

# **HP OpenView Service Information Portal 2.0**

## **Getting Started**

**Windows NT®, Windows® 2000, HP-UX, and Solaris**



**Manufacturing Part Number: J4797-90000**

**April 2001**

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## Glossary

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## Conventions

The following typographical conventions are used in this manual.

Font	What the Font Represents	Example
<i>Italic</i>	For book or manual titles, and for manpage names.	Refer to the <i>OVW Developer's Guide</i> .
	To provide emphasis.	You <i>must</i> follow these steps.
	To specify a variable that you must supply when entering a command.	At the prompt type: <b>rlogin</b> <i>your_name</i> where you supply your login name.
<b>Bold</b>	For glossary terms.	The <b>distinguishing attribute</b> of this class...
Computer	Text and items on the computer screen.	The Root map window ... The system replies: Press Enter
	Command names	Use the grep command ...
	File and directory names.	/usr/bin/X11
	Process names.	Check to see if pmd is running.
	Window/dialog box names	In the IP Internet map window...
<b>Computer Bold</b>	Text that you must enter.	At the prompt, type: <b>ovstatus</b> .
<b>Keycap</b>	Keyboard keys.	Press <b>Return</b> .
[Button]	Buttons on the user interface.	Click [NET]. Click on the [Apply] button.
Menu Items	A menu name followed by a colon (:) means that you select the menu, then the item. When the item is followed by an arrow (->), a cascading menu follows.	Select Edit:Find->Objects by Comment



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## Contact Information

### Technical Support and Training

Technical support and training information can be found on the HP OpenView World Wide Web site at:

<http://openview.hp.com/>

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### Documentation Feedback

Your comments on and suggestions for the documentation help us understand your needs and better meet them.

You can provide feedback about documentation:

- via e-mail to: [ovdoc@fc.hp.com](mailto:ovdoc@fc.hp.com), or
- via the HP documentation site at: <http://www.docs.hp.com>

If you encounter *serious errors* in the documentation that impair your ability to use the product, please contact the HP Response Center or your support representative so that your feedback can be entered into CHARTS (the HP Change Request Tracking System).

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# **1 Introduction**

## What This Manual Covers

This manual covers installation of SIP and the configuration steps necessary to get it up and running in a short amount of time. For instructions on how to fully configure NNM, VantagePoint Navigator, and VP-IS to work with SIP, see the additional documents listed below.

### Installation Overview

This guide will help you install your new HP OpenView Service Information Portal product on a computer using any of the following: Windows NT, Windows 2000, HP-UX, or Solaris.

There are three tasks to complete during the installation process:

1. Pre-Installation Tasks:
  - Check that your system meets the minimum requirements for HP OpenView Service Information Portal.
  - Complete important pre-installation steps.
2. Install the HP OpenView Service Information Portal software.
3. Post-Installation Tasks:

Once you have successfully installed HP OpenView Service Information Portal, refer to Chapter 5, “Touring a Sample Portal,” on page 47 for a tour of Service Information Portal.

### Getting Additional Documentation

Both printable and online documentation are available. The table below lists printable documents available to you after SIP 2.0 is installed. All document files are stored in product directories under the following:

*Windows NT/2000:* <SIP\_install\_dir>\htdocs\C\manuals\  
*UNIX:* /opt/OV/SIP/htdocs/C/manuals/

To set up communications between a management product and SIP, see “Configuring NNM,” “Configuring VantagePoint Navigator,” or “Configuring VP-IS and Presenting Data.” Once the product is configured to work with SIP and you want to display data through the modules, see “Presenting NNM Data,” “Presenting VantagePoint

Navigator Data.” (For VP-IS, refer to the same book for configuring VP-IS and presenting data.)

