

Open NerveCenter 4.0

Installing NerveCenter

Unix and Windows

Disclaimer

The information contained in this publication is subject to change without notice. OpenService, Inc. makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. OpenService, Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this manual.

Copyright

Copyright © 1994-2004 OpenService, Inc. All rights reserved.

Trademarks

OpenService and NerveCenter are registered in the U.S. Patent and Trademark Office. The Open logo and Open NerveCenter are trademarks of OpenService, Inc. All other trademarks or registered trademarks are the property of their respective owners.

Printed in the USA, v4.0.

Open NerveCenter *Installing NerveCenter*

OpenService, Inc.

110 Turnpike Rd., Suite 308

Westborough, MA 01581

Phone 508-366-0804

Fax 508-366-0814

<http://www.openservice.com>

1 Introduction

Overview of this book	2
NerveCenter Documentation	3
Using the Online Help	3
Printing the Documentation	3
The NerveCenter Documentation Library	4
UNIX Systems	5
Document Conventions	5
Documentation Feedback	6
Open Technical Support	7
Professional Services	7
Educational Services	7
Contacting the Customer Support Center	8
For telephone support:	8
For e-mail support:	8
For electronic support	8
For Online KnowledgeBase Access	8

2 Installing NerveCenter on UNIX

Preparing to Install NerveCenter on UNIX	10
Running the Installation Script (Interactive)	14
Running the Installation Script (Automatic)	18
Additional Step for First-time, OVPA-only Installs	21
Viewing the Installation Log	21
Running the Installation Script to Reconfigure NerveCenter	22
Where to Go from Here	22

3 Running Setup on Windows

Preparing to Install NerveCenter on Windows	27
Starting the NerveCenter Setup Program	29
Starting the Installation	30

Accepting the License Agreement	31
Selecting the Components to Install	32
Configuring the Platform Adapter	33
Changing the Destination Directory or HP OpenView Path	34
Configuring the Service to Start Automatically	35
Entering a License Key	35
Configuring Security.	36
Trap Options	37
Letting Setup Install and Configure the Database	38
Selecting the Program Folder	39
Completing the Installation.	41
Where to Go from Here	42
4	Setting Up the Database on Windows
Creating and Installing a New Database.	46
Creating a SQL Server Database.	49
Creating an Access Database.	54
Connecting to an Existing Database.	57
Connecting to a SQL Database	57
Connecting to an Access Database	61
5	Doing Silent and Remote Installations on Windows
Creating a Source Directory	67
Editing the Installation Configuration File.	68
Running Setup from the Command Line	74
Installing NerveCenter Remotely	75
Creating your Database from the Command Line	76
Configuring the Database Remotely.	80
Configuring NerveCenter Remotely.	81
6	Removing Open NerveCenter
Removing NerveCenter from a UNIX Machine.	84
Removing NerveCenter from a Windows Machine	86
Index	89
License Agreement	93

Welcome to *Installing NerveCenter*. This chapter introduces the audience and purpose of this guide, and how you can best use it.

This chapter includes the following sections:

Section	Description
<i>Overview of this book</i> on page 2	Includes an overview of the contents of this guide and what you need to know before you use the guide.
<i>NerveCenter Documentation</i> on page 3	Lists and describes the components of the Open NerveCenter support system, including printed guides, online guides, help, and links to the Open NerveCenter Web site and the Open technical support Web site.
<i>Open Technical Support</i> on page 7	Describes how to access the NerveCenter knowledge base and other Open support services.

Overview of this book

Installing NerveCenter describes how to install and configure NerveCenter.

**NOTE**

It is assumed you are an experienced network administrator and are familiar with the platforms on which you are installing.

Installing NerveCenter contains the following sections:

Title	Description
Chapter 2, <i>Installing NerveCenter on UNIX</i>	Describes the prerequisites and procedures for installing NerveCenter on HP-UX and Solaris and lists the tasks you do after installation and where you can find more information about them.
Chapter 3, <i>Running Setup on Windows</i>	Describes the prerequisites and procedures for installing NerveCenter on Windows and lists the tasks you do after installation and where you can find more information about them.
Chapter 4, <i>Setting Up the Database on Windows</i>	Describes how to create a new database, upgrade an existing database, and connect to an existing database.
Chapter 5, <i>Doing Silent and Remote Installations on Windows</i>	Describes how to install NerveCenter on Windows by running Setup from the command line or by using Microsoft Systems Management Server.
Chapter 6, <i>Removing Open NerveCenter</i>	Describes how to remove NerveCenter from UNIX and Windows platforms.

NerveCenter Documentation

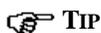
This section describes the available NerveCenter documentation, which explains important concepts in depth, describes how to use NerveCenter, and provides answers to specific questions.

The documentation set is provided in online (HTML) format, as well as PDF for printing or on-screen viewing. See the following topics for more information:

- ◆ *Using the Online Help* on page 3
- ◆ *Printing the Documentation* on page 3
- ◆ *The NerveCenter Documentation Library* on page 4
- ◆ *UNIX Systems* on page 5
- ◆ *Document Conventions* on page 5
- ◆ *Documentation Feedback* on page 6

Using the Online Help

You can use Microsoft Internet Explorer, Mozilla, or Netscape Navigator to view the documentation. Refer to the *NerveCenter 4.0.3 Release Notes* for the browser versions supported with this release.

**TIP**

For in-depth instructions on using the online documentation, click the Help button  in the upper right of the Help window.

Printing the Documentation

The NerveCenter documentation is also available as Portable Document Format (PDF) files that you can open and print. All PDF files are located in your *installpath/doc* directory.

**NOTE**

You must have Adobe Acrobat Reader to open or print the PDF files. You can download the Reader free from Adobe's Web Site at <http://www.adobe.com>.

The NerveCenter Documentation Library

The following documents ship with NerveCenter.

Book Title	Description	Application	Audience	PDF for Print
<i>NerveCenter 4.0.3 Release Notes</i>	Describes new NerveCenter v3.8 features and includes late-breaking information, software support, corrections, and instructions.	All	All	relnotes.pdf
<i>Getting a Quick Start with NerveCenter</i>	Provides a preview prior to installing and configuring NerveCenter for your network. Takes approximately one to two hours to complete.	All	New users	QuickStart.pdf
<i>Upgrading NerveCenter</i>	Explains how to upgrade your current NerveCenter version.	All	Installation team	upgrading.pdf
<i>Installing NerveCenter</i>	Helps you plan and carry out your NerveCenter installation. Use the <i>Release Notes</i> in conjunction with this book.	All	Installation team	install.pdf
<i>Managing NerveCenter</i>	Explains how to customize and tune NerveCenter after it has been installed.	NerveCenter Administrator	Administrator	managing_nervecenter.pdf
<i>Integrating NerveCenter with a Network Management Platform</i>	Explains how to integrate NerveCenter with network management platforms.	NerveCenter Administrator	Administrator	integratingNC.pdf
<i>Learning How to Create Behavior Models</i>	Provides step-by-step instructions and examples for creating behavior models.	NerveCenter Client	Users with administrative privileges	learningModel.pdf
<i>Designing and Managing Behavior Models</i>	Explains behavior models in depth, how to create or modify models, and how to manage your models.	NerveCenter Client	Users with administrative privileges	designingModels.pdf
<i>Monitoring Your Network</i>	Explains how NerveCenter works and how you can most effectively monitor your network.	NerveCenter Client and Web Client	Users	monitoringNet.pdf
<i>Behavior Models Cookbook</i>	Describes each behavior model shipped with Open NerveCenter.	NerveCenter Client	Users with administrative privileges	modsCookbook.pdf

Book Title	Description	Application	Audience	PDF for Print
Quick reference cards	<p>Quick reference cards provide convenient reference material for common NerveCenter tasks. The following cards are provided (PDF only):</p> <ul style="list-style-type: none"> ◆ Monitoring NerveCenter reference. ◆ Installing NerveCenter reference. ◆ Using Behavior Models reference. 	NerveCenter Client and Administrator	All	quickreference.pdf

UNIX Systems

On UNIX systems, NerveCenter man pages provide command reference and usage information that you view from the UNIX shell as with other system man pages. When you specify documentation during NerveCenter installation, the script installs nroff-tagged man pages and updates your system's MANPATH environment variable to point to the NerveCenter man page directory.

Document Conventions

This document uses the following typographical conventions:

Element	Convention	Example
Key names, button names, menu names, command names, and user entries	Bold	Press Tab Enter ovpa -pc
<ul style="list-style-type: none"> ◆ A variable you substitute with a specific entry ◆ Emphasis ◆ Heading or Publication Title 	<i>Italic</i>	Enter <i>.installdb -f IDBfile</i>
Code samples, code to enter, or application output	Code	<code>iifInOctets > 0</code>
Messages in application dialog boxes	Message	Are you sure you want to delete?
An arrow (>) indicates a menu selection	>	Choose Start > Programs > Open NerveCenter

Element	Convention	Example
A link to a section in the same book	<i>Blue Italic</i>	For more information, see <i>Correlating Conditions</i> .
A link to a section in a different book	<i>Green Italic</i>	For more information, see <i>Correlating Conditions in Monitoring Your Network with NerveCenter</i> .

Note: If you are viewing this document in a PDF viewer, you may need to use the **Go to Previous View** button to return to the original PDF file.

**CAUTION**

A caution warns you if a procedure or description could lead to unexpected results, even data loss, or damage to your system. If you see a caution, proceed carefully.

**NOTE**

A note provides additional information that might help you avoid problems, offers advice, and provides general information related to the current topic.

**TIP**

A tip provides extra information that supplements the current topic. Often, tips offer shortcuts or alternative methods for accomplishing a task.



If toolbar buttons are available, they are displayed in the margin next to the step in which you can use them. Other shortcuts are noted as tips. Also, shortcut (accelerator) keys are displayed on application menus next to their respective options.

Documentation Feedback

OpenService, Inc. is committed to providing quality documentation and to helping you use our products to the best advantage. If you have any comments or suggestions, please send your documentation feedback to:

Documentation
 OpenService, Inc.
 110 Turnpike Road, Suite 308
 Westborough, MA 01581

documentation@openservice.com

Open Technical Support

Open is committed to offering the industry's best technical support to our customers and partners. You can quickly and easily obtain support for NerveCenter, our proactive network management software, or Security Threat Manager, our security threat management suite.

Professional Services

Open offers professional services when customization of our software is the best solution for a customer. These services enable us, in collaboration with our partners, to focus on technology, staffing, and business processes as we address a specific need.

Educational Services

Open is committed to providing ongoing education and training in the use of our products. Through a combined set of resources, we offer quality classroom style or tailored on-site training to our global customer base.

Contacting the Customer Support Center

For telephone support:

Phone: 1-888-886-1085, menu option 1 or 1-508-599-2000

For e-mail support:

E-mail: techsupport@openservice.com.

For electronic support

Open uses a Web-based customer call tracking system, TeamShare, where you can enter questions, log issues, track the status of logged incidents, and check the knowledge base.

When you purchased your product or renewed your maintenance contract, you received a user name and password to access the TeamShare system. If you have not received or have forgotten your log-in credentials, please e-mail us with a contact name and company specifics at techsupport@openservice.com.

For Online KnowledgeBase Access

For additional NerveCenter 4.0 support, you can access the following information on the Open website, <http://www.openservice.com>:

- ◆ **Patches and Updates** - latest installation files, patches, and updates including documentation for NerveCenter 4.0.
- ◆ **Software Alerts** - latest software alerts relative to NerveCenter 4.0.
- ◆ **KnowledgeBase Search** - search the NerveCenter 4.0 KnowledgeBase for answers to your questions whether relating to installation, usage, or operation.

Installing NerveCenter on UNIX

Follow the instructions in this chapter to use the NerveCenter™ installation script to install the NerveCenter components listed in Table 2-1:

TABLE 2-1. NerveCenter Components

Component	Description
NerveCenter Client	Lets you monitor your network, as well as design and manage behavior models.
NerveCenter Administrator	Lets you configure NerveCenter.
NerveCenter Server	Carries out all major tasks, including polling SNMP agents, triggering alarms, and making sure that alarm transitions occur.
Platform Adapters	Integrate NerveCenter with supported network management platforms. (See the <i>NerveCenter 4.0.3 Release Notes</i> for a complete list.)
NerveCenter Web support	Integrates NerveCenter with supported Web servers. (See the <i>NerveCenter 4.0.3 Release Notes</i> for a complete list.)
Online documentation	Provides the NerveCenter library in HTML with a full-text search engine. (PDF versions are also installed for printing.)

You can install the components on any machine that meets the configuration requirements. (See *NerveCenter 4.0.3 Release Notes*.) For information about upgrading from an older version of NerveCenter, see *Upgrading NerveCenter*.



CAUTION

Before you install NerveCenter, make sure you meet the prerequisites. See *Preparing to Install NerveCenter on UNIX* on page 10.

This chapter includes the following sections:

Section	Description
Preparing to Install NerveCenter on UNIX on page 10	Describes how to prepare the machine on which you are going to install NerveCenter.
Running the Installation Script (Interactive) on page 14	Describes how to run the installation script and respond to prompts.
Running the Installation Script (Automatic) on page 18	Describes how to create and use an input file to provide answers to the installation script prompts automatically.
Viewing the Installation Log on page 21	Describes how to open the installation log so you can troubleshoot problems or view which options were chosen during installation.
Running the Installation Script to Reconfigure NerveCenter on page 22	Describes how to rerun a portion of the installation script to reconfigure NerveCenter after the initial installation.
Where to Go from Here on page 22	Describes what to do after completing the installation.

Preparing to Install NerveCenter on UNIX

Before you install NerveCenter, you must set up the environment by backing up existing NerveCenter files, stopping processes, creating users and groups, and configuring services.



NOTE

You cannot install multiple versions of NerveCenter on the same machine. Only one version can be installed on a machine.

Before you prepare the machine, make sure you meet the prerequisites in Table 2-2:

TABLE 2-2. Prerequisites for Installing NerveCenter on UNIX

If you are installing...	You must...
Over an existing version of NerveCenter	See <i>Upgrading NerveCenter</i> for more information about upgrading from version 3.8 to version 4.0. You must uninstall prior versions of NerveCenter before installing NerveCenter 3.8.

TABLE 2-2. Prerequisites for Installing NerveCenter on UNIX (Continued)

If you are installing...	You must...
Any NerveCenter component	<ul style="list-style-type: none"> ◆ The computers where you'll install NerveCenter must meet the system requirements for your environment, as described in the <i>NerveCenter 4.0.3 Release Notes</i>. ◆ Have X-Windows software with Motif or CDE to run the following NerveCenter components: Client, Administrator, and SerializeDB. An X server must be installed but does not have to be running to run the following NerveCenter components: Server, Command Line Interface (CLI), Importutil, and IPSweep. The DISPLAY variable must point to a valid X display for the following NerveCenter components: Client, Administrator, IPSweep, and SerializeDB ◆ Have root privileges to run the installation script.
NerveCenter Server	<ul style="list-style-type: none"> ◆ The process /usr/sbin/rpcbind must be running for NerveCenter Server to start. ◆ Installing a NerveCenter Server on the same machine as IBM NetView is not supported.
The OpenView Platform Adapter	<ul style="list-style-type: none"> ◆ Install and start the HP trap service (ovtrapd). ◆ Have HP OpenView or IBM NetView running on this machine. If HP OpenView is running on a Windows system, you will need to install the OpenView Platform Adapter on that system. ◆ <i>PlatformPath</i> and <i>PlatformBinPath</i> refer to the fully qualified path names of the network management platform installation directory and the directory containing all the platform executables, respectively (for example, /opt/OV and /opt/OV/bin).
The Universal Platform Adapter	<p>Have either Micromuse Netcool/Omnibus (including the NerveCenter probe) or Tivoli TME 10 installed on this machine.</p> <p>Note: You must get the NerveCenter probe, which is a Micromuse product, from Micromuse.</p>
Web server	<p>If you are installing Web support, you don't have to install any NerveCenter components on the Web server itself. However, you do need to be familiar with the Web server, its location, and its configuration files.</p>

TABLE 2-2. Prerequisites for Installing NerveCenter on UNIX (Continued)

If you are installing...	You must...
CD-ROM drive	Make sure that the workstation that will be the Open NerveCenter Client or Server host is the same type of workstation as the one connected to the CD-ROM drive you'll use during installation. For example, if you're installing Open NerveCenter on an HP workstation, make sure the CD-ROM drive is attached to an HP workstation.

TO SET UP YOUR MACHINE

1. On the system where you plan to install Open NerveCenter, log in as root.
2. If NerveCenter is already installed on this machine, stop all NerveCenter and Wind/U processes. See *Upgrading NerveCenter*.

If any of these processes are still running when you start the installation script, the script will quit and display a list of the processes you must stop. Once you have stopped the processes, you can rerun the script.

