Installation Quick Reference for NerveCenter 5.0.00

Before you install OpenService NerveCenter, use the following checklists to make sure you meet the prerequisites:
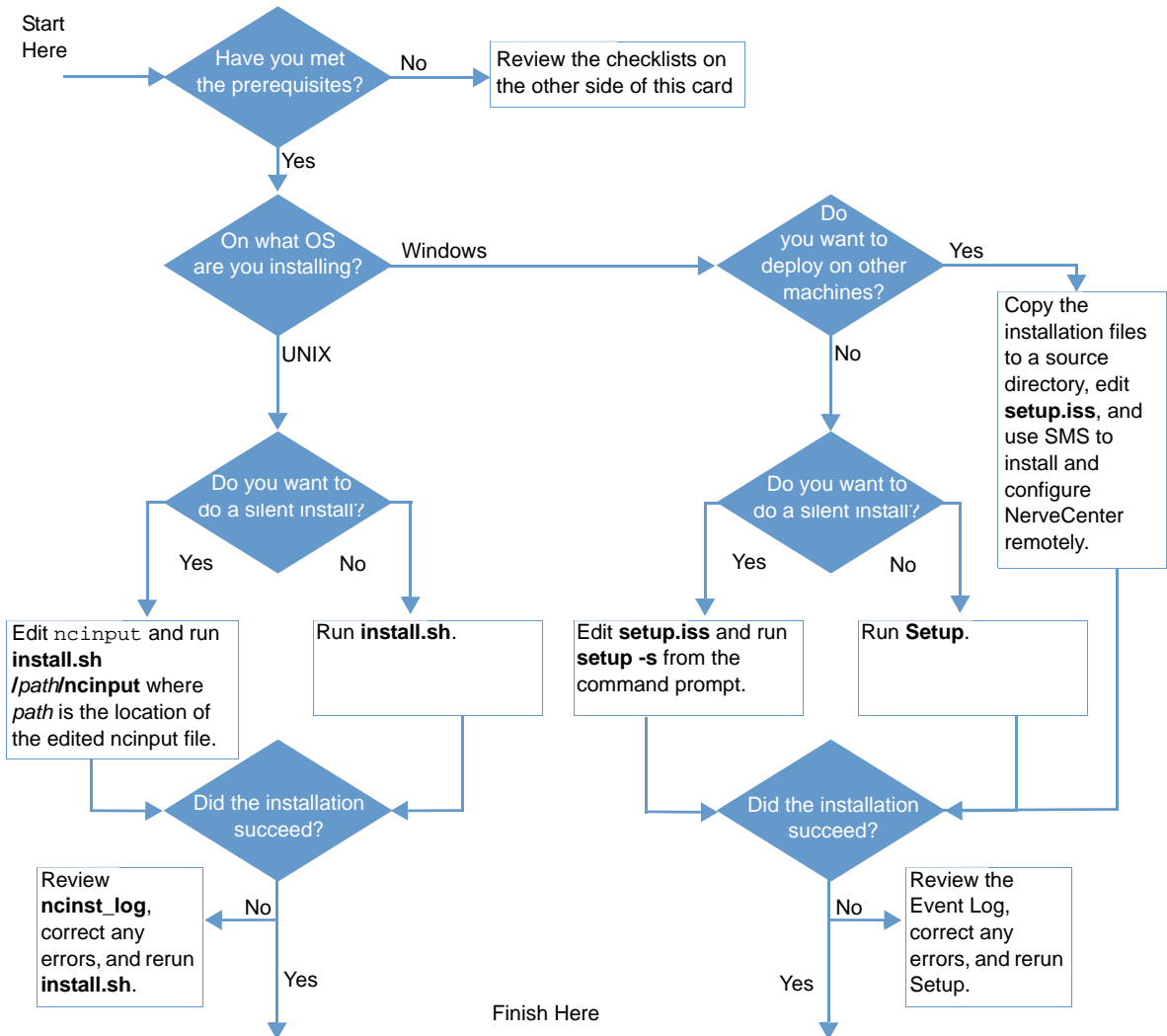
UNIX Installation Checklist

- ❑ The machines on which I am installing meet the system requirements (see the *Release Notes*).

- ❑ If I am upgrading, I have read *Upgrading NerveCenter*.

- ❑ 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 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 NerveCenter*

- ❑ 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 a Web server, I am familiar with its location and configuration files.

Windows and UNIX Installation Flowchart

Start Here

Have you met the prerequisites? — No → Review the checklists on the other side of this card

Yes ↓

On what OS are you installing?

Windows → Do you want to deploy on other machines?

— Yes → Copy the installation files to a source directory, edit **setup.iss**, and use SMS to install and configure NerveCenter remotely.

No ↓

UNIX ↓

Do you want to do a silent install?

Yes → Edit `ncinput` and run **install.sh** **/**path**/ncinput** where path is the location of the edited ncinput file.

No → Run **install.sh**.

Do you want to do a silent install?