**Table 1-1 HP OpenView Service Information Portal 2.0 Documentation**

<b>Document Title and Filename</b>	<b>Main Topics</b>
<i>Getting Started</i> Getting_Started.pdf	System Requirements Installation Guided Tour Glossary
<i>Administrator Guide</i> Administrator_Guide.pdf	Internationalization (I18N) Distribution of SIP SIP Configuration Files and XML Security: Authentication and Authorization Mapping Customers to Resources Customer Data Filtering Portal Views and Roles Supplied Modules Custom Portal Look & Feel Custom Integrations Deployment of Portals Maintenance of SIP
<i>Configuring NNM</i> Configuring_NNM.pdf	How NNM Works with SIP Communication Between NNM and SIP Required Configuration Steps
<i>Presenting NNM Data</i> Presenting_NNM_Data.pdf	The NNM Modules: <ul style="list-style-type: none"> <li>• Alarms Module</li> <li>• Network Device Health Module</li> <li>• Topology Module</li> </ul> How to use, control, and customize the modules. Troubleshooting the modules.

**Table 1-1**                    **HP OpenView Service Information Portal 2.0 Documentation**

<b>Document Title and Filename</b>	<b>Main Topics</b>
<i>Configuring VantagePoint Navigator</i> Configuring_VPN.pdf	How VPN Works with SIP Communication Between VPN and SIP Required Configuration Steps
<i>Presenting VantagePoint Navigator Data</i> Presenting_VPN_Data.pdf	The VPN Modules: <ul style="list-style-type: none"><li>• Service Browser Module</li><li>• Service Health Module</li><li>• Service Cards Module</li><li>• Service Graph Module</li></ul> How to use, control, and customize the modules.
<i>Configuring VP-IS and Presenting Data</i> Configuring_and_Presenting_VPIS.pdf	How VP-IS Works with SIP Communication Between VP-IS and SIP Required Configuration Steps The VP-IS Module: <ul style="list-style-type: none"><li>• Internet Services Module</li></ul> How to use, control, and customize the module.

Online help is available when you need instruction on the SIP user interface. The list of help topics available from the [Help] button on the main portal page differs depending upon the editing permissions—ViewAdmin, UserPreferences, or ReadOnly—assigned to the current role.



## Features and Benefits of HP OpenView Service Information Portal

Service Information Portal enables you to give each of your customers a personalized view of that customer's managed environment.

SIP provides the following benefits and features:

- Gives your customers a personalized view:
  - Highly customizable interface using Java Server Pages, XSL, and XML.
  - Per-customer filtering of management data, meaning that your customers see only their own network and service management data, while you, the administrator or operator, can see the data of one, many, or all of your customers.
- Provides information from many sources:
  - Enhanced, out-of-the-box Network Node Manager (NNM) integration.
  - Out-of-the-box VantagePoint Internet Services (VP-IS) integration.
  - Out-of-the-box VantagePoint Navigator (VPN) integration.
  - Tools for developing modules that integrate your own applications and data, such as extensions to the Generic module to support parameter editing and proxy web content from a management server and Contrib integration modules.
- Provides a secure environment:
  - Support for distributed and shared configuration files.
  - Security through authentication and authorization.
  - Flexible and extensible authentication.
- Gives you a connection to your customers:
  - A message board that gives you a way to communicate important information to your customers.

## Features and Benefits of HP OpenView Service Information Portal

- Allows for easy customization and maintenance:
  - Ability to add new modules through a drop-down list box at the bottom of the portal page.
  - A variety of portal skins based on cascading style sheets.
  - Administration tools to help you troubleshoot portal problems that may arise.
  - An online help system that addresses SIP framework tasks and changes content depending upon the edit permissions level of the user.
  - Module-specific help that is fully customizable.
  - Samples of XML configuration files that ease the development of customer portals.
  - An interactive interface through which the most common tasks can be performed.

---

## **2 Pre-Installation Tasks**

## **Checking System Requirements**

Before starting, check that your system meets the minimum hardware and software requirements listed below. Listed are also the optional software packages you may want to run with SIP.

Three sections follow: Windows NT and Windows 2000, HP-UX, and Solaris.