3. If NerveCenter is already installed on this machine, back up any files that you have customized for your business or your environment. See *Upgrading NerveCenter*.
4. You must uninstall NerveCenter before installing NerveCenter 4.0. See *Removing Open NerveCenter* on page 83 or *Upgrading NerveCenter*.
5. If the following two groups don't already exist, create them: **ncadmins** and **ncusers**.

**CAUTION**

Do not create these groups on the NIS client machine. If you do, you will not be able to log in to the NerveCenter Server on that machine.

6. Create a new user, **nervectr**, that is a member of the group **ncadmins**.

**NOTE**

Create the **nervectr** user in the NIS database if the machine running the NerveCenter Server is using NIS for user authentication.

7. If you are installing NerveCenter on HP-UX, make sure that HP Services is configured to search both `/etc/services` and NIS by doing the following:
 - a. Run **sam** and choose **Network and Communications**.
 - b. Choose **Name Service Switch**.
 - c. Make sure the services line includes entries for **NIS** and `/etc/services`.

- d. Select the **services** line.
 - e. Right click the **services** line and select **Configure Name Service Switch**.
 - f. In the window displayed, set **If Information is Not Found to Try Next Source**.
8. If you are installing NerveCenter on HP-UX, make sure the kernel parameter, nfile, is set to at least 1000 to allow more open files:
 - a. Run sam and choose **Kernel configuration**.
 - b. Then choose **Configuration parameters**.
 - c. Set nfile to at least **1000**.
 9. If you are installing NerveCenter on HP-UX, make sure the kernel parameter, maxfiles, is set to at least 200:
 - a. Run sam and choose **Kernel configuration**.
 - b. Then choose **Configuration parameters**.
 - c. Set maxfiles to at least **200**.
-

Once you have finished configuring the system, you can install NerveCenter.

Running the Installation Script (Interactive)

The installation script prompts you with a series of questions. You can:

- ◆ Press **Enter** to accept the default value (displayed between brackets []).
- ◆ Enter **y** for yes, **n** for no, or **q** to quit the installation.
- ◆ Enter a question mark (?) to get help.
- ◆ Type **Ctrl+c** to terminate the installation immediately.



NOTE

When you are prompted for the name of a directory, you must enter the full path name. Characters such as the tilde (~) are not recognized.

If an error occurs during the installation process, the script will tell you what to do.

TO RUN THE INSTALLATION SCRIPT

1. If you haven't done so already, shut down all NerveCenter processes.
2. Mount the NerveCenter CD-ROM.
3. Navigate to *mountpoint*/**BIN**.
4. Enter the following command:

```
./INSTALL.SH
```



NOTE

On HP-UX, type `./INSTALL.SH;1`.

The script begins to run.

5. At the following prompt, press Enter to accept the default installation directory or enter a new one.

```
Where do you want to install NerveCenter? [/opt/OSInc]
```



NOTE

If you are installing over an existing /opt/OSInc directory, the install script backs the existing files up to /opt/OSInc.sav.

6. If the directory does not already exist, answer **y** to the following prompt:

```
Directory /opt/OSInc doesn't exist.....Shall I create it ?
[y]
```

7. Type the letter for each component you want to install (separating each one with a space), then press Enter.

TABLE 2-3. NerveCenter Components You Can Install on UNIX

Letter	Component	Notes
c	Client	Install if you want to be able to monitor the network and create or modify behavior models from this system. No other NerveCenter components have to be installed on this system.
w	Web server integration	Install if you want to be able to use the Web Client from any system connected to the network. We recommend that you install this component on the system on which the web server is installed; however, doing that is not required.
a	Administrator	Install if you want to be able to customize NerveCenter from this system. No other NerveCenter components have to be installed on this system.
s	Server	Install if you want to have the main NerveCenter pieces, including the NerveCenter database and other primary files, located on this system. Note: Installing the NerveCenter Server on a machine running IBM NetView is not supported.
d	Online documentation	We recommend always installing the online documentation, because all of your command line switches, procedures, and so on, are documented there.
o	OpenView or NetView integration	Do not install if you plan on using the NerveCenter IPSweep model instead of getting node information from OpenView or NetView. OpenView or NetView must be installed on this system and must be running.
n	Netcool integration	Netcool should be installed on this system.
t	Tivoli integration	Tivoli must be installed on this system.
l	All	

**NOTE**

The script will quit if any of the following conditions are true: you did not create the required users and groups, there is not enough space in this directory, some NerveCenter processes are still running. Correct the condition (create the users, create some more space, or stop the processes) and rerun the installation script. See [Preparing to Install NerveCenter on UNIX](#) on page 10 for details.

The script lists each file as it is extracted.

If you are installing the OpenView integration, be sure to go to [Additional Step for First-time, OVPA-only Installs](#) on page 21 and follow the additional instructions if you are running NIS.

8. At the following prompt, press **Enter** to accept the default path or enter a different path.

```
Enter the path of the X motif libraries. [/usr/dt/lib]
```

9. If the installation script indicates that you need to update the services file, type **y** and then press Enter at the following prompt. Otherwise, just press Enter.

```
Do you want to update the services file ? [n] n
```

10. At the following prompt, type your license key and press Enter.

```
Enter the license Key []
```

**NOTE**

If you leave the license key empty, you can start the server and connect to it from the administrator to add the key later. If you have multiple keys, enter one here and use `importutil` or the administrator to add the others later.

11. If you are installing platform integration for OpenView, press Enter. If you are not, skip to the next step.

```
Do you wish to configure NerveCenter integration with OpenView
on this system ? [y]
```

12. At the following prompt, press Enter if you are not running co-resident. If you are running both NerveCenter and HP OpenView on this system, type **y** and press Enter.

```
Will you be running NerveCenter co-resident with OpenView on
this system?
Enter your choice      [n]
```

13. At the following prompt, type the full path and executable name of your HTML browser (`/usr/netscape/netscape`, for example).

 **CAUTION**

If you do not enter a path to a browser, you will not be able to view the NerveCenter Help. For a list of supported browsers, see *Software Requirements* in *NerveCenter 4.0.3 Release Notes*.

Enter the path and the name of your browser : [.]

14. At the following prompt, press Enter to configure the server so you have to start it manually. To configure the server as a daemon so it starts automatically when you reboot the system, type **y** and press Enter.

You can start NerveCenter server as a daemon. If you do, NerveCenter server will start automatically when you reboot the system.

Enter your choice [y]

15. At the following prompt, press Enter to configure web server integration.

Do you want to configure web server integration ?

Enter your choice [y]

 **NOTE**

If your Web server is on a different machine, you must configure the Web server yourself. See *Managing NerveCenter Web Integration* in *Managing NerveCenter* for details.

16. At the following prompt, type the appropriate number for the web server with which you want to integrate NerveCenter. Then, press Enter.

Please enter the web server : [1]

17. If you are installing web integration, follow the prompts to configure your web server. For example, to integrate NerveCenter with Apache, do the following when you are prompted:
 - a. Enter the path to the Apache web server configuration directory (the directory containing httpd.conf and srm.conf).
 - b. Enter the path to the Apache web server pid file location.
 - c. Confirm that you want the installation script to modify the Apache configuration file.
The script backs up the original file in the /apache/conf directory as srm.conf.NCbak.
 - d. Decide whether you want to restart the web server now. (If not, remember to do so later.)

- e. Decide whether to configure NerveCenter webcollector as a daemon to start when the system reboots.
18. If you are installing the universal platform adapter for integration with Micromuse Netcool/OMNIbus or Tivoli TME, the following prompt lets you specify whether to install it as a daemon.

```
You may choose to start NerveCenter PA Server at system
startup. Choosing to do so will bring up the NerveCenter PA
Server when the system boots the next time.
Enter your choice          [n]
```

19. When the installation script finishes, source the appropriate ncenv shell script in /opt/OSInc/userfiles for the shell you are running.

**CAUTION**

You must source this file to be able to run NerveCenter. Add the lines from these files to the login scripts for all users who are going to be starting NerveCenter applications on UNIX.

You have installed NerveCenter.

Running the Installation Script (Automatic)

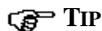
If you want to install NerveCenter without having to answer each prompt one at a time, you can modify the ncinput file provided with NerveCenter and run the install script so it uses that file to get your answers.

TO RUN THE INSTALLATION SCRIPT

1. If you haven't done so already, shut down all NerveCenter processes.
2. Mount the NerveCenter CD-ROM.
3. Navigate to *mountpoint/bin*.
4. Copy **ncinput** to your local system.
5. Open **ncinput** in a text editor.
6. Edit **ncinput**, using the examples in the file as a guide.

You can delete sections or options that do not apply to the components you are installing or for which you want to accept the defaults; however, some options are required. If you delete those options, your installation will fail.

Table 2-4 describes the sections in the input file. Also refer to [Running the Installation Script \(Interactive\)](#) on page 14 for more detailed explanations of the various options.

**TIP**

You can add comments (or comment sections out) by starting the line with a hash mark (#).

TABLE 2-4. Sections in the Input File

Description	Options
Edit this section to change general options, such as the installation directory, the components you want to install, the path of your browser, and so on.	<ul style="list-style-type: none"> ◆ InstallDirectory=<i>installation_path</i> (required) ◆ CreateInstallDir=<i>y_or_n</i> (if not specified, the default is <i>y</i>) ◆ InstallOption=<i>letter_for_each_option_separated_by_space</i> (required) ◆ Overwrite=<i>1_to_overwrite_or_2_not_to</i> (if not specified, the default is 1) ◆ LicenseKey=<i>32-digit_license_key</i> (if not specified, the license key is left blank) ◆ BrowserPath=<i>path_and_filename_of_browser</i> (if not specified, the default is “.” for no browser)
Edit this section to change whether the server, platform adapter, or web collector run as daemon processes.	<ul style="list-style-type: none"> ◆ NCServerDaemon=<i>y_or_n</i> (if not specified, the default is <i>n</i>) ◆ PAServerDaemon=<i>y_or_n</i> (if not specified, the default is <i>n</i>) ◆ WebCollectorDaemon=<i>y_or_n</i> (if not specified, the default is <i>n</i>)
Edit this section to configure web integration.	<ul style="list-style-type: none"> ◆ ConfigureWebServer=<i>y_or_n</i> (if not specified, the default is <i>y</i>) ◆ DefaultWebServer=<i>1_for_apache_2_for_fasttrack_3_for_other</i> (required if configuring web support) ◆ ApacheWebServerConfig=<i>path_to_apache_conf_file</i> (required if configuring Apache) ◆ ApacheWebServerPID=<i>path_to_apache_logs_dir</i> (required if configuring Apache) ◆ FTWebServerConfig=<i>path_to_fasttrack_config_file</i> (required if configuring FastTrack) ◆ ModifyWebConfigFile=<i>y_or_n</i> (if not specified, the default is <i>y</i>) ◆ RestartWebServer=<i>y_or_n</i> (if not specified, the default is <i>n</i>)

TABLE 2-4. Sections in the Input File (Continued)

Description	Options
Edit this section to address NIS server issues.	<ul style="list-style-type: none"> ◆ NISConfig=<i>y_or_n</i> (if not specified, the default is <i>n</i>) ◆ NISMasterServer=<i>machine_name</i> (required if configuring NIS)
Edit this section to configure the OpenView Platform Adapter (OVPA).	<ul style="list-style-type: none"> ◆ ConfigureOV=<i>y_or_n</i> (if not specified and OpenView is installed, the default is <i>y</i>) ◆ NC-OV_CoRes=<i>y_or_n</i> (if not specified, the default is <i>n</i>) ◆ OVWLaunchClient=<i>y_or_n</i> (if not specified, the default is <i>y</i>) ◆ OVWLaunchServer=<i>y_or_n</i> (if not specified, the default is <i>y</i>) ◆ Configure-LAA-OPC=<i>y_or_n</i> (if not specified and IT/Operations is installed, the default is <i>y</i>) ◆ OPC-HOST=<i>machine_name</i> (required if configuring integration with IT/Operations)
Edit this section to enable NerveCenter to accept SNMP v3 traps	<ul style="list-style-type: none"> ◆ NC-SNMPv3_Enabled=<i>y_or_n</i> (if not specified, the default is <i>y</i>)

7. Save **ncinput**.

8. From the bin directory, enter the following command:

```
./INSTALL.SH path/ncinput
```



NOTE

On HP-UX, type `./INSTALL.SH;1 path/ncinput`

path is the full path to the directory where you saved your edited `ncinput` file.

The script runs. NerveCenter is installed.

If, for any reason, the installation fails, view the log file to see what messages were generated. For more information, see [Viewing the Installation Log](#) on page 21.

Additional Step for First-time, OVPA-only Installs

For a first-time, OVPA-only install, users must add one or both of the following two lines to their local `/etc/services` file (or the `/etc/services` file on the NIS server, if running NIS):

```
nl-nc-opc-adapt 6028/tcp
nl-nc-plat-adapt 6024/tcp
```

The first line applies to Operations Center and ITO adapters. The second line applies to OpenView platform adapters. Editing the services file requires root privileges on the host platform.

If you are making these changes on an NIS server, you will need to run 'make services' from the `/var/yp` directory to push the changes out to NIS clients.

These entries tell the platform adapters which TCP port to open for communications with NerveCenter Servers. If the required entry or entries is absent, the platform adapter will exit on startup with an Accept Socket Error.

Viewing the Installation Log

If you need to troubleshoot the installation or if you just want to review what options you specified, you can view the installation log. The installation log contains the full installation script, your answers, and the list of files that were installed.

TO VIEW THE LOG FILE:

- ◆ Open `installation_path/ncinst_log` in a text editor or viewer.
-

Running the Installation Script to Reconfigure NerveCenter

If you need to reconfigure NerveCenter, you can rerun part of the installation script from the machine on which you installed NerveCenter.

TO RUN THE INSTALLATION SCRIPT

1. If you haven't already done so, shut down all NerveCenter processes.
2. Navigate to *installation_path/nc/install*.
3. Enter the following command:

```
./setup.sh
```

The script begins to run. For explanations of the prompts, see *Running the Installation Script (Interactive)* on page 14.

Where to Go from Here

After you finish the installation, you must do the following before you use NerveCenter on UNIX:

TABLE 2-5. Post-Installation Configuration Steps

If you...	You must...	For details, see...
Left the License Key empty	Start the server, use the administrator to connect to the server, and enter a license key.	<i>Working with NerveCenter Serial Numbers in Managing NerveCenter</i>
Are ready to start and configure NerveCenter	Start the server, use the administrator to connect to the server, and configure your node source, inform hosts, email notification, and so on.	<i>Connecting to a NerveCenter Server in Managing NerveCenter</i>
Chose to install a platform adaptor to integrate NerveCenter with a network management platform	Configure NerveCenter and your network management platform to work together.	<i>Integrating NerveCenter with a Network Management Platform</i>

TABLE 2-5. Post-Installation Configuration Steps (Continued)

If you...	You must...	For details, see...
Chose to integrate NerveCenter with Micromuse Netcool/Omnibus, but installed on a different machine than Netcool	Change the platform adapter's nhost setting to reflect the Netcool host machine.	<i>Integrating NerveCenter with Micromuse Netcool/OMNIBus in Integrating NerveCenter with a Network Management Platform</i>
Installed Web support, but the Web server is on another machine	Set up the URL map manually.	<i>Managing NerveCenter Web Integration in Managing NerveCenter</i>
Installed Web support	Make sure that users have appropriate access to the Web server.	Your Web server documentation
Changed the default directory and you plan on using the IPSweep behavior model	Modify the IPSweep alarm to use the new path.	<i>Using NerveCenter's IPSweep Behavior Model in Designing and Managing Behavior Models</i>

Follow the instructions in this chapter to use the NerveCenter Setup program to install the NerveCenter components listed in Table 3-1:

TABLE 3-1. NerveCenter Components

Component	Description
NerveCenter Client	Lets you monitor your network, as well as design and manage behavior models.
NerveCenter Administrator	Lets you configure NerveCenter.
NerveCenter Server	Carries out all major tasks, including polling SNMP agents, triggering alarms, and making sure that alarm transitions occur.
Platform Adapters	Integrate NerveCenter with supported network management platforms. (See the <i>NerveCenter 4.0.3 Release Notes</i> for a complete list.)
NerveCenter Web support	Integrates NerveCenter with supported Web servers. (See the <i>NerveCenter 4.0.3 Release Notes</i> for a complete list.)
Online documentation	Provides the NerveCenter library in HTML with a full-text search engine. (PDF versions are also installed for printing. See readme.txt in the docs directory for more information.)

You can install the components on any machine that meets the configuration requirements. (See the *NerveCenter 4.0.3 Release Notes*.) For information about upgrading from an older version of NerveCenter, see *Upgrading NerveCenter*.



CAUTION

Before you install NerveCenter, make sure you meet the prerequisites. See [Preparing to Install NerveCenter on Windows](#) on page 27.

