometimes in step-by-step instructions, you will have more than one option to complete the task. These options are presented as shown in the following example:

***Step 1*** Do one of the following to add a new employee to the Employee directory:

—Select the desired employee from the **Name** field and click **Add**.

—Double-click the desired employee from the **Name** field.

—To select all of the available names, click **Add all**.

## Related Documents

In order to gain a full understanding of Global Navigator you should be familiar with the following documents, available on the *Global Navigator / Net ACD Documentation CD* (Stock # 244408).

- *GNAV Pro Reports Manual*
- *GNAV Pro Quick Reference Guide*
- *Network ACD Configuration Guide*
- *INFOCAST Administration Guide*
- *INFOCAST Installation Guide*
- *INFOCAST User Guide*
- *Virtual Wallboard Installation Guide*
- *Virtual Wallboard Users Guide*

# 2

# Requirements

This chapter includes a list of the items and information needed to install and operate the Global Navigator 6.0 Server, including:

*Chapter topics*

- *Server Hardware Requirements*
- *Software Requirements*
- *Required Information*
- *Optional Equipment*

## Server Hardware Requirements

Table 2-1 lists the server configuration requirements.

NOTE

*If you are upgrading to Global Navigator 6.0, your server must have at least 1 GB of memory (RAM). The 120Le and 120Lf originally shipped with 256 MB of RAM. Additional RAM may be purchased from NEC Unified Solutions, Inc. You do not need to upgrade the 120Le or 120 Lf processors.*

***Table 2-1*** *Global Navigator Server Requirements*

| Components | Minimum |
|---|---|
| Memory (RAM) | 1 GB |
| Processor | 2.4GHz CPU |
| Available Hard Disk Space | 36 GB |
| Floppy Drive | 3.5" 1.44 MB Floppy Drive |
| CD ROM Drive | 40X Internal CD-ROM Drive |
| Network Interface Cards (NIC) with network connection | 2 10 Mbps or 100 Mbps Ethernet cards . |
| MS Mouse | Two-button mouse. |
| Keyboard | 105 Keyboard |
| Modem | U.S. Robotics 56k Fax modem |
| Tape Backup | 20/40GB SCSI DAT 4 Tape backup device |

NOTE

*System requirements for Global Navigator Network ACD call for an operative PBX with CallCenterWorX ACD system programming (either CallCenterWorX–Business or CallCenterWorX–Enterprise) already in place.*
*System requirements for the particular PBX being used with a CallCenterWorX application will be found in the appropriate documentation set for that PBX.*

## Software Requirements

Table 2-2 lists the software requirements for the Global Navigator server.

***Table 2-2*** *Global Navigator Software Requirements*

| Component | Requirement |
|---|---|
| Operating System | Red Hat Enterprise Linux ES version 3 (kernel version linux-2.4.21-4.EL) Install CD-ROM set |
| Global Navigator | The latest Release Global Navigator 6.0 Server CD-ROM |
| Webmin | Webmin CD-ROM |

NOTE

*Only GNAV Pro 6.0 can be used with the Global Navigator 6.0 Server. You must install the client using the GNAV Pro 6.0 CD.*

## Required Information

Table 2-3 lists the information required to install the Global Navigator server.

***Table 2-3*** *Required Information*

| Component | Requirement |
|---|---|
| Licensing Security Key (USB / Parallel) | This should include the security device number, serial number(s), and activation key(s) |
| ACD IP Address | The correct IP address of the ACD server. |

## Optional Equipment

Table 2-4 lists the optional equipment you can use with Global Navigator server.

***Table 2-4*** *Optional Equipment*

| Component | Requirement |
|---|---|
| Digi board | DIGI AccelePort Xem System (Ports/8em RJ-45) board (1)<br>***or***<br>DIGI AccelePort Xp System (4 port/ RJ-45) PCI board (1) |
| SPECTRUM Wallboard | The following Spectrum Wallboards are supported:<br>• 1512R<br>• 1512C<br>• 1022C<br>• 214C<br>• 3214R<br>• 3614C<br>• 3614R<br>• 3024C<br>• 3024R<br>• Silent Radio |

# 3

# Installation

This chapter contains procedures for the following:

Chapter topics



## Installing the Linux Operating System

Use the following procedure to install the Red Hat Enterprise Linux operating system.

CAUTION

*Unless a dialog box is waiting for your input, do not press any keys during the installation process (doing so may result in unpredictable behavior).*

IMPORTANT

*If you are migrating from Global Navigator 5.x to Global Navigator 6.x, you must convert your database by completing the database conversion procedures in "Database Conversion for 5.x Database" on page 4-7 **before** completing the procedures in this chapter.*

IMPORTANT

*Prior to the installation of the Red Hat Enterprise Linux operating system, make sure that the server BIOS BOOT settings are as follows:*
**Floppy; CDROM; Hard-drive**

*This can be done, by pressing the **F2** key during initial boot of the server, and then following the system menu for Boot sequence setup.*

***Step 1*** Power on the server.

***Step 2*** Insert the Red Hat Enterprise Linux Installation CD 1 of 4 into the CD-ROM drive. The Server will boot to the CD. The first screen will ask for the type of installation.

***Step 3*** Select **Install Red Hat in Graphical Mode** and press **Enter**. The Welcome to Red Hat Enterprise Linux screen displays.

***Step 4*** Click **Next** to continue. The Language Selection screen displays.

***Step 5*** Verify that **English** is the only language selected.

***Step 6*** Click **Next**. The Keyboard Configuration screen displays.

***Step 7*** Verify that **U.S. English** is the only choice selected and click **Next**. The Mouse Configuration screen displays.

***Step 8*** Select **Wheel Mouse PS/2** and click **Next**. The Disk Partitioning screen displays.

***Step 9*** Select **Manually partition with Disk Druid** and click **Next**.
If a warning screen pops up click **Yes**. The Disk Setup screen displays.

***Step 10*** Click **New**.

***Step 11*** Type **/boot** in the **Mount Point** field.

***Step 12*** Using the **File System Type** pull-down menu, select **ext3**.

***Step 13*** In the **Size (MB)** field, select **100**.

***Step 14*** In the Additional Size Options area, select **Fixed size**.

***Step 15*** Click **OK**.

***Step 16*** Click **New**.

***Step 17*** Type **/** in the **Mount Point** field.

***Step 18*** Using the **File System Type** pull-down menu, select **ext3.**

***Step 19*** In the **Size (MB)** field, select **8000**.

***Step 20*** In the Additional Size Options area, select **Fixed size**.

***Step 21*** Click **OK**.

***Step 22*** Click **New**.

***Step 23*** In the **Mount Point** field type **/dev/shm**.

***Step 24*** Using the **File System Type** pull-down menu, select **ext3**.

***Step 25*** In the **Size (MB)** field, select **1024**.

***Step 26*** In the Additional Size Options area, select **Fixed size**.

***Step 27*** Click **OK**.

***Step 28*** Click **New**.

***Step 29*** Using the **File System Type** pull-down menu, select **swap**.

***Step 30*** In the **Size (MB)** field, select **2048**.

***Step 31*** In the Additional Size Options area, select **Fixed size**.

***Step 32*** Click **OK**.

***Step 33*** Click **New**.

***Step 34*** Type **/u** in the **Mount Point** field.

***Step 35*** Using the **File System Type** pull-down menu, select **ext3**.

***Step 36*** In the Additional Size Options area, select **Fill to maximum allowable size**.

***Step 37*** Click **OK**.

***Step 38*** Click **Next**. The Boot Loader Configuration screen displays.

***Step 39*** Click **Change boot loader**.

***Step 40*** Select **Use LILO** as boot loader.

***Step 41*** Click **OK**.

***Step 42*** Click **Next**. The Network Configuration screen displays.

***Step 43*** If only one NIC card will be used, deselect **eth1** in the **Network Devices** list. Skip this step of two NIC cards will be used.

***Step 44*** Click **Next**. The Firewall Configuration screen displays.

***Step 45*** Select **No firewall** and click **Next**. The Additional Language Support screen displays.

***Step 46*** Verify that **English (USA)** is the only language selected and click **Next**. The Time Zone Selection screen displays.

***Step 47*** Scroll up and select your time zone.

***Step 48*** Click **Next**. The Set Root Password screen displays.

***Step 49*** Type **neax2400** in the **Root Password** field.

***Step 50*** Type **neax2400** in the **Confirm** field.

***Step 51*** Click **Next**. The Package Installation screen displays.

***Step 52*** Click **Customize the set of packages to be installed**. The Package Group Selection screen displays.

***Step 53*** Select the following packages in each package group:

—**Desktops**

- Select all packages

**—Applications**

- Editors
- Engineering and Scientific
- Graphical Internet
- Text-based Internet
- Office Productivity
- Sound and Video
- Graphics

**—Servers**

- Server Configuration Tools
- Web Server
- Windows File Server
- FTP Server

- MySQL Database
  Go into details and deselect all packages except for **perl-DBD-MySQL**.Then, click **OK** to close the window.
- Network Server
- Legacy Network Server
  Go into details and add telnet-server. Then, click **OK** to close the window.

**—Development**

- Select all packages

**—System**

- Select all packages

***Step 54*** Click **Next**. The About to Install screen displays.

***Step 55*** Click **Next**. The system will begin installation.

***Step 56*** When the system ejects Disk 1, remove the disk and insert Disk 2.

***Step 57*** Click **OK**. The system continues installation.

***Step 58*** When the system ejects Disk 2, remove the disk and insert Disk 3.

***Step 59*** Click **OK**. The system continues installation.

***Step 60*** When the system ejects Disk 3, remove the disk and insert Disk 4.

***Step 61*** Click **OK**. The system continues installation.

***Step 62*** When the system ejects Disk4, remove the disk and insert Disk 1.

***Step 63*** Click **OK**. The Graphic Interface (X) Configuration screen displays.

***Step 64*** Using the **Video Card RAM** pulldown menu, select **64 MB** and click **Next**. The Monitor Configuration screen displays.

***Step 65*** Click **Next** (use the default settings). The Customize Graphical Conf. screen displays.

***Step 66*** Click **Next** (use the default settings).

***Step 67*** Remove installation Disk 1 and click **Exit**. The system will reboot.

***Step 68*** When the Welcome screen displays, click **Next**. The License Agreement screen displays.

***Step 69*** Select **Yes, I agree to the license Agreement** and click **Next**. The Date and Time screen displays.

***Step 70*** Set the correct date and time and click **Next**. The User Account screen displays.

***Step 71*** Click **Next**.

***Step 72*** Click **Continue**.

***Step 73*** Select **No, I do not want to register my system for registration** and click **Next**. The Additional CD screen displays.

NOTE

*If you want to get operating system updates from Red Hat, you must register later.*

***Step 74*** Click **Next**. The Finish Setup Screen displays.

***Step 75*** Click **Next**.

***Step 76*** Type **root** for the login name, then press **Enter**.

***Step 77*** Type **neax2400** for the password, then press **Enter**.

***Step 78*** Click  in the bottom left corner of the screen.

***Step 79*** Select **System Tools > Network Device Control**.

***Step 80*** Highlight **eth0** and click **Configure**. The Network Configuration window displays.

***Step 81*** Select **eth0** and click **Edit**. The Ethernet Device window displays.

***Step 82*** Select **Statically set IP address**.

***Step 83*** In the **Address** field, enter the server's IP address.

***Step 84*** In the **Subnet Mask** field, enter the server's Subnet Mask.

***Step 85*** In the **Default Gateway Address** field, enter the server's Gateway address.

***Step 86*** Click **OK**.

***Step 87*** Highlight **eth0** and click **Activate**. A question prompt displays.

***Step 88*** Click **Yes**. An information prompt displays.

***Step 89*** Click **OK**. The Network Configuration window displays.

***Step 90*** Close the Network Configuration window.

***Step 91*** In the Network Device Control window, verify that the status of eth0 is **Active**.

***Step 92*** Close the Network Device Control window.

***Step 93*** Click  and select **Log Out**.

***Step 94*** Select **Save current settings and Restart the computer**.

***Step 95*** Click **OK**. The server reboots.

***Step 96*** Type **root** for the login name, then press **Enter**.

***Step 97*** Type **neax2400** for the password, then press **Enter**.

***Step 98*** Click  and select **System Settings > Server Settings > Services**. The Services Configuration window displays.