### **Windows NT and Windows 2000**

#### **Hardware Minimum Requirements**

- Intel Pentium (or AMD) 200 Mhz processor-based computer.
- CD-ROM drive (for installation).
- On Microsoft Windows NT operating system, 128 MB RAM (preferably 256 MB RAM).

On Microsoft Windows 2000 operating system, an additional 64 MB RAM over the recommended RAM for Windows NT.

- 350 MB free disk space on one drive (either FAT or NTFS).
- 128 MB free paging file space.

#### **Software Minimum Requirements**

- On Windows NT (version 4.0), Service Pack 4 or later, with TCP/IP Services installed and configured.

On Windows 2000, TCP/IP Services installed and configured.

- IIS: On Windows 2000 Server or Windows NT 4 Server, IIS should have been pre-installed. On Windows 2000 Professional, IIS/PWS is installable as an option from the Windows 2000 Professional CD. On Windows NT 4, IIS/PWS is a component that can be installed from the NT 4 Option Pack CD ROM.
- Microsoft Windows Scripting Host. Installed by default on Windows 2000 (Server and Professional). On Windows NT 4, must be installed in order to support complete installation of SIP 2.0. Usually, this software is installed at the same time IIS is installed from the NT 4 Option Pack CD ROM. You can verify installation of the Windows

scripting host by executing the command `wscript.exe`. If your system can find this file, the Windows Scripting Host has been installed.

- Java 1.3 Software Developers Kit (SDK), which includes the Java 1.3 Runtime Environment (RTE). You can obtain versions of the SDK Release Notes from the following location:

— <http://java.sun.com>

Java 2 SDK, Standard Edition v1.3

(Make sure you install all required patches for the JDK.)

The Java 1.3 RTE by itself is not sufficient. It does not contain all of the libraries and executables required by SIP 2.0. The SIP installation process requires Java SDK 1.3. You must install the patches or services packs that are required by the SDK.

- Netscape Navigator web browser (version 4.7x) with JavaScript option and cookies enabled, or Microsoft Internet Explorer web browser (version 5.0 or later) with JavaScript option and cookies enabled.

### **Optional Software**

SIP 2.0 integrates with optional HP OpenView software. This software does NOT need to be installed on the same machine as SIP.

- Secure web server (such as IIS under SSL mode, or Stronghold). (See whitepaper at <http://www.openview.hp.com>)
- HP OpenView Network Node Manager version 6.1 or version 6.2 (each needs the latest consolidated patch).

For NNM 6.1, you also need the following ovalarmsrv patch:  
NNM\_00701

NNM patches are available at

<http://ovweb.external.hp.com/cpe/patches/nnm/nnm.html>

- HP OpenView Customer Views for NNM version 1.1 with NNM version 6.1 or Customer Views version 1.2 for NNM version 6.2.
- HP OpenView VantagePoint Internet Services versions A.03.00 and A.03.50
- HP OpenView VantagePoint Navigator versions A.06.03 and A.06.05

## **HP-UX**

### **Hardware Minimum Requirements**

- HP 9000 workstation, Series 700 or 800
- CD-ROM drive (for installation)
- 128 MB RAM (preferably 256 MB RAM)
- 350 MB free disk space
- 192 MB swap

### **Software Minimum Requirements**

- HP-UX (version 11.0), which includes:
  - The Common Desktop Environment (CDE)
  - X Windows and OSF/Motif
- Java 1.3 Software Developers Kit (SDK), which includes the Java 1.3 Runtime Environment (RTE). You can obtain versions of the SDK Release Notes from the following location:
  - <http://www.hp.com/java> (Make sure you install all required patches for the JDK.)

The Java 1.3 RTE by itself is not sufficient. It does not contain all of the libraries and executables required by SIP 2.0. The SIP installation process requires Java SDK 1.3. You must install the patches or services packs that are required by the SDK.

- Netscape Navigator web browser (version 4.6 or later) with JavaScript option and cookies enabled.