Instead of using the NerveCenter Setup GUI, you can take advantage of two other installation options: *silent* or *remote*. You can do a silent installation by editing NerveCenter configuration information in a text file, then running Setup from the command line. To do remote installations, you can use Microsoft Systems Management Server (SMS) tools. See [Doing Silent and Remote Installations on Windows](#) on page 65

This chapter includes the following sections:

Section	Description
<i>Preparing to Install NerveCenter on Windows</i> on page 27	Lists the prerequisites for installing NerveCenter on Windows.
<i>Starting the NerveCenter Setup Program</i> on page 29	Describes how to start Setup from the Windows Add/Remove Programs applet.
<i>Starting the Installation</i> on page 30	Provides general recommendations and instructions for running Windows Setup programs.
<i>Accepting the License Agreement</i> on page 31	Displays the license agreement. You must accept it before you can install NerveCenter.
<i>Selecting the Components to Install</i> on page 32	Describes how to select NerveCenter components to install.
<i>Configuring the Platform Adapter</i> on page 33	Describes how to select the platform adapters.
<i>Changing the Destination Directory or HP OpenView Path</i> on page 34	Describes how to change where Setup installs NerveCenter and where HP OpenView is installed.
<i>Configuring the Service to Start Automatically</i> on page 35	Describes why you would want to configure the service to start automatically when the machine reboots and how to do so.
<i>Entering a License Key</i> on page 35	Describes how to add a license key.
<i>Trap Options</i> on page 37	Describes how to enable NerveCenter to process SNMP v3 traps.
<i>Configuring Security</i> on page 36	Describes how to let Setup configure NerveCenter security.
<i>Letting Setup Install and Configure the Database</i> on page 38	Describes how to specify whether Setup automatically launches the database wizard after installation.
<i>Selecting the Program Folder</i> on page 39	Describes how to create a NerveCenter program group.
<i>Completing the Installation</i> on page 41	Describes how to finish the installation.
<i>Where to Go from Here</i> on page 42	Describes what to do after completing the installation.

Preparing to Install NerveCenter on Windows



NOTE

You cannot install multiple versions of NerveCenter on the same machine. Only one version can be installed on a machine.

Before you install NerveCenter, make sure you meet these prerequisites:

TABLE 3-2. Prerequisites for Installing NerveCenter on Windows

If you are installing...	You must...
NerveCenter 4.0 over a previous version of NerveCenter	<ul style="list-style-type: none"> ◆ Export any behavior models that you need to be able to use with previous versions. ◆ Back up files that you have modified (such as MIB files, or your database). ◆ You must uninstall any prior version of NerveCenter before installing NerveCenter 4.0. <p>See <i>Upgrading NerveCenter</i> for more information about upgrading from version 3.8 to version 4.0.</p>
Any NerveCenter component	<ul style="list-style-type: none"> ◆ Be a Windows Administrator. If you are installing on a Windows workstation or server, you must be a member of the local Administrators group (or a member of a group that is a member of the local Administrators group). View the Local Group Properties window for information about the Administrators group. If you are installing on a Windows domain controller, your user ID must be a member of the Domain Admins group. ◆ Install and start Simple Network Management Protocol (SNMP) services and SNMP trap services.
The server	Make sure that the machine on which you are installing the server has a fixed address.
SNMPv3 Trap Support	<ul style="list-style-type: none"> ◆ Stop the OV Trap Service ◆ Stop and disable the Microsoft Trap Service

TABLE 3-2. Prerequisites for Installing NerveCenter on Windows (Continued)

If you are installing...	You must...
The OpenView Platform Adapter	<ul style="list-style-type: none"> ◆ Make sure the following services are started: SNMP EMANATE Adapter for NT and SNMP EMANATE Master Agent. ◆ Make sure that the SNMP Trap Service is not started. ◆ Install and start the HP trap service (ovtrapd). ◆ Have HP OpenView running on this machine. If HP OpenView is running on a UNIX system, you will need to install the OpenView Platform Adapter on that UNIX system.
The Universal Platform Adapter	<p>Have either Micromuse Netcool/Omnibus (including the NerveCenter probe) or CA Unicenter TNG installed on this machine.</p> <hr/> <p>Note: You must get the NerveCenter probe, which is a Micromuse product, from Micromuse.</p>
A SQL Server NerveCenter database	<ul style="list-style-type: none"> ◆ Have an account with system administrator (sa) rights on SQL Server because only sa can create devices. ◆ Have SQL Server 6.x or 7.x installed and running.

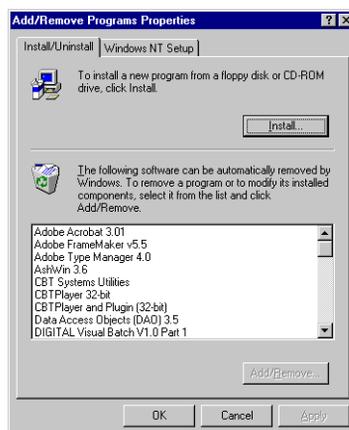
Starting the NerveCenter Setup Program

Use the Windows Add/Remove Programs applet to install or remove applications.

TO START THE NERVECENTER SETUP PROGRAM

1. Close all applications that are running.
2. In the Control Panel, select **Add/Remove Programs**.

The Add/Remove Programs Properties dialog box displays.



3. Select **Install**.

The Install Program dialog box is displayed.

4. Insert the NerveCenter CD-ROM and select **Next**.

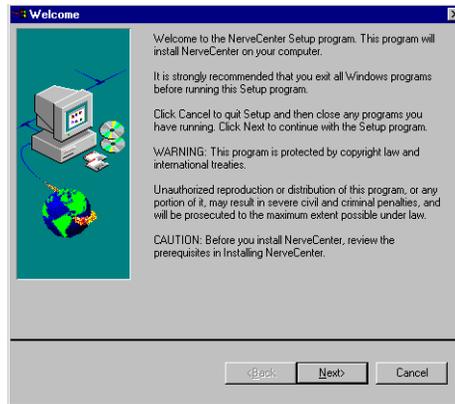
The NerveCenter Setup program should start automatically. If it does not, an error message tells you that Windows was unable to locate the installation program. If this occurs, select the **Browse** button to locate the setup.exe file.

5. Select **Finish** to start the installation.

Continue to the next section.

Starting the Installation

The Welcome dialog box provides some general information, including general suggestions for using Setup and copyright warnings.



TO START THE INSTALLATION

- ◆ Select **Next**.

Continue to the next section.

Accepting the License Agreement

The Software License Agreement dialog box displays the software license agreement. You must accept the agreement to install the software.



TO ACCEPT THE LICENSE AGREEMENT

- ◆ Select **Yes**.

Continue to the next section.

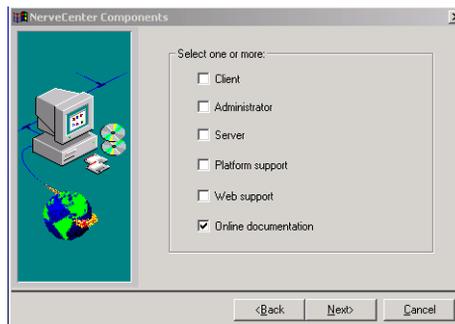
Selecting the Components to Install

The NerveCenter Components dialog box lets you select the NerveCenter components you want to install.



NOTE

You can install the client on any number of machines. However, your license key limits the number of clients that can connect to the server at any one time.



TO SELECT THE COMPONENTS

1. Select one or more of the following checkboxes:
 - ◆ **Client** - Lets you monitor your network or manage behavior models.
 - ◆ **Administrator** - Lets you configure the server and manage NerveCenter.
 - ◆ **Server** - Monitors managed nodes, performs actions associated with alarm transitions, and maintains NerveCenter objects.
 - ◆ **Platform support** - Integrates NerveCenter with your network management platform.
 - ◆ **Web support** - Lets you monitor your network from any machine that has a Web browser.

You do not need to have a Web server installed on this machine; however, if you don't, you will have to do some manual configuration after you finish installing NerveCenter. See [Where to Go from Here](#) on page 42.
 - ◆ **Online documentation** - Provides the complete NerveCenter library online.
2. Select **Next**.

Configuring the Platform Adapter

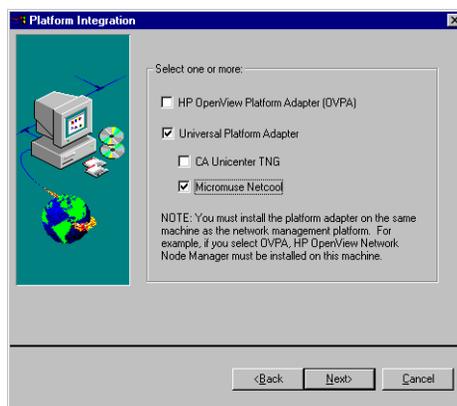
This dialog box is displayed only if you are installing network management platform integration for NerveCenter. If you are not installing network management platform integration, then skip to [Changing the Destination Directory or HP OpenView Path](#) on page 34.

The Platform Integration dialog box lets you select which platforms to support.



NOTE

If you are installing platform support, the network management platforms must be installed on this machine.



TO CONFIGURE THE PLATFORM ADAPTER

1. Select one or both checkboxes for the platform adapter you want to install.
 - ♦ **HP OpenView Platform Adapter (OVPA)** - If you want to either get node information from or send messages to HP OpenView.



CAUTION

Do not select OVPA if you are installing the NerveCenter Server on the same machine as OpenView but you plan on using NerveCenter's Discovery behavior models instead of getting node information from OpenView.

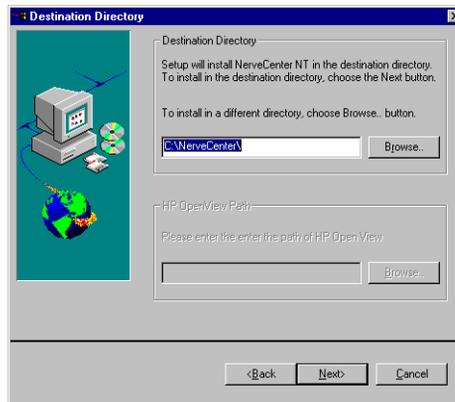
- ♦ **Universal Platform Adapter** - If you want to send messages to Micromuse Netcool or CA Unicenter TNG.

2. If you selected Universal Platform Adapter, select the network management platform you want the universal platform adapter to support:
 - ◆ **CA Unicenter TNG**
 - ◆ **Micromuse Netcool**
 3. Select **Next**.
-

Continue to the next section.

Changing the Destination Directory or HP OpenView Path

The Destination Directory dialog box lets you change the NerveCenter installation directory. If you are installing OVPA, you can also confirm the HP OpenView path.



TO CHANGE THE DESTINATION DIRECTORY OR HP OPENVIEW PATH

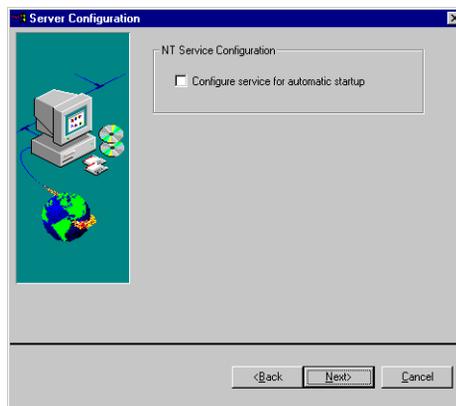
1. To change the destination directory, select the **Browse** button and choose another directory.
 2. To change the HP OpenView path, select the **Browse** button and choose the correct directory.
 3. Select **Next**.
-

Continue to the next section.

Configuring the Service to Start Automatically

The Server Configuration dialog box is only displayed if you are installing a NerveCenter Server. If you are not installing a server, then skip to [Selecting the Program Folder](#) on page 39.

The Server Configuration dialog box lets you specify whether the NerveCenter service starts automatically when the machine reboots. If you do not configure it to start automatically, you must start it yourself from the Start menu or the Services applet.



TO CONFIGURE THE SERVICE TO START AUTOMATICALLY

1. Select the **Configure service for automatic startup** checkbox.
 2. Select **Next**.
-

Continue to the next section.

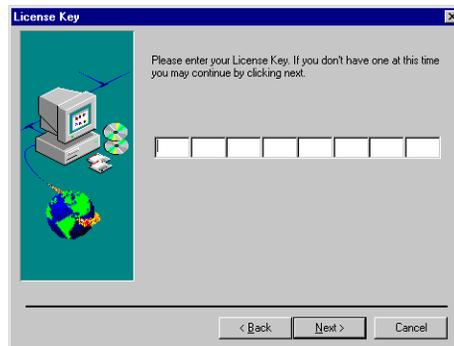
Entering a License Key

The License Key dialog box is only displayed if you are installing a NerveCenter Server. If you are not installing a server, then skip to [Selecting the Program Folder](#) on page 39.

The License Key dialog box lets you enter your NerveCenter license key, which limits the number of clients that can connect to the server and the number of nodes that can be managed.

**NOTE**

You can install Open NerveCenter without providing a license key. You must then start the server, connect using the NerveCenter Administrator, and specify a license key.

**TO ENTER A LICENSE KEY**

1. Enter the license key you received with NerveCenter.

If you have more than one license key, enter the server license key here and additional keys later, using the NerveCenter Administrator, `importutil`, or `SMS`.

2. Select **Next**.

Continue to the next section.

Configuring Security

The Security Options dialog box is only displayed if you are installing the NerveCenter Server. If you are not installing a server, then skip to *Selecting the Program Folder* on page 39.

The Security Options dialog box lets you decide whether to set up NerveCenter security. If you decide to use NerveCenter security, NerveCenter will validate users against membership in either

the NerveCenter Admins or NerveCenter Users Windows user groups, which will be created by Setup.



TO CONFIGURE SECURITY

1. If you want to use NerveCenter security, select **Yes**.



NOTE

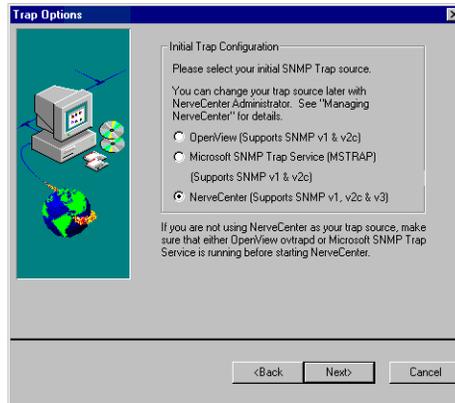
If you are upgrading your NerveCenter software and you select Yes, Setup will add your user ID to your existing local groups.

2. Select **Next**.
-

Continue to the next section.

Trap Options

The Trap Options dialog box lets you decide what your SNMP trap source will be. You can change the trap source later. See *Managing the NerveCenter Trap Source* in *Managing NerveCenter* for details.



TO SELECT THE SNMP TRAP SOURCE

1. Select one of the following SNMP trap sources:
 - ◆ OpenView - Supports SNMP v1 and v2c traps. OpenView must be co-resident with NerveCenter to support this option.
 - ◆ Microsoft SNMP Trap Service (MSTRAP) - Supports SNMP v1 and v2c traps. Disable the ovtrapd service before leaving the Trap Options dialog box if you select this option.
 - ◆ NerveCenter - Supports SNMP v1, v2c, and v3 traps. Disable the Microsoft Trap Service (SNMP Trap Service) and ovtrapd before leaving the Trap Options dialog box if you select this option.
2. Select **Next**.

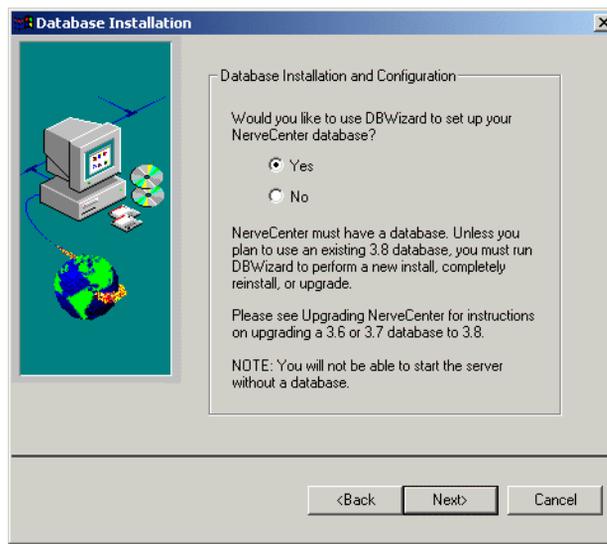
Continue to the next section.

Letting Setup Install and Configure the Database

The Database Installation dialog box is only displayed if you are installing the NerveCenter Server. If you are not installing a Server, then skip to [Selecting the Program Folder](#) on page 39.

The Database Installation dialog box lets you specify whether you want Setup to automatically start DBWizard after the installation is complete so you can set up the NerveCenter database. If you

decide not to have Setup start DBWizard automatically, you can start it manually from the NerveCenter program group on the Start menu after the installation is complete.



