

# **HP OpenView Smart Plug-In for Data Network Devices**

## **Administrator's Guide**

**Version A.02.00**

**July 2002**

U.S.A.

© Copyright 2002, Hewlett-Packard Company.



i n v e n t

---

## Legal Notices

The information in this document is subject to change without notice.

*Hewlett-Packard 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.* Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

**Warranty.** A copy of the specific warranty terms applicable to your Hewlett-Packard product and replacement parts can be obtained from your local Sales and Service Office.

**Restricted Rights Legend.** Use, duplication or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

HEWLETT-PACKARD COMPANY  
3000 Hanover Street  
Palo Alto, California 94304 U.S.A.

Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c)(1,2).

**Copyright Notices.** ©copyright 1999-02 Hewlett-Packard Company.

©copyright 1979, 1980, 1983, 1985-93 Regents of the University of California

This software is based in part on the Fourth Berkeley Software Distribution under license from the Regents of the University of California.

©copyright 1980, 1984, 1986 Novell, Inc.

©copyright 1986-1992 Sun Microsystems, Inc.

©copyright 1985-86, 1988 Massachusetts Institute of Technology.

©copyright 1989-93 The Open Software Foundation, Inc.

©copyright 1986 Digital Equipment Corporation.

©copyright 1990 Motorola, Inc.

©copyright 1990, 1991, 1992 Cornell University

©copyright 1989-1991 The University of Maryland

©copyright 1988 Carnegie Mellon University

**Trademark Notices.** HP-UX is an Open Group UNIX® 95 branded product.

UNIX® is a registered trademark of the Open Group.

X Window System is a trademark of the Massachusetts Institute of Technology.

OSF/Motif is a trademark of the Open Software Foundation in the U.S. and other countries.



---

## Contents

<b>1. Introducing the HP OpenView Smart Plug-In for Data Network Devices</b>	
What is the HP OpenView Smart Plug-In for Data Network Devices? . . . . .	10
What Does the Network SPI Do? . . . . .	11
How Does the Network SPI Work? . . . . .	12
<b>2. Installing the HP OpenView Smart Plug-In for Data Network Devices Software</b>	
Prerequisites . . . . .	16
Hardware/Software Requirements . . . . .	16
Network Devices Supported. . . . .	16
Installing/Reinstalling the Network SPI Software . . . . .	18
<b>3. Configuring the HP OpenView Smart Plug-In for Data Network Devices</b>	
Installing the OVO Agent . . . . .	23
Assigning the Network SPI Template Groups . . . . .	24
Distributing the Network SPI Templates. . . . .	27
Configuring the Network Device(s) . . . . .	29
Adding the Network Device(s) to the net_devices Node Group. . . . .	30
Assigning User Responsibilities . . . . .	31
<b>4. About the HP OpenView Smart Plug-In for Data Network Devices Templates</b>	
Standard Templates. . . . .	37
Templates for Cisco Network Devices. . . . .	38
Templates for f5 BIG-IP Network Devices . . . . .	44
Templates for Foundry Networks Network Devices. . . . .	46
Templates for Juniper Network Devices. . . . .	48
Templates for Nortel Networks Network Devices . . . . .	51
<b>5. Removing the HP OpenView Smart Plug-In for Data Network Devices</b>	
Deleting the Network SPI Templates and Template Group . . . . .	55
Deleting the Network SPI Application Bank . . . . .	59
Deleting the Network SPI Templates from the Managed Node(s) . . . . .	60
Removing the Network SPI Software . . . . .	63
<b>6. Troubleshooting the HP OpenView Smart Plug-In for Data Network Devices</b>	

---

## **Contents**

---

## **Printing History**

The manual printing date and version number indicate its current edition. The printing date will change when a new edition is printed. Minor changes may be made at reprint without changing the printing date. The version number will change when extensive changes are made.

Manual updates may be issued between editions to correct errors or document product changes. To ensure that you receive the updated or new editions, you should subscribe to the appropriate product support service. See your HP sales representative for details.

First Edition: January 2002

Second Edition: July 2002





---

# **1      Introducing the HP OpenView Smart Plug-In for Data Network Devices**

## **What is the HP OpenView Smart Plug-In for Data Network Devices?**

HP OpenView Smart Plug-Ins (SPIs) are ready-to-go modules that put the enterprise operations center back in control of application complexity with instant intelligence. They are pre-configured to easily install and link with the HP OpenView Operations (OVO) console to extend capabilities and more fully manage industry-leading business applications, e-commerce platforms, messaging services, databases, and Internet infrastructure.

HP OpenView Smart Plug-In for Data Network Devices (Network SPI) provides a template group with pre-configured message source templates. These templates consolidate status information from all supported and configured components and devices in the network infrastructure into a single screen. This reduces the time to isolate and repair problems in the network.

## What Does the Network SPI Do?

The Network SPI allows HP OpenView Operations to instantly monitor events (SNMP traps and system error messages) that occur on a network device.

The Network SPI does the following:

- Reduces the time-to-value for HP OpenView management solutions in the operations center by providing out-of-the-box coverage of the most popular network devices
- Enriches what the IT operations staff sees in the HP OpenView operations manager console
- Consolidates management information from networks, systems, services, and applications into a single-pane-of-glass
- Reduces event overload from popular network devices by providing out-of-the-box event filters to monitor only what is important

## How Does the Network SPI Work?

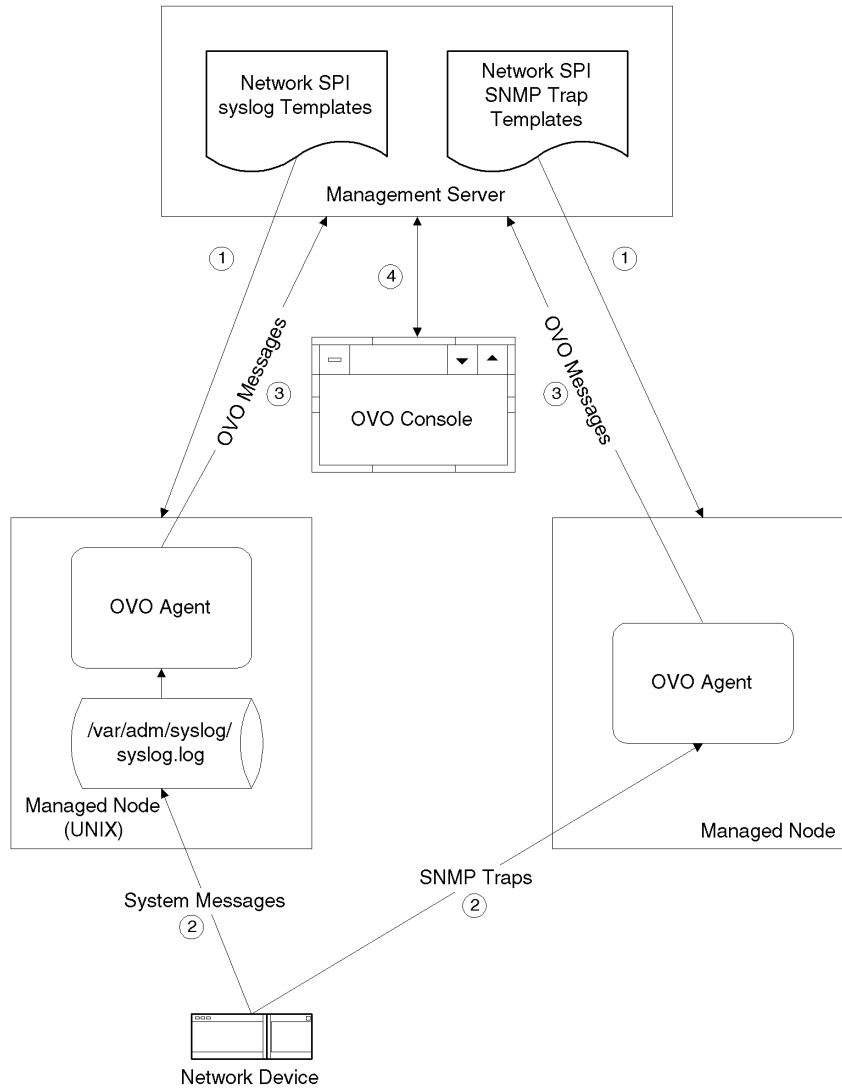
The Network SPI provides pre-configured message source templates that track events (SNMP traps and system error messages) that occur on a network device. These events appear as messages in the OVO Message Browser.

The following list refers to Figure 1-1, “How the Network SPI Works.”

1. Install the Network SPI software on your management server and configure your management server, managed node(s), and network device(s) to work with each other.
2. The OVO agent on a managed node intercepts SNMP traps and system error messages written to the `/var/adm/syslog/syslog.log` file from the network device(s).
3. The agent converts this information into OVO messages and forwards them to the management server.
4. The OVO operator can monitor the events that occur using the Message Browser and react with an appropriate response.

For information on how OVO works, refer to the *HP OpenView Operations for UNIX Concepts Guide*.

**Figure 1-1**      **How the Network SPI Works**



Introducing the HP OpenView Smart Plug-In for Data Network Devices  
**How Does the Network SPI Work?**

---

---

## **2**

# **Installing the HP OpenView Smart Plug-In for Data Network Devices Software**

## Prerequisites

HP OpenView Operations must be installed before you can use the HP OpenView Smart Plug-In for Data Network Devices (Network SPI).