***Step 99*** Scroll down and select telnet.

***Step 100*** Click **Save** and close the window.

**----------Procedure Complete----------**

NOTE *If this server is an NEC 120Lg, proceed to Installing the Initio SCSI Driver (for Tape Backup).*

## Installing the Initio SCSI Driver (for Tape Backup)

For NEC 120Lg servers, use the following procedure to install the Initio SCSI driver.

***Step 1*** From the RedHat desktop, click **> System Tools > Terminal**.

***Step 2*** Insert the Red Hat Enterprise Linux Installation CD 3 into the CD-ROM drive.

***Step 3*** Do one of the following:

- If the system is not configured for automount, type **mount /dev/cdrom** and press **Enter**. Then, type **cd /mnt/cdrom** and press **Enter**.
- If the system is configured for automount, type **cd /mnt/cdrom** and press **Enter**.

***Step 4*** Type **cd RedHat/RPMS** and press **Enter**.

***Step 5*** Type **rpm –ivh kernel-smp-unsupported-2.4.21-4.EL.i686.rpm** and press **Enter**.

***Step 6*** Type **modprobe a100u2w** and press **Enter**.

***Step 7*** Type **lsmod** and press **Enter**. A list displays.

***Step 8*** Verify **a100u2w** is in the list.

***Step 9*** Type **cd /etc** and press **Enter**.

***Step 10*** Type **vi rc.sysinit** and press **Enter**.

***Step 11*** Press **Shift+g** to go to the bottom of the file.

***Step 12*** Type **a** and press **Enter**.

***Step 13*** Use the right arrow key to go to the end of the last line.

***Step 14*** Press **Enter** to start a new line.

***Step 15*** Type **modprobe a100u2w** and press **Enter**.

***Step 16*** Press **Esc**.

***Step 17*** Type **:**.

***Step 18*** Type **wq** and press **Enter**. The server will now save the file.

***Step 19*** Reboot the server.

***Step 20*** Type **root** for the login name and press **Enter**.

***Step 21*** Type **neax2400** for the password and press **Enter**.

***Step 22*** Click  **> System Tools > Terminal**.

***Step 23*** Type **lsmod** and press **Enter**.

***Step 24*** Verify that **a100u2w** is listed.

**----------Procedure Complete----------**

## Installing the Global Navigator Server Software

Use the following procedure to install the Global Navigator 6.0 Server Software.


NOTE

*Make sure you have available the appropriate Licensing Security Key (USB / Parallel) and the correct ACD IP Address.*

*Global Navigator 6.0 will only run for 15 minutes without the correct Licensing information.*

***Step 1*** Insert the Global Navigator 6.0 Server CD into the CD-ROM drive.

***Step 2*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 3*** Type **root** for the login name, then press **Enter**.

***Step 4*** Type **neax2400** for the password, then press **Enter**.

***Step 5*** Do one of the following:

- If the system is not configured for automount, type **mount /dev/cdrom** and press **Enter**. Then, type **cd /mnt/cdrom** and press **Enter**.
- If the system is configured for automount, type **cd /mnt/cdrom** and press **Enter**.

***Step 6*** To verify the CD-ROM is mounted, type **ls**. The contents of the CD-ROM are displayed.

***Step 7*** Type **./install** and press **Enter**. The system begins installing the Global Navigator Server software.

***Step 8*** At the **Do you want to install with existing database?** prompt, type **n** and press **Enter**.

***Step 9*** At the **Please enter site config level 1 password** prompt, type **this** and press **Enter**.

***Step 10*** At the **Please enter site config level 2 password** prompt, type **is** and press **Enter**.

***Step 11*** At the **Please enter site config level 3 password** prompt, type **secret** and press **Enter**.

***Step 12*** When the Site Config screen displays, select **4** for **Set Switch**, and press **Enter**.

***Step 13*** Arrow down to the Host Name field.

***Step 14*** Enter the IP address of the ACD and press **Enter**.

***Step 15*** Press **Esc** twice.

***Step 16*** At the **Do you want to setup automatic tape backup now (y/n)?**, type **y**, then press **Enter**. The Java Runtime Environment loads.

***Step 17*** The next series of screens contain the License Agreement for the Security device (parallel or USB key). Press **Spacebar** to proceed through the screens.

***Step 18*** At the **Do you Agree with the License (y/n)** prompt, enter **y** and press **Enter**.

***Step 19*** At the next prompt, select the number that represents the type of Licensing Security Key (USB / Parallel) and press **Enter**.

***Step 20*** When the Navigator Licensing tool interface appears, input any licenses you may have.


TIP

*You can run the Navigator Licensing tool at any time by invoking the keyutil utility from within the /u/acdmis/run directory.*

***Step 21*** After entering all licenses, type **q** and press **Enter** to quit.

***Step 22*** At the **Do you wish to enable pass through messages? (y/n)**, type **N** and press **Enter**.

***Step 23*** At the **[root@localhost cdrom]#** prompt, type **cd /** and press **Enter**.

***Step 24*** At the **[root@localhost /]#** prompt, type **eject** and press **Enter**. The system ejects the CD-ROM.

***Step 25*** Remove the CD-ROM.

The installation of Global Navigator server is now complete. The Navigator MIS service will now attempt to connect to ACD. If a valid download is received, Global Navigator is initialized and available for access by clients.

To verify that the Global Navigator server is active, type **netstat -a | grep 0000** and press **Enter**. If port 50000 is displayed, the server is active and is up and available for access by clients.

**----------Procedure Complete----------**


IMPORTANT

*If you are migrating from Global Navigator 3.x/4.x to Global Navigator 6.x, you must convert your database by completing the database conversion procedures in Chapter 4, Database and Hardware Conversion.*

# Securing the Server

Use the information and steps in this section to configure the server for optimal security. *Listening Endpoints* details the ports used by the server. *Maximizing Server Security* provides the steps necessary to properly secure the server.

## Listening Endpoints

The server uses listening endpoints to listen for connection requests. When a request is received, the server processes the request to accept the connection. Table 3-1 lists the listening endpoints used.

***Table 3-1*** *Listening Endpoints*

| Port | Description |
|---|---|
| **Global Navigator Server** | |
| 3306 | MySQL database |
| 50000 | Real-time |
| 50003 | Scheduled reports |
| 50007 | Configuration |
| 50009 | Reporting |
| 60000 | Administration |
| 60007 | Adminstration heartbeat |
| **Virtual Wallboard Server** | |
| 1945 | Client |
| 1900 | Telnet administration |
| **Infocast Server** | |
| 1946 | Client |


*The Global Navigator server must also connect to the ACD. Depending on the type of the ACD, this is either a port in the range of 1024 to 1039 for external ACD, or a fixed port at 60040.*

## Maximizing Server Security

The following procedure describes the steps necessary to maximize the security of the server running Global Navigator 6.0

***Step 1*** Log into the desktop environment as “root”, click the Red Hat icon, and select ***System Settings>Add/Remove Applications***.

***Step 2*** Clear the check boxes beside the following packages:

- —Engineering & Scientific
- —Text based Internet
- —Office / Productivity
- —Sound & Video
- —Authoring & Publishing
- —Games & Entertainment
- —Web Server
- —Mail Server
- —Windows File Server
- —DNS Name Server
- —FTP Server
- —SQL Database Server
- —News Server
- —Network Servers
- —X Software Development
- —GNOME Software Development
- —KDE Software Development

***Step 3*** Click **Details** next to the Windows System package. The Windows Package Details screen displays.

***Step 4*** Click the checkboxes to match the settings in Figure 3-1 and Figure 3-2.

***Figure 3-1*** *Window System Package Details 1*

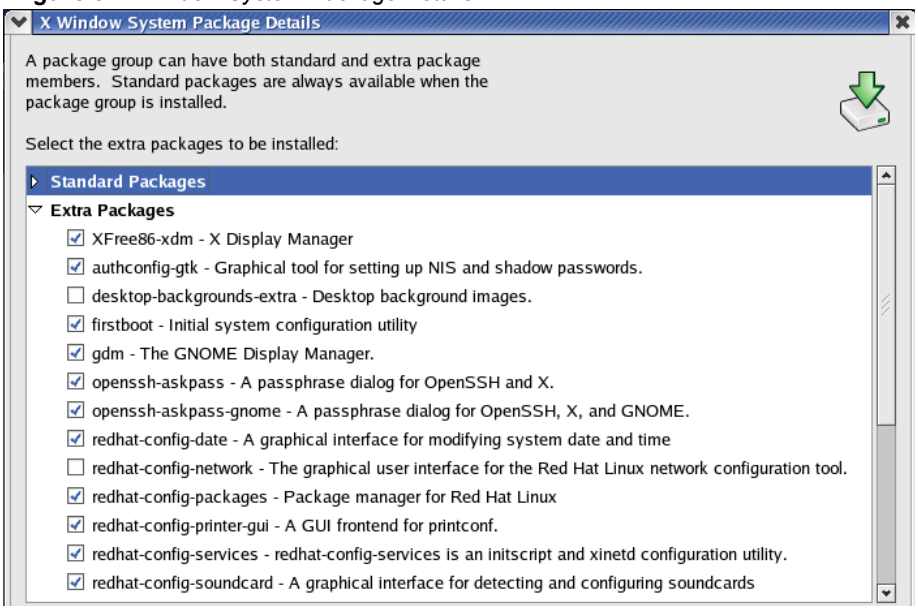
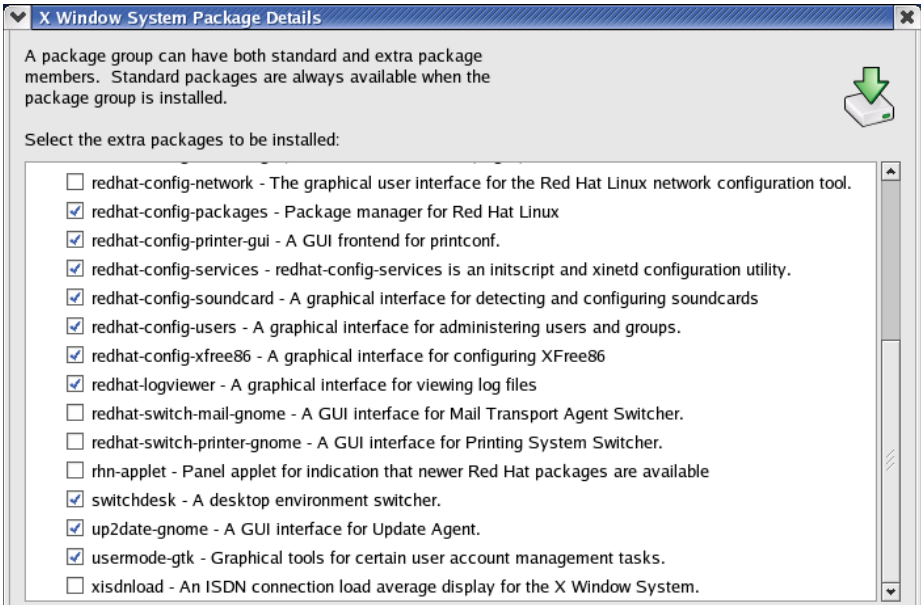


***Figure 3-2*** *Window System Package Details 2*




***Step 5*** Click **Close**.

***Step 6*** Click **Details** next to the GNOME Desktop Environment package. The GNOME Desktop Environment Details screen displays.