TO USE THE WIZARD TO SET UP THE DATABASE

1. If you want DBWizard to set up the database, select **Yes**.

 **CAUTION**

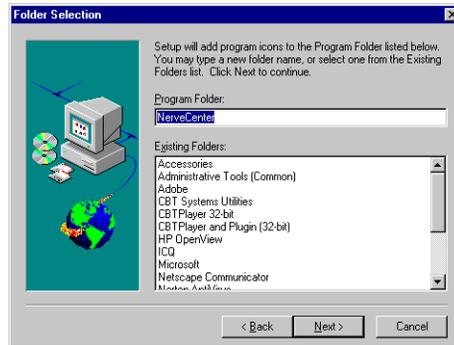
You must have a database before you can start the NerveCenter Server. If you are installing NerveCenter for the first time, if you uninstalled an existing version, or if you are installing NerveCenter in a new location, select **Yes**.

If you are upgrading from NerveCenter 3.8, your database, data source, and connection string already exist, so you can select **No**. See *Upgrading NerveCenter* for details.

2. Select **Next**.
-

Selecting the Program Folder

The Folder Selection dialog box lets you select a folder into which Setup adds program icons.



TO SELECT THE PROGRAM FOLDER

1. Select a folder from the **Existing Folders** listbox or type a name into the **Program Folder** field.
 2. Select **Next**.
-

Continue to the next section.

Completing the Installation

Setup displays status information as it installs the files.

After Setup has finished copying and installing the files, the Setup Complete dialog box is displayed.

TO COMPLETE THE INSTALLATION

- ◆ Select **Finish**.

If you installed platform integration for HP OpenView, a DOS window and the NNM Console Output Display window are displayed. The DOS window closes automatically after NerveCenter has been registered with HP OpenView.

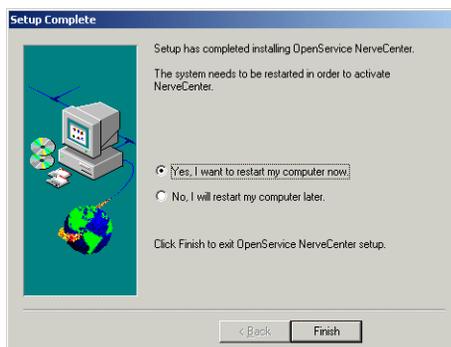


CAUTION

Do not close the DOS window. It will be closed when OVPA has been registered with OpenView. You can close the NNM Console Output Display window.

If you installed the NerveCenter Server and chose to set up your database now, DBWizard is displayed. For instructions on installing or upgrading a database, see Chapter 4, [Setting Up the Database on Windows](#).

Next, the setup complete dialog lets you restart the computer. You must restart the computer to have NerveCenter activate properly.



TO RESTART YOUR COMPUTER

1. Select the **Yes, I want to restart my computer now.** radio button.
 2. Select **Finish.**
-

Where to Go from Here

After you finish the installation, you must do the following before you use NerveCenter on Windows:

TABLE 3-3. Post-Installation Configuration Steps

If you...	You must...	For details, see...
Want to install NerveCenter on other machines by doing silent or remote installations	Edit a configuration script and run setup from the command line or use Microsoft System Management Server (SMS).	Chapter 5, <i>Doing Silent and Remote Installations on Windows</i>
Installed the server and chose not to set up the database during installation	Install a database now.	Chapter 4, <i>Setting Up the Database on Windows</i>
Left the License Key dialog box empty	Start the server, use the administrator to connect to the server, and enter a license key.	<i>Working with NerveCenter Serial Numbers in Managing NerveCenter</i>
Are ready to start and configure NerveCenter	Start the server, use the administrator to connect to the server, and configure your node source, inform hosts, email notification, and so on.	<i>Connecting to a NerveCenter Server in Managing NerveCenter</i>
Chose to install a platform adaptor to integrate NerveCenter with a network management platform	Configure NerveCenter and your network management platform to work together.	<i>Integrating NerveCenter with a Network Management Platform</i>
Chose to integrate NerveCenter with Micromuse Netcool/Omnibus, but installed on a different machine than Netcool	Change the platform adapter's nhost setting to reflect the Netcool host machine.	<i>Integrating NerveCenter with Micromuse Netcool/OMNIBUS in Integrating NerveCenter with a Network Management Platform</i>

TABLE 3-3. Post-Installation Configuration Steps (Continued)

If you...	You must...	For details, see...
Chose NerveCenter security	Add users to the appropriate user groups: NerveCenter Admins and NerveCenter Users on Windows.	<i>Managing NerveCenter Security in Managing NerveCenter</i>
Installed Web support, but the Web server is on another machine	Set up the URL map manually.	<i>Managing NerveCenter Web Integration in Managing NerveCenter</i>
Installed Web support	Make sure that users have appropriate access to the server.	Your Web server documentation
Changed the default directory and you plan on using the IPSweep behavior model	Modify the IPSweep alarm to use the new path.	<i>Using NerveCenter's IPSweep Behavior Model in Designing and Managing Behavior Models</i>

3

Running Setup on Windows

Setting Up the Database on Windows

4

When you install NerveCenter for the first time or move the NerveCenter database to a new location, you must either set up a new NerveCenter database or reconnect to an existing NerveCenter version 4.0 database. (If you are upgrading, refer to *Upgrading NerveCenter*.)



NOTE

You cannot connect to a NerveCenter 3.8 database without first upgrading it to version 4.0. If you are upgrading from NerveCenter 3.8, you must upgrade your NerveCenter database to version 4.0. Refer to *Upgrading NerveCenter* for more information.

If you instructed NerveCenter Setup to set up your NerveCenter database, then DBWizard is automatically launched for you after NerveCenter Setup is done.



CAUTION

You must be logged in as an administrator to set up the database.

If you create a new database, you can use either a Microsoft Access database or a Microsoft SQL Server database. As part of the creation process, a serialized database file is imported into the database. The serialized file contains the base set of NerveCenter objects, including polls, masks, alarms, and so on.



NOTE

You do not need to have Access installed on the machine to create an Access database.

This chapter includes the following sections:

Section	Description
<i>Creating and Installing a New Database</i> on page 46	Describes how to create a new SQL Server database or an Access database.
<i>Connecting to an Existing Database</i> on page 57	Describes how to connect to an existing 3.6 or 3.7 database.

To install a database using the command line, see *Creating your Database from the Command Line* on page 76.

Creating and Installing a New Database

Open NerveCenter supplies a wizard called DBWizard and a command-line version of the wizard. You can use either one to set up your database. If you are installing NerveCenter on many computers, you may want to use the wizard to set up the first database, then save your configuration settings and use them with the command-line version of DBWizard to save time on subsequent setup routines.



NOTE

If you are creating a SQL database, you must be logged into the same domain that SQL Server is running on and you must have SQL administrator (sa) rights, including the right to create database devices.

TO SET UP A NEW DATABASE FOR NERVECENTER, FOLLOW THESE STEPS

1. If DBWizard was not launched automatically by Setup, select **DBWizard** from the NerveCenter program group on the **Start** menu.

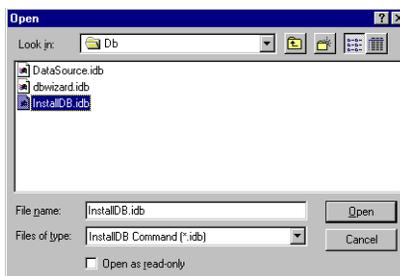
The Start dialog box displays.



2. Select the **Full Database Creation and Installation** radio button.
3. To load predefined or default values, select the **Load IDB File** button.

An IDB file contains settings used during this install. If you are re-running DBWizard, you can load an existing IDB file to save time.

The Open dialog box displays.

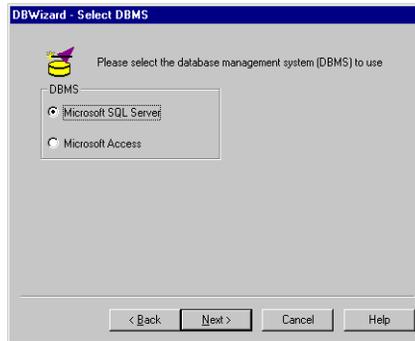


- a. Select an IDB file from the NerveCenter Db folder. (If you haven't created one before, select **InstallDB.idb**. This file contains default settings.)
- b. Select **Open** to load the file.

This returns you to the Start dialog box.

4. Select the **Next** button.

The Select DBMS dialog box displays.



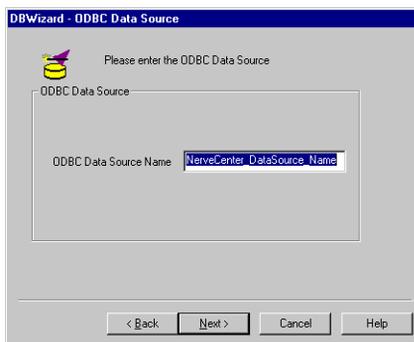
5. Select either **Microsoft SQL Server** or **Microsoft Access** to select the type of database that you want to install.
6. Select the **Next** button.

If you selected SQL Server, see [Creating a SQL Server Database](#) on page 49. If you selected Access, see [Creating an Access Database](#) on page 54.

Creating a SQL Server Database

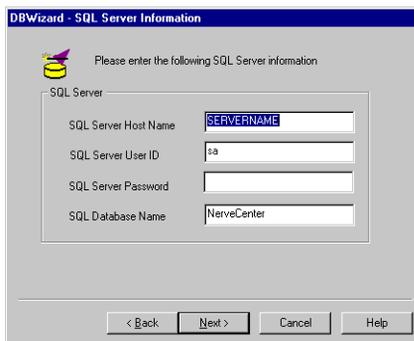
TO CREATE AN SQL SERVER DATABASE

If you selected SQL Server, the ODBC Data Source dialog box displays.



1. Specify a name for the new ODBC data source or leave the default name.
2. Select the **Next** button.

The SQL Server Information dialog box displays.



3. Supply the appropriate host name, user ID, and password. The default database name is NerveCenter. You can change it if you would like to use a different name for the database.



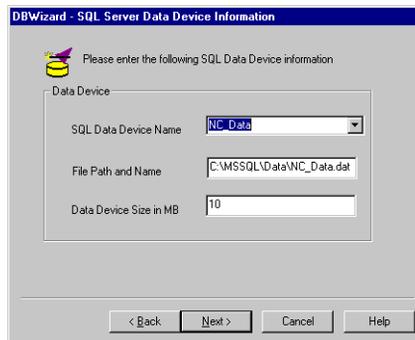
NOTE

Each NerveCenter Server must have its own database. NerveCenter Servers cannot share a database.

You must supply a user ID and password for the SQL Server that has database administrator rights, including the right to create devices.

4. Select the **Next** button.

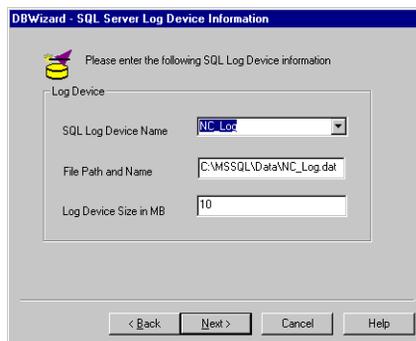
The SQL Server Data Device Information dialog box displays.



DBWizard supplies default values for each field. If you need to change these values (for example, because your naming conventions are different), you can do so.

- ♦ **SQL Data Device Name** - The name of the SQL data device to be used by the database. If the database already exists, the existing device name is used. If it does not exist, the database is created when you specify the data device name. Supply a name or select a device from the drop-down list.
 - ♦ **File Path and Name** - Full path and name for the SQL data device file. (If the file is on another machine, use the UNC file name: \\machine\path.) The default path provided is the same path used by the SQL master device. You can choose a different one, but the directory you specify must exist. If the file already exists, the operation fails. If the file exists but is not used by a specified device, it is deleted and re-created.
 - ♦ **Data Device Size in MB** - Size of the data device in megabytes. The suggested size is at least 10 megabytes. NerveCenter checks to make sure that the device selected has enough space. This field is required only if you specified the data device name.
5. Select the **Next** button.

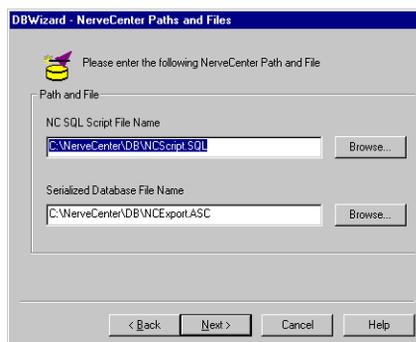
The SQL Server Log Device Information dialog box displays.



DBWizard supplies default values for each field. If you need to change these values (for example, because your naming conventions are different), you can do so.

- ♦ **SQL Log Device Name** - Name of the SQL log device to be used by the database. This data is only required if you specified the log device name. The directory must exist. If the file specified already exists, the operation fails. If the database already exists, you do not need to specify the log device. If the device already exists, it is used.
 - ♦ **File Path and Name** - Full path and name of the file to use for the SQL log device. (If the file is on another machine, use the UNC file name: \\machine\path.) This is required only if you specified the log device name. The directory must exist. If the file already exists and is used by another device, the operation fails.
 - ♦ **Log Device Size in MB** - The size of the log device in megabytes. The suggested minimum is 10 megabytes. This number is required only if you specified the log device name.
6. Select the **Next** button.

The NerveCenter Paths and Files dialog box displays.

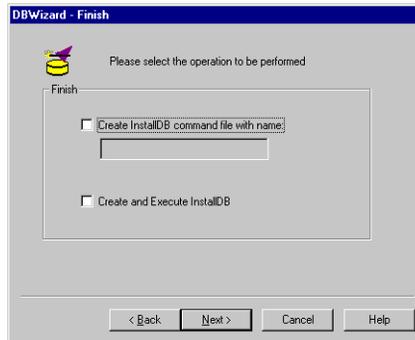


The default script, NCScript.sql, creates the SQL database that NerveCenter will use. Only use this script when creating a new database.

The default serialized database file, NCEExport.asc, provides default values for your new database. Only use this serialized file when creating a new database.

7. Select the **Next** button.

The Finish dialog box displays.



8. To create a SQL database for NerveCenter with the settings that you just specified, check the **Create and Execute InstallDB** checkbox.
9. If you need to create multiple SQL databases on different machines, check **Create InstallDB command file with name** checkbox and provide a file name in the text box. InstallDB will create another IDB file that saves the settings that you used in this install. You can then load this new IDB file into DBWizard when you run it on the other machines.

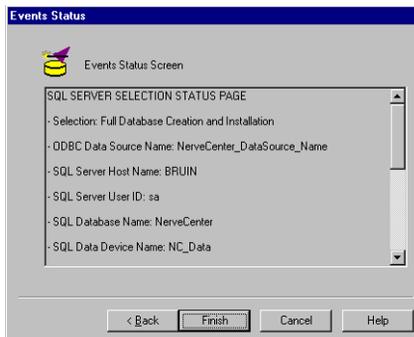


NOTE

If you do not check the Create InstallDB command file checkbox, the settings you just specified are saved in the dbwizard.idb command file.

10. Select the **Next** button.

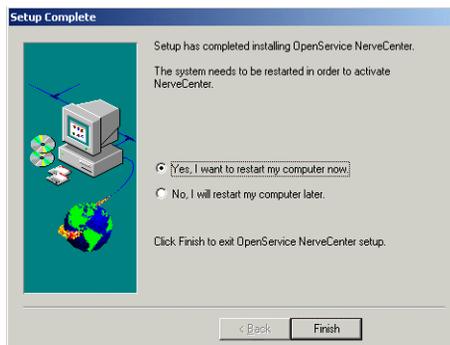
The Events Status dialog box displays. It lists the settings that you have specified for your SQL Server database.



11. Verify that all the settings are correct. If necessary, you can use the **Back** button to return to previous dialog boxes and make corrections.
12. When everything is correct, select the **Finish** button.

The Status Screen dialog box displays with status information.

When the installation is complete, select the **OK** button to exit DBWizard. This returns you to the NerveCenter Setup program to restart your computer. The setup complete dialog lets you restart the computer. You must restart the computer to have NerveCenter activate properly.



TO RESTART YOUR COMPUTER:

1. Select the **Yes, I want to restart my computer now.** radio button.
2. Select **Finish.**

Creating an Access Database

TO CREATE AN ACCESS DATABASE

If you selected Access, the ODBC for Access dialog box displays. The wizard creates the data source for the database with the name you specify.



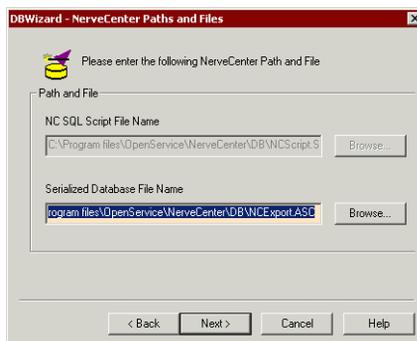
NOTE

Access does not have to be installed on the machine for you to create an Access database.