## Hardware/Software Requirements

Operating System	HP-UX 11.0, 11.11, Solaris 2.7, 2.8
Memory	N/A
Disk Space	1.7 Mb in /opt/OV/OpC/integration 1.5 Mb for the OVO database
OVO Server and Agent	version 6.0 or later

## Network Devices Supported

The Network SPI supports the following network devices:

Cisco Network Devices	
AS5xxx Universal Access Server	AS5200, AS5300, AS5400, AS5800
3600 Series Router	3620, 3640, 3660
7xxx Series Router	7000, 7010, 7200, 7300, 7400, 7505, 7507, 7513, 7603, 7606, 7609
12xxx Series Internet Router	12004, 12008, 12012, 12016, 12410, 12416
Catalyst 2900 Series Switch	2900, 2926
Catalyst 2900 Series XL Switch	2912, 2924
Catalyst 3500 Series XL Switch	3512, 3524, 3548, 3524-PWR, 3508G



<b>Cisco Network Devices</b>	
Catalyst 3550 Series Switch	3550-24, 3550-48, 3550-12G, 3550-12T
Catalyst 4000 Series Switch	4003, 4006
Catalyst 5xxx Series Switch	5000, 5002, 5500, 5505, 5509
Catalyst 6xxx Series Switch	6006, 6009, 6506, 6509
CSS 11000 Content Services Switch	11050, 11150, 11800

<b>f5 Network Devices</b>	
BIG-IP	LoadBalancer

<b>Foundry Networks Network Devices</b>	
BigIron	4000, 8000, 15000

<b>Juniper Networks Network Devices</b>	
M-series Internet Router	M5, M10, M20, M40, M160

<b>Nortel Networks Network Devices</b>	
Alteon	180, 180e, and ACEdirector 2 and 3

## Installing/Reinstalling the Network SPI Software

To install or reinstall the Network SPI software on the OVO management server, do the following:

**Step 1.** Mount the OVO SPI application CD. Refer to *HP OpenView Operations for UNIX Application CD-ROM Release Notes* for more information.

**Step 2.** Use `swinstall` to install the B9159AA fileset.

*HP-UX*

On an HP-UX system, use the `swinstall` graphical user interface:

1. Type the following: `/usr/sbin/swinstall -s /<mount_point>/OV_DEPOT/VPO6_OVO7/11.0HPUX.sdtape`

The SD Install - Software Selection window appears.

2. Highlight B9159AA.

3. Select Actions: Mark for Install from the menu bar.

4. Select Actions: Install (Analysis) from the menu bar.

5. Verify that the analysis phase of the installation completes without errors by clicking on **Logfile**. This displays the `/var/adm/sw/swagent.log` log file. Correct any errors that appear.

6. Click on **OK** to continue with the installation.

7. Exit `swinstall` after the installation completes.

Or on an HP-UX system, use the command line:

1. Type the following: `/usr/sbin/swinstall -s /<mount_point>/OV_DEPOT/VPO6_OVO7/11.0HPUX.sdtape B9159AA`

2. Check the `/var/adm/sw/swagent.log` log file and correct any errors that appear.

*Solaris*

On a Solaris system, use the command line:

1. Type the following: `/usr/sbin/swinstall -s  
/<mount_point>/OV_DEPOT/VP06_OVO7/SOLARIS.sdtape B9159AA`
2. Check the `/var/adm/sw/swagent.log` log file and correct any errors that appear.

Installing the HP OpenView Smart Plug-In for Data Network Devices Software  
**Installing/Reinstalling the Network SPI Software**

---

---

# 3

# **Configuring the HP OpenView Smart Plug-In for Data Network Devices**

To configure the HP OpenView Smart Plug-In for Data Network Devices (Network SPI), do the following:

1. Install the OVO agent on the managed node(s).
2. Assign the Network SPI template group to the managed node(s).
3. Distribute the Network SPI templates to the managed node(s).
4. Configure your network device(s) to report to your managed node(s).
5. Add your network device(s) to the net\_devices node group.
6. Assign OVO user responsibilities.

## Installing the OVO Agent

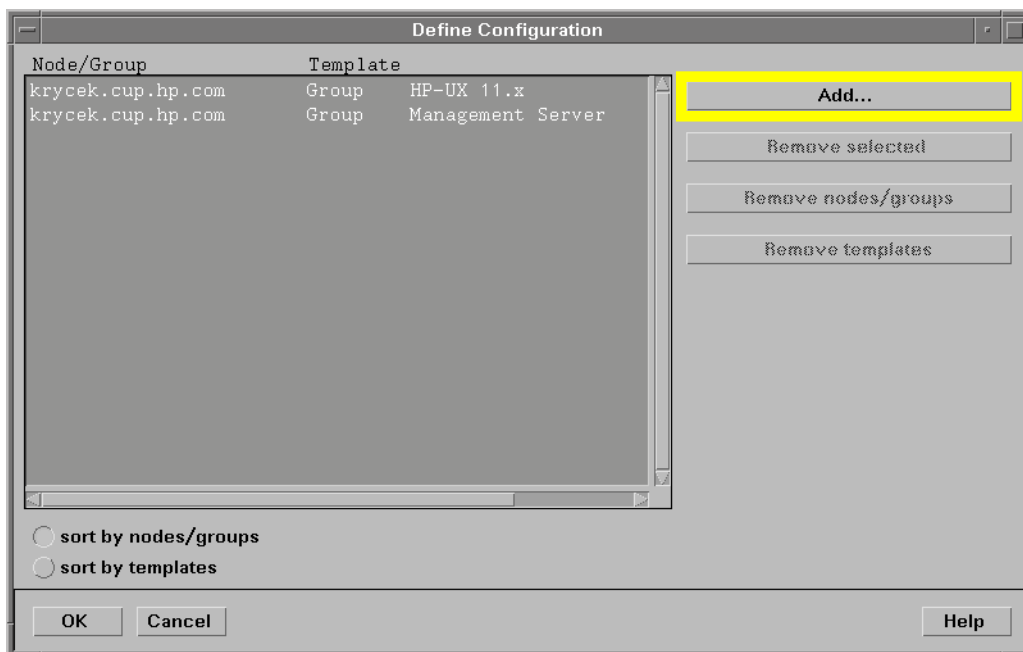
The first task in configuring the Network SPI is to install the OVO agent on the managed node(s). Refer to the *HP OpenView Operations for UNIX Administrator's Reference, Volume I* for information on how to install the OVO agent on a managed node.

---

## Assigning the Network SPI Template Groups

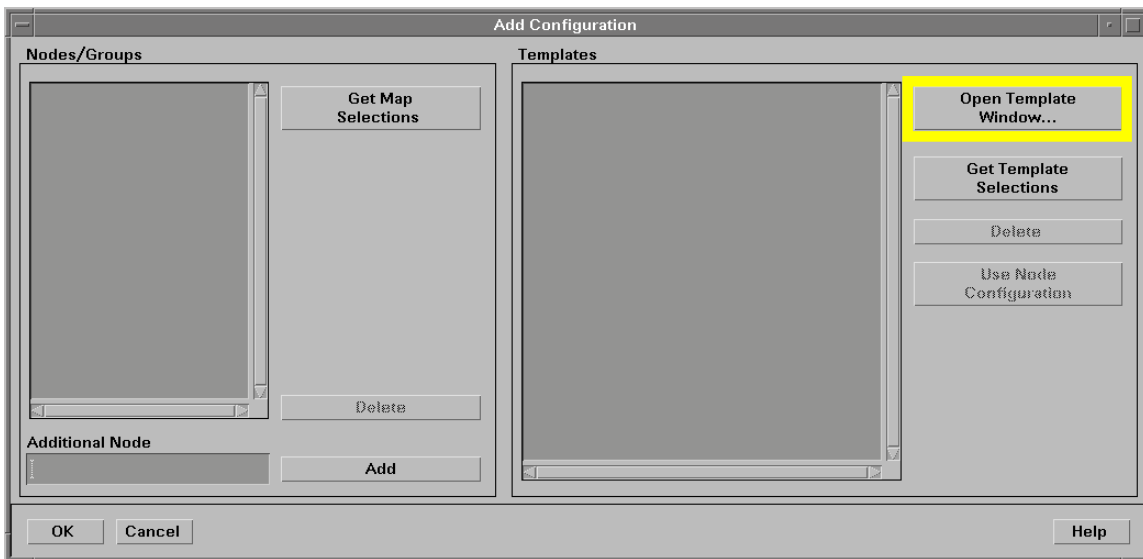
The second task in configuring the Network SPI is to assign templates to the managed node(s) that will be running the Network SPI.

- Step 1.** As the OVO administrator, open the Node Bank window.
- Step 2.** Choose the managed node(s) that will be running the Network SPI.
- Step 3.** Select Actions: Agents -> Assign Templates from the menu bar to open the Define Configuration window.
- Step 4.** Click on Add to open the Add Configuration window.