### **Optional Software**

SIP 2.0 integrates with optional HP OpenView software. This software does NOT need to be installed on the same machine as SIP.

- Secure web server (such as Stronghold). (See whitepaper at <http://www.openview.hp.com>)
- Virtual Windows Software installed on SIP machine. (See whitepaper at <http://www.openview.hp.com>)

- HP OpenView Network Node Manager version 6.1 or version 6.2 (each needs the latest consolidated patch).

For NNM 6.1, you also need the following ovalarmsrv patch:  
PHSS\_23840

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**NOTE**

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NNM patches are available at  
<http://support.openview.hp.com/cpe/patches/>

- HP OpenView Customer Views for NNM version 1.1 with NNM version 6.1 or Customer Views version 1.2 for NNM version 6.2.
- HP OpenView VantagePoint Internet Services versions A.03.00 and A.03.50
- HP OpenView VantagePoint Navigator versions A.06.03 and A.06.05 (see note below for patch requirements)
- HP OpenView VantagePoint Operations version A.06.00
- VPO Cumulative Consolidated Patch PHSS\_22761 (Management Server on HP-UX 10.20)
- VPO Cumulative Consolidated Patch PHSS\_22762 (Management Server on HP-UX 11.0). See note below for patch location.
- HP OpenView VantagePoint Navigator version A.06.00
- VP Navigator Cumulative Consolidated Patch ITOSOL\_00062 (Management Server on Solaris). See note below for patch location.

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**NOTE**

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The VPO patches are available from the following location:  
<http://support.openview.hp.com/search.jsp>. Type the patch number into the Retrieve Document by ID Number field.

The VantagePoint Operations patches PHSS\_22761 and PHSS\_22762 have been recalled because they introduce behavior that can cause communication failures in firewall environments for VPO's communications that need to go through the firewall. This is the result of source (client) port restrictions being ignored. Destination (server) port restrictions are correctly handled.

This behavior does not affect non-firewall environments or firewall configurations that do not use source port restrictions.

## Pre-Installation Tasks

### Checking System Requirements

To fix the problems introduced with these patches, the following intermediate patches are recommended:

VPO Intermediate Patch PHSS\_23603 (Management Server on HP-UX 10.20)

VPO Intermediate Patch PHSS\_23604 (Management Server on HP-UX 11.0)

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## Solaris

### Hardware Minimum Requirements

- Sun SPARCstation
- CD-ROM drive (for installation)
- 128 MB RAM minimum (preferably 256 MB RAM)
- 350 MB free disk space
- 192 MB swap

### Software Minimum Requirements

- Solaris (versions 2.6, 2.7, 2.8) with semaphores enabled, and which includes:
  - The Common Desktop Environment (CDE)
  - X Windows and OSF/Motif
- Java 1.3 Software Developers Kit (SDK), which includes the Java 1.3 Runtime Environment (RTE). You can obtain versions of the SDK Release Notes from the following location:
  - <http://java.sun.com>  
Java 2 SDK, Standard Edition v1.3  
(Make sure you install all required patches for the JDK.)

The Java 1.3 RTE by itself is not sufficient. It does not contain all of the libraries and executables required by SIP 2.0. The SIP installation process requires Java SDK 1.3. You must install the patches or services packs that are required by the SDK.



- Netscape Navigator web browser (version 4.7x) with JavaScript option and cookies enabled.

### **Optional Software**

SIP 2.0 integrates with optional HP OpenView software. This software does NOT need to be installed on the same machine as SIP.

- Secure web server (such as Stronghold). (See whitepaper at <http://www.openview.hp.com>)
- Virtual Windows Software installed on SIP machine. (See whitepaper at <http://www.openview.hp.com>)
- HP OpenView Network Node Manager version 6.1 or version 6.2 (each needs the latest consolidated patch).