***Step 7*** Click the checkboxes to match the stettings in Figure 3-3, Figure 3-4, and Figure 3-5.

***Figure 3-3*** *GNOME Desktop Environment Details 1*

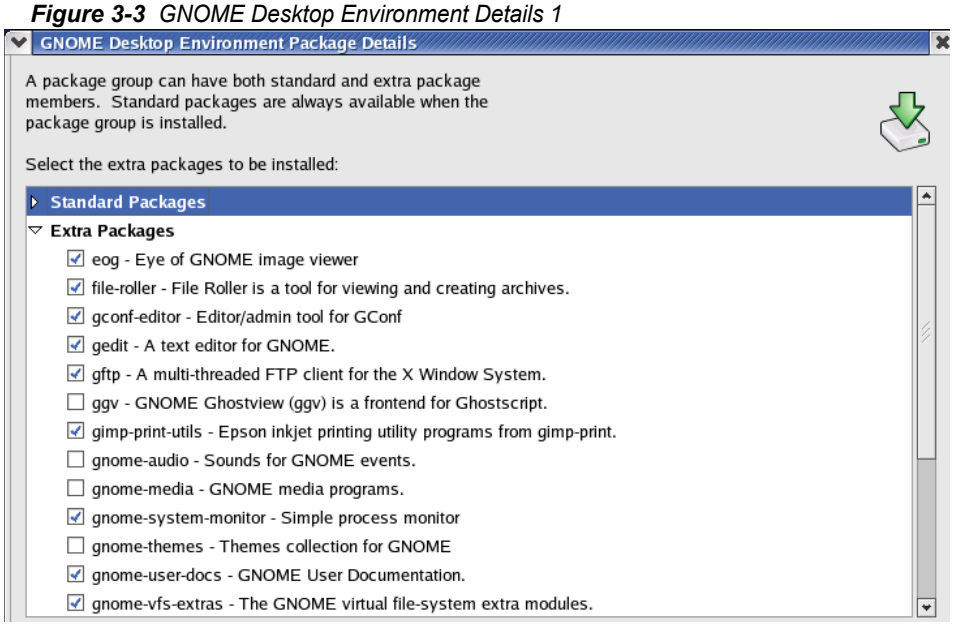


***Figure 3-4*** *GNOME Desktop Environment Details 2*

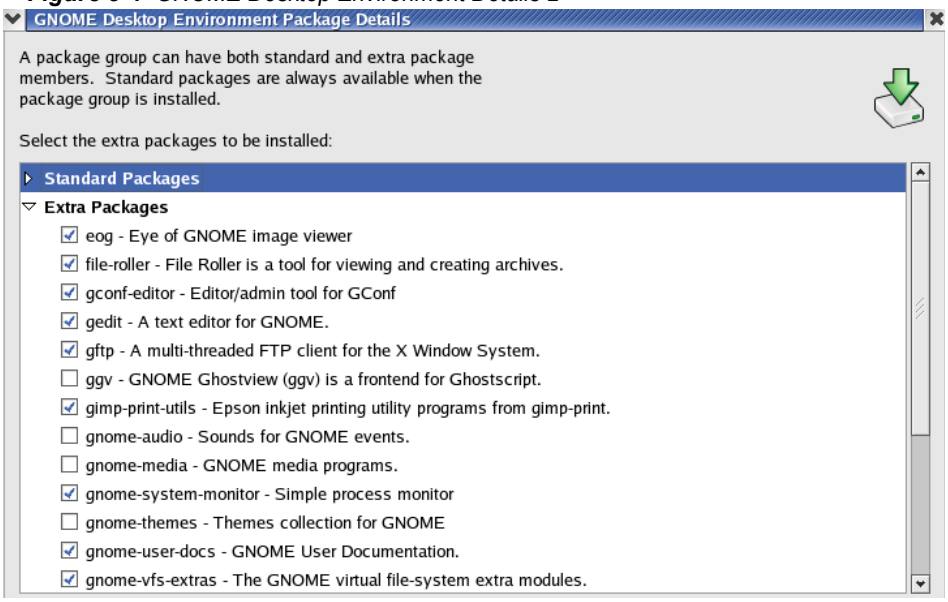
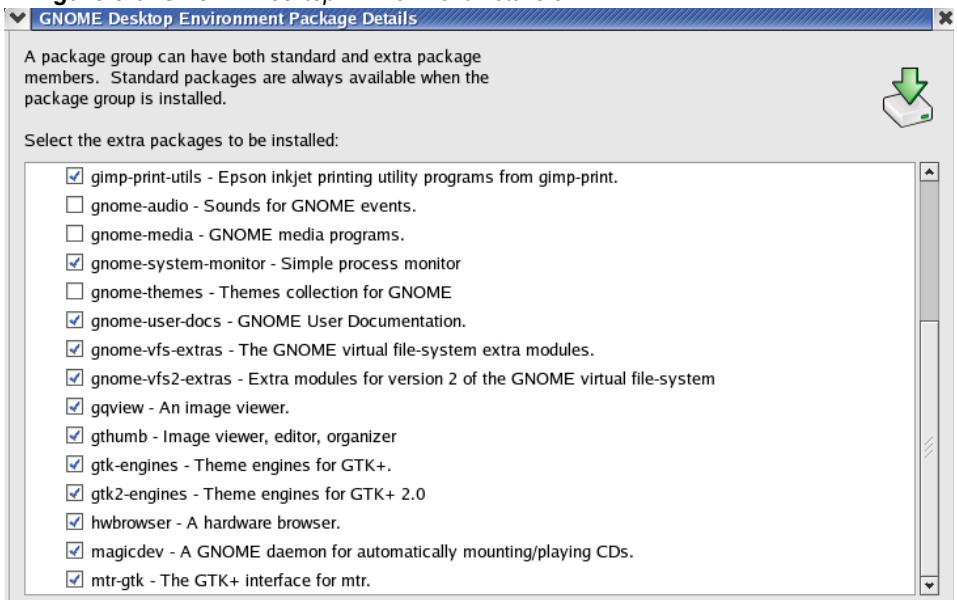



***Figure 3-5*** *GNOME Desktop Environment Details 3*

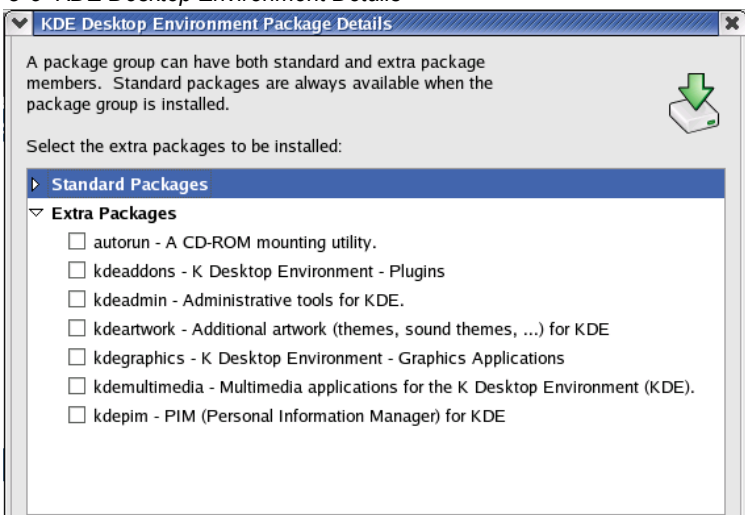



***Step 8*** Click **Close**.

***Step 9*** Click **Details** next to the KDE Desktop Environment package. The KDE Desktop Environment Details screen displays.