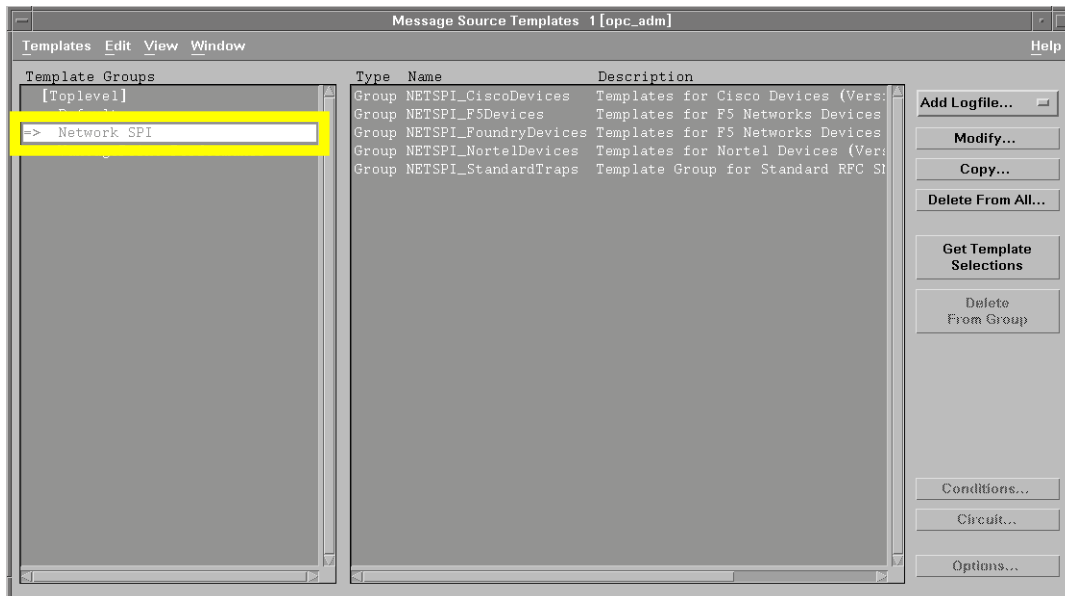




**Step 5.** Click on **Open Template Window** to open the Message Source Templates window.

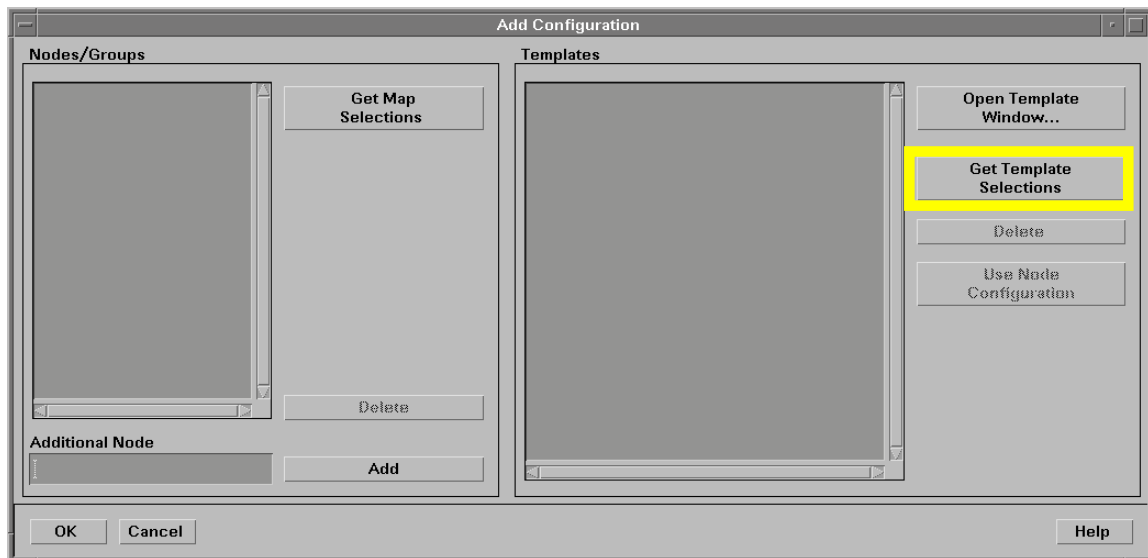


**Step 6.** From the Message Source Templates window, select **Network SPI** from the Template Groups list.



Configuring the HP OpenView Smart Plug-In for Data Network Devices  
Assigning the Network SPI Template Groups

**Step 7.** From the Add Configuration window, click on **Get Template Selections**. The Group Network SPI template appears under the Templates list.



**Step 8.** From the Add Configuration window, click **OK**.

**Step 9.** Close the Message Source Templates window.

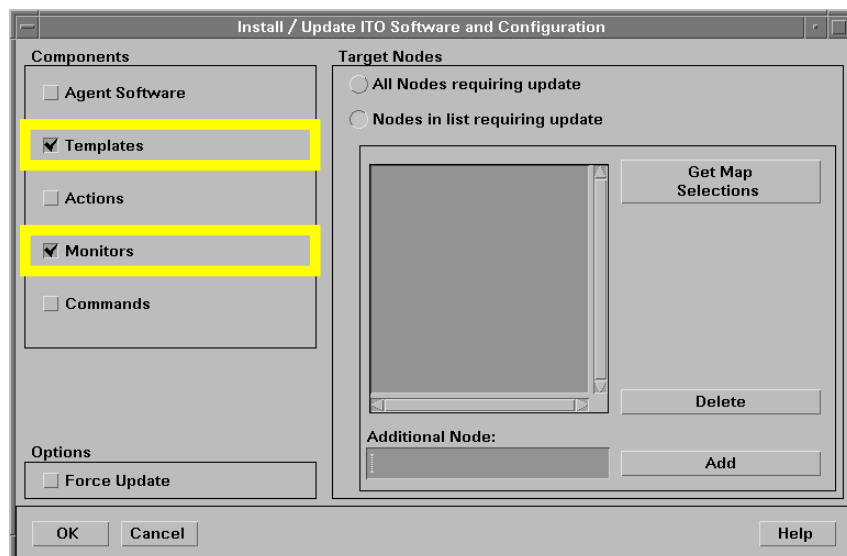
**Step 10.** From the Define Configuration window, click **OK**.

---

## Distributing the Network SPI Templates

The third task in configuring the Network SPI is to install the Network SPI templates on the management server and distribute them to the managed node(s).

- Step 1.** From the Node Bank window, choose the managed node(s) that will be running the Network SPI.
- Step 2.** Select **Actions: Agents -> Install/Update SW & Config** from the menu bar to open the **Install/Update ITO Software and Configuration** window.
- Step 3.** Select the checkboxes of the following components:
  - Templates
  - Monitors



- Step 4.** Click on **OK**.

- Step 5.** From the Node Bank window, select Window: Message Browser from the menu bar to open the Message Browser window. When the following message appears, the Network SPI templates have been distributed to the managed node(s).

The following configuration information was successfully distributed: Templates Monitors

## Configuring the Network Device(s)

The fourth task in configuring the Network SPI is to configure your network device(s) to report to the managed node(s). You must direct SNMP traps and syslog messages from the network device(s) to the managed node(s).

To direct SNMP traps from the network device(s) to the managed node(s), do the following:

- Step 1.** Set the SNMP trap destination on your network device(s) to the managed node(s).
- Step 2.** Enable all SNMP traps on your network device.
- Step 3.** If Network Node Manager (NNM) is *not* installed on your managed node(s), add the following to the `/opt/OV/bin/OpC/install/opcinfo` file:

```
SNMP_SESSION_MODE NO_TRAPD
```

To direct syslog messages from the network device(s) to the managed node(s), do the following:

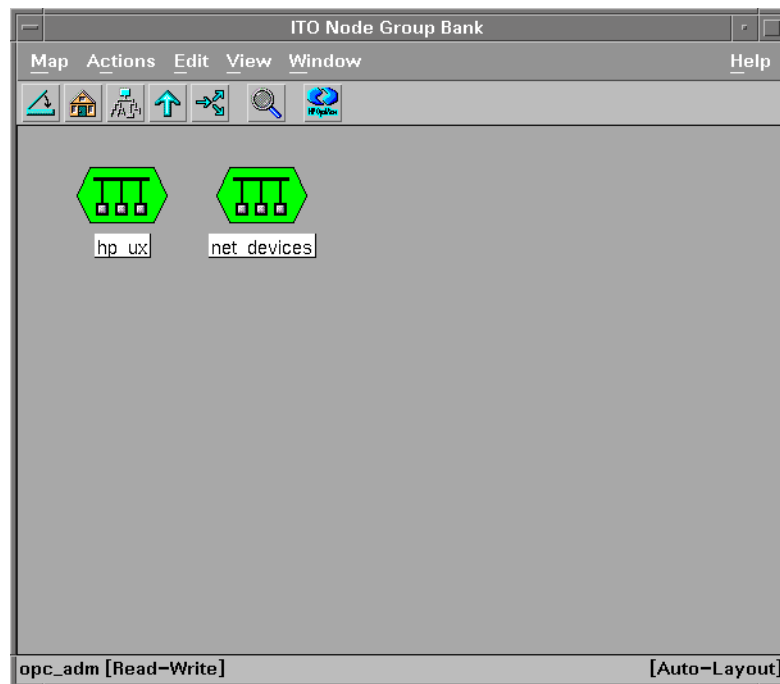
- Step 1.** Designate a managed node (this managed node must be a UNIX system) to receive syslog messages from your network device(s). Refer to your network device documentation for more information. syslog messages *must* be directed to `/var/adm/syslog/syslog.log` (for example, on a Solaris system, create a link from `/var/adm/messages` to `/var/adm/syslog/syslog.log`).
- Step 2.** From the Node Bank window, add this managed node as a controlled node. Refer to the online help and/or the “Adding Nodes” section in the *HP OpenView Operations for UNIX Concepts Guide* for more detailed information about adding nodes

---

## Adding the Network Device(s) to the net\_devices Node Group

The fifth task in configuring the Network SPI is to add the network device(s) to the net\_devices Node Group.