For NNM 6.1, you also need the following ovalarmsrv patch:  
PHOV\_02909

NNM patches are available at  
<http://support.openview.hp.com/cpe/patches/>

- HP OpenView Customer Views for NNM version 1.1 with NNM version 6.1 or Customer Views version 1.2 for NNM version 6.2.
- HP OpenView VantagePoint Internet Services versions A.03.00 and A.03.50
- HP OpenView VantagePoint Navigator versions A.06.03 and A.06.05 (see note below for patch requirements)
- HP OpenView VantagePoint Operations version A.06.00
- VPO Cumulative Consolidated Patch ITOSOL\_00061 (Management Server on Solaris). See note below for patch location.
- HP OpenView VantagePoint Navigator version A.06.00
- VP Navigator Cumulative Consolidated Patch ITOSOL\_00062 (Management Server on Solaris). See note below for patch location.

---

#### **NOTE**

The VPO patches are available from the following location:  
<http://support.openview.hp.com/search.jsp>. Type the patch number into the Retrieve Document by ID Number field.

The VantagePoint Operations patch ITOSOL\_00061 has been recalled because it introduces behavior that can cause communication failures in

## Checking System Requirements

firewall environments for VPO's communications that need to go through the firewall. This is the result of source (client) port restrictions being ignored. Destination (server) port restrictions are correctly handled.

This behavior does not affect non-firewall environments or firewall configurations that do not use source port restrictions.

To fix the problems introduced with this patch, the following intermediate patch is recommended:

VPO Intermediate Patch ITOSOL\_00083 (Management Server on Solaris).

---

## Setting Environment Variables

You must set two environment variables prior to installing Service Information Portal.

### Setting JAVA\_HOME Environment Variable

Before you install SIP, you must set `JAVA_HOME` to the JDK1.3 environment. In addition to being needed for proper installation and runtime behavior, `JAVA_HOME` needs to be set to run various SIP commands.

#### On Windows NT

If the `JAVA_HOME` environment variable does not currently exist, through Control Panel -> System -> Environment tab, set it to point to your Java SDK 1.3 directory.

#### On Windows 2000

If the `JAVA_HOME` environment variable does not currently exist, set it to point to your Java SDK 1.3 directory: Bring up the Control Panel -> System Properties -> Advanced tab -> Environment Variables, then click [OK].

#### On UNIX

The process that starts the servlet engine (Tomcat) must have `JAVA_HOME` properly set. The environment variable `JAVA_HOME` must be set to point to your Java SDK 1.3 directory:

*HP-UX:* `JAVA_HOME=/opt/java1.3`

*Solaris:* `JAVA_HOME=/usr/j2se` OR `/usr/j2sdk1_3_0`

### Setting the PATH Environment Variable

Before you install SIP, you must set the `PATH` environment variable to include a path to the `bin` directory of the JDK1.3. If you run the installer without a proper path to your JVM, the installer will fail and give the message that it cannot find a Java Virtual Machine.

## Pre-Installation Tasks

### Setting Environment Variables

#### On Windows NT

- Through the Control Panel -> System -> Environment tab, set your PATH to the bin directory of your JDK. For example,  
`%JAVA_HOME%\bin`

#### On Windows 2000

- Through the Control Panel -> System Properties -> Advanced tab -> Environment Variables (click [OK]), set your PATH to the bin directory of your JDK. For example,  
`%JAVA_HOME%\bin`

#### On HP-UX

- You can set the PATH by typing:  
`export "PATH=/opt/java1.3/bin:$PATH"`

#### On Solaris

- You can set the PATH by typing:  
`export "PATH=/usr/j2se/bin:$PATH"`  
or `export "PATH=/usr/j2sdk1_3_0/bin:$PATH"`

### Setting SIP X Windows Server DISPLAY (UNIX only)

For the SIP installation to succeed, the DISPLAY variable must be set to point to an active X server session, preferably one running on the SIP system itself.

---

# **3 Installation**

## Installing HP OpenView Service Information Portal

This section describes how to install HP OpenView Service Information Portal on Microsoft Windows NT, Windows 2000, HP-UX, and Solaris.