***Step 10*** Click the checkboxes to match the stettings in Figure 3-6.

***Figure 3-6*** *KDE Desktop Environment Details*

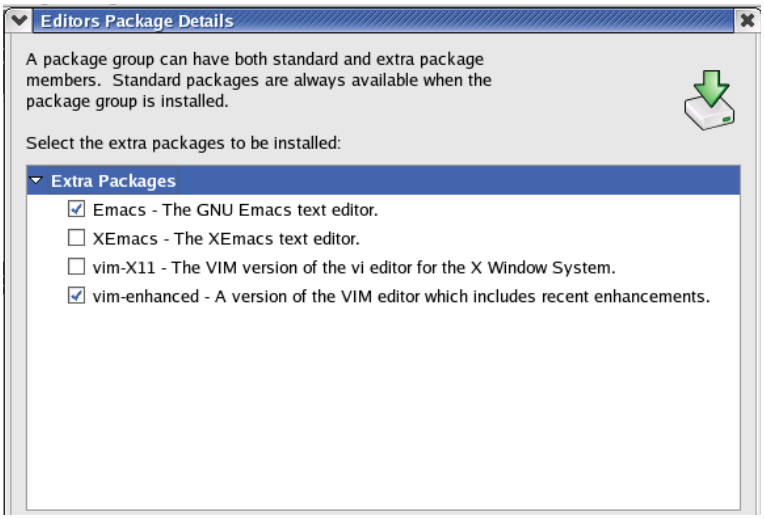



***Step 11*** Click **Close**.

***Step 12*** Click **Details** next to the Editors package. The Editors Details screen displays.

***Step 13*** Click the checkboxes to match the stettings in Figure 3-7.

***Figure 3-7*** *Editors Details*

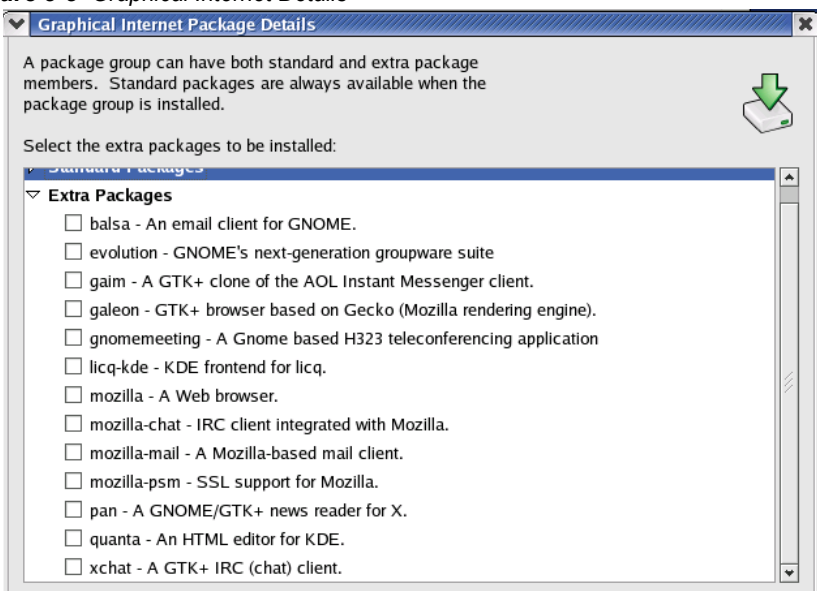



***Step 14*** Click **Close**.

***Step 15*** Click **Details** next to the Graphical Internet package. The Graphical Internet Details screen displays.

***Step 16*** Click the checkboxes to match the stettings in Figure 3-8.

***Figure 3-8*** *Graphical Internet Details*

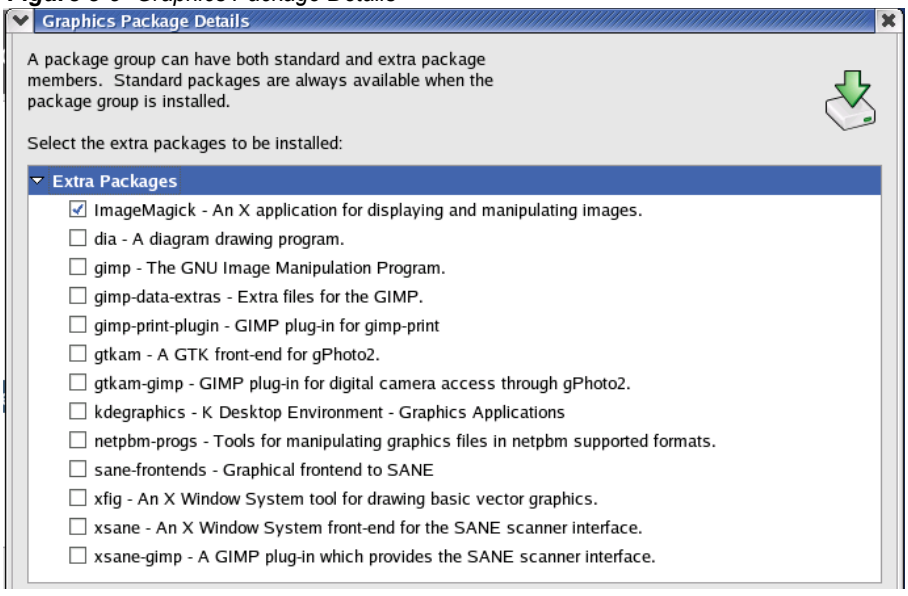



***Step 17*** Click **Close**.

***Step 18*** Click **Details** next to the Graphics package. The Graphics Package Details screen displays.

***Step 19*** Click the checkboxes to match the stettings in Figure 3-9.

***Figure 3-9*** *Graphics Package Details*

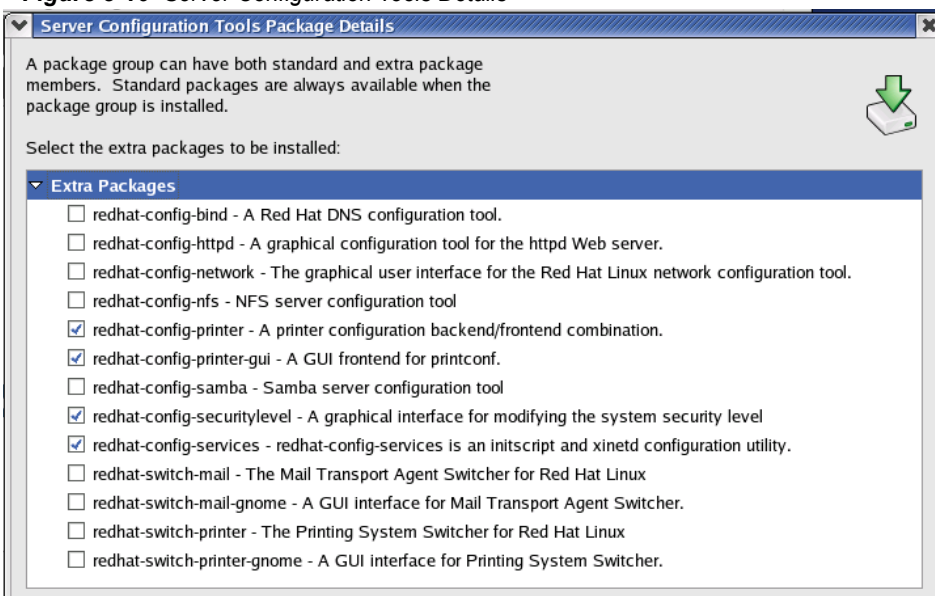



***Step 20*** Click **Close**.

***Step 21*** Click **Details** next to the Server Configuration Tools package. The Server Configuration Tools Details screen displays.

***Step 22*** Click the checkboxes to match the stettings in Figure 3-10.

***Figure 3-10*** *Server Configuration Tools Details*




***Step 23*** Click **Close**.

***Step 24*** Click **Details** next to the Development Tools package. The Development Tools Details screen displays.

***Step 25*** Click the checkboxes to match the stettings in Figure 3-11 and Figure 3-12.

***Figure 3-11*** *Development Tools Details 1*

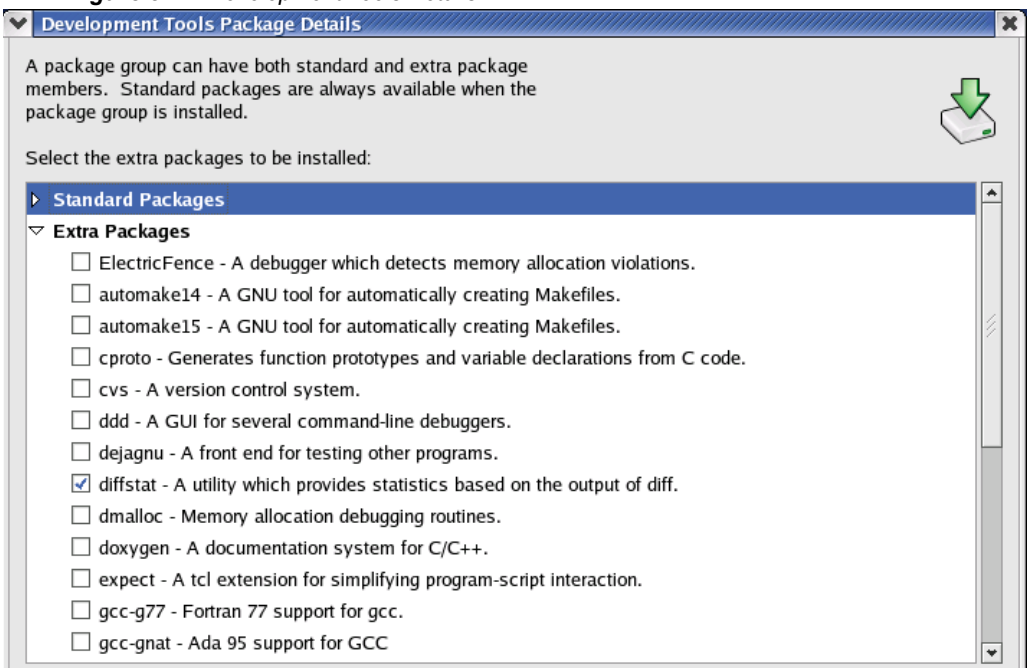
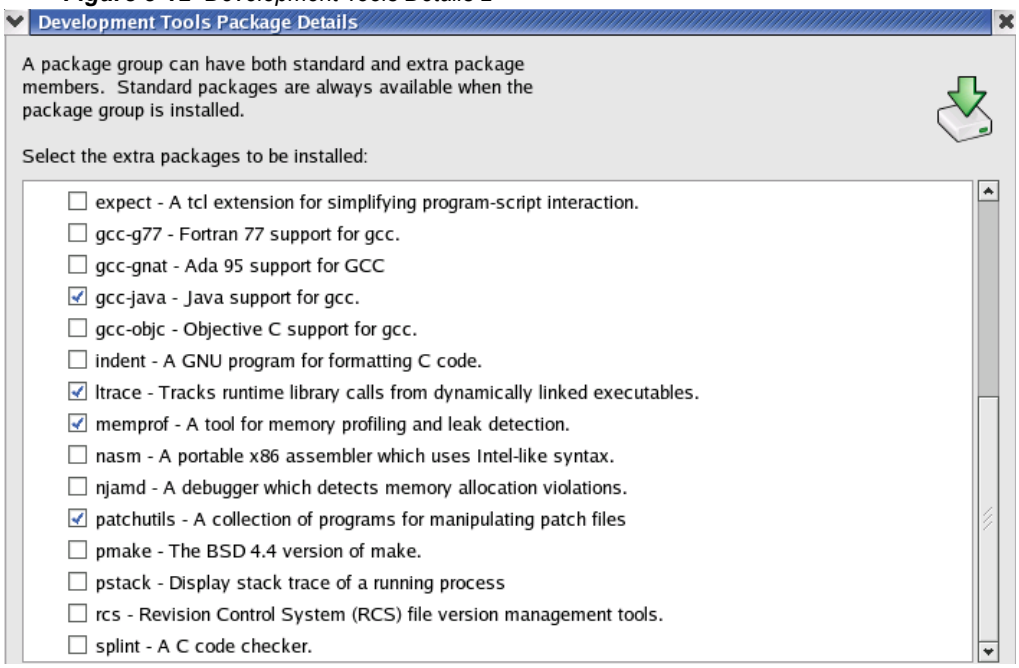


***Figure 3-12*** *Development Tools Details 2*

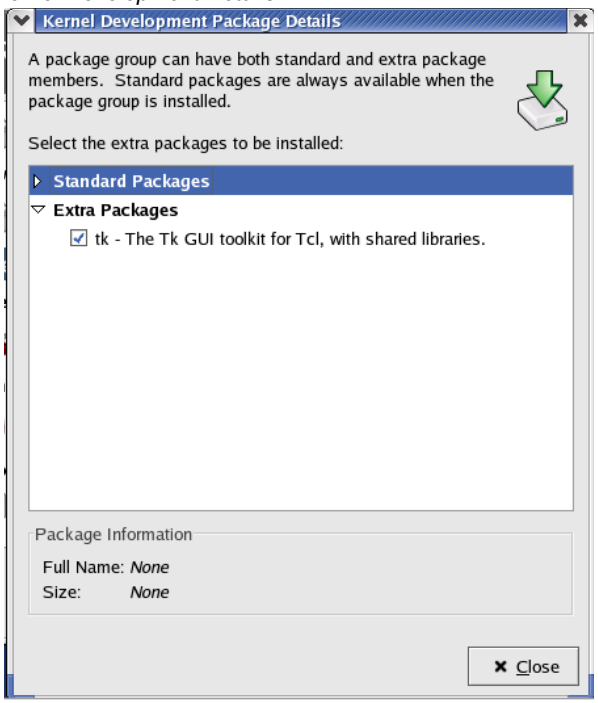



***Step 26*** Click **Close**.

***Step 27*** Click **Details** next to the Kernel Development package. The Kernel Development Details screen displays.

***Step 28*** Click the checkboxes to match the stettings in Figure 3-13.

***Figure 3-13*** *Kernel Development Details*

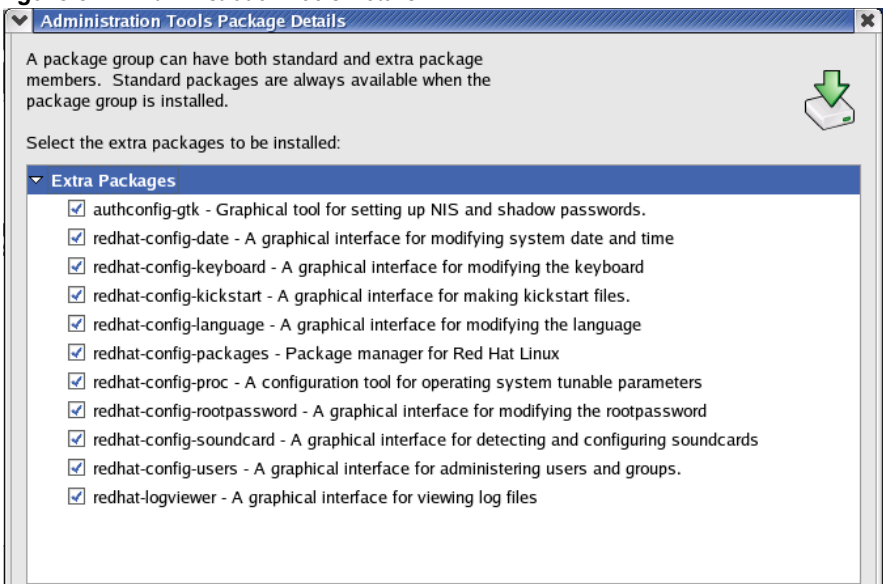


***Step 29*** Click **Close**.

***Step 30*** Click **Details** next to the Administration Tools package. The Administration Tools Details screen displays.