- Step 1.** Open the Node Group Bank window.



- Step 2.** Double-Click on net\_devices to open the NodeGroup: net\_devices window.
- Step 3.** Select Actions: Node -> Add from the menu bar to add your network device(s)

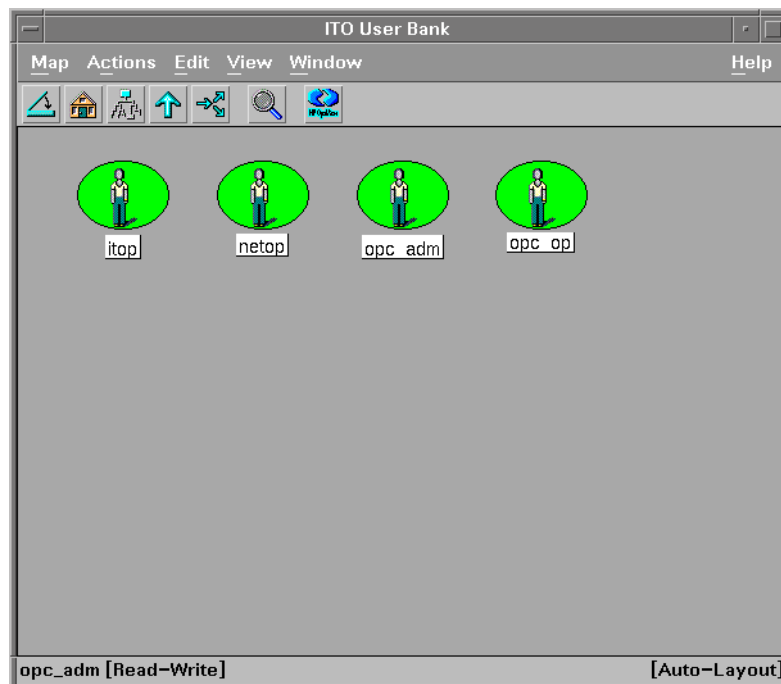
Refer to the online help and/or the “Adding Nodes” section in the *HP OpenView Operations for UNIX Concepts Guide* for more detailed information about adding nodes.

---

## Assigning User Responsibilities

The final task in configuring the Network SPI is to assign user responsibilities by assigning the Network message group to the net\_devices node group for a selected user.

**Step 1.** As the OVO administrator, open the User Bank window.



**Step 2.** Select a user (for example, opc\_op).

**Step 3.** From the User Bank window, select **Actions: User -> Modify** from the menu bar to open the Modify User window.

Configuring the HP OpenView Smart Plug-In for Data Network Devices  
Assigning User Responsibilities

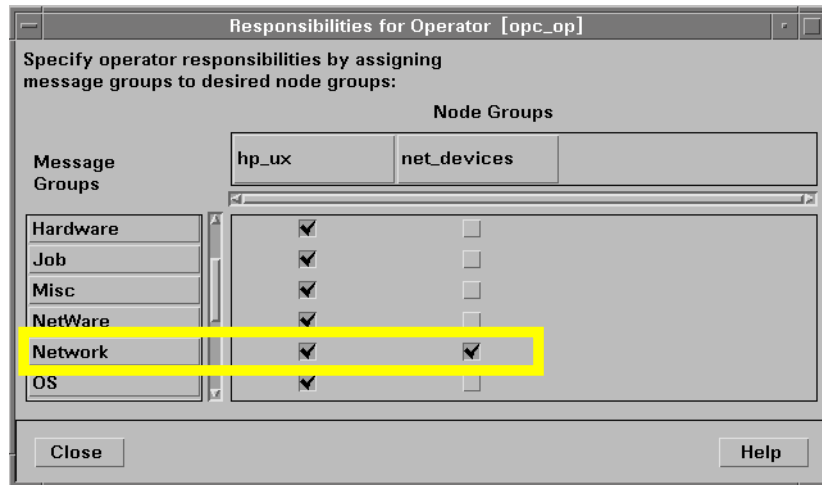
**Step 4.** Click on **Responsibilities** to open the Responsibilities for Operator window.

The screenshot shows a dialog box titled "Modify User: opc\_op". It contains several fields and sections:

- Name:** opc\_op
- Label:** opc\_op
- Password:** [masked with asterisks]
- Real Name:** ITO Default Operator
- Description:** ITO Default Operator
- Role Selection:** Radio buttons for "Template Administrator" and "Operator".
- Capabilities:** A section with four checked checkboxes: "Perform/Stop Actions", "Own/Disown Messages", "Modify Message Attributes", and "(Un-)Acknowledge Messages".
- Configuration:** A section with a "Node Hierarchy" field containing "NodeBank" and a "Get Map Selection" button.
- Action Buttons:** "Responsibilities..." (highlighted in yellow), "Applications...", and "Profiles..."
- Footer:** "Use Configuration of Selected User" and "OK", "Cancel", "Help" buttons.



- Step 5.** Scroll down the Message Group list to `Network` and select the `net_devices` checkbox.



- Step 6.** Click on **Close**.

- Step 7.** Click on **OK**.

Refer to the online help and/or the "Configuring and Maintaining ITO" chapter in the *HP OpenView Operations for UNIX Concepts Guide* for more detailed information about assigning user responsibilities.

Configuring the HP OpenView Smart Plug-In for Data Network Devices  
**Assigning User Responsibilities**

---

# **4      About the HP OpenView Smart Plug-In for Data Network Devices Templates**

This chapter provides the following information about the HP OpenView Smart Plug-In for Data Network Devices (Network SPI) templates:

- template name
- syslog file message types and their default severity levels
- SNMP traps monitored and their default severity levels

For information on using the templates in OVO, refer to the *HP OpenView Operations for UNIX Concepts Guide*.

For information on specific network device SNMP traps and syslog messages, refer to your network device's documentation.

## Standard Templates

The following templates can be used with any network device (see “Network Devices Supported” on page 16 for a list of supported network devices):

**Table 4-1 Standard Templates**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_BGP4-MIB	bgpEstablished bgpBackwardTransition	Normal Normal
NETSPI_BRIDGE-MIB	newRoot topologyChange	Warning Warning
NETSPI_ENTITY-MIB	entConfigChange	Minor
NETSPI_FRAME-MIB	frDLCIStatusChange	Warning
NETSPI_Generic	Authentication Failure EGP Neighbor Loss Cold Start Warm Start Link Down Link Up	Suppressed Suppressed Warning Normal Critical Normal
NETSPI_RSVP-MIB	newFlow lostFlow	Normal Normal

---

## Templates for Cisco Network Devices

The following templates can be used with Cisco network devices (see “Network Devices Supported” on page 16 for a list of supported Cisco network devices):

**Table 4-2**      **Templates for Cisco Network Devices**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_CSSMESSAGES	CHM-1 FLOWMGR-4 IPV4-4:Ipv4IfMgrCctUpdateMsg NETMAN-2 SYSSOFT-2 SYSSOFT-4	Critical Minor Minor Major Major Minor

**Table 4-2 Templates for Cisco Network Devices (Continued)**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_IOSMessages1 NETSPI_IOSMessages2	ALIGN-3-SPURIOUS CLEAR-5-COUNTERS HD-0-NOMEMORY HD-1-BADENCAP IP-3-BADIPALIGN	Major Warning Critical Critical Minor
	IP-3-BADSRROUTE IP-4-DUPADDR IPC-2-NOBUFFER IPFAST-4-RADIXDELETE IPRT-3-NOMEMORY	Minor Minor Critical Warning Major
	LANCE-1-NOMEMORY LANCE-5-COLL LANCE-5-LATECOLL NIM-2-BADSLOT OSPF-3-NOMEMORY	Critical Warning Warning Critical Major
	OSPF-4-BADLENGTH RPS-3-MULTFAIL SYS-2-BADSHARE SYS-2-CFORKMEM SYS-2-MALLOCFAIL	Warning Critical Critical Critical Critical
	SYS-3-CONFIG_NV_ERR SYS-3-CPUHOG TCPIP-0-PANIC ALL CRITICAL IOS MESSAGES ALL MAJOR IOS MESSAGES	Minor Major Critical Critical Major
	ALL MINOR IOS MESSAGES ALL WARNING IOS MESSAGES ALL NORMAL IOS MESSAGES	Minor Warning Normal
NETSPI_PIXMessages	ALL CRITICAL PIX MESSAGES ALL MAJOR PIX MESSAGES ALL MINOR PIX MESSAGES	Critical Major Minor
NETSPI_ACCOUNTING-CONTROL-MIB	acctngFileNearlyFull acctngFileFull	Warning Critical
NETSPI_ATM-SOFT-PVC-MIB	atmSoftPvcCallFailuresTrap	Warning