### On Windows NT and Windows 2000

This procedure explains how to install Service Information Portal on a local system.

---

#### NOTE

Make sure you installed the Java 1.3 SDK, including the Java 1.3 Runtime Environment, and set the `JAVA_HOME` environment variable before you install SIP. See Chapter 2, “Pre-Installation Tasks,” on page 19.

---

1. If you are reinstalling the HP OpenView Service Information Portal software, refer to “Removing and Reinstalling Service Information Portal” on page 32.
2. Using an account that has Administrator privileges, go to the `Windows` folder on the CD and run `setup.exe`.
3. When `InstallAnywhere` appears, follow the steps in the wizard to complete the installation:
  - a. Select the installation path.
  - b. Identify the location of your Java SDK 1.3. The default is the value the `$JAVA_HOME` is set to.
  - c. When the installation is complete, go on to the next section of this manual to verify that the installation was successful.

---

#### NOTE

FYI: Upon installation, SIP configures the Tomcat servlet engine to run on port 8080. The IIS Admin Service web server will be running on the port on which your administrator configured it. (By default, port 80.)

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## On HP-UX and Solaris

This procedure explains how to install Service Information Portal on a local system.

---

**NOTE**

Make sure you installed the Java 1.3 SDK, including the Java 1.3 Runtime Environment, and set the `JAVA_HOME` environment variable before you install SIP. See Chapter 2, “Pre-Installation Tasks,” on page 19. Also, make sure the `DISPLAY` is set, as described on “Setting SIP X Windows Server `DISPLAY` (UNIX only)” on page 28.

- 
1. If you are reinstalling the HP OpenView Service Information Portal software, refer to “Removing and Reinstalling Service Information Portal” on page 32.
  2. Log in as `root` to the system where you will install the software.
  3. Insert your Service Information Portal CD-ROM product disk.
  4. If you need to mount the CD-ROM, do so by typing:  

```
/etc/mount /dev/dsk/device_name /cdrom
```

where `device_name` is the specific name of your CD drive.
  5. Use the `cd` command to change to the `/cdrom` directory.
  6. Go to the `Unix` folder on the CD and start the installation program by typing:  

```
setup.bin
```
  7. When the installation is complete, go on to the next section of this manual to verify that the installation was successful.

---

**NOTE**

Upon installation, SIP configures the Tomcat servlet engine to run on port 8080 and the Apache web server to run on port 80.

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## Removing and Reinstalling Service Information Portal

When SIP is uninstalled, all files and directories are removed, including any files that you added or customized. If you want to save your customized files, use the recommended steps below:

1. If you have files and customizations that you want to save, save them to a directory structure outside the SIP directory structure.

When the portal is reinstalled, your modified and customized files in and below the following directories are automatically overwritten. Here are the directories that most likely contain customized files:

- etc (password file)
  - conf (configuration files)
  - registration (integrated modules)
  - jsp (custom headers, footers, and login pages)
  - htdocs (customized help topics, web pages, .css files, etc.)
2. Uninstall SIP, as instructed on page 33.
  3. Selectively copy the customized files that you want to keep back to the SIP directory structure.

---

### NOTE

Be aware that you may need to change the permissions on the files that you move back into the SIP directory structure. It is necessary for certain files to be writable by the web server for GUI editing to work properly.

---



## Uninstalling HP OpenView Service Information Portal

Be aware that uninstalling SIP will remove all of your portal configurations. If you want to save your customized files and directories, see “Removing and Reinstalling Service Information Portal” on page 32 BEFORE uninstalling SIP.

### On Windows NT and 2000

The state of your IIS Admin Service after uninstall will be the same as before uninstall.

1. Start: Settings -> Control Panel -> Add/Remove Programs.
2. Scroll down and select HP OpenView SIP 2.0 and click [Add/Remove].