***Step 31*** Click the checkboxes to match the stettings in Figure 3-14.

***Figure 3-14*** *Administration Tools Details*

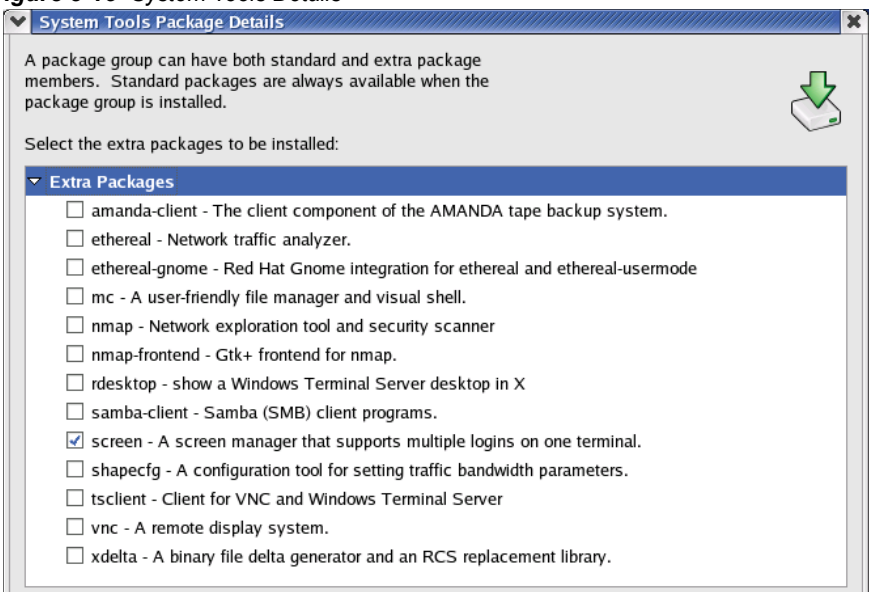



***Step 32*** Click **Close**.

***Step 33*** Click **Details** next to the System Tools package. The System Tools Details screen displays.

***Step 34*** Click the checkboxes to match the stettings in Figure 3-15.

***Figure 3-15*** *System Tools Details*

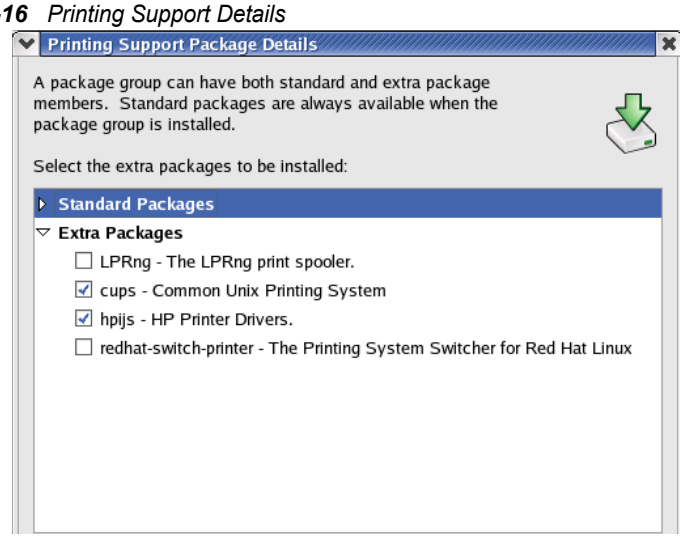


***Step 35*** Click **Close**.

***Step 36*** Click **Details** next to the Printing Support package. The Printing Support Details screen displays.

***Step 37*** Click the checkboxes to match the stettings in Figure 3-16.

***Figure 3-16*** *Printing Support Details*

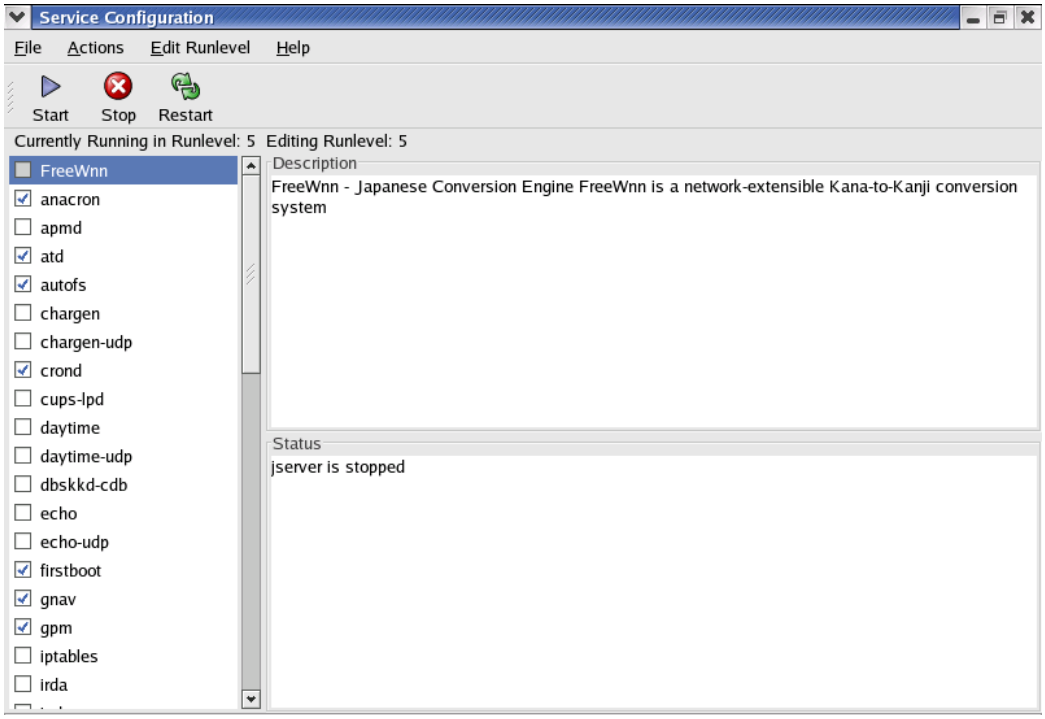



***Step 38*** Click **Close**.

***Step 39*** In the **Package Management** panel, after all the Select sub-packages match, click the **Update** button. When the update completes, exit the application.

***Step 40*** After removing the applications, you should click the Red Hat icon, and select **System Settings>Server Settings>Services**. The Service Configuration screenn displays (Figure 3-17).

***Figure 3-17*** *Service Configuration*




***Step 41*** Check the following checkboxes to disable these services:

—anacron
—atd
—autofs
—crond
—firstboot
—gnav
—gpm
—keytable
—kudzu
—network
—random
—rawdevices
—sgi_fam
—spix
—sshd
—syslog
—xinetd

***Step 42*** After checking the appropriate boxes, select **File>Save Changes**.

***Step 43*** Exit and reboot the system.

# 4

# Database and Hardware Conversion

If you are migrating from Global Navigator 3.x, 4.x, or 5.x to Global Navigator 6.0, you must perform the appropriate steps in this chapter.

Topics in this chapter include:

Chapter topics



## Global Navigator 3.x/4.x to 6.0 Hardware Conversion

Perform the following procedure if you are migrating from Global Navigator 3.x/4.x to Global Navigator 6.0 via the Server Hardware Conversion Kit.

NOTE

*Conversion of report sets, scheduled reports, cyclical data and wallboard configuration is not supported.*

***Step 1*** Perform a complete backup of the entire ACD-MIS system using **bin/nav_help**.

***Step 2*** After backup is complete, shutdown and power off the server.

***Step 3*** Carefully remove the old hard drive from the server.

NOTE

*Printing from the Global Navigator server is not supported.*

***Step 4*** Properly mount the new hard drive in the mounting brackets of the server.

***Step 5*** Power on the server.

***Step 6*** If prompted by Kudzu (the Linux hardware addition/deletion utility) to add/remove devices, add or remove the device(s) at the prompts

(navigate through these screens by using arrow keys for direction and **Enter** to make the selections).

***Step 7*** If prompted to setup Networking, press **Yes** and **Enter** the IP information and the boot-up will continue.

***Step 8*** At the login prompt, type **root** for the user name and press **Enter.**

***Step 9*** Type **neax2400** for the password and press **Enter.**

***Step 10*** Turn on Telnet by selecting **Main Menu > System Settings > Server Settings > Services**, check **Telnet**, then select **File > Save Changes**. Telnet is now turned on.

***Step 11*** Type **root** for the login name, then press **Enter**.

***Step 12*** Type **neax2400** for the password, then press **Enter**.

***Step 13*** Click  in the bottom left corner of the screen.

***Step 14*** Select **System Tools > Network Device Control**.

***Step 15*** Highlight **eth0** and click **Configure**. The Network Configuration window displays.

***Step 16*** Select **eth0** and click **Edit**. The Ethernet Device window displays.

***Step 17*** Select **Statically set IP address**.

***Step 18*** In the **Address** field, enter the Server's IP address.

***Step 19*** In the **Subnet Mask** field, enter the Server's Subnet Mask.

***Step 20*** In the **Default Gateway Address** field, enter the Server's Gateway address.

***Step 21*** Click **OK**.

***Step 22*** Highlight **eth0** and click **Activate**. A question prompt displays.

***Step 23*** Click **Yes**. An information prompt displays.

***Step 24*** Click **OK**. The Network Configuration window displays.

***Step 25*** Close the Network Configuration window.

***Step 26*** In the Network Device Control window, verify that the status of eth0 is **Active**.

***Step 27*** Close the Network Device Control window.

***Step 28*** Click  and select **Log Out**.

***Step 29*** Select **Save current settings and Restart the computer**.

***Step 30*** Click **OK**. The server reboots.

***Step 31*** Follow the procedures in "Database Conversion for 3.x or 4.x Database" on page 4-3.

**----------Procedure Complete----------**

# Database Conversion

If you are migrating from Global Navigator 3.x , 4.x, or 5.x to Global Navigator 6.0 you **must** convert your current database by completing the following procedures.

## Database Conversion for 3.x or 4.x Database

Perform the following procedure if you currently are running Global Navigator 6.0 and need to migrate your 3.x or 4.x database to Global Navigator 6.0.


NOTE

*The procedures in this section should be performed **after** the procedures in Chapter 3, Installation.*

***Step 1*** Reboot the Global Navigator server.

***Step 2*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 3*** Type **root** for the login name, then press **Enter**.

***Step 4*** Type **neax2400** for the password, then press **Enter**.

***Step 5*** Change Directories to **run**. To do this type **cd /u/acdmis/run** and press **Enter.**

***Step 6*** Type /**etc/init.d/gnav stop** and press **Enter** to shutdown Global Navigator.


NOTE

*To prevent you from having to re-enter the license information later in this procedure, copy the license file to a different directory so it is not overwritten by the 3.x/4.x tape. Steps 7 and 8 show you how to copy the license file to a different directory.*

***Step 7*** Type **cd /u/acdmis/run/config** and press **Enter**

***Step 8*** Type **cp activation.data /** and press **Enter**. The license file is copied to the new directory.

***Step 9*** Type **cd ..** and press **Enter**.

***Step 10*** Verify that you are at the **u/acdmis/run** directory.

***Step 11*** Insert the Global Navigator 6.0 Server CD into the CD-ROM drive.

***Step 12*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 13*** Type **root** for the login name, then press **Enter**.

***Step 14*** Type **neax2400** for the password, then press **Enter**.

***Step 15*** Do one of the following:

- If the system is not configured for automount, type **mount /dev/cdrom** and press **Enter**. Then, type **cd /mnt/cdrom** and press **Enter**.
- If the system is configured for automount, type **cd /mnt/cdrom** and press **Enter**.

***Step 16*** To verify the CD-ROM is mounted, type **ls** and press **Enter**. The contents of the CD-ROM are displayed.

***Step 17*** Type **./install** and press **Enter**. The system begins installing the Global Navigator server software.

***Step 18*** At the **Do you want to install with existing database?** prompt, type **n** and press **Enter**.

***Step 19*** At the **Please Enter site config level 1 password** prompt, type **this** and press **Enter**.

***Step 20*** At the **Please Enter site config level 2 password** prompt, type **is** and press **Enter**.

***Step 21*** At the **Please Enter site config level 3 password** prompt, type **secret** and press **Enter**.

***Step 22*** When the Site Config screen displays, select **4** for **Set Switch**, and press **Enter**.

***Step 23*** Arrow down to the Logging section and turn LOGGING **on** then arrow up to the **Host Name** field.

***Step 24*** Enter the IP address of the ACD and press **Enter**.

***Step 25*** Press **Esc** twice.

***Step 26*** At the **Do you want to setup automatic tape backup now (y/n)?**, type **y**, then press **Enter**.

***Step 27*** The next series of screens contain the License Agreement for the Global Navigator Software. Press Spacebar to proceed through the screens.