1. Supply a name for the Access ODBC data source.
2. Open NerveCenter ships with a default Access database, called NCAccess.mdb. It is located in the NerveCenter Db folder. Specify this default Access database in the **Location of Access Database** field.
3. Select the **Next** button.

The NerveCenter Paths and Files dialog box displays.



Because you are setting up an Access database, the tables are created for you. The NC SQL Script File Name field is grayed out.

4. In the **Serialized Database File Name** field, you must specify the default serialized database file, **NCEExport.asc**. This will set up default values in your new database.
5. Select the **Next** button.
6. To create an Access database for NerveCenter with the settings that you just specified, check the **Create and Execute InstallDB** checkbox.
7. If you need to create multiple Access databases on different machines, check **Create InstallDB command file with name** checkbox and provide a file name in the text box. InstallDB will create another IDB file that saves the settings that you used in this install. You can then load this new IDB file into the InstallDB wizard when you run it on the other machines.

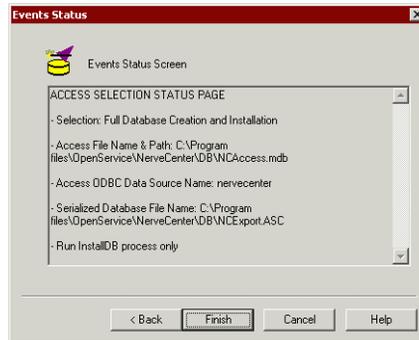


NOTE

If you do not check the Create InstallDB command file checkbox, the settings you just specified are saved in the dbwizard.idb command file.

8. Select the **Next** button.

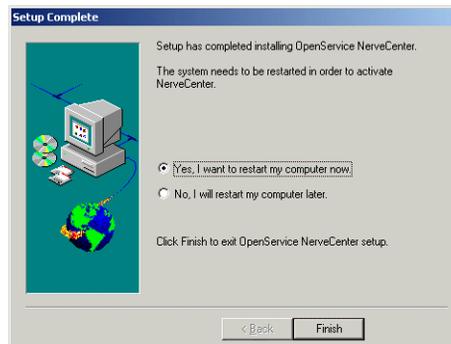
The Events Status dialog box displays. It lists the settings that you have specified for your Access database.



9. Verify that all the settings are correct. If necessary, you can use the **Back** button to return to previous dialog boxes and make corrections.
10. When everything is correct, select the **Finish** button.

When the installation is complete, select the **OK** button to exit DBWizard. This returns you to the NerveCenter Setup program to restart your computer.

The setup complete dialog lets you restart the computer. You must restart the computer to have NerveCenter activate properly.



TO RESTART YOUR COMPUTER

1. Select the **Yes, I want to restart my computer now.** radio button.
2. Select **Finish.**

Connecting to an Existing Database

If you already have a version 3.8 NerveCenter database, or if you installed NerveCenter 3.8 in a new location, you can configure the ODBC data source and connection string to point to this database.



NOTE

You cannot connect to a NerveCenter 3.6 or 3.7 database without first upgrading the database to version 3.8. For more information, refer to *Upgrading NerveCenter*.

The steps for a SQL database and an Access database are slightly different.

- ◆ For a SQL database, see *Connecting to a SQL Database* on page 57.
- ◆ For an Access database, see *Connecting to an Access Database* on page 61.

Connecting to a SQL Database

TO POINT TO A SQL DATABASE

1. From the **Start** menu, select DBWizard.

The Start dialog box displays.



2. Select **Create Data Source and Connection String**.
3. To load predefined or default values, select the **Load IDB File** button.

An IDB file contains settings used during this install. If you are re-running DBWizard, you can load an existing IDB file to save time.

The Open dialog box displays.

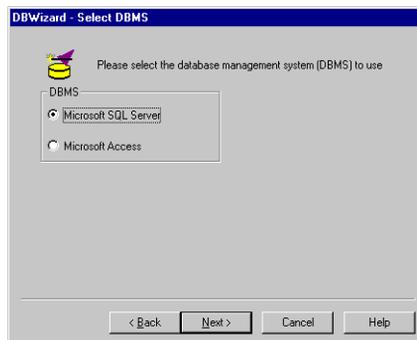


- a. Select an IDB file from the NerveCenter Db folder. (If you haven't created one before, select **InstallDB.idb**. This file contains default settings.)
- b. Select **Open** to load the file.

This returns you to the Start dialog box.

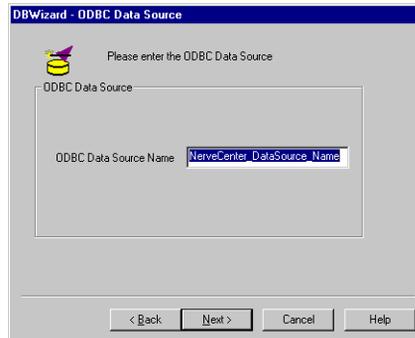
4. Select the **Next** button.

The Select Database dialog box displays.

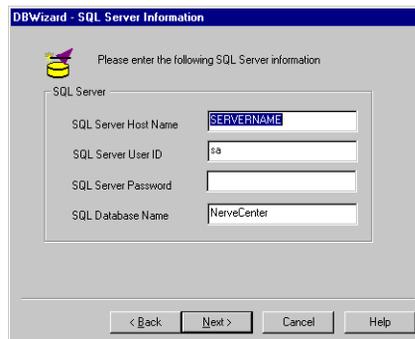


5. Select **Microsoft SQL Server** as the database type.
6. Select the **Next** button.

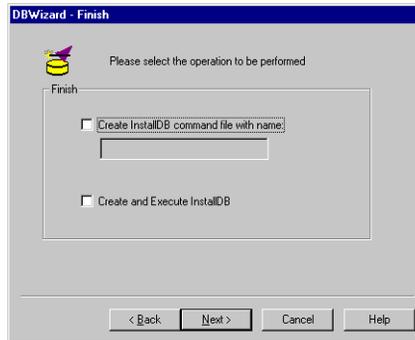
The ODBC Data Source dialog box displays.



7. Type in an ODBC data source name.
8. Select the **Next** button.
9. The SQL Server Information dialog box displays. Provide the host name, user ID, password, and database name for the SQL database.



10. Select the **Next** button.
The Finish dialog box displays.



11. To create the ODBC data source and connection string for the database you just specified, check the **Create and Execute InstallDB** checkbox.

If you need to repeat this process on different machines, check the **Create InstallDB** command file with name checkbox and provide a file name in the text box. InstallDB will create another IDB file that saves the settings that you used in this install. You can then load this new IDB file into the InstallDB wizard when you run it on the other machines.



NOTE

If you do not check the Create InstallDB command file checkbox, the settings you just specified are saved in the dbwizard.idb command file.

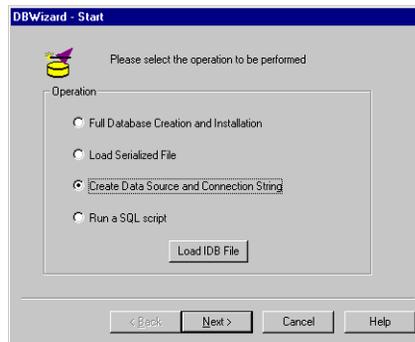
12. Select the **Next** button.
The Events Status dialog box displays. It lists the settings that you have specified.
13. Verify that all the settings are correct. If necessary, you can use the **Back** button to return to previous dialog boxes and make corrections.
14. When everything is correct, select the **Finish** button.
The Status Screen dialog box displays with status information.
15. When the installation is complete, select the **OK** button to exit DBWizard.

Connecting to an Access Database

FOLLOW THESE INSTRUCTIONS TO POINT TO AN ACCESS DATABASE

1. From the **Start** menu, select DBWizard.

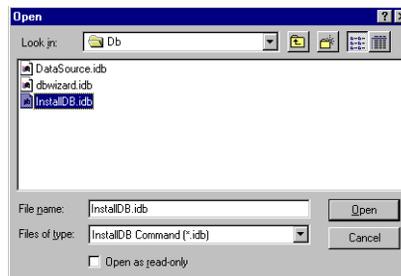
The Start dialog box displays.



2. Select **Create Data Source and Connection String**.
3. To load predefined or default values, select the **Load IDB File** button.

An IDB file contains settings used during this install. If you are re-running DBWizard, you can load an existing IDB file to save time.

The Open dialog box displays.

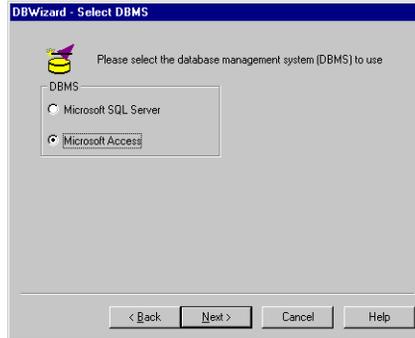


- a. Select an IDB file from the NerveCenter Db folder. (If you haven't created one before, select **InstallDB.idb**. This file contains default settings.)
- b. Select **Open** to load the file.

This returns you to the Start dialog box.

4. Select the **Next** button.

The Select Database dialog box displays.



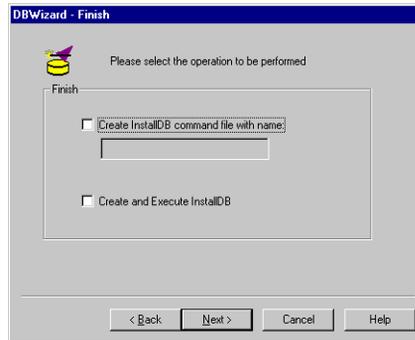
5. Select **Access** as the database type.
6. Select the **Next** button.

The ODBC Data Source dialog box displays.



7. Type in an ODBC data source name.
8. Type in the location of the Access database.
9. Select the **Next** button.

The Finish dialog box displays.



10. To create the ODBC data source and connection string for the database you just specified, check the **Create and Execute InstallDB** checkbox.

If you need to repeat this process on different machines, check the **Create InstallDB command file with name** checkbox and provide a file name in the text box. InstallDB will create another IDB file that saves the settings that you used in this install. You can then load this new IDB file into the InstallDB wizard when you run it on the other machines.



NOTE

If you do not check the Create InstallDB command file checkbox, the settings you just specified are saved in the dbwizard.idb command file.

11. Select the **Next** button.
The Events Status dialog box displays. It lists the settings that you have specified.
12. Verify that all the settings are correct. If necessary, you can use the **Back** button to return to previous dialog boxes and make corrections.
13. When everything is correct, select the **Finish** button.
The Status Screen dialog box displays with status information.
14. When the installation is complete, select the **OK** button to exit DBWizard.

Doing Silent and Remote Installations on Windows

A *silent installation* is an installation done from the command line. In a text file, you provide all the configuration values that you would normally enter in the Setup GUI. A *remote installation* is done using Microsoft Systems Management Server (SMS) tools.



NOTE

Remote installations can only be performed on a Windows Server. Windows Workstation is not supported by SMS 1.x for this type of installation.

The procedures for both are very similar—remote installations using SMS include one additional step. The following steps describe the procedure:

1. Create a source directory from which to install.
2. Edit the installation configuration file.
3. Run Setup from the command line.
4. If you are doing remote installations using SMS, use the SMS Administrator to create a package and install NerveCenter on remote machines.

Follow the instructions in this chapter to do a silent or remote installation of the following NerveCenter components:

TABLE 5-1. NerveCenter Components

Component	Description
NerveCenter Client	Lets you monitor your network, as well as design and manage behavior models.
NerveCenter Administrator	Lets you configure NerveCenter.
NerveCenter Server	Carries out all major tasks, including polling SNMP agents, triggering alarms, and making sure that alarm transitions occur.
Platform Adapters	Integrate NerveCenter with supported network management platforms. (See <i>Network Management Platforms</i> in <i>NerveCenter 4.0.3 Release Notes</i> for a complete list.)
NerveCenter Web support	Integrates NerveCenter with supported Web servers. (See <i>Web Servers</i> in <i>NerveCenter 4.0.3 Release Notes</i> for a complete list.)

TABLE 5-1. NerveCenter Components

Component	Description
Online documentation	Provides the NerveCenter library in HTML with a full-text search engine. (PDF versions are also installed for printing.)

You can install the components on any machine that meets the configuration requirements. (See *Requirements in NerveCenter 4.0.3 Release Notes.*) If you integrate NerveCenter with a network management platform, the platform adapter must be installed on the machine that is running the network management platform.

**CAUTION**

Before you install NerveCenter, make sure you meet the prerequisites. See [Preparing to Install NerveCenter on Windows](#) on page 27.

This chapter includes the following sections:

Section	Description
Creating a Source Directory on page 67	Provides instructions on creating the source directory, from which you will install NerveCenter or create SMS packages.
Editing the Installation Configuration File on page 68	Describes how to edit the configuration file so NerveCenter is installed with the options you specify.
Running Setup from the Command Line on page 74	Describes how to install NerveCenter on a single machine from the command line.
Installing NerveCenter Remotely on page 75	Describes how to create an SMS package and install NerveCenter on one or more machines.
Creating your Database from the Command Line on page 76	Describes how to create an SQL Server or Access database from the command line.
Configuring the Database Remotely on page 80	Describes how to create and install the database remotely.
Configuring NerveCenter Remotely on page 81	Describes how to change the NerveCenter configuration on one or more machines.

Creating a Source Directory

Whether you are doing a single silent installation or subsequent remote installations, you must set up a source directory from which you will install NerveCenter.

TO CREATE A SOURCE DIRECTORY

1. Create a directory to use as the source directory.

Create the directory either on the host machine on which you are installing or on a system that is accessible to and shareable with that host. For example, create a directory called `D:\ncsetup` and share it as `ncsetup`.



CAUTION

If you are going to use SMS to do a remote installation, this directory must either be on the SMS host machine or on a system that is accessible to and shareable with the SMS host.

2. Copy all the files and directories from the NerveCenter CD-ROM NT directory to the directory you just created.
-

After you have copied the installation files to the source directory, you can edit the installation configuration file.

Editing the Installation Configuration File

Whether you are doing a silent or remote installation, you must edit the installation configuration file, `setup.iss`. This file lets you specify any configurable NerveCenter option.



NOTE

If you are enabling SNMP v3 traps, check the Services applet in the Windows Control panel to make sure that the MS Trap Service or the OV Trap Service is stopped and disabled.

TO EDIT THE INSTALLATION CONFIGURATION FILE

1. From the source directory, open **setup.iss** in a text editor.
2. Edit the file, specifying your configuration options.



CAUTION

If you plan to use SMS to install NerveCenter onto more than one system, make sure that the settings in the `setup.iss` file are valid for all those installations. You may need to create separate install packages for variations of the installation procedure, such as the NerveCenter Client only on a system.

The configuration options are similar to the options you specify in the Setup GUI. See [Running Setup on Windows](#) on page 25 for more details.



NOTE

0 is equivalent to False, 1 is equivalent to True.

Table 5-2 lists the sections in the file that you can and cannot edit.