### On HP-UX and Sun Solaris

1. As root, uninstall the software by running the command:  
`/var/opt/OV/SIP/install/removesip`
2. When prompted to continue with the removal, type "y" and press **Enter**.

Installation

## **Uninstalling HP OpenView Service Information Portal**

---

# **4 Post-Installation Tasks**

---

## Changing the Port for the Apache Web Server Used By SIP (UNIX only)

When you install SIP, the Apache web server is installed and configured to run on port 80. If you have a web server already running on port 80, you need to change the port for the SIP web server before SIP will run. This applies only for HP-UX and Solaris.

1. Edit the following file:

```
/opt/OV/SIP/apache/conf/httpd.conf
```

2. Search for `Port`, and change 80 to whatever port you want to use for Apache.
3. Save and close the file.
4. As root, stop and restart the web server and servlet engine by typing the following. (The `DISPLAY` variable must be configured prior to restarting the web server and servlet engine.)

```
Stop on HP-UX: /sbin/init.d/ovsip stop
```

```
Start on HP-UX: /sbin/init.d/ovsip start
```

```
Stop on Solaris: /etc/init.d/ovsip stop
```

```
Start on Solaris: /etc/init.d/ovsip start
```

---

### NOTE

Now when you access the Service Information Portal, use the following URL, where `port` is the configured web server port for SIP:

```
http://yourhostname:port/ovportal
```

If you are going to run SIP with a secure web server, the URL for accessing SIP is:

```
https://yourhostname:port/ovportal
```

---

## Increasing Kernel Parameters (HP-UX only)

On HP-UX 11.x, the kernel configuration parameter *max\_thread\_proc* defaults to 64. This sets the limit on the number of current web interface sessions (that is, customers who can simultaneously access HP OpenView Service Information Portal). (Similarly configured Sun machines allow up to 2048 threads per process.) A basic recommended change is to increase the kernel parameter *max\_thread\_proc* to 2048. The maximum value allowed might be constrained by *nproc* being too low. This value can be increased by modifying the parameter *maxusers* to approximately 200.

## Setting the SIP\_HOME Environment Variable (Windows Only)

SIP\_HOME is set by the installation process on Windows. If you are installing SIP on UNIX, this environment variable is not needed and there is nothing you need to do.

However, right after installation on Windows, SIP\_HOME will not be set in your shell or DOS command window. There are two ways to ensure that SIP\_HOME is set:

- Log out and back in to your Windows system.
- Verify the environment variables through the GUI:

*Windows NT:* Bring up the System Properties dialog box, select the Environment tab, and click [OK]. Bring up a new shell or DOS window.

*Windows 2000:* Bring up the System Properties dialog, select the Advanced tab, select Environment Variables, and then click [OK].

---

### NOTE

Subsequent to the first Windows log in after installation, SIP\_HOME will thereafter be appropriately set.

---

## Setting the PATH Environment Variable

After you install SIP, you can optionally set the `PATH` environment variable to include a path to the SIP `bin` directory. This lets you easily run SIP commands without typing the full path name.

### On Windows NT/2000

- Add the following to your `PATH` variable:  
`%SIP_HOME%\bin`

### On HP-UX and Solaris

- Add the following to your `PATH` variable:  
`/opt/OV/SIP/bin`

---

## Configuring the DISPLAY Variable (UNIX only)

SIP relies on Java's Abstract Windows Toolkit (AWT) to generate graphical images. On UNIX, the AWT requires the presence of a running X windows server. Consequently, at SIP startup, the following must be true:

1. The `DISPLAY` environment variable must be set to point to an active X server session, preferably one running on the SIP system itself.
2. The SIP system must have access permission to the X server session referenced by the `DISPLAY` environment variable. In particular, the SIP process must have access to the display. SIP will run as the user "www" on HP-UX and "nobody" on Solaris. To test X display access for SIP, as the SIP user run an X program such as `xclock` or `Netscape`, using the desired `DISPLAY` setting. If necessary, use the `xhost` command to grant X display permissions.
3. The X display referenced by SIP must be open the entire time that SIP is running. That is, a user must be logged in on the display. Furthermore, if the display is ever locked or goes into a modal state, or if the user logs out, the display will not be accessible to SIP. For this reason, it may be advisable to use a dedicated virtual windowing system. For details on the use of virtual windowing systems with SIP, refer to the whitepaper available at <http://www.openview.hp.com>.