***Step 28*** At the **Do you Agree with the License (y/n)** prompt, type **y** and press **Enter**.

***Step 29*** At the next prompt, type **3** to install both Sentinel Parallel and USB Daemon and press **Enter**.

***Step 30*** When the Navigator Licensing tool interface appears, press **Ctrl+Alt+F2**.

***Step 31*** At the login prompt, type **root** for the user name and press **Enter**.

***Step 32*** Type **neax2400** for the password and press **Enter**.

***Step 33*** Type **cd /** and press **Enter**.

***Step 34*** Type **cp activation.data /u/acdmis/run/config** and press **Enter**.

***Step 35*** Press **Ctrl+Alt+F1**.

***Step 36*** On the License Information screen, select **3** and press **Enter** to verify the license is valid.

***Step 37*** If the license is valid, select **4** and press **Enter** to quit.

***Step 38*** At the **[root@localhost cdrom]#** prompt, type **cd /** and press **Enter**.

***Step 39*** At the **[root@localhost/]#** prompt, type **eject** and press **Enter**. The system ejects the CD-ROM.

***Step 40*** Remove the CD-ROM.

***Step 41*** Type **cd /u/acdmis/run/config** and press **Enter**

***Step 42*** Type **cp activation.data /** and press **Enter**. The license file is copied to the new directory.

***Step 43*** Do one of the following depending on whether you want to convert the database via tape backup or FTP:

—**For conversion via tape backup:**

**a)** Insert the Tape of the Backed up 3.X or 4.X Data.

**b)** Type **cd /** and press **Enter**.

**c)** At the **[root@localhost /]#** prompt, type **tar xvf /dev/st0** and press **Enter**.

**d)** Once the tape is extracted and you are back to the prompt, type **cd /u/acdmis/run** and press **Enter**. Remove the Tape and store in a safe place.

**e)** From the **/u/acdmis/run** directory, type **script log.log** and press **Enter**.

**f)** From the /u/acdmis/run directory, type **./dbconversion MM/DD/YY** and press **Enter** to run the conversion utility. If you do not want to specify a Stop Date for which the conversion will no longer convert Data, then type the following: **./dbconversion** and press **Enter**.

—**For conversion via FTP**:


NOTE

*If converting via FTP, the existing Unix Navigator server must be on the network and the new 5.0 Navigator server box must be able to connect to it.*

**a)** From the /u/acdmis/run directory, type **script log.log** and press **Enter**.

**b)** From the /u/acdmis/run directory, type **./dbconversion MM/DD/YY ftp "server ip address"** (where **"server ip address"** is the address of the server on which your database resides) and press **Enter** to run the conversion utility. If you do not want to specify a Stop Date for which the conversion will no longer convert Data then type the following: **./dbconversion ftp "server ip address"** and press **Enter**. The default user name that it will connect to is **root** and the password is **neax2400**.

**c)** After the conversion utility is complete press **Ctrl+d** to stop the script.

***Step 44*** Insert the Global Navigator 6.0 Server CD into the CD-ROM drive.

***Step 45*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 46*** Type **root** for the login name, then press **Enter**.

***Step 47*** Type **neax2400** for the password, then press **Enter**.

***Step 48*** Do one of the following:

—If the system is not configured for automount, type mount **/dev/cdrom** and press **Enter**. Then, type **cd /mnt/cdrom** and press **Enter**.

—If the system is configured for automount, type **cd /mnt/cdrom** and press **Enter**.

***Step 49*** To verify the CD-ROM is mounted, type **ls** and press **Enter**. The contents of the CD-ROM are displayed.

***Step 50*** Type **./install** and press **Enter**. The system begins installing the Global Navigator server software.

***Step 51*** At the **Do you want to install with existing database?** prompt, type **y** and press **Enter**.

***Step 52*** At the **Please Enter site config level 1 password** prompt, type **this** and press **Enter**.

***Step 53*** At the **Please Enter site config level 2 password** prompt, type **is** and press **Enter**.

***Step 54*** At the **Please Enter site config level 3 password** prompt, type **secret** and press **Enter**.

***Step 55*** When the Site Config screen displays, select **4** for **Set Switch**, and press **Enter**.

***Step 56*** Arrow down to the Logging section and turn LOGGING **on** then arrow up to the **Address** field.

***Step 57*** Enter the IP address of the ACD and press **Enter**.

***Step 58*** Press **Esc** twice.

***Step 59*** At the **Do you want to setup automatic tape backup now (y/n)?,** type **y**, then press **Enter**.

***Step 60*** The next series of screens contain the License Agreement for the Global Navigator Software. Press Spacebar to proceed through the screens.

***Step 61*** At the **Do you Agree with the License (y/n)** prompt, type **y** and press **Enter**.

***Step 62*** At the next prompt, Enter **3** to install both Sentinel Parallel and USB Daemon and press **Enter**.

***Step 63*** When the Navigator Licensing tool interface appears, press **Ctrl+Alt+F2**.

***Step 64*** At the login prompt, type **root** for the user name and press **Enter**.

***Step 65*** Type **neax2400** for the password and press **Enter**.

***Step 66*** Type **cd /** and press **Enter**.

***Step 67*** Type **cp activation.data /u/acdmis/run/config** and press **Enter**.

***Step 68*** Press **Ctrl+Alt+F1**.

***Step 69*** On the License Information screen, select the number that represents the type of Licensing Security Key (USB / Parallel) you have and press **Enter** to verify the license is valid.

***Step 70*** If the license is valid, select **4** and press **Enter** to quit.

***Step 71*** At the **[root@localhost cdrom]#** prompt, type **cd /** and press **Enter**.

***Step 72*** At the **[root@localhost/]#** prompt, type eject and press **Enter**. The system ejects the CD-ROM.

***Step 73*** Remove the CD-ROM.

***Step 74*** Type **reboot** and press **Enter** to reboot the system.

**----------Procedure Complete----------**


NOTE

*If there are multi-nodes in your ACD configuration, you will need to reconfigure these using the Navigator Utility (nav_help). See Chapter 6, Troubleshooting and Maintenance.*

## Database Conversion for 5.x Database

If you are currently running Global Navigator 5.x, you will need to convert your database so that it is compatible with Global Navigator 6.0. Perform the following procedure if you are currently running Global Navigator 5.x and need to convert your database to 6.0.

***Step 1*** Backup the Global Navigator 5.x Database.

***Step 2*** Insert a blank tape into the 5.x Server.

***Step 3*** Change the directory to **run**. To do this type **cd /u/acdmis/run** and press **Enter**.

***Step 4*** Type **bin/nav_help** and press **Enter**

***Step 5*** Choose option **B** and press **Enter**.

***Step 6*** Select option **3** and press **Enter**

***Step 7*** Once tape backup is completed remove the tape and store in a safe place.

***Step 8*** Complete the steps in “Installing the Linux Operating System” on page 3-1.

***Step 9*** Complete the steps in “Installing the Global Navigator Server Software” on page 3-7

***Step 10*** Insert the 5.x tape backup.

***Step 11*** Change directory to **/u/acdmis/run**.

***Step 12*** Type **bin/nav_help** and press **Enter**.

***Step 13*** Select **B** and press **Enter**.

***Step 14*** Select **4** (restore from tape) and press **Enter**.

***Step 15*** After tape backup has completed, insert the Global Navigator 6.0 Server CD into the CD-ROM drive.

***Step 16*** Do one of the following:

—If the system is not configured for automount, type **mount /dev/cdrom** and press **Enter**. Then, type **cd /mnt/cdrom** and press **Enter**.

—If the system is configured for automount, type **cd /mnt/cdrom** and press **Enter**.

***Step 17*** Type **./upgrade** and press **Enter**. The system converts the 5.x database.

***Step 18*** When the conversion completes, remove the CD-ROM.

**----------Procedure Complete----------**


NOTE

*If there are multi-nodes in your ACD configuration, you will need to reconfigure these using the Navigator Utility (nav_help). See Chapter 6, Troubleshooting and Maintenance.*

# 5

# Peripherals

This chapter contains procedures for the following:

Chapter topics



## Enable/Disable the Modem

The following procedures detail how to enable and disable the modem in the server.


*Enabling the modem without the modem being connected and powered on will cause error messages.*

### Enable the Modem

Use the following procedure to enable the modem.

***Step 1*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 2*** Type **root** for the login name, then press **Enter**.

***Step 3*** Type **cd /u/acdmis/run** and press **Enter**.

***Step 4*** Type **neax2400** for the password, then press **Enter**.

***Step 5*** At the **[root@navigator root]#** prompt, type **./modem.sh enable** and press **Enter**.

***Step 6*** Type **ttyS1** and press **Enter**.

**----------Procedure Complete----------**

### Disable the Modem

Use the following procedure to disable the modem.

***Step 1*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 2*** Type **root** for the login name, then press **Enter**.

***Step 3*** Type **neax2400** for the password, then press **Enter**.

***Step 4*** At the **[root@navigator root]#** prompt, type **./modem.sh disable** and press **Enter**.

***Step 5*** Type **ttyS1** and press **Enter**.

**----------Procedure Complete----------**

## Installing Digiboards

Global Navigator 6.0 can be configured to use two models of Digi boards: **Digi AccelePort Xem Port/8em RJ45** and the **Digi AccelePort Xp RJ45 (4 port)**.

The following procedures detail how to install the *AccelePort Xem Digiboard* and the *Four port AccelePort Xp Digiboard*.

### AccelePort Xem Digiboard

The Digi AccelePort Xem Port/8em RJ45 with the AccelePort Xem Host Adapter-PCI was shipped with previous versions of Global Navigator.

The following procedures detail the steps necessary to download the appropriate driver and install the Digi AccelePort Xem.


*If the driver file **40002347_a.src.rpm** is not included on the Digi CD provided with the Digiboard, follow the steps in Download AccelePort Xem Digiboard Driver before installing the Digiboard.*

#### Download AccelePort Xem Digiboard Driver

The following procedure details how to download the driver necessary to install the Digi AccelePort Xem.

***Step 1*** Using your PC internet connection go to *www.digi.com/support*.

***Step 2*** Use the **Product List** drop down list to select **Acceleport Xem (8em,16em)**.

***Step 3*** Use the Supported Operating Systems to select **Linux Red Hat ES 3**.

***Step 4*** Click **Submit**.

***Step 5*** Select **AccelePort Xem Host Adpt-PCI**.

***Step 6*** Download the driver **40002347_a.src.rpm** to your PC and copy it to either a Floppy or CD-ROM.

***Step 7*** Proceed to *Install AccelePort Xem Digiboard*.

### Install AccelePort Xem Digiboard

The following procedure details how to install the Digi AccelePort Xem on the Server.


NOTE

*If the driver file **40002347_a.src.rpm** is not included on the Digi CD provided with the Digiboard and you have not yet downloaded the driver, follow the steps in Download AccelePort Xem Digiboard Driver before installing the Digiboard.*

***Step 1*** Shutdown and power off the Server.

***Step 2*** Install Digi AccelePort Xem hardware into the server per instructions provided with the Digi AccelePort Xem packaging.

***Step 3*** Power on server. During boot-up, Linux will detect the new hardware.

***Step 4*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 5*** Type **root** for the login name, then press **Enter**.

***Step 6*** Type **neax2400** for the password, then press **Enter**.

***Step 7*** From the **/** directory, prepare for installation logging by typing **script digi.log** and press **Enter**.