**Table 4-2 Templates for Cisco Network Devices (Continued)**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_CISCO-ACCESS-ENVON-MIB	caemTemperatureNotification caemVoltageNotification	Warning Major
NETSPI_CISCO-ARROWPOINT	apTermSessionLoginFailureTrap apSnmpExtReloadTrap apFlowMgrExtDOSSynTrap apFlowMgrExtDosPingTrap apFlowMgrExtDosSmurfTrap	Major Critical Critical Critical Critical
	apSvcTransitionTrap apFlowMgrExtDosLandTrap apFlowMgrExtDosIllegalTrap	Major Critical Critical
NETSPI_CISCO-ATM-DUAL-PHY-MIB	ciscoAtmDualPhyChange	Warning
NETSPI_CISCO-CHANNEL-MIB	cipCardLinkFailure cipCardDtrBrdLink	Critical Warning
NETSPI_CISCO-CLUSTER-MIB	ccStatusMemberStatusChange	Major
NETSPI_CISCO-CONFIG-MAN-MIB	ciscoConfigManEvent	Suppressed
NETSPI_CISCO-CONTENT-ENGINE-MIB	ciscoContentEngineWriteDiskError ciscoContentEngineWriteTransFailed ciscoContentEngineOverloadBypass ciscoContentEngineDataDiskFailed ciscoContentEngineReadDiskError	Major Major Warning Major Major
NETSPI_CISCO-CONTENT-NETWORK-MIB	ccnNotifNeedsAttention ccnNotifWaitingForCdm ccnNotifOnline ccnNotifOffline	Major Major Normal Major
NETSPI_CISCO-DEVICE-EXCEPTION-REPORTING-MIB	cderrMonitoredExceptionEvent	Major
NETSPI_CISCO-DSP-MGMT-MIB	cdspMIBCardStateNotification	Major
NETSPI_CISCO-DSPU-MIG	apSnmpExtReloadTrap	Major



**Table 4-2 Templates for Cisco Network Devices (Continued)**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_CISCO-ENVMON-MIB	ciscoEnvMonRedundantSupplyNotification ciscoEnvMonShutdownNotification ciscoEnvMonVoltageNotification ciscoEnvMonTemperatureNotification ciscoEnvMonFanNotification	Major Critical Major Major Major
NETSPI_CISCO-FLASH-MIB	ciscoFlashCopyCompletionTrap ciscoFlashPartitioningCompletionTrap ciscoFlashMiscOpCompletionTrap cisocFlashDeviceChangeTrap	Normal Normal Normal Normal
NETSPI_CISCO-FLOWMGREXT-MIB	apFlowMgrExtDosSynTrap apFlowMgrExtDosLandTrap apFlowMgrExtDosIllegalTrap apFlowMgrExtDosPingTrap apFlowMgrExtDosSmurfTrap	Critical Critical Critical Critical Critical
NETSPI_CISCO-GATEKEEPER-MIB	ciscoGatekeeperEvent	Minor
NETSPI_CISCO-HSRP-MIB	cHsrpStateChange	Warning
NETSPI_CISCO-ICSUDSU-MIB	ciscoICsuDsuT1LoopStatusNotification ciscoICsuDsuSw56kLoopStatusNotification	Minor Minor
NETSPI_CISCO-IETF-ATM2-PVCTRAP-MIB	atmIntfPvcFailuresTrap	Major
NETSPI_CISCO-IF-THRESHOLD-MIB	cifthTemplateIfStatusChange cifthIfThresholdCleared cifthIfThresholdFired	Major Normal Warning
NETSPI_CISCO-IP-ENCRYPTION-MIB	cieTestCompletion	Normal
NETSPI_CISCO-LOCAL-DIRECTOR-MIB	ciscoLocalDirectorFailoverCableChange ciscoLocalDirectorFailoverUnitStatus ciscoLocalDirectorExVrtualStateChange ciscoLocalDirectorERealStateChange ciscoLocalDirectorFailoverEnablechange	Normal Warning Warning Warning Normal

**Table 4-2 Templates for Cisco Network Devices (Continued)**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_CISCO-NETWORK-REGISTRAR-MIB	ciscoNetRegServerStart ciscoNetRegDNSQueueTooBig ciscoNetRegOtherServerNotResponding ciscoRegDuplicateAddress ciscoNetRegAddressConflict	Normal Major Warning Warning Minor
	ciscoNetRegOtherServerResponding ciscoNetRegFailoverConfigMismatch ciscoNetRegServerStop ciscoNetRegFreeAddressHigh ciscoNetRegFreeAddressLow	Normal Major Normal Warning Warning
NETSPI_CISCO-PIM-MIB	ciscoPimInvalidJoinPrune ciscoPimInvalidRegister ciscoPimInterfaceDown ciscoPimInterfaceUp	Warning Warning Warning Normal
NETSPI_CISCO-SLB-MIB	ciscoSlbRealStateChange ciscoSlbVirtualStateChange	Warning Warning
NETSPI_CISCO-STACK-MIB	ipPermitDeniedTrap lerAlarmOn lerAlarmOff moduleUp moduleDown chassisAlarmOn chassisAlarmOff	Suppressed Warning Normal Normal Major Warning Normal
NETSPI_CISCO-STP-EXTENSIONS-MIB	stpInconsistencyUpdate stpRootInconsistencyUpdate	Warning Warning
NETSPI_CISCO-SVCEXT-MIB	apSvcTransitionTrap	Major
NETSPI_CISCO-SYSLOG-MIB	N/A	
NETSPI_CISCO-VLAN-MEMBERSHIP	vmVmpsChange	Warning
NETSPI_CISCO-VOICE-DIAL-CONTROL-MIB	cvdcPoorQoVNotification	Minor

**Table 4-2            Templates for Cisco Network Devices (Continued)**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_CISCO-VTP-MIB	vtpConfigRevNumberError vtpConfigDigestError vtpServerDisabled vtpMtuTooBig vtpVlanRingNumberConfigConflict vtpVersionOneDeviceDetected vlanTrunkPortDynamicStatusChange	Warning Warning Warning Warning Warning Warning Warning
NETSPI_CISCO_SNMPEXT-MIB	apSnmExtReloadTrap	Major
NETSPI_CISCO_TERMINALMGMT-MIB	apTermSessionLoginFailureTrap	Warning

## Templates for f5 BIG-IP Network Devices

The following templates can be used with f5 BIG-IP network devices (see “Network Devices Supported” on page 16 for a list of supported f5 BIG-IP network devices):

**Table 4-3**      **Templates for f5 BIG-IP Network Devices**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_F5-3DNS-TRAPMessages	POOL YELLOW TO GREEN ECV RED TO GREEN ECV GREEN TO RED POOL GREEN TO YELLOW VIRTUAL SERVER RED TO GREEN	Normal Normal Critical Minor Normal
	SERVER RED TO GREEN CRC FAILURE SERVER GREEN TO RED ACTIVE TO STANDBY STANDBY TO ACTIVE VIRTUAL SERVER GREEN TO RED	Normal Critical Critical Warning Normal Critical
NETSPI_F5Messages	ABORT MESSAGE SHUTDOWN MESSAGE NODE UP MESSAGE NODE DOWN MESSAGE SERVICE UP MESSAGE SERVICE DOWN MESSAGE	Critical Warning Normal Critical Normal Critical
NETSPI_3DNS-MIB	threeDnsTrapVSRedToGreen threeDnsTrapServerRedToGreen threeDnsTrapServerGreenToRed threeDnsTrapCRCFailure threeDnsTrapStandbyToActive	Normal Normal Critical Critical Normal
	threeDnsTrapActiveToStandby threeDnsTrapPoolGreenToYellow threeDnsTrapPoolYellowToGreen threeDnsTrapECVGreenToRed threeDnsTrapECVRedToGreen threeDnsTrapVSGreenToRed	Minor Minor Normal Critical Normal Critical

**Table 4-3            Templates for f5 BIG-IP Network Devices (Continued)**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_BIG-IP-MIB	loadBalTrapMisc loadBalTrapServiceDown loadBalTrapServiceUP loadBalTrapReset loadBalTrapDenial	Major Critical Normal Normal Major
	loadBalTrapLogin loadBalTrapRemoveUnit loadBalTrapAddUnit	Normal Major Normal

## Templates for Foundry Networks Network Devices

The following templates can be used with Foundry Networks network devices (see “Network Devices Supported” on page 16 for a list of supported Foundry Networks network devices):

**Table 4-4**      **Templates for Foundry Networks Network Devices**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_FOUNDRYMessages	CRITICAL MESSAGES MAJOR MESSAGES WARNING MESSAGES	Critical Major Warning

**Table 4-4            Templates for Foundry Networks Network Devices (Continued)**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_FOUNDRY-MIB	snTrapChasPwrSupply snTrapChasPwrSupplyFailed snTrapChasFanFailed snTrapTemperatureWarning snTrapDuplicateIp	Critical Critical Minor Critical Major
	snTrapL4MaxSessionLimitReached snTrapL4TcpSynLimitReached snTrapL4RealServerUp snTrapL4RealServerDown snTrapL4RealServerPortUp	Major Major Normal Major Normal
	snTrapL4RealServerPortDown snTrapL4RealServerMaxConnectionLimitReached snTrapL4BecomeStandby snTrapL4BecomeActive snTrapL4GslbRemoteUp	Major Major Warning Normal Normal
	snTrapL4GslbRemoteDown snTrapL4GslbRemoteControllerUp snTrapL4GslbRemoteControllerDown snTrapL4GslbHealthCheckIpUp snTrapL4GslbHealthCheckIpDown	Major Normal Major Normal Major
	snTrapL4GslbHealthCheckIpPortUp snTrapL4GslbHealthCheckIpPortDown snTrapL4FirewallBecomeStandby snTrapL4FirewallBecomeActive snTrapL4FirewallPathUp	Normal Major Major Normal Normal
	snTrapL4FirewallPathDown snTrapL4ContentVerification	Minor Normal

## Templates for Juniper Network Devices

The following templates can be used with Juniper network devices (see “Network Devices Supported” on page 16 for a list of supported Juniper network devices):