TABLE 5-2. Sections in the Installation Configuration File

Description	Section
Do not change this section.	[InstallShield Silent] Version=v3.00.000 File=Response File

TABLE 5-2. Sections in the Installation Configuration File (Continued)

Description	Section
Do not change this section.	[Application] Name=Open NerveCenter Version=4.00.000 Company=OpenService
Do not change this section.	[DlgOrder] Dlg0=Welcome-0 Count=5 Dlg1=AskDestPath-0 Dlg2=SelectFolder-0 Dlg3=SdAskOptions-0 Dlg4=SdFinish-0
By default, security is not configured. To configure security, comment out this section and uncomment the next section.	;To say no to both security options [SdAskOptions-0] Component-type=string Component-count=0 Result=1
By default, security is not configured. To configure security, comment out the previous section and uncomment this section. Do not change the names of the groups.	;To say yes to both security options ;[SdAskOptions-0] ;Component-type=string ;Component-count=2 ;Component-0=NerveCenter Admins ;Component-1=NerveCenter Users
Do not change this section.	[Welcome-0] Result=1
To install NerveCenter in another directory, or to specify a different HP OpenView directory, edit this section.	[AskDestPath-0] szTargetPath=c:\Program files\OpenService\NerveCenter\ szOVPAPath=c:\OpenView\ Result=1

TABLE 5-2. Sections in the Installation Configuration File (Continued)

Description	Section
Type your license key here. If you have more than one license key, separate them with semicolons (;).	[License-0] LicenseKey=
Select the components you want to install.	[AppSelection-0] bInstallServer=1 bInstallClient=1 bInstallAdmin=1 bInstallPlatformIntegration=0 bInstallWebServerIntegration=1 bInstallOnlineBooks=0
Do not change this section.	[ForceShutdown-0] bForceShutdown=1
Edit this section to change platform adapter configuration options.	[PlatformIntegration-0] bOVPA=1 bPAServer=1 bUnicenterSupport=1 bNetcoolSupport=1 bPAServerAsService=1 bPAServerAutoStart=1
Edit this section to change web server configuration options.	szWebServer=IIS; Possible values (case sensitive): {IIS, PWS, NETSCAPE} bRunAsService=1 bAutoStartService=1 bRestartWebServer=1 bForceInstall=1 szWebCollectorIP=* nWebCollectorPort=32550

TABLE 5-2. Sections in the Installation Configuration File (Continued)

Description	Section
<p>Edit this section to change server configuration options.</p> <p>You can edit these options later with NerveCenter Administrator</p>	<pre>[ServerConfiguration-0] MibName=NerveCtr.mib bAutoStartService=1 nServerConnectionPort=32504 nSNMPRetries=3 nSNMPRetryInterval=10 nDefaultSNMPPort=161 bEnableDiscovery=0 Result=1 nTrapperConnPort=32506 nCLIConnPort=32507 nInformPort=32505 nDBRetryInterval=2 ; in minutes nAlarmHistoryDepth=20 bNCNoSecurity=FALSE bProcessUnknownTraps=True bApplyAllMasksForEachTrap=True bEnableSocketLogging=No</pre>
<p>Edit this section to change log management options.</p>	<pre>[ServerLogConfiguration-0] nMaximumLogEntryAge=120 nMaximumLogFileSize=1024 nMaximumNumberOfRecords=1800 nLogDeletionPercentage=30 nMaxQueueDepth=10000</pre>

TABLE 5-2. Sections in the Installation Configuration File (Continued)

Description	Section
<p>Edit this section to configure mail and pager actions.</p> <p>You can edit these options later with NerveCenter Administrator</p>	<pre>[ActionsConfiguration-0] ;Sample Format ;ExchangeProfile=userjoe ;ExchangePassword=passwdjoe ;SMTPHost=smtphost ;PauseString=9, ExchangeProfile= ExchangePassword= SMTPHost= TouchPulse=Touch PagerNumber= PauseString= Result=1</pre>
<p>Edit this section if a network management platform is going to provide node information.</p> <p>You can edit these options later with NerveCenter Administrator</p>	<pre>[NodeSourceConfiguration-0] ;Sample Formats: ;Host=sunny ;nHostPort=6024 ;WantedCapabilities=capability1,capability2,capability3 ;SystemObjectIds=OID1,OID2,OID3 ;OpcHostName=norm ;OpcHostPort=6028 Host= nHostPort= Method=Manual WantedCapabilities= SystemObjectIds= OpcHostName= OpcHostPort= Result=1 AckInforms=1</pre>

TABLE 5-2. Sections in the Installation Configuration File (Continued)

Description	Section
Edit this section to create IP filters that limit the nodes NerveCenter can detect and to enable Discovery. You can edit these options later with NerveCenter Administrator	<pre>[IPConfiguration-0] ;Sample Format ;SubnetMaskEx=Subnet1,Mask1:Subnet2,Mask2,Exclu2 ; Choices below are none, all, filter ;IPDiscoverNodes=none ; Choices are 1 for True, 0 for False ;EnableDiscovery= SubnetMaskEx= IPDiscoverNodes=filter EnableDiscovery=1</pre>
Edit this section to configure Inform hosts. You can edit these options later with NerveCenter Administrator	<pre>[NodeNotification-0] ;Sample Format ;NodeNotify1=host1 port1 EVENT_AND_SYMBOL minseverity1 prop1 ;NodeNotify2=host2 port2 EVENT minseverity2 prop2 ;ex: NodeNotify1=sunny 6024 EVENT_AND_SYMBOL 0 NodeNotify1= Result=1</pre>
Edit this section to change NerveCenter's program group.	<pre>[SelectFolder-0] szResultFolder=NerveCenter Result=1</pre>
Do not change this section.	<pre>[SdStartCopy-0] Result=1</pre>
Do not change this section.	<pre>[SdFinish-0] bOpt1=0 bOpt2=0 Result=1</pre>

TABLE 5-2. Sections in the Installation Configuration File (Continued)

Description	Section
Edit this section if you are installing if you do not want MSTRap as your trap service, that is, if you are installing OVPA or enabling SNMPv3 traps.	[TrapService-0] bMSTRap=1
Note: If you enable SNMP v3 traps, you must disable MS Trap service (bMSTRap=0).	
Edit this section to enable NerveCenter to receive SNMP v3 traps.	[TrapConfig-0] bNCV3Traps=0

3. Save and close the file.

After you finish editing the file, you can run Setup.

Running Setup from the Command Line

You can run Setup from the command line, using the values in the configuration file you edited.

TO RUN SETUP FROM THE COMMAND LINE

1. If NerveCenter is already installed on this machine, stop all NerveCenter and Wind/U processes. See *Upgrading NerveCenter*.
2. If NerveCenter is already installed on this machine, back up any files that you have customized for your business or your environment. See *Upgrading NerveCenter*.
3. From a DOS prompt, navigate to the installation source directory you created.
4. Type the following command; then press Enter.

```
setup -s
```

In the Task Manager, you can tell the installation is complete when the **_INSO432._MP** process stops running. View messages generated during the installation in the ncsetup.log file in the newly-installed NerveCenter directory.

After you run setup from the command line, you still need to set up the NerveCenter database. For more information, see Chapter 4, *Setting Up the Database on Windows*.

After you set up the database, you must restart your computer for NerveCenter to activate properly.

Installing NerveCenter Remotely

After you have create the source installation directory and edited the configuration file, you can create an SMS package and install that package on other machines remotely.



NOTE

The following procedures give the NerveCenter-specific information for using SMS with NerveCenter. You must already be familiar with SMS. Microsoft provides complete SMS documentation; see the Microsoft Systems Management Server documentation for details.

TO INSTALL NERVECENTER REMOTELY

1. Create a new SMS package for NerveCenter by doing the following:
 - a. From the SMS Administrator toolbar, select the **Open Window: Packages** button.
The Packages window appears.
 - b. Select the **New** button to display the Packages Properties dialog box.
 - c. Select **Import** to display the File Browser dialog box.
 - d. Navigate to your package source directory and select **NCSetup.pdf**, then select **OK**.
 - e. In the Package Properties dialog box, select **Workstations** to display the Setup Packages for Workstations dialog box.
 - f. In the **Source Directory** box, specify the server and sharename of the package source directory, and select **Close**.
 - g. Select **OK** again when prompted for confirmation.
The new package is displayed in the Packages window.
2. Using the SMS Administrator, create a Run Command On Workstation task to install NerveCenter on a specified drive on specified SMS computers by doing the following:
 - a. From the SMS Administrator toolbar, select the **Open Window: Jobs** button.

The Job window appears.

- b. Select the **New** button to display the Job Properties dialog box.
- c. Select **Details** to display the Job Details dialog box.
- d. In the **Job Target** area, specify the SMS computer (in the Machine Path field) or machine group (in the Machine Group field) on which NerveCenter should be installed.

**NOTE**

The destination machine must be part of the SMS database.

- e. Make sure the **Run Workstation Command** box is checked, and select the **Install NerveCenter** command.
-

When you close the Job Properties dialog box, the task is set to run. When the task completes, the specified NerveCenter components will be installed on the specified drive and directory on all target computers.

Creating your Database from the Command Line

Instead of using the wizard, you can create or modify your database from the command line.

**NOTE**

You cannot connect to a NerveCenter 3.6 or 3.7 database without first upgrading the database to version 3.8. For more information, refer to *Upgrading NerveCenter*.

Whether you are doing a silent or remote creation of your database, you must edit the database configuration file, InstallDB.idb. This file lets you specify the information necessary for creating a database.

TO EDIT INSTALLDB.IDB FOR AN SQL SERVER DATABASE

You need to provide all required information about the destination server and your options to InstallDB.

Revise the contents of InstallDB.idb, located in the *installation/DB* directory, as follows, substituting the names for your server, user ID, database, and so on. For a review of the options, see *Creating a SQL Server Database* on page 49.

```
SQL Server Name:      ServerName
SQL User Id:          sa
SQL Password:
Database Name:        NerveCenterDB
Data Device Name:     NC_Data
Data Device File Name: C:\SQL\Data\NC_Data.dat
Data Device Size in MB: 10
Log Device Name:      NC_Log
Log Device File Name: C:\SQL\Data\NC_Log.dat
Log Device Size in MB: 10
Data Source Name:     NerveCenter_DataSource_Name
```

**NOTE**

The data source can't already exist. You must choose a new name.

```
Path to SQL Files:    Path
```

**NOTE**

Path to the new directory you created.

```
SQL Script File Name: NCScript.sql
Database File Name:   NCEExport.asc
```

**NOTE**

The default database creation file or your exported database file.

TO EDIT INSTALLDB.IDB FOR AN ACCESS DATABASE

Revise the contents of InstallDB.idb, located in the *installation*\DB directory, as follows:

Delete all the lines in the InstallDB.idb file and replace with the following three lines:

```
Access File Name:      Path\NCAccess.mdb
```

**NOTE**

Open NerveCenter ships with a default Access database, called NCAccess.mdb. It is located in the NerveCenter Db folder.

```
Data Source Name:      ODBC_data_source  
Database File Name:    Path\NCEExport.ASC
```

**NOTE**

You must specify the default serialized database file, NCEExport.asc. This will set up default values in your new database.

Once you edit the InstallDB.idb file, you can run InstallDB.

TO CREATE YOUR DATABASE FROM THE COMMAND LINE

1. From a DOS prompt, navigate to the *installation\nervecenter\bin* directory.
2. Type the **InstallDB** command with the appropriate parameters, then press **Enter**.

The syntax is:

```
InstallDB -F IDBfile -O {f|l|c|r} -D {s|a} [-M {v|s}] [-H]
```

Parameter	Description
-F <i>IDBfile</i>	The path and file name for the IDB file. This parameter is required.
-O {f l c r}	Specifies the operation code. The choices are: <ul style="list-style-type: none"> ◆ f - Full database creation and installation ◆ l - Load serialized file ◆ c - Create data source and connection string ◆ r - Run SQL script This parameter is required.
-D {s a}	Specifies the database type. The choices are: <ul style="list-style-type: none"> ◆ s - SQL ◆ a - Access This parameter is required. Note: The SQL script can only run against a SQL database, not an Access database. If the operation parameter is r (run SQL script), then you must specify s (SQL) as the database type.
[-M {v s}]	Specifies the mode of operation: v is verbose, and s is silent. This parameter is optional; if nothing is specified, it defaults to s (silent).
[-H]	Displays usage help in a dialog box. (You can also enter simply installdb .)

For example:

```
InstallDB -F c:\temp\InstallDB.idb -M v -O f -D s
```

Configuring the Database Remotely

You can use SMS with a configuration file of preference settings to install the NerveCenter database from a remote machine.

If you have not already done so, you'll need to install NerveCenter either on the SMS host machine or on a system that is accessible to and shareable with the SMS host. The files you will use in the following procedure are set up during the installation process.

TO CREATE AN SMS PACKAGE ON THE SMS HOST THAT CAN BE USED TO PERFORM REMOTE DATABASE INSTALLATIONS

1. If NerveCenter is running on the server that's your intended database destination, bring NerveCenter down.
2. Create a new directory in the NerveCenter directory structure on your SMS host to contain all files required for this process. The directory must be shareable on a host that the SMS server can access. For example, you could create a directory called InDB under Sms.
3. Copy the following files to your new directory:

From the NerveCenter **Bin** directory:

- ◆ InstallDB.exe
- ◆ SerializeDB.exe
- ◆ NCPperl*.dll

From the NerveCenter **Db** directory:

- ◆ NCScript.sql
- ◆ InstallDB.idb
- ◆ *Database.asc* (substitute the name of your exported database file, NCEExport.asc, for example)

From the NerveCenter **Sms** directory:

- ◆ InstDB.bat
- ◆ InstallDB.pdf

These files are in directories set up as a result of the NerveCenter installation. They are not accessible from the NerveCenter CD-ROM.

4. Edit **InstallDB.idb**.

5. Edit **InstDB.bat**.

You need to modify the parameters for the **installdb.exe** command to specify the operation type, and database type. See *Creating your Database from the Command Line* on page 76 for a description of the command-line options.

6. Use the SMS Administrator to create a new package and to import the **InstallDB.pdf** file.

Your new database and data source are created on the destination server based on the contents of your exported database file name.

Configuring NerveCenter Remotely

You can use the utility `ImportUtil.exe` to copy Server configuration information to a NerveCenter Server.

If you have not already done so, you'll need to install NerveCenter either on the SMS host machine or on a system that is accessible to and shareable with the SMS host. The files you will use in the following procedure are set up during the installation process.

TO CREATE AN SMS PACKAGE ON THE SMS HOST THAT CAN BE USED TO PERFORM REMOTE DATABASE INSTALLATIONS

1. Create a new directory in the NerveCenter directory structure on your SMS host to contain all files required for this process. For example, you could create a directory called `ImpUtil` under `Sms`.

2. Copy the following files to your new directory:

From the NerveCenter **Bin** directory:

- ◆ `ImportUtil.exe`

From the NerveCenter **Sms** directory:

- ◆ `ImpUtil.ini`
- ◆ `ImpUtil.pdf`

These files are in directories set up as a result of the NerveCenter installation. They are not accessible from the NerveCenter CD-ROM.

3. Edit **ImpUtil.ini**.

ImpUtil.ini is the name of the file containing the Server configuration information and definitions. See *Reconfiguring a NerveCenter Server from the Command Line* in *Managing NerveCenter* for more details.

4. Use the SMS Administrator to create a new package and to import the **ImpUtil.pdf** file.
-

Removing NerveCenter includes removing the NerveCenter configuration information from your network management platform (unless you are running NerveCenter as a standalone network management application) and then removing the NerveCenter applications. See *Integrating NerveCenter with a Network Management Platform* for details about reconfiguring your network management platform.



CAUTION

You must be logged in as root (UNIX) or an administrator (Windows) to remove NerveCenter from a machine.

This chapter includes the following sections:

Section	Description
<i>Removing NerveCenter from a UNIX Machine</i> on page 84	Describes how to run the UNIX shell script to remove NerveCenter applications.
<i>Removing NerveCenter from a Windows Machine</i> on page 86	Describes how to run the unInstallShield program to remove NerveCenter applications.

Removing NerveCenter from a UNIX Machine

You can remove one or more of the NerveCenter applications by running a simple script that deletes the appropriate NerveCenter files, executables, and directories.



NOTE

If NerveCenter was integrated with a network management platform, you must have reconfigured your network management platform before you uninstall the software. See *Integrating NerveCenter with a Network Management Platform*.

TO REMOVE NERVECENTER FROM A UNIX MACHINE

1. If you haven't done so already, shut down all NerveCenter processes.
2. Navigate to `install_directory/nc/install`.
3. Type the following and then press Enter:

```
./uninst.sh
```

The script begins to run.

4. Press Enter as instructed by the script until you reach the prompt that lists the components you can remove.
5. At the following prompt, type the letter for each component you want to remove (separating each letter with a space) and then press Enter.

```
Enter your choice [1]
```

6. If you have platform integration installed, type the letter for each platform integration component you want to remove (separating each letter with a space) and then press Enter.

```
Enter your choice [1]
```

7. If you are removing the server but you want to keep your database, type **y** at the following prompt and press Enter.

```
Do you want to retain the database? [n]
```

8. If you are removing the server but you want to keep your MIB, type **y** at the following prompt and press Enter.

```
Do you want to retain MIB? [n]
```

9. If you are removing the server but you want to keep your log files, type **y** at the following prompt and press Enter.

Do you want to retain the log files? [n]

**NOTE**

If you did not shut down all NerveCenter processes, the script lists them, then quits. If that happens, you must kill the processes, then rerun UNINST.SH.

The script lists the files it deletes.

10. To delete the directory, press Enter at the following prompt.

```
Deleting directory : /opt/OSInc. Continue? [y]
```

The script completes.

11. If you manually set up any environment variables to point to the NerveCenter installation directory, change them to point somewhere else.
12. If you are removing NerveCenter from this machine completely, delete the ncusers and nadmins users and groups, including the nervectr user.
13. If you are removing NerveCenter web support completely and the Web server is on a different machine, reconfigure the server to remove references to NerveCenter. See *Managing NerveCenter Web Integration* in *Managing NerveCenter* for details.

Your Open NerveCenter applications have been removed.

Removing NerveCenter from a Windows Machine

TO REMOVE NERVECENTER FROM A WINDOWS MACHINE

1. Back up any files you want to keep, including your database, custom MIBs, custom reports, or log files.
2. From the NerveCenter program group on the **Start** menu, choose **Uninstall NerveCenter**.
3. Select **OK** when asked whether you are sure you want to remove NerveCenter.
If Seagate Crystal Reports is installed on this machine, it will be removed as well.
4. Select **Yes** when asked whether you want to completely remove the selected application and all of its components.



NOTE

NerveCenter 3.8 and above does not install Crystal Reports.