Yes → Edit **setup.iss** and run **setup -s** from the command prompt.

No → Run **Setup**.

Did the installation succeed?

No → Review **ncinst_log**, correct any errors, and rerun **install.sh**.

Yes ↓

Did the installation succeed?

No → Review the Event Log, correct any errors, and rerun Setup.

Yes ↓

Finish Here

1. If you haven't already installed a database (NT only), do so now. Use DBWizard as described in *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 Network Management Platforms*.
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*.

Behavior Model Quick Reference Card

TO CREATE AN ALARM

1. In NerveCenter Client connected to a NerveCenter Server, choose **Admin > Alarm Definition List**, then click **New.**

2. Provide a name, property, and scope.

TO ADD A STATE TO THE ALARM

1. Click the **Add State** button.

2. Type a **Name** and select a severity.

3. Click **OK**. Resize and position the state icon.

TO ADD A TRANSITION

1. Select the **Add Transition** button.

2. Select alarm states from the From and To lists.

3. Select the trigger that will cause the alarm to transition.

4. Optional: select **New Action** and select an action. Add more actions as appropriated, then click **OK**. (See other side for a list of actions.)

5. Resize and position the transition icon.

6. When finished defining the alarm, select **Save**.

Trap	Name	Definition	SnmpTrapOID.0
0	ColdStart	The node is initializing. Its agent configuration or protocol may be altered.	1.3.6.1.6.3.1.1.5.1
1	WarmStart	The node is initializing. Neither its agent configuration nor its protocol will be altered.	1.3.6.1.6.3.1.1.5.2
2	LinkDown	A failure in one of the links in the agent's configuration.	1.3.6.1.6.3.1.1.5.3
3	LinkUp	One of the communications links in the agent's configuration is up.	1.3.6.1.6.3.1.1.5.4
4	AuthFail	The node received a protocol message that isn't authenticated.	1.3.6.1.6.3.1.1.5.5
5	EgpNeighLoss	An EGP peer of the node sending the trap is down. Peer relationships no longer exist.	1.3.6.1.6.3.1.1.5.6
6	EntSpecific	The occurrence of an event defined by the node vendor	n/a
-1	AllTraps	Monitors all SNMP-defined traps and vendor-defined traps	n/a

TO CREATE A TRAP MASK

1. In NerveCenter Client, choose **Admin > Mask List**. Then select **New**.

2. In the Name field, type a name.

3. Select the SNMP version appropriate to the type of trap you want to capture, either v1 or v2c/v3.

4. For a v1 trap, in the Generic field, select a generic trap number. If you select 6, enter in the Specific field an enterprise-specific trap number.

5. For a v2c/v3 trap, in the Trap OID field, enter the SNMPTrapOID for the mask.

6. To limit the mask to a particular vendor, select **Filter on Enterprise** and either **From** or **From**

Only. Then specify the enterprise OID in the Enterprise field (the enterprise's MIB must be incorporated in the NerveCenter MIB).

7. Select **Simple Trigger** or **Trigger Function**.

   ◆ For a simple trigger function, type or select a trigger name in the **Simple Trigger** field.

   ◆ For a trigger function, select the **Trigger Function** tab and type a function. Right-click in the function area to enter variable expressions and operators.

8. Select **Save**.

Alarm action	Description
Action Router	Performs actions based on criteria specified in the ActionRouter
Alarm Counter	Tracks recurring events and fires a trigger when a specified count is reached
Beep	Sounds a tone on all NerveCenter Clients connected to the NerveCenter Server managing the alarm instance
Clear Trigger	Clears a trigger
Command	Invokes a command or a script
Delete Node	Deletes the node that caused the alarm transition
Event Log	Stores data about a transition in the Event Log (Windows) or in the system log (UNIX).
Fire Trigger	Fires the specified trigger
Inform	Sends an Inform packet to OpenView or another NerveCenter Server
Inform Platform	Sends an Inform packet IBM Tivoli Netcool/OMNIbus
Log to File	Stores data about a transition in a text file
Log to Database	Stores data about a transition in the NerveCenter database (Windows only)
Microsoft Mail	Sends mail using Microsoft Exchange (Windows only)
Notes	Displays notes about the alarm for viewing or editing
Paging	Sends a page to the specified phone number
Perl Subroutine	Executes an existing Perl subroutine
Send Trap	Generates an SNMP trap
Set Attribute	Changes select attributes of NerveCenter nodes, polls, masks, and alarms
SNMP Set	Issues an SNMP SetRequest command that changes the value of a MIB attribute
SMTP Mail	Sends mail using SMTP

TO CREATE A POLL

1. Open a NerveCenter Client and connect to a NerveCenter Server.
2. Select **Poll List** from the **Admin** menu.
3. In the Poll List window, select **New**.
4. In the Poll Definition window, select the **Poll** tab.
5. In the Name field, type a name.
6. Select a property from the Property list.
7. If the node doesn't use the default polling port, type the port number in the Port field.
8. Enter a Poll Rate by typing a number and by selecting Hours, Minutes, or Seconds.
9. Select the **Poll Condition** tab.
10. Select a base object for the Poll.
11. Type a condition in the Poll Condition field.