**Table 4-5**      **Templates for Juniper Network Devices**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_DCD-SYSLOGMessages	DCD_CLOSE_SOCKET_FAILED DCD_FW_PARSE_ERROR DCD_MALLOC_FAILED DCD_OPEN_SOCKET_FAILED DCD_PARSE_EMERGENCY DCD_PARSE_ERROR DCD_AS_ROOT	Critical Critical Critical Critical Critical Critical Critical
NETSPI_RPD-SYSLOGMessages	RPD_ISIS_ADJUP RPD_ISIS_LSPCKSUM RPD_ISIS_OVERLOAD RPD_ISO_SYSIDDUP RPD_OSPF_NBRDOWN RPD_OSPF_NBRUP RPD_RDISC_NOMULTI RPD_ISIS_ADJDOWN	Normal Critical Critical Critical Major Critical Critical Critical



**Table 4-5 Templates for Juniper Network Devices (Continued)**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_UI-SYSLOGMessages	UI_CMDLINE_READ_LINE UI_COMMIT_ROLLBACK_FAILED UI_DAEMON_ACCEPT_FAILED UI_DAEMON_CHILD_EXITED UI_DAEMON_CHILD_SIGNED	Normal Critical Critical Critical Critical
	UI_DAEMON_CHILD_STOPPED UI_DAEMON_SELECT_FAILED UI_DAEMON_SOCKET_FAILED UI_DBASE_ACCESS_FAILED UI_DBASE_CHECKOUT_FAILED	Critical Critical Critical Critical Critical
	UI_DBASE_EXTEND_FAILED UI_DBASE_LOGIN_EVENT UI_DBASE_LOGOUT_EVENT UI_DBASE_MISMATCH_ENDIAN UI_DBASE_MISMATCH_MAJOR	Critical Normal Normal Critical Critical
	UI_LOST_CONN UI_MGD_DAEMON_NOT_ME UI_MGD_TERMINATE UI_LOAD_EVENT UI_DBASE_REOPEN_FAILED	Critical Critical Critical Normal Critical
	UI_DBASE_RECREATE UI_DBASE_REBUILD_SCHEMA_FAILED UI_DBASE_OPEN_FAILED UI_DBASE_MISMATCH_SIZE UI_SCHEMA_MISMATCH_MINOR	Critical Critical Critical Critical Critical
	UI_DBASE_MISMATCH_SEQUENCE UI_DBASE_MISMATCH_MINOR UI_AUTH_INVALID_CHALLENGE	Critical Critical Critical
NETSPI_Juniper-CHASSIS-MIB	jnxFanFailure jnxOverTemperature jnxRedundancySwitchover jnxPowerSupplyFailure	Minor Minor Critical Critical

**Table 4-5**                    **Templates for Juniper Network Devices (Continued)**

<b>Template Name</b>	<b>syslog Messages/SNMP Traps Monitored</b>	<b>Default Severity</b>
NETSPI_Juniper-MPLS-MIB	mplsLspChange mplsLspDown mplsLspUp	Normal Critical Normal

## Templates for Nortel Networks Network Devices

The following templates can be used with Nortel Networks network devices (see “Network Devices Supported” on page 16 for a list of supported Nortel Networks network devices):

**Table 4-6**      **Templates for Nortel Networks Network Devices**

Template Name	syslog Messages/SNMP Traps Monitored	Default Severity
NETSPI_WEBOSMessages	CRITICAL WEBOS MESSAGES MAJOR WEBOS MESSAGES	Critical Major
NETSPI_Altrap	altSwRedunPowerSupplyFailure altSwDefGwInService altSwDefGwNotInService altSwSlbRealServerUp altSwSlbRealServerMaxConnReached	Major Normal Major Normal Critical
	altSwSlbBkupRealServerAct altSwSlbBkupRealServerDeact altSwSlbBkupRealServerActOverflow altSwSlbBkupRealServerDeactOverflow altSwSlbFailoverStandby	Major Minor Critical Normal Normal
	altSwSlbRealServerServiceUp altSwSlbRealServerServiceDown altswfltFilterFired altSwFailoverSwitchUp altSwSlbFailoverSwitchDown	Normal Critical Suppressed Normal Critical
	altSwSlbFailoverActive altSwRealServerDown altSwDefGwUp altSwDefGwDown altSwPrimaryPowerSupplyFailure	Critical Major Normal Major Major

About the HP OpenView Smart Plug-In for Data Network Devices Templates  
**Templates for Nortel Networks Network Devices**

---

# **5 Removing the HP OpenView Smart Plug-In for Data Network Devices**

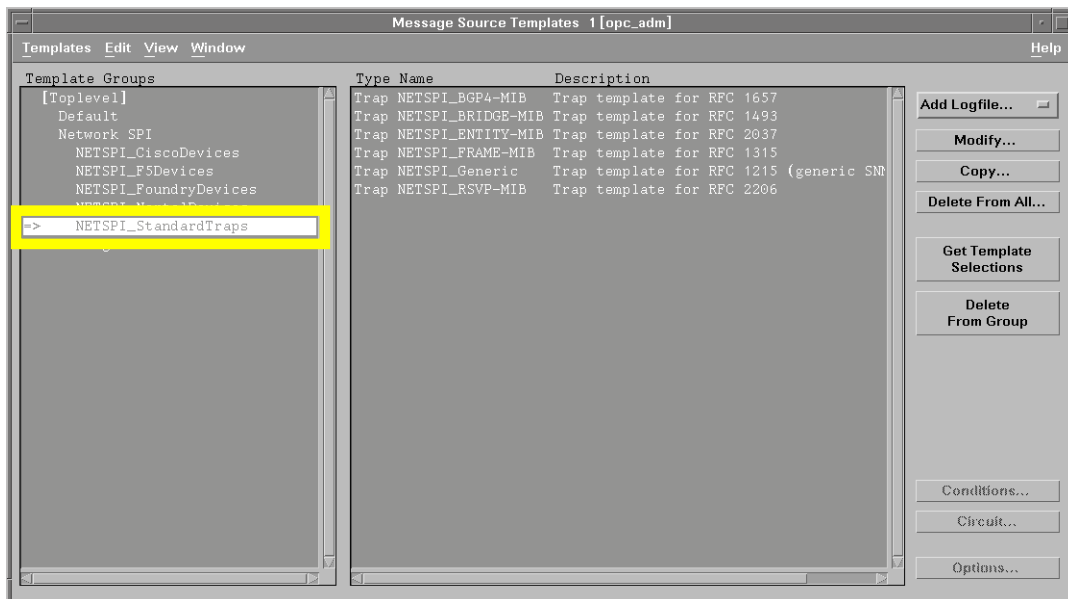
To completely remove the HP OpenView Smart Plug-In for Data Network Devices (Network SPI), do the following:

1. Delete the Network SPI templates and template groups from the management server.
2. Delete the Network SPI application bank from the management server.
3. Delete the Network SPI templates from the managed node(s).
4. Remove the Network SPI software from the management server.

## Deleting the Network SPI Templates and Template Group

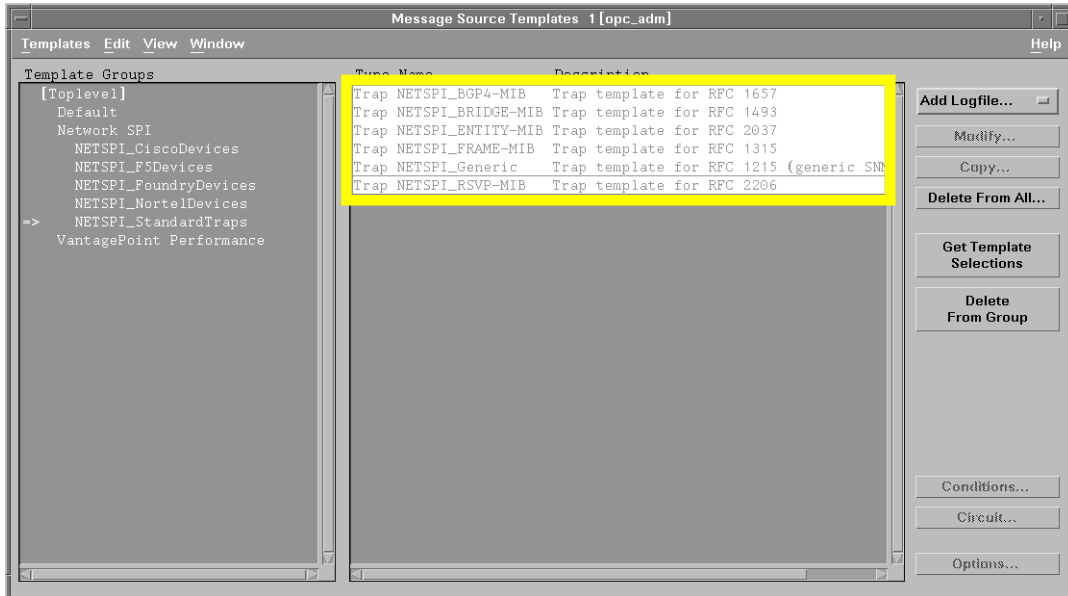
To delete the templates and template groups from your management server, do the following:

- Step 1.** As the OVO administrator, open the Message Source Templates window.
- Step 2.** Double-Click on the Network SPI template group.
- Step 3.** Select one of the NETSPI template groups.