The Remove Programs From Your Computer dialog box is displayed.



5. Select **OK**.
6. If unInstallShield was not able to remove all of the files, open the NerveCenter directory and evaluate whether you want to keep the files.
7. If you had a SQL database, do the following on SQL Server: delete or clear the SQL database, delete the data and log devices used with the database, and delete the files used by the data and log devices.

8. You may want to manually remove current user entries that are not automatically removed from the registry. However, if you remove them and then reinstall later, users will have to reconfigure their autoconnect preferences, filter settings, and so on.
-

Your NerveCenter installation is removed.

6

Removing Open NerveCenter

Index



A

- accepting, license agreement 31
- Access database
 - connecting 61
 - creating 54
- add/remove programs properties dialog box 29

C

- changing
 - destination directory 34
 - HP OpenView path 34
- completing, installation 41
- components
 - NerveCenter 9, 25, 65
 - selecting 32
- configuring 22, 42
 - database 80
 - platform adapter 33
 - remote 81
 - security 36, 37, 38
 - traps 37
- configuring, service 35
- connecting
 - Access database 61
 - existing database 57
 - SQL database 57
- connection string 57
- creating
 - Access database 54
 - database, from the command line 76
 - new database 46
 - SMS package 80, 81
 - source directory 67
 - SQL database 49

D

- database
 - configuring 80
 - connecting 57
 - creating 46
 - creating, from the command line 76
 - installing 38
 - modifying, from the command line 76
 - setting up 39, 47
 - setting up, Windows 45
- database installation dialog box 39
- destination directory dialog box 34
- destination directory, changing 34
- dialog box
 - add/remove programs properties 29
 - database installation 39
 - destination directory 34
 - folder selection 39
 - license agreement 31
 - license key 36
 - NerveCenter components 32
 - security options 37
 - server configuration 35
 - trap options 37
 - welcome 30
- documentation
 - conventions 5
 - feedback 6

E

- editing, installation configuration file 68
- entering, license key 35, 36

F

- folder selection dialog box 39

H

- HP OpenView path, changing 34

I

- importutil 81
- INSTALL.SH 14
- installation
 - completing 41
 - configuration file 68
 - remote 65
 - silent 65
 - starting 30
- installation configuration file 68
- installation configuration file, editing 68
- installation log
 - viewing on UNIX 21
- installation script
 - running automatic on UNIX 18
 - running interactive on UNIX 14
 - running to reconfigure, UNIX 22
- installing
 - after installation 22, 42
 - database 38
 - database, remote 80, 81
 - preparation 10, 27
 - remote 75
 - UNIX 9

L

- license agreement dialog box 31
- license agreement, accepting 31
- license key dialog box 36
- license key, entering 35, 36

- M**
- modifying, database, from the command line 76
- N**
- ncaccess.mdb 54, 78
 - ncinput 18
 - ncinst_log 21
 - NerveCenter components 9, 25, 65
 - NerveCenter components dialog box 32
- O**
- ODBC data source 57
 - online knowledgebase 8
- P**
- platform adapter, configuring 33
 - post-installation configuration steps 22, 42
 - preparing to install 10, 27
 - prerequisites for installing
 - UNIX 10
 - Windows 27
 - program folder, selecting 39, 40
- R**
- remote
 - configuration 81
 - installation 75
 - remote database installations 80, 81
 - remote installation 65
 - removing NerveCenter
 - UNIX 84
 - Windows 86
 - running
 - installation script automatic on
 - UNIX 18
 - installation script interactive on
 - UNIX 14
 - installation script to reconfigure,
 - UNIX 22
 - Setup, from command line 74
 - Setup, Windows 25
- S**
- security options dialog box 37
 - security, configuring 36, 37, 38
 - selecting
 - components 32
 - program folder 39, 40
 - server configuration dialog box 35
 - service, configuring 35
 - setting up
 - database 39, 47
 - database, Windows 45
 - Setup, starting 29
 - setup.iss 68
 - silent installation 65
 - SMS host 80, 81
 - SMS package, creating 80, 81
 - SNMP v3 (Windows) 37
 - SNMP v3 trap options (UNIX
 - automatic script) 20
 - SNMP v3 trap options (Windows
 - silent install) 74
 - source directory, creating 67
 - SQL database
 - creating 49
 - SQL database, connecting 57
 - starting
 - installation 30
 - Setup 29
- T**
- technical support 7
 - contacting 8
 - educational services 7
 - professional services 7
 - Trap Options dialog box 37
 - traps, configuring for (Windows) 37
- U**
- uninst.sh 84
 - uninstall
 - UNIX 84
 - Windows 86
- V**
- viewing
 - installation log on UNIX 21
- W**
- welcome dialog box 30

Installation Quick Reference for NerveCenter v4.0

Before you install Open NerveCenter, use the following checklists to make sure you meet the prerequisites:

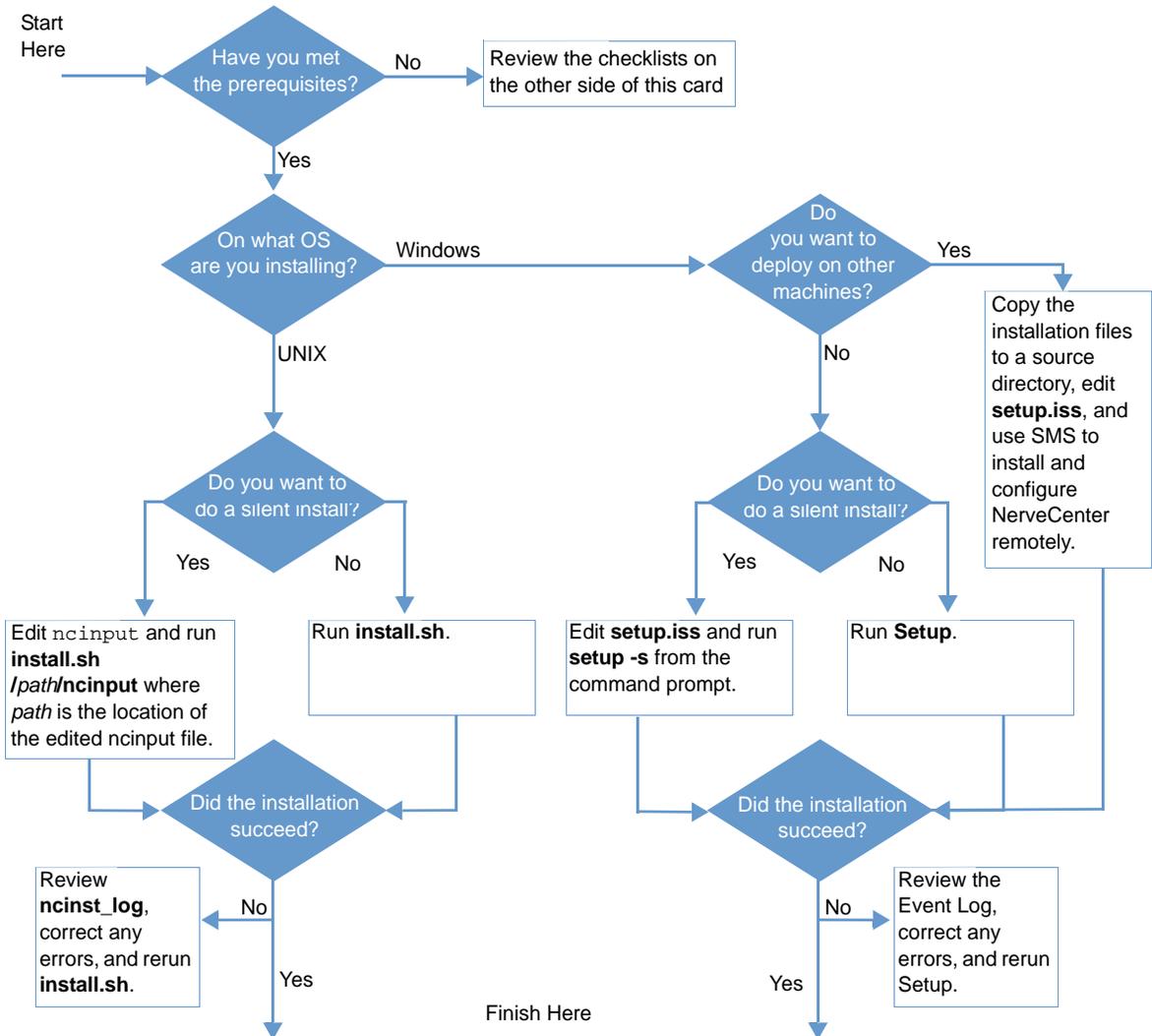
UNIX Installation Checklist

- The machines on which I am installing meet the system requirements (see the *Release Notes*).
 - If I am upgrading, I have read *Upgrading to NerveCenter 4.0*.
 - I am logged in as root.
 - I can access and write to the directory in which I want to install NerveCenter.
 - I have created the `ncadmins` and `ncusers` groups, and the `nervectr` user, who is a member of `ncadmins`. (Do not do this if you are using NIS.)
 - If I am installing on HP-UX, I have made sure that HP Services, `nfile`, and `maxfiles` are configured appropriately.
 - If I am overwriting an older version of NerveCenter, I have exported any models I might need to use with this version later.
 - If I am overwriting an existing version of NerveCenter, I have backed up all files I may have modified (`mibcomp.txt`, `*.mib`, `*.ncdb`, and so on).
 - If I am overwriting an existing version of NerveCenter, I have stopped all NerveCenter and `Wind/U` processes.
 - If I am integrating NerveCenter with HP OpenView, OpenView and `ovtrapd` are running on this machine.
 - If I am integrating NerveCenter with Tivoli TME, it is installed on this machine.
 - If I am integrating NerveCenter with a Web server, I am familiar with its location and configuration files.
-

Windows Installation Checklist

- The machines on which I am installing meet the system requirements (see the *Release Notes*).
 - If I am upgrading, I have read *Upgrading to NerveCenter 4.0*.
 - If I am upgrading and have an Access database, I have serialized my database before removing my old version of NerveCenter.
 - I am logged in as Administrator or as a member of the Administrators group.
 - I can access and write to the directory in which I want to install NerveCenter.
 - The SNMP service is installed and running.
 - If I am using MS Trap as my trap source, the SNMP Trap service is installed and running.
 - If I am installing SNMP v2c/v3 support, the SNMP Trap service is disabled.
 - If I am installing the server, the machine on which I am installing it has a fixed IP address.
 - If I am going to use an SQL database, SQL 6.x or 7.x is installed and running.
 - If I am going to use an SQL database, I have an account with system administrator (sa) rights.
 - If I am overwriting an older version of NerveCenter, I have exported any models I might need to use with this version later.
 - If I am overwriting an existing version of NerveCenter, I have backed up all files I may have modified (`mibcomp.txt`, `*.mib`, `*.ncdb`, and so on).
 - If I am overwriting an existing version of NerveCenter, I have stopped all NerveCenter applications and services.
 - If I am integrating NerveCenter with HP OpenView, HP OpenView and `ovtrapd` are running on this machine.
 - If I am integrating NerveCenter with CA Unicenter TNG, it is installed on this machine.
 - If I am integrating NerveCenter with a Web server, I am familiar with its location and configuration files.
-

Windows and UNIX Installation Flowchart



1. If you haven't already installed a database (NT only), do so now. Use DBWizard. See *Installing NerveCenter*.
2. Add users to the appropriate user groups, unless you opted not to use security (NT only). See *Managing NerveCenter*.
3. If you are ready to configure NerveCenter, start the server, connect from the Administrator, and enter your license key (if necessary) and configure your options. See *Managing NerveCenter*.
4. If you installed platform integration, configure your network management platform appropriately. See *Integrating NerveCenter with a Network Management Platform*.
5. If you installed web support, make sure users have access to the Web server. Configure your web server to map to the NerveCenter web client files, if necessary. See *Managing NerveCenter*.

OpenService Software License Agreement

This Software License and Services Agreement ("Agreement") is between OpenService, Inc., a Delaware corporation having its principal place of business at 110 Turnpike Road, Suite 308, Westborough, MA 01581 ("OpenService"), and Your Company and its Affiliates (as later defined; collectively, "Customer"). This Agreement establishes the terms under which OpenService will license certain of its software products and provide support and other software-related services to Customer. This Agreement consists of these Standard Terms and Conditions and the OpenService Annual Support Policy which will be provided under separate cover.

OpenService, Inc.

Standard Terms and Conditions

In consideration of the mutual promises and upon the terms and conditions set forth below, the parties agree as follows:

1. DEFINITIONS

- 1.1. **"Software"** shall refer to any OpenService software application or suite of applications including without limitation Modules, that may be delivered to Customer either with the initial delivery of the software or any time thereafter or any subsequent Order Form, Updates and Subscription Software (only available to the extent Customer has subscribed and paid for this option), and any embedded programs of OpenService's licensors, all in object code format only, including all copies in whole or part, backups and related documentation.
- 1.2. **"Module(s)"** shall refer to the modules described on any Order Form.
- 1.3. **"Update(s)"** shall refer to any and all patches, bug fixes, workarounds, upgrades and updates specific to a Software application that are customarily provided at no additional cost to OpenService customers who have contracted for Annual Support Services with respect to that Software. The term "Update" does not include new modules added to a Software suite where such modules offer discrete new functionalities in addition to or together with the licensed Software applications, or any release, option, future product, or software that OpenService licenses separately or offers only for an additional fee.
- 1.4. **"Services"** shall refer to any services relating to the Software and provided by OpenService, including, without limitation, Annual Support Services and Professional Services.
- 1.5. **"Annual Support Services"** shall refer to the services provided under OpenService's then current standard or premium Support Services policy, as elected by Customer. A copy of OpenService's current Support Services policy will be shipped under separate cover upon shipment of software.
- 1.6. **"Professional Service(s)"** shall refer to the installation, training and/or other professional services elected by Customer.
- 1.7. **"Subscription Software"** shall refer to software that is made generally available only to customers of OpenService that have subscribed to and paid for this option.
- 1.8. **"Custom Development(s)"** shall refer to any and all materials provided to Customer by OpenService in the course of performing Professional Services.
- 1.9. **"Order Form"** shall refer to the OpenService document by which Customer orders Software and Services.
- 1.10. **"Node(s)"** shall refer to workstation or server Agent. You may install and use only the Software for which you have received a valid license key code (serial number) from OpenService or its distributors, to manage up to the number of Nodes specified in your purchase documentation. Your license key code (serial number) may only be installed in a single system at any one time. You may use the Software and related documentation on only as many servers as you have purchased licenses.
- 1.11. **"Affiliate"** shall refer to any legal entity (such as a corporation, partnership, or limited liability company) that is controlled by Customer. For purposes of this definition, "control" means (i) beneficial ownership of at least fifty percent (50%) of the voting securities of a corporation or other business organization with voting securities or (ii) a fifty percent (50%) or greater interest in the net assets or profits of a partnership or other business organization

without voting securities.

- 1.12. "**Specifications**" shall refer to OpenService's specifications for particular Software applications in effect on the date of the applicable Order Form.

2. GRANT OF LICENSE

- 2.1. **License Grant.** Subject to the terms of this Agreement, OpenService grants to Customer a nonexclusive, nontransferable license under OpenService's intellectual property rights: (i) to use the Software and Custom Developments, if any, for Customer's internal business purposes in connection with the number of Modules and number of Devices for which license fees have been paid and at the locations specified on the Order Form; (ii) to have system integrators implement the Software for the Customer; and (iii) to make one copy of the Software and Custom Developments including related documentation for archival purposes. OpenService agrees to provide cold and hot back-up copies of Software as listed on its then current price list. Customer acknowledges that that certain Software applications may include "copy lock" protection and/or require an "enabling key," which shall be provided to Customer by OpenService or its licensors for purchased licenses. This is a license agreement and not an agreement for sale. All rights not specifically granted will be reserved to OpenService and its licensors.
- 2.2. **Compliance.** On request, Customer will provide OpenService with a written statement, certified by an authorized representative of Customer, listing the number and type of Devices in use and under management in connection with the Software and any changes to the location of the Software. During the term of this Agreement and for three (3) years thereafter, OpenService will have the right, no more than once annually, to conduct and/or direct an independent accounting firm to conduct, during normal business hours and on reasonable notice, an audit of the appropriate records of Customer to verify this information. If the information supplied by Customer to OpenService proves to be inaccurate by more than five percent (5%) to OpenService's detriment, then the Customer will pay all costs of the audit as well as applicable license and support fees on a retroactive basis.