***Step 8*** Insert the CD-ROM or Floppy containing the driver for this digiboard into the Server.

***Step 9*** Do one of the following depending on whether you are using a CD-ROM or Floppy:

—For CD-ROM, type **mount /mnt/cdrom** and press **Enter**.

—For Floppy, type **mount /mnt/floppy** and press **Enter**.

***Step 10*** Do one of the following depending on whether you are using a CD-ROM or Floppy:

—For CD-ROM, type **cd /mnt/cdrom** and press **Enter**.

—For Floppy, type **cd /mnt/floppy** and press **Enter**.

***Step 11*** Type **cp 40002347_a.src.rpm /** and press **Enter**.

***Step 12*** Do one of the following depending on whether you are using a CD-ROM or Floppy:

—For CD-ROM, type **umount /mnt/cdrom** and press **Enter**.

—For Floppy, type **umount /mnt/floppy** and press **Enter**.

***Step 13*** Step 13. Type **cd /** and press **Enter**.

***Step 14*** Remove the CD-ROM or Floppy from the Server.

***Step 15*** Type **rpmbuild --rebuild --define DISTRO=REDHAT_ES_3 40002347.a.src.rpm** and press **Enter**.

***Step 16*** Type **cd /usr/src/redhat/RPMS/i386** and press **Enter**.

***Step 17*** Type **rpm -i dgap-1.1-1.i386.rpm** and press **Enter**.

***Step 18*** Type **mpi** and press **Enter**.

***Step 19*** To navigate the mpi GUI use your up/down arrow keys.

***Step 20*** Select **Config** and press **Enter**.

***Step 21*** Press **Enter**.

***Step 22*** Press **Enter**.

***Step 23*** Unless you are installing more than one digiboard select **1** adapter and press **Enter**.

***Step 24*** Select **2 AccelePort Xem PCI** and press Enter.

***Step 25*** Select **1 module** press Enter.

***Step 26*** Select the number of ports and press **Enter**.

***Step 27*** Select **Yes** and press **Enter**.

***Step 28*** Select **Yes** and press **Enter**.

***Step 29*** Select **Yes** and press **Enter**.

***Step 30*** Select **Ok** and press **Enter**.

***Step 31*** Select **Exit** and press **Enter**.

***Step 32*** Type **chkconfig --add dgap** and press **Enter**.

***Step 33*** Type **reboot** and press **Enter**.

**----------Procedure Complete----------**


NOTE

*To test the Digiboard ports, go to http://www.digi.com/support.*

## Four port AccelePort Xp Digiboard

The Digi AccelePort Xp RJ45 (4 port) is shipped with the Global Navigator 6.0 platform. This model does not have a separate Host Adapter. All RJ45 connections are built onto the board.

The following procedures detail the steps necessary to download the appropriate driver and install the Digi AccelePort Xp.


NOTE

*If the driver file **40002059_h_src.rpm** is not included on the Digi CD provided with the Digiboard, follow the steps in Download AccelePort Xp Digiboard Driver before installing the Digiboard.*

### Download AccelePort Xp Digiboard Driver

The following procedure details how to download the driver necessary to install the AccelePort Xp.

***Step 1*** Using your PC internet connection go to *www.digi.com/support*.

***Step 2*** Use the **Product List** drop down list to select **Acceleport Xp (2p,4p,8p,16p)**.

***Step 3*** Use the Supported Operating Systems to select **Linux Red Hat ES 3**.

***Step 4*** Click **Submit**.

***Step 5*** Download the driver **40002059_h.src.rpm** to your PC and copy it to either a Floppy or CD-ROM.

***Step 6*** Proceed to *Install AccelePort Xp Digiboard*.

### Install AccelePort Xp Digiboard

The following procedure details how to install the four port Digi AccelePort Xp on the Server.


NOTE

*If the driver file **40002059_h_src.rpm** is not included on the Digi CD provided with the Digiboard and you have not yet downloaded the driver, follow the steps in Download AccelePort Xp Digiboard Driver before installing the Digiboard.*

***Step 1*** Shutdown and power off the Server.

***Step 2*** Install Digi AccelePort Xp hardware into the server per instructions provided with the Digi AccelePort Xp packaging.

***Step 3*** Power on server. During boot-up, Linux will detect the new hardware.

***Step 4*** Let Kudzu configure the Digiboard card.

***Step 5*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 6*** Type **root** for the login name, then press **Enter**.

***Step 7*** Type **neax2400** for the password, then press **Enter**.

***Step 8*** Insert the CD-ROM or Floppy containing the driver for this digiboard into the Server.

***Step 9*** Do one of the following depending on whether you are using a CD-ROM or Floppy:

—For CD-ROM, type **mount /mnt/cdrom** and press **Enter**.

—For Floppy, type **mount /mnt/floppy** and press **Enter**.

***Step 10*** Do one of the following depending on whether you are using a CD-ROM or Floppy:

—For CD-ROM, type **cd /mnt/cdrom** and press **Enter**.

—For Floppy, type **cd /mnt/floppy** and press **Enter**.

***Step 11*** Type **cp 40002059_h_src.rpm /** and press **Enter**.

***Step 12*** Do one of the following depending on whether you are using a CD-ROM or Floppy:

—For CD-ROM, type **umount /mnt/cdrom** and press **Enter**.

—For Floppy, type **umount /mnt/floppy** and press **Enter**.

***Step 13*** Type **cd /** and press **Enter**.

***Step 14*** Remove the CD-ROM or Floppy from the Server.

***Step 15*** Type **rpmbuild --rebuild --define DISTRO=REDHAT_ES_3 40002059_h.src.rpm** and press **Enter**.

***Step 16*** Change directory to the installation directory of the rpm.

***Step 17*** Type **cd /usr/src/redhar/RPMS/i386** and press **Enter**.

***Step 18*** Type **rpm -ivv dgdm-1.1-1.i386.rpm** and press **Enter**.

***Step 19*** After rpm installation is complete, type **insmod dgdm** and press **Enter**.

***Step 20*** Type **chkconfig --add dgdm** and press **Enter**.

***Step 21*** Reboot the Server.

***Step 22*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 23*** Type **root** for the login name, then press **Enter**.

***Step 24*** Type **neax2400** for the password, then press **Enter**.

***Step 25*** Once the Server is up, verify the ports were installed by typing **ls /dev/ttyG0*** and press **Enter**. There should be four listed if the board is a 4-port board (/dev/ttyG0_00 - /dev/ttyG0_03)

***Step 26*** Press **Ctrl+D** to exit the startup script.

***Step 27*** Installation is complete.

**----------Procedure Complete----------**


NOTE

*To test the Digiboard ports, go to http://www.digi.com/support.*

## Configuring Wallboards

To configure wallboards, do the following:

NOTE *For more information, see the Global Navigator Online Help, accessible from the GNAV Pro application.*

***Step 1*** Connect a serial cable from a serial Wallboard to a Digiboard port on the Global Navigator server.

***Step 2*** Launch GNAV Pro on your PC.

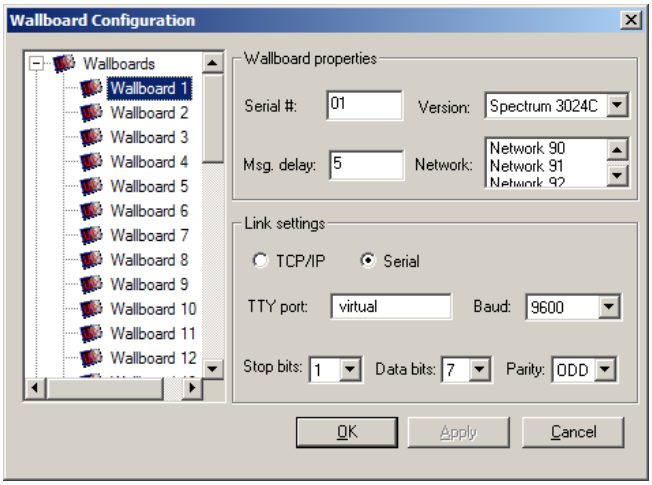
***Step 3*** Do one of the following:

—Select **Maintenance > Wallboard Configuration**.

—Click  on the toolbar.

The Wallboard Configuration dialog displays (Figure 5-1).

***Figure 5-1*** *Wallboard Configuration dialog*




***Step 4*** Select the wallboard you wish to configure from the tree view display.

***Step 5*** Click the **Serial** Link Settings radio button.

***Step 6*** Type a port number in the **TTY Port:** field, then press **Enter**.

***Step 7*** Enter the serial number of your wallboard display in the **Serial #:** field.

***Step 8*** Select a baud rate from the **Baud Rate:** drop-down menu.

***Step 9*** Select **ODD** or **EVEN** from the **Parity:** drop-down menu.

***Step 10*** Select the number of data bits from the **Data Bits:** drop-down menu.

***Step 11*** Select the number of stop bits from the **Stop Bits:** drop-down menu.

***Step 12*** Select the version number of your wallboard from the **Version #:** drop-down menu.

***Step 13*** Type the number of seconds in the **Msg Delay:** field to specify how long you woant the message to pause before displaying another message.

***Step 14*** Click **OK** to save your changes.

**----------Procedure Complete----------**

## Installing and Configuring Webmin

Webmin is a web-based Linux administration program that provides remote maintenance access for the Global Navigator server.


NOTE

*In order to connect to the Navigator server and use Webmin, you must setup a Dialup VPN on the GNAV Pro PC.*

### Installing Webmin

Use the following procedure to install the Webmin Software.

***Step 1*** Insert the Webmin CD into the CD-ROM drive.

***Step 2*** At the login dialog, press **Ctrl+Alt+F1**. A text interface window displays.

***Step 3*** Type **root** for the login name, then press **Enter**.

***Step 4*** Type **neax2400** for the password, then press **Enter**.

***Step 5*** Do one of the following:

- If the system is not configured for automount, type **mount /dev/cdrom** and press **Enter**. Then, type **cd /mnt/cdrom** and press **Enter**.
- If the system is configured for automount, type **cd /mnt/cdrom** and press **Enter**.

***Step 6*** Type **rpm -U webmin-1.150-1.noarch.rpm** (this is case sensitive) and press **Enter**. The system begins installing the Webmin software.

***Step 7*** After installation is complete, type **sync** and press **Enter.**

***Step 8*** Type **sync** and press **Enter**.

***Step 9*** Type **shutdown -y -g0** and press **Enter**.

***Step 10*** At the **Power Down** prompt, manually eject CD-ROM.

***Step 11*** Remove the CD-ROM.

***Step 12*** Reboot the system.

NOTE

*Webmin installs to the /usr/libexec/webmin directory. The Administration User Name is **root**, and the default password is **neax2400**.*

**----------Procedure Complete----------**

## Configuring Webmin

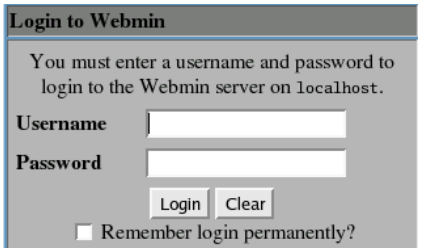
For Webmin to function properly, you must perform following configuration procedures.

### Access Webmin

***Step 1*** From the Red Hat desktop, click the button to start the web browser. The web browser displays.

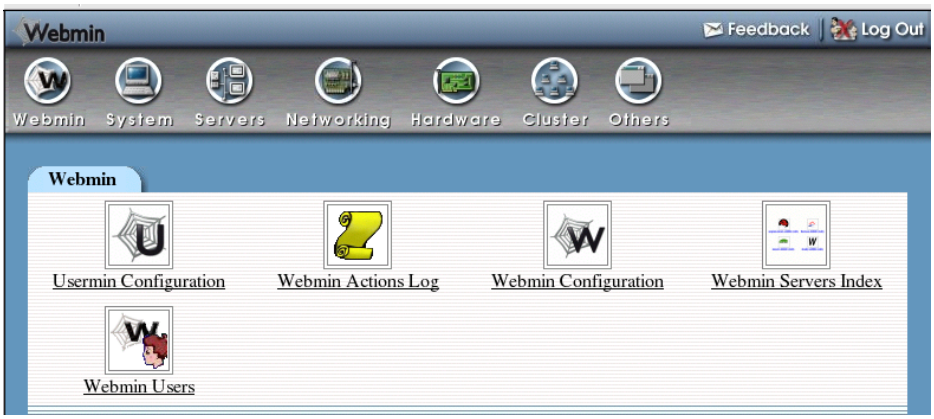
***Step 2*** In the address bar of the browser, type **http://localhost:10000** and press **Enter**. The Webmin login dialog box displays (Figure 5-2).