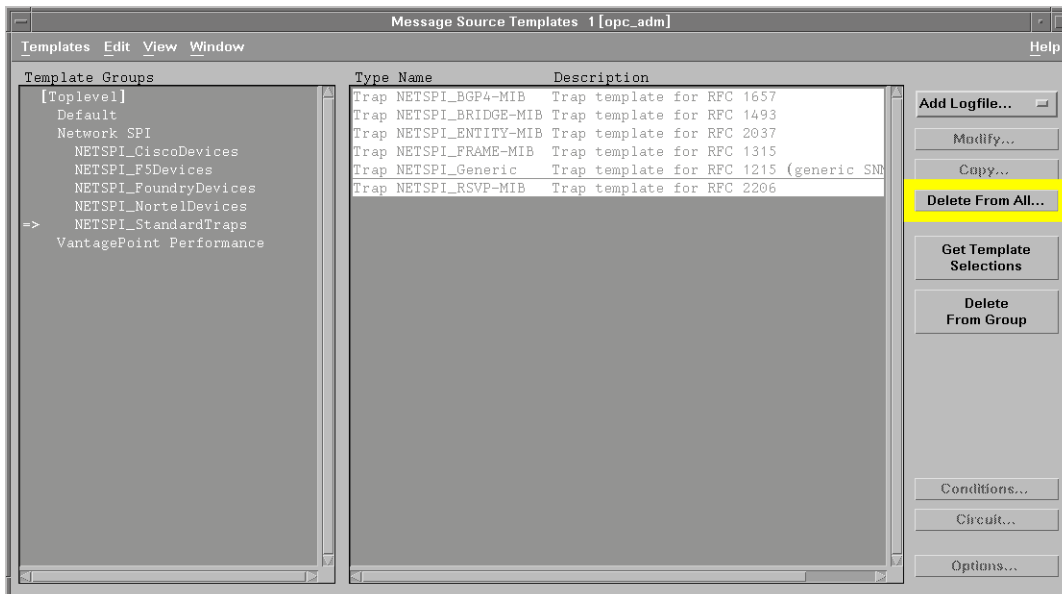


Removing the HP OpenView Smart Plug-In for Data Network Devices  
Deleting the Network SPI Templates and Template Group

**Step 4.** Highlight all the logfile and trap templates listed in the right window.



**Step 5.** Click on Delete from All to delete the templates.



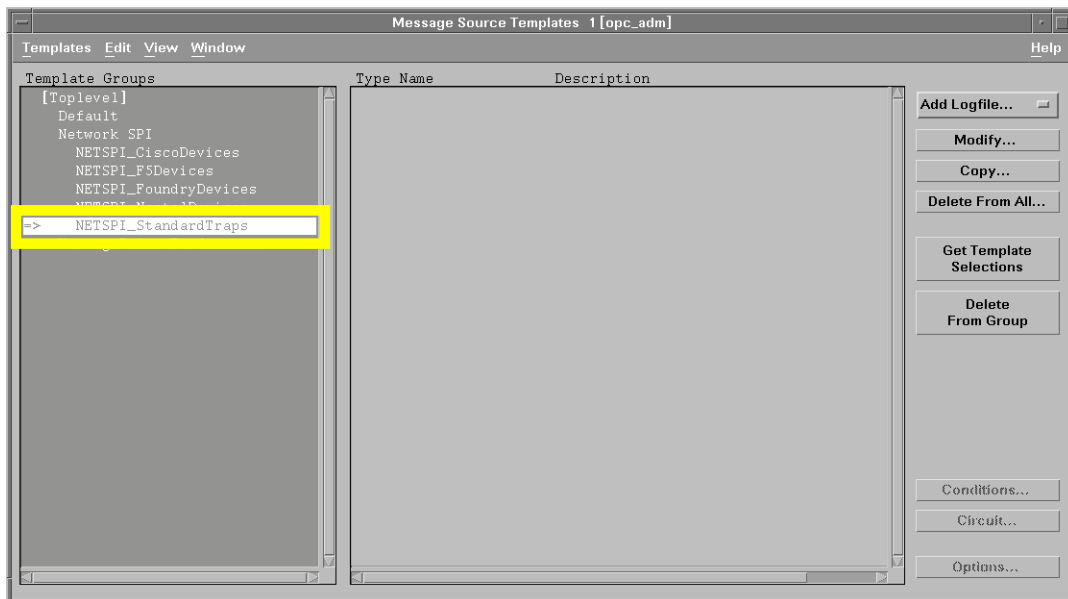


Removing the HP OpenView Smart Plug-In for Data Network Devices  
Deleting the Network SPI Templates and Template Group

**Step 6.** Click on **Yes** at the Do you really want to delete the template(s)? prompt.

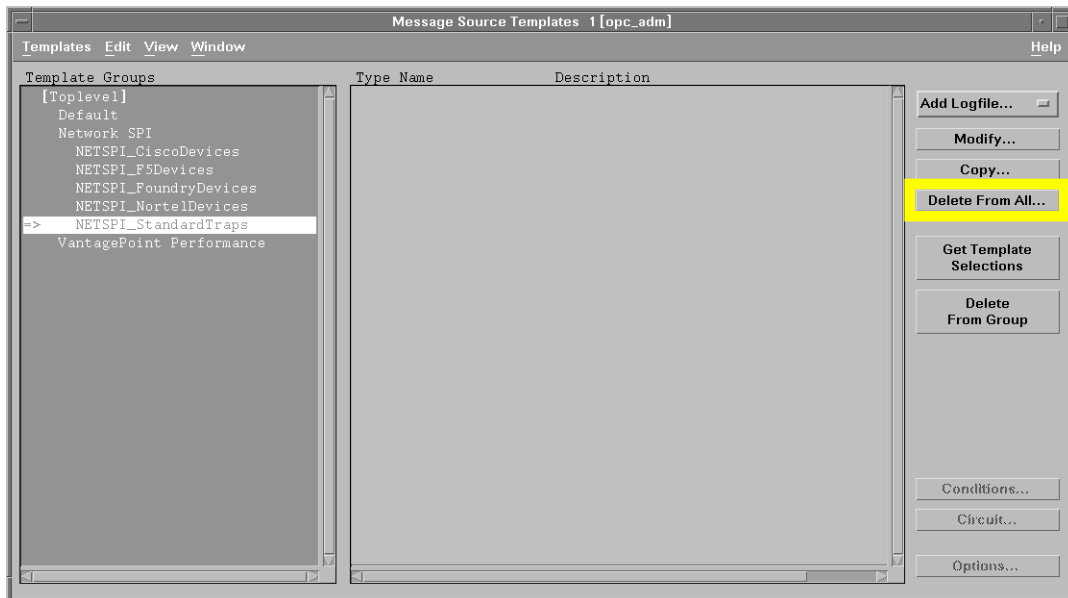
**Step 7.** Repeat steps 3 - 6 for each NETSPI template group.

**Step 8.** Select one of the NETSPI template groups.



Removing the HP OpenView Smart Plug-In for Data Network Devices  
Deleting the Network SPI Templates and Template Group

**Step 9.** Click on **Delete from All** to delete the template group.



**Step 10.** Click on **Yes** at the Do you really want to delete the template(s)? prompt.

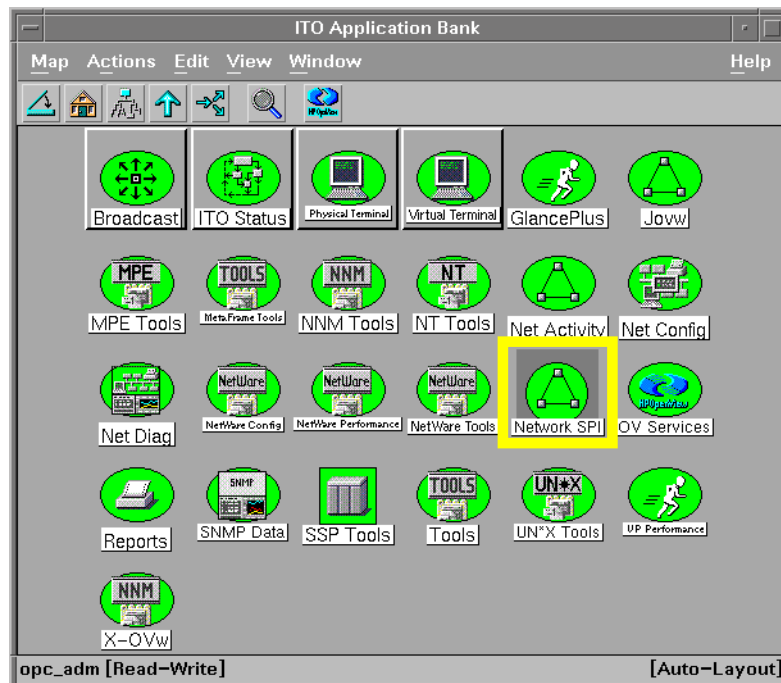
**Step 11.** Repeat steps 8 - 10 for each NETSPI template group and the Network SPI template group.

---

## Deleting the Network SPI Application Bank

To delete the application bank from your management server, do the following:

- Step 1.** As the OVO administrator, open the Application Bank window.
- Step 2.** Select the Network SPI icon.