Note: You may select attributes from the **Attribute** list by double-clicking. Right-clicking in the **Poll Condition** field will give you available expressions and operators.

Quick Reference Card for NerveCenter 5.0.00

Viewing NerveCenter Objects

NerveCenter contains lists of all defined objects. You can open the following lists from the Admin menu or from the toolbar:

The Property Group List window displays all property groups and their properties.

The Node List window displays all nodes and indicates if they are managed or suppressed. This window also displays the severity associated with any node that has an active alarm instance.

The Poll List window displays all polls and indicates if they are on. This list also displays each poll's property and the MIB base object that the poll monitors.

The Mask List window displays each trap mask, its generic trap, any associated enterprise, and its trigger name.

The Alarm Definition List window displays each alarm, its property and scope, and whether it's on.

The Correlation Expression List window displays each correlation expression.

The Alarm Severities List window lists severity levels and types.

The Perl Subroutine List window displays all Perl subroutines used by alarm actions.

The Reports window displays all available reports, report descriptions and authors.

The Action Router Rule List window displays all Action Router conditions and actions.

The Server Status window contains the current settings for any NerveCenter to which you are connected.

TO VIEW NOTES ABOUT AN OBJECT

◆ From a NerveCenter list window, select an object and click **Notes**.

Monitoring Alarms

You use the following windows to monitor alarms:

The Alarm Summary window displays alarm instances for the connected server.

The Aggregate Alarm Summary window displays alarm instances collectively for all servers to which you are connected.

TO CHANGE THE ACTIVE CONNECTED SERVER

◆ If connected to more than one server, select the server you want from the drop-down listbox on the NerveCenter toolbar.

TO SORT ALARM INSTANCES

◆ Click the button at the top of the column you want to use for sorting. Click again to reverse the sort order.

TO VIEW AN ALARM INSTANCE'S HISTORY

◆ Double-click the alarm instance. Select each item in the list to trace activity to the current state. Select a button, if enabled, to view an associated poll, node, trap mask, or alarm.

TO VIEW ALL INSTANCES OF AN ACTIVE ALARM

◆ From the Alarm Definition List window, select the alarm and click the **Alarms** button.

Resetting Alarm Instances

You can reset alarm instances from the following windows:

Alarm Definition List	Right-click one or more alarms and choose **Reset to Ground**.
Alarm Summary	Right-click the alarms and reset to ground or another state.
Alarm Instances	Right-click the alarms and reset to ground or another state.
Node Definition	In either Alarms tab, select **Reset All** to reset all alarms for a node.

Filtering Alarms

NerveCenter enables you to filter alarms by severity, property group, and IP subnet. You can apply a filter to a NerveCenter Server before or after connecting to the server.

TO ASSOCIATE AN EXISTING FILTER WITH A SERVER

1. From the **Client** menu, choose **Configuratio**n and select the **Alarm Filter Selection** tab.
2. From the Server list, select the name of the server whose alarms you want to filter.
3. Select one or more filters in the Available Filters list, and click **>>**.
4. Select **OK**.

TO DEFINE OR MODIFY A FILTER

1. From the **Client** menu, choose **Configuration** and select the **Alarm Filter Modification** tab.
2. Select **New** to define a filter and **Edit** to change an existing filter.
3. Enter your filter parameters in the Alarm Filter Definition window.
4. When finished, click **OK**.

Exporting Behavior Models

TO EXPORT AN ALARM AND ITS ASSOCIATED OBJECTS

◆ From the Alarm Definition List window, right-click the alarm and choose **Export Model**, then provide a name for the model file.

Viewing Log Files

If your alarms are assigned logging actions, you can view the following logged data:

File log	ASCII files are stored in the following locations: ◆ Windows: *installation*\Log directory on the server. ◆ UNIX: *installation*/userfiles/logs directory on the server.
Event or system log	◆ Windows: From the **Start** menu, choose **Administrative Tools > Event Viewer**. ◆ HP-UX: View the system log in /var/adm/syslog/syslog.log using the following command: **tail -f /var/adm/syslog/syslog.log** ◆ Linux: View the system log in /var/log/messages using the following command: **tail -f /var/log/messages** ◆ Solaris: View the system log in /var/adm/messages using the following command: **tail -f /var/adm/messages**
Database log	Available only on Windows in the *installation*\Db directory on the server. This data can be used in reports.

Auditing Behavior Models

Check for triggers that aren't defined in a trap mask or poll, mask/poll triggers not used in an alarm, or alarm states transitioned by undefined triggers.

TO RUN AN AUDIT

1. From the **Admin** menu, choose **Audit**.
2. Select one or more checkboxes corresponding to the conditions you want to audit.
3. Select **Run Audit**.