3. LICENSE RESTRICTIONS

- 3.1. **Restrictions.** Customer will not modify, translate, reverse engineer, decompile, disassemble or otherwise attempt to derive source code, or create derivative works based on the Software or Custom Developments, provided that, if required under applicable law, upon Customer's request, OpenService will provide information necessary for Customer to achieve interoperability between the Software or Custom Developments and other software for a nominal administrative charge. Customer may only use the embedded programs of OpenService's licensors with and as a part of the Software and/or Custom Developments and is prohibited from using such embedded programs for application development purposes or otherwise outside the scope defined in Section 2.1 of this Agreement.
- 3.2. **Third Parties.** Customer will not: (i) host the Software and/or Custom Developments for access by any third party; (ii) rent, lease, sublicense, or otherwise distribute the Software and/or Custom Developments to any third party; (iii) offer the Software and/or Custom Developments in connection with timesharing, facility management, or service bureau usage; or (iv) use the Software and/or Custom Developments to develop or modify applications or perform other programming tasks on behalf of Customer or any third party.
- 3.3. **Proprietary Markings.** Customer agrees to respect and not to alter, remove or conceal any patent, copyright, trademark, government restricted rights, trade name or other proprietary marking that may appear in connection with the Software or Custom Developments.

4. DELIVERY AND LICENSE KEYS

- 4.1. **Delivery; Updates.** Promptly after the Effective Date, OpenService will deliver to Customer one copy of the Software either electronically or on compact disk, at Customer's election, and related documentation. OpenService will also make available to Customer one copy of any Updates, if and when available, either electronically or on compact disk, pursuant to Annual Support Services.
- 4.2. **License Keys.** Customer acknowledges that the Software needs to be activated by identification codes. Customer will receive its license key through OpenService's website or FTP site using the unique license number provided

to Customer in the Order Form.

5. PAYMENT

- 5.1. **License Fee.** In consideration of the licenses granted and Services provided under this Agreement, Customer agrees to pay OpenService the license and Services fees specified in each Order Form according to the payment terms therein. Concurrently with the execution of this Agreement, Customer will place a binding initial order for Software using the Order Form.
- 5.2. **Taxes.** Customer will pay all taxes (except taxes based on OpenService's net income) and customs duties, however designated, on amounts payable to OpenService.
- 5.3. **Payment.** Customer will pay OpenService for all Software and Services in U.S. Dollars within thirty (30) days of invoice.

6. WARRANTY AND DISCLAIMER

- 6.1. **Warranty.** OpenService warrants for thirty (30) days following delivery that: (i) the Software will operate substantially in accordance with the Specifications, provided that the Customer uses the Software in accordance with the Specifications (including without limitation recommendations for best practices in regard to Software configuration) and documentation and does not modify the Software; and (ii) the media on which the Software is delivered will be free from defects in workmanship.
- 6.2. **Sole Remedies.** In the event the Software fails to perform as warranted in Section 6.1(i) and Customer advises OpenService in writing of a reproducible error within the warranty period, OpenService will use commercially reasonable efforts to correct any defect in the Software. In the event that OpenService is unable to correct a defect within a reasonable time, Customer may return the Software and obtain a refund of any prepaid license fees. In the event the Software fails to perform as warranted in Section 6.1(ii), OpenService will replace the defective disk or other media. This Section 6.2 sets forth Customer's sole remedy, and OpenService's sole obligation, relating to performance of the Software and for breach of the warranties in Section 6.1.
- 6.3. **Disclaimer.** Except for the warranties in section 6.1, to the maximum extent permitted by applicable law, the software, custom developments and the services are provided by OpenService and its licensors without express or implied warranty of any kind, including without limitation, any warranty of merchantability, noninfringement or fitness for a particular purpose. OpenService specifically does not warrant that the software and/or custom developments will meet all of customer's requirements; that the operation of the software and/or custom developments will be error-free or uninterrupted; or that all errors or defects in the software will be corrected. Some jurisdictions do not allow the exclusion of implied warranties so the above exclusions may not apply to customer. This warranty gives customer specific legal rights. Customer may also have other rights that vary from jurisdiction to jurisdiction.
- 6.4. **Ultra-Hazardous Activities.** The software and/or custom developments are not designed, manufactured or intended for use in any environment in which the failure of software could lead to death, personal injury, or severe physical or environmental damage, including without limitation, in the design or operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, weapons systems or in the on-line control of equipment in any hazardous environment requiring fail-safe performance ("ultrahazardous activities"). OpenService and its licensors specifically disclaim any express or implied warranty of fitness for ultrahazardous activities. Customer represents and warrants that customer will not use, or allow others to use, any software or custom development for such purposes.
- 6.5. **Third Party Software and Materials.** Under no circumstances will OpenService, its affiliates or their respective officers, directors or employees be liable for any damages arising from Customer's use of any embedded programs, other software or materials developed or manufactured by OpenService licensors or other third parties, whether or not such programs, software or other materials were provided by OpenService hereunder. OpenService's only obligation to Customer will be to assign to Customer the indemnity, if any, that OpenService received from the third party licensor, if such indemnity is assignable. Customer is responsible for compliance with third party software license agreements.

7. OPENSERVICE INDEMNIFICATION.

- 7.1. **Indemnification.** OpenService will indemnify and defend Customer from any damages awarded against Customer by a court or other tribunal from which no appeal can be or is taken, or from final settlement to which OpenService has consented, arising out of any claim, action or suit ("Claim") that the Software infringes in the United States a patent, copyright or trade secret of any third party, provided that: (a) Customer notifies OpenService promptly in writing if any such Claim is threatened or brought; (b) OpenService has the right to assume the sole defense of such Claim with counsel selected by OpenService; (c) Customer cooperates in the defense or settlement of such Claim as reasonably requested by OpenService, at OpenService's expense; and (d) OpenService has the option at its own expense and in its sole discretion, at any time with respect to any Claim threatened or brought, or any such determination of infringement, to: (i) procure for Customer the right to continue licensing such Software; (ii) replace or modify such Software so that it is non-infringing; or (iii) terminate this Agreement as to such Software, and upon return of the Software by Customer, refund pro rata any prepaid fees for such Software, based on three-year straight-line depreciation. OpenService will have no liability for costs incurred or settlements made without its consent. OpenService will have no liability for any Claim based on modification of the Software other than by OpenService, the use of a superseded release of Software if the infringement would have been avoided by the use of a current release made available to Customer, or use of the Software other than ordinary use in accordance with the Specifications, documentation and this Agreement. This Section states OpenService's entire obligation, and Customer's sole remedy, with respect to any Claim, brought or threatened, or any such determination of infringement.

8. LIMITATION OF LIABILITY

- 8.1. **Limitation of Liability.** To the maximum extent permitted by applicable law, the maximum cumulative liability of Customer and OpenService and its licensors for damages, to the other party hereunder, regardless of the form of legal action, whether in contract or in tort, including without limitation negligence, will in no event exceed the amount of fees paid by Customer under this Agreement, and if such liability relates to particular Modules or Services, the maximum liability will be limited to the payments received by OpenService for the particular Software application or Services that gave rise to the liability, except that no limitation on damages will apply to losses due to Customer's breach of the license or license restrictions, Section 12.9 (Export Control) or its warranty in Section 6.4 (Ultra-Hazardous Activities), or for either party's breach of Section 11 (Confidential Information).
- 8.2. **No Consequential Damages.** To the maximum extent permitted by applicable law, in no event will either party or OpenService's licensors be liable under this agreement for special, incidental, indirect or consequential damages, including, but not limited to, loss of profits, loss of revenue, loss of use or loss of data, even if advised of the possibility thereof, or, if reasonably foreseeable, incurred by the other party or claimed against the other party by any third party, except that no such limitation on damages will apply in the event of a breach by customer of the license or license restrictions, section 12.9 (export control) or its warranty in section 6.4 (ultrahazardous activities), or for either party's breach of section 11 (confidential information).

9. SERVICES

- 9.1. **Services.** In connection with the implementation, support and use of the Software by Customer, OpenService will provide Services to Customer as applicable at the rates specified in each Order Form under the terms of this Agreement.
- 9.2. **Ownership of Intellectual Property.** If Customer suggests any new features, functionality or performance for the Software that OpenService subsequently incorporates into the Software, such suggestions will be free from any confidentiality restrictions that might otherwise be imposed upon OpenService pursuant to Section 11 (Confidential Information). OpenService will own and Customer hereby agrees to assign and assigns to OpenService all right, title, and interest in the copyright, patent, trade secret and all other intellectual property rights that may be conceived, reduced to practice, created or developed by OpenService or Customer in the performance of Services under this Agreement, including without limitation Custom Developments and such Customer suggestions.

- 9.3. **Future Activities.** Customer acknowledges that OpenService and its employees, consultants or subcontractors may from time to time perform services for others or incorporate functionality in its Software that are similar or identical to Services performed for or a Custom Development created for Customer under this Agreement. So long as no Confidential Information of Customer is disclosed, OpenService will not be restricted in any way from developing or providing to others software, forms, materials, methodologies, modifications or services which are similar or identical to Services performed for, or Custom Developments created for, Customer, or be restricted in its use of personnel providing Services hereunder.
- 9.4. **Payment for Services.** OpenService reserves the right to discontinue the provision of any and all Services if payment is not received in accordance with the terms of this Agreement or any Order Form.
- 9.5. **Reimbursement.** Customer will pay or reimburse to OpenService all reasonable travel, accommodation and other out-of-pocket expenses incurred by OpenService, its employees, consultants or subcontractors in connection with OpenService's provision of Professional Services under this Agreement.
- 9.6. **Compensation on Termination of Services.** In the event of any termination of Services prior to completion, payment will immediately be due for performance rendered up to the effective date of such termination and for non-cancelable commitments, including expenses.

10. TERM; TERMINATION

- 10.1. **Term.** This Agreement will be effective from the Effective Date and will continue perpetually with respect to the Software licenses unless terminated in accordance with the provisions of this Section 10.
- 10.2. **Termination.** Upon any material breach of this Agreement by either party, the other party will have the right to terminate this Agreement and the licenses granted hereunder effective on thirty (30) days' notice; such termination will become automatically effective unless the breaching party has cured any material breach prior to the expiration of the thirty-day period. OpenService will also have the right, effective on notice, to immediately terminate this Agreement and the licenses granted hereunder if Customer: (i) files a petition in bankruptcy or insolvency, or for reorganization or the appointment of a receiver or trustee, (ii) is served with an involuntary petition against it in any insolvency proceeding that is not be dismissed within sixty (60) days after filing, (iii) makes an assignment for the benefit of creditors, or (iv) breaches Sections 2 (License Grant) or 3 (License Restrictions) of this Agreement.
- 10.3. **Consequences.** In the event of termination of this Agreement for any reason, Customer will promptly (i) discontinue all use of the Software and Custom Developments; (ii) erase or destroy any Software and Custom Developments contained in the computer memory or data storage apparatus; (iii) return to OpenService or destroy all copies of the Software, Custom Developments and OpenService Confidential Information; and (iv) certify in writing to OpenService, within thirty (30) days of termination of this Agreement that Customer has complied with the foregoing.
- 10.4. **Survival.** Termination of this Agreement will not limit either party from pursuing other remedies available to it, including injunctive relief, nor will termination relieve Customer of its obligation to pay all fees that have accrued or are otherwise owed by Customer under any Order Form. Prepaid fees are nonrefundable unless otherwise expressly provided in this Agreement. Sections 1, 2.2 (survives for three (3) years), 6.2, 6.3, 6.4, 6.5, 8, 9.2, 9.3, 10.3, 10.4, 11 and 12 hereof will survive expiration or any termination of this Agreement.

11. CONFIDENTIAL INFORMATION

- 11.1. **Confidential Information.** Each party may have access to confidential information of the other party, including without limitation, Software, Custom Developments and training materials (if any), and all other information that is identified in writing as confidential at the time of disclosure ("Confidential Information"). Each party agrees that it will use Confidential Information only in the performance of this Agreement and for no other purpose, will not disclose such Confidential Information to any third party (except as required by law or to that party's attorneys, accountants or other fiduciary advisors as reasonably necessary), and will take reasonable precautions to protect the confidentiality of such Confidential Information. Such reasonable precautions will include, but not be limited to, disclosing Confidential Information only to those employees who have a need to have access solely

for the performance of this Agreement and taking measures by instruction and agreement prior to disclosure to such employees to protect against unauthorized use or disclosure.

- 11.2. **Exclusions.** Confidential Information will not include information that: (i) is rightfully received by the receiving party from a third party without an obligation of confidentiality; or (ii) was publicly known at the time of disclosure to receiving party or becomes publicly known through no act or omission of the receiving party. If any Confidential Information is required to be disclosed by a judicial or governmental order, the receiving party will promptly notify the disclosing party and take reasonable steps to assist in contesting such order or in protecting the disclosing party's rights prior to disclosure.

12. GENERAL

- 12.1. **Provision of Notice.** Any notice given hereunder will be in writing and delivered by courier service or mailed by pre-paid registered mail, return receipt requested, addressed to the other party at the address on the Signature Cover Page. Any notice so delivered will be deemed to have been received by the addressee at the time and date when actually delivered or in any event within ten (10) days after sending in the manner provided. A party's notice address may be changed at any time effective on notice.
- 12.2. **Assignment.** Customer may not assign this Agreement or any rights or obligations arising under this Agreement without the prior written consent of OpenService, such consent not to be unreasonably withheld; provided, however, that such consent shall not be required if Customer assigns to an Affiliate, unless the Affiliate is a direct competitor of OpenService. OpenService may assign this Agreement and any rights or obligations hereunder. This Agreement will be binding on the successors and permitted assigns of the parties.
- 12.3. **Waiver.** The failure of either party to enforce in any one or more instances any of the terms of this Agreement will not be construed as a waiver of future performance of any such term. Waiver of any term will only be deemed to have been made if expressed in writing by the party granting the waiver.
- 12.4. **Severability.** If any provision of this Agreement is held by a court or other tribunal of competent jurisdiction to be illegal, invalid or unenforceable, that provision will be reformed, construed and enforced to the maximum extent permissible, and the remaining provisions will remain in full force and effect.
- 12.5. **Governing Law.** This Agreement will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to its conflict of law principles. Subject to Section 12.6 (Arbitration), each party hereby irrevocably submits to the exclusive venue and jurisdiction of any federal or state court sitting in Boston, Massachusetts in any action, suit or proceeding brought against it by the other party under this Agreement. The UN Convention on Contracts for the International Sale of Goods does not apply.
- 12.6. **Arbitration.** The parties agree to submit any dispute arising under this Agreement (excluding disputes arising out of or relating to intellectual property) to binding arbitration in Boston, Massachusetts, under the then current Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with said Rules. Judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction. Notwithstanding the foregoing, at any either party may apply for injunctive or other temporary relief without breach of this arbitration provision.
- 12.7. **Entire Agreement.** This Agreement constitutes the entire understanding between the parties, and supersedes all prior discussions, representations, understandings or agreements, whether oral or in writing, between the parties with respect to the subject matter of this Agreement. The terms of this Agreement will have no force or effect with respect to any claim based on the use of the Software outside the scope of the licenses and rights expressly granted herein. The preprinted provisions of Customer's purchase order will not apply, and the provisions set forth herein will prevail. In the event of any conflict between the terms of these Standard Terms and Conditions and the terms set forth on any Order Form or any other Schedule, the terms of these Standard Terms and Conditions will prevail, unless expressly provided otherwise. Any amendment to this Agreement must be in writing and signed by an authorized representative of each party.
- 12.8. **U.S. Government Restricted Rights.** In the event that Customer is an agency of the United States Government, or that the license granted hereunder is pursuant to a contract with either a defense or civilian agency of the

United States Government, Customer agrees that the Software is provided with restricted rights. Use, duplication or disclosure by the Government is subject to the restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or the restrictions set forth in subparagraphs (c)(1) and (2) of the Commercial Computer Software Restricted Rights clause at 48 CFR 52.227-19, as applicable, or in successor provisions, as well as the limitations set forth herein. Manufacturer is OpenService, Inc., 110 Turnpike Road, Suite 308, Westborough, MA 01581.

- 12.9. **Export Control.** Customer acknowledges that it is subject to United States laws and regulations controlling the export of technical data, computer software and other commodities and agrees not to export or allow the export or re-export of such data, software or other commodities in violation of such laws and regulations.
- 12.10. **Independent Contractors.** The parties to this Agreement are and will remain independent contractors. Nothing herein will be construed to create a partnership or joint venture between them, and neither will have the power or authority to bind or obligate the other in any manner not expressly set forth herein.
- 12.11. **Headings.** The headings used in this Agreement are for ease of reference only and will not be used to interpret any aspect of this Agreement.
- 12.12. **References.** All references in this Agreement to the "sale" or "purchase" of Software or Custom Developments means the granting or obtaining of certain license rights to use such software.
- 12.13. **Force Majeure.** Neither party shall be in default of its obligations (other than the payment of money) to the extent its performance is delayed or prevented by causes beyond its reasonable control, including without limitation, acts of God, earthquake, flood, embargo, riots, sabotage, utility or transmission disruption, failure or delay of suppliers, fire or labor disturbances.
- 12.14. **Press Releases; Use of Name.** OpenService may issue one or more press releases relating to the business relationship created by this Agreement and may use Customer's name in its general customer list in print and website materials.