***Figure 5-2*** *Webmin login dialog box*




***Step 3*** Type **root** for the user name and **neax2400** for the password, then press **Enter**. The Webmin window displays (Figure 5-3).

***Figure 5-3*** *Webmin window*

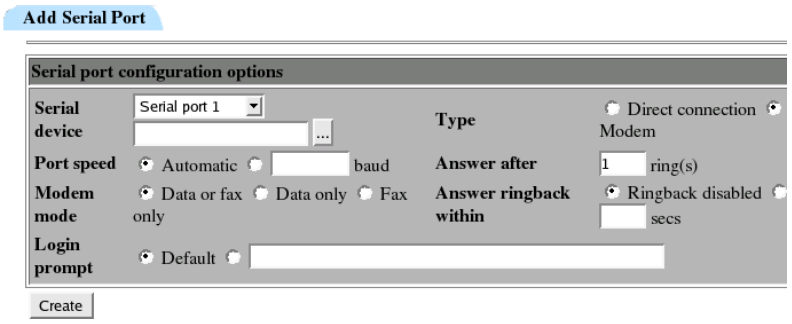


## Configuring the Modem

Do the following to configure the modem.

***Step 1*** From the main Webmin window, select **Networking > PPP Dialin Server >Serial Port Configuration > Add a new Serial Port**. The Serial Port Configuration window displays (Figure 5-4).

***Figure 5-4*** *Serial Port Configuration window*




***Step 2*** Enter the following.

| Field / Setting | Select / Enter |
|---|---|
| **Serial Device** | Serial Port 2 |
| **Type** | Modem Connect |
| **Port Speed** | Automatic Port Speed |
| **Answer After** | 1 ring |
| **Modem Mode** | Data only |
| **Answer Ringback Within** | Disabled |
| **Login Prompt** | Default |

***Step 3*** After making the appropriate settings, click **Create**.

***Step 4*** Click **Apply**.

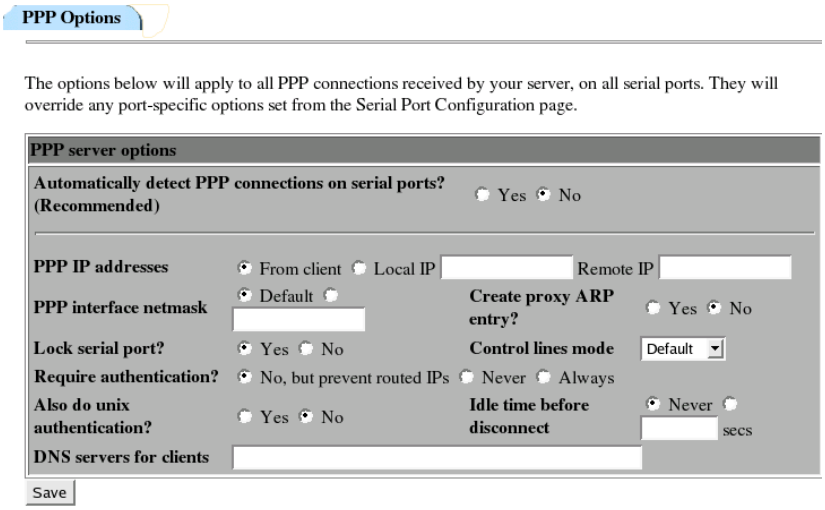
**----------Procedure Complete----------**

## Configuring PPP

Do the following to configure the PPP settings.

***Step 1*** From the main Webmin window, select **Networking > PPP Dialin Server > PPP Option**. The PPP Options window displays (Figure 5-5).

***Figure 5-5*** *PPP Options window*



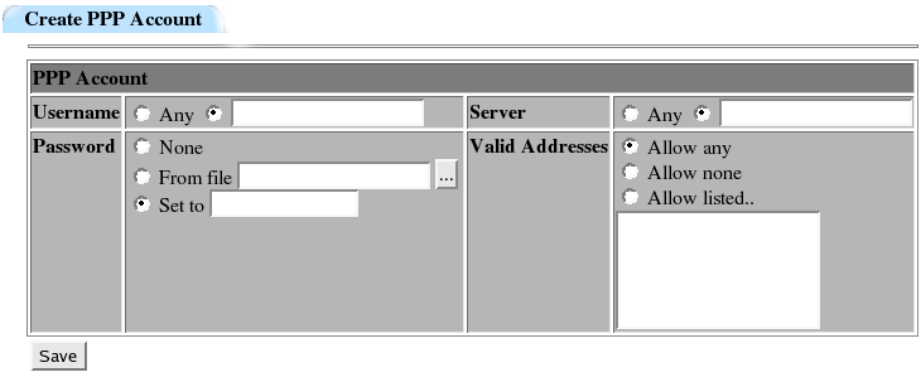

***Step 2*** Enter the following (these are the only settings you need to make).

| Field / Setting | Select / Enter |
|---|---|
| **Automatically detect PPP...** | Yes |
| **PPP IP addresses** | Enter your Local and Remote IP addresses |

***Step 3*** After making the appropriate settings, click **Save**. The PPP Dialin Server window appears.

***Step 4*** Select **PPP Accounts > Create new PPP account**. The PPP Accounts window displays (Figure 5-6).

***Figure 5-6*** *PPP Accounts window*



***Step 5*** Enter the following.:

| Field / Setting | Select / Enter |
|---|---|
| **User Name** | root |
| **Password** | neax2400 |
| **Server** | Any |
| **Allow** | Any |

***Step 6*** After making the appropriate settings, click **Save**.

**----------Procedure Complete----------**

# 6

# Troubleshooting and Maintenance

This chapter provides information on troubleshooting and maintenance of the Global Navigator 6.0 Server.

*Chapter topics*



## Navigator Utility

The Navigator Utility (**nav_help**) is allows you to perform many maintenance and configuration tasks. To access the utility, follow the procedure below.

***Step 1*** From the Linux desktop interface press **Ctrl + Alt and F1**.

***Step 2*** Type **root** for the login name, then press **Enter**.

***Step 3*** Type **neax2400** for the password, then press **Enter**.

***Step 4*** Type **cd /u/acdmis/run** and press **Enter**.

***Step 5*** Type **bin/nav_help** and press **Enter**. The Navigator Utility screen displays with the available options (Figure 6-1).

***Figure 6-1*** *Navigator Utility*

```
B- Backup / Restore
C- Network ACD conf [internal calls, next LWC, tracing]
D- Downloaded ACD names [agent, split, pilot] synchronization


    Default values:

NAME                    STATUS
-----------------------------------------------
Agent names / Initials   ACCEPTED
Split names              ACCEPTED
Pilot names              ACCEPTED


E- IEX report options [list, resend, node & mapping]
I- Tracking of Internal calls as Incoming
L- Longest Waiting Call auto-cleaning timing
M- Set Max. Queue Depth [to sync with ACD]
N- Modify number of nodes monitored
S- Configure the monitored nodes and MIS limits
T- Configure tenant subscriptions for TCP/IP connectivity (number of tenants allowed
  per node / 9 tenants per node maximum)

W- Configure Wall Display timing settings

     Default: 2.000 seconds
     Minimum: 0.100 seconds
     Maximum: 9.999 seconds

J- Display running jobs
K- Kill jobs
U- Unlock configuration of monitored nodes and MIS limits
```

## Backup/Restore 6.0 Database

Do the following to backup/restore the Global Navigator server database.

***Step 1*** From the Linux desktop interface press **Ctrl + Alt and F1**.

***Step 2*** Type **root** for the login name, then press **Enter**.

***Step 3*** Type **neax2400** for the password, then press **Enter**.

***Step 4*** Type **cd /u/acdmis/run** and press **Enter**.

***Step 5*** Type **bin/nav_help** and press **Enter**. The Navigator Utility screen displays with the available options.

***Step 6*** Type **B** for the Backup and Restore Databases and Directories and press **Enter**.


*If this is the first time one of the options is selected, a message will display asking whether to create /u/acdmis/BACKUP. Answer **yes** to this question.*

***Step 7*** Make the appropriate selection from the following options:

1 - Backup databases to hard disk
2 - Restore databases from hard disk
3 - Backup gnav server to tape
4 - Restore gnav server from tape
Q - exit

***Step 8*** When completed press **Q** to exit the Backup/Restore screen. The Navigator Utility screen displays.

***Step 9*** Press **Q** and then **Enter**. to exit.

**----------Procedure Complete----------**

## Stop/Start Global Navigator

Use the following to start or stop Global Navigator from the **root** or **run** directory use the following

### To start:

At the root or run prompt, type **/etc/init.d/gnav start** and press **Enter**.

### To stop:

At the root or run prompt, type **/etc/init.d/gnav stop** and press **Enter**.

# Global Navigator Resource and Download Verification

Use the following procedures to verify that Global Navigator is running and a valid download has taken place.

## Verify that Resource is running

***Step 1*** From the text-based interface, login as **root**.

***Step 2*** At the **[root@navigator root]#** prompt, type **ps -ef | grep res** and press **Enter**. Information similar to the following displays.

**Line 1 = root 6064 0 jul08 00:00:00 ./RESOURCE**
**Line 2 = root 20579 3354 0 05:38 tty2 00:00:00 grep res**

—The first line indicates that the Global Navigator application is running. If the entire line does not display, the application is not running.

—The second line echoes the terminal information that invoked the **ps -ef | grep res** command line. This line will always appear.

## Verify a valid download

***Step 1*** From the text-based interface, login as **root**.

***Step 2*** At the root prompt type **cd /u/acdmis/run** and press the **Enter**. This will take you to the run directory.

***Step 3*** At the run directory, type **tail -f swix.dat** (where **x** equals the Node number) and press the **Enter**.
If the download was successful, information similar to the following displays.

**07:08:56< GE xxxxxxx**
**07:09:02< Gc 20030162358**
**07:09:09< GB xxxxxxxxx**

—**GE** indicates the start of download.

—**Gc** indicates the date and time change.

—**GB** indicates download sequence complete. Indicates a successful download.

Note that you may not be able to see the GE event message. From the time that Navigator starts to the time that it may take you to run step 3 above, the event message may have gone by. Look for the GB event message instead. This is a sure sign that the Download started and was completed.

**----------Procedure Complete----------**

## Recover TCP/IP Connection

Global Navigator 6.0 has a built-in feature that allows it to recover the TCP/IP connection to the PBX(s) in the event of network failure.

The following procedure demonstrates how to test and/or see how this feature works.

***Step 1*** Enter Terminal Mode and login to GNAV Pro.

***Step 2*** Unplug the Ethernet cable from the NIC card on the Global Navigator server. The following occur:

—The terminal displays **e100: eth0 NIC Link is Down**.

—After 30 seconds, the GNAV Pro Real-time screen will go blank.

***Step 3*** Plug the Ethernet cable back into the NIC card.
The following occur:

—The terminal displays **e100: eth0 NIC Link is UP 100 Mbps Full Duplex**.

—After 30 seconds, the GNAV Pro Real-time screen will show real-time data.


*The amount of time for the system to reconnect is dependant upon the amount of network traffic. These times may vary.*

**----------Procedure Complete----------**

***For additional information or support on this NEC Unified Solutions product, contact your NEC Unified Solutions representative.***

NEC Unified Solutions, Inc.

**Global Navigator Server Installation Manual**

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