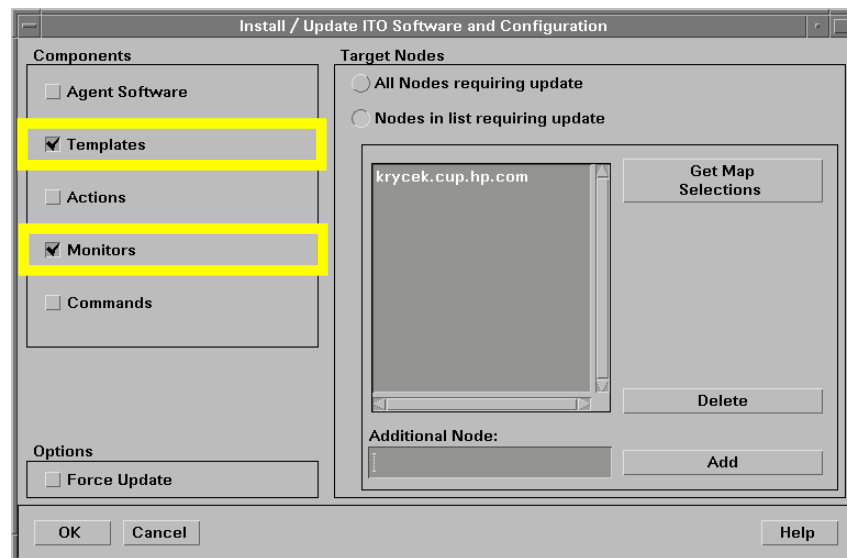
- Step 3.** Select Actions: Application -> Delete from the menu bar.
- Step 4.** Click on **Yes** at the Do you really want to delete the applications application groups? prompt.

---

## Deleting the Network SPI Templates from the Managed Node(s)

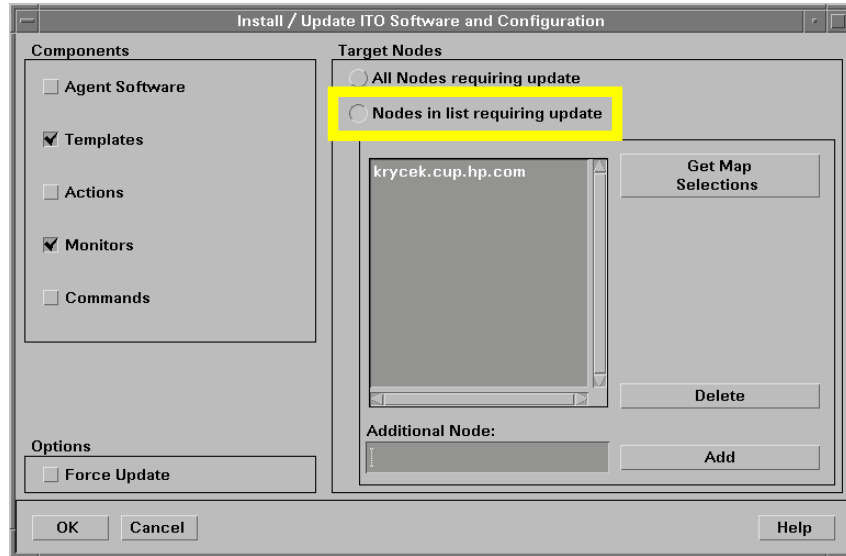
To delete the templates from your managed node(s), do the following:

- Step 1.** As the OVO administrator, open the Node Bank window.
- Step 2.** Select the managed node(s).
- Step 3.** Select Actions: Agents -> Install/Update SW & Config from the menu bar.
- Step 4.** Select the checkboxes of the following components:
  - Templates
  - Monitors

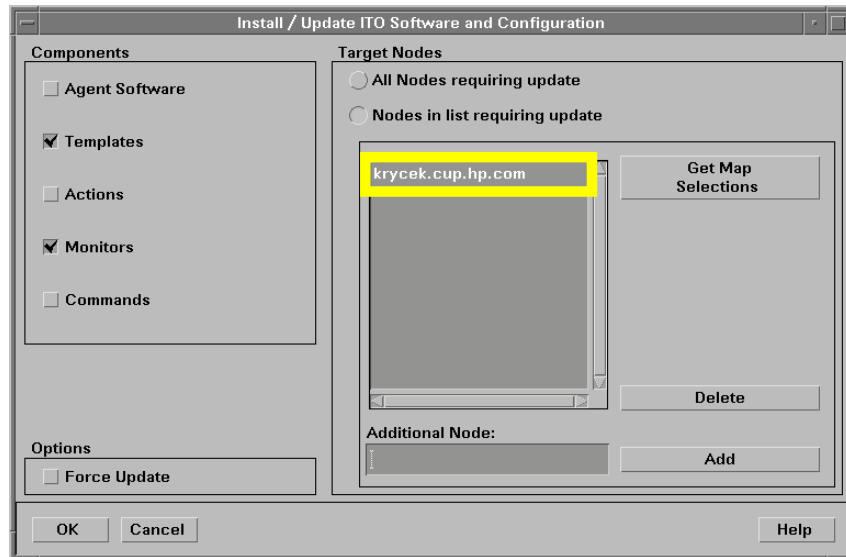


Removing the HP OpenView Smart Plug-In for Data Network Devices  
Deleting the Network SPI Templates from the Managed Node(s)

**Step 5.** Select Nodes in list requiring update.

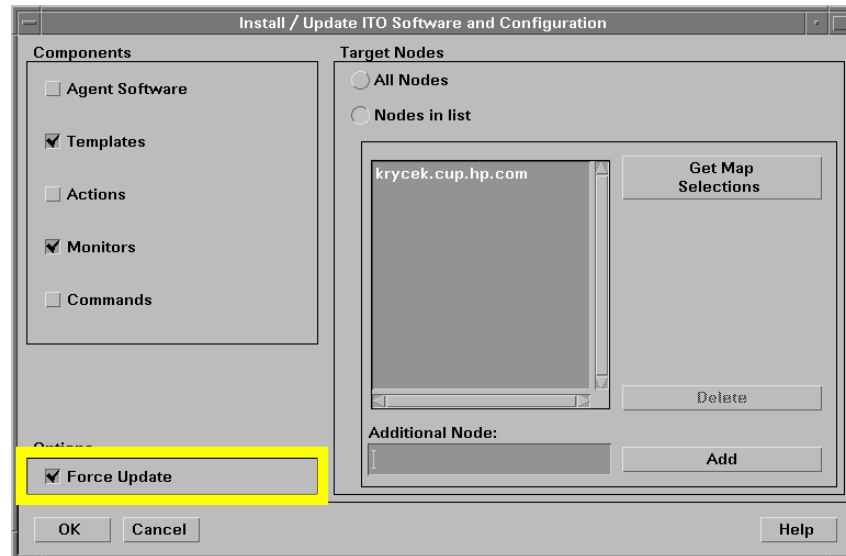


**Step 6.** Make sure all the managed nodes appear in the Target Node Listbox.



Removing the HP OpenView Smart Plug-In for Data Network Devices  
Deleting the Network SPI Templates from the Managed Node(s)

**Step 7.** Click on Force Update.



**Step 8.** Click on OK.

**Step 9.** Open the Message Browser window. When the following message appears, the Network SPI templates have been deleted from your managed node(s).

The following configuration information was successfully distributed: Templates Monitors

## Removing the Network SPI Software

To remove the Network SPI software from the management server, do the following:

- Step 1.** Use `swremove` to remove the software.

Type the following: `/usr/sbin/swremove B9159AA`

Removing the HP OpenView Smart Plug-In for Data Network Devices  
**Removing the Network SPI Software**



---

# **6 Troubleshooting the HP OpenView Smart Plug-In for Data Network Devices**

If you are having problems with the HP OpenView Smart Plug-In for Data Network Devices (Network SPI), check the following:

- ❑ OVO is installed and running on the management server. Refer to the following manuals for more information on OVO: *HP OpenView Operations for UNIX Concepts Guide*, *HP OpenView Operations for UNIX Installation Guide for the Management Server*, *HP OpenView Operations for UNIX Administrator's Reference Volume I*, *HP OpenView Operations for UNIX Administrator's Reference Volume II*, *HP OpenView Operations for UNIX Error Message Reference*, and *HP OpenView Operations for UNIX Software Release Notes*.
- ❑ The Network SPI template group is assigned to the managed node(s). Refer to “Assigning the Network SPI Template Groups” on page 24 for more information.
- ❑ The Network SPI templates are distributed to the managed node(s). Refer to “Distributing the Network SPI Templates” on page 27 for more information.
- ❑ SNMP traps from your network device(s) are directed to the managed node(s). Refer to “Configuring the Network Device(s)” on page 29 for more information.
- ❑ syslog messages from your network device(s) are directed to the managed node(s). Refer to “Configuring the Network Device(s)” on page 29 for more information.
- ❑ If Network Node Manager is *not* installed on your managed node, the `/opt/OV/bin/OpC/install/opcinfo` file has been updated. Refer to “Configuring the Network Device(s)” on page 29 for more information.
- ❑ The syslog daemon (`syslogd`) is up and running on the managed node(s) that are receiving the syslog messages.
- ❑ System error messages are being logged to the `/var/adm/syslog/syslog.log` file on the managed node(s).
- ❑ The network device(s) have been added to the `net_devices` node group. Refer to “Adding the Network Device(s) to the `net_devices` Node Group” on page 30 for more information.
- ❑ OVO user responsibilities are assigned. Refer to “Assigning User Responsibilities” on page 31 for more information.

For more information about troubleshooting OVO, refer to *HP OpenView Operations for UNIX Administrator's Reference Volume I*.