---

### NOTE

During the use of SIP, there are two cases in which the `DISPLAY` variable must be configured:

- When you start the servlet engine at reboot time.
  - When you restart the servlet engine in a shell window.
-



## Verifying the Installation

1. To verify that the installation was successful, open a browser window and enter the URL that starts SIP:

`http://yourhostname/ovportal`

---

### NOTE

**Windows only:** You can also start SIP by selecting:

Start -> Programs -> HP OpenView ->SIP 2.0 OVPortal

---

### NOTE

**UNIX only:** If you configured the SIP web server to a port other than 80, use the following URL instead, where port is the configured web server port for SIP:

`http://yourhostname:port/ovportal`

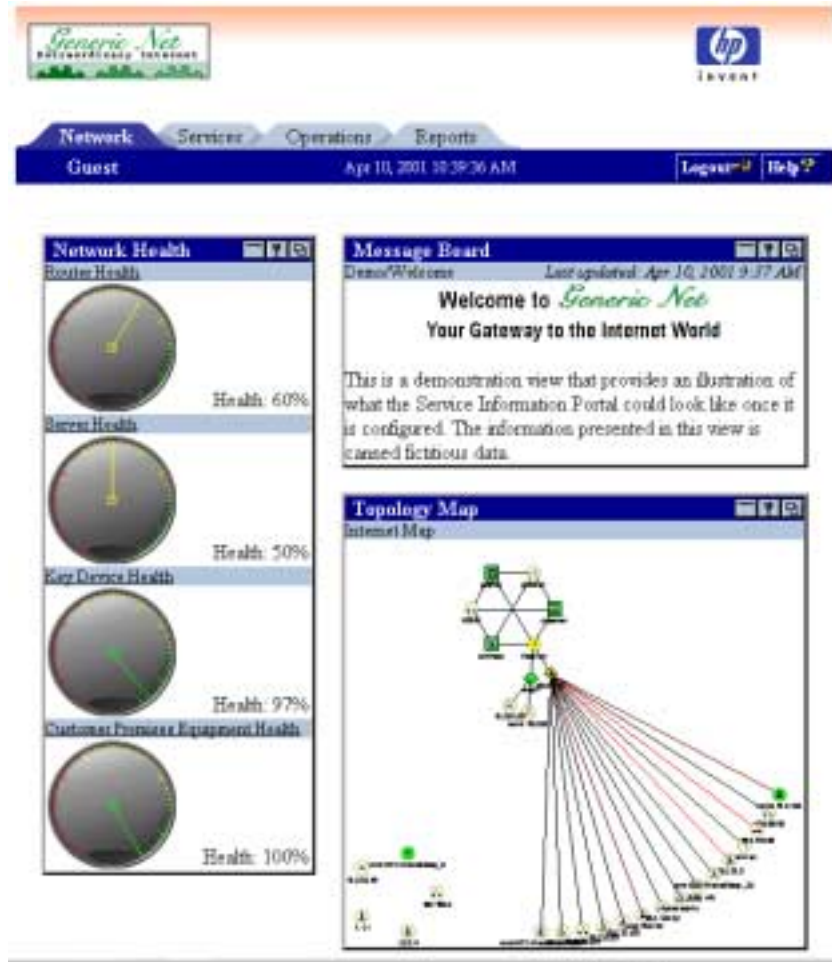
If you are going to run SIP with a secure web server, the URL for accessing SIP is:

`https://yourhostname:port/ovportal`

- 
2. At the SIP login page, type `guest` and click [Login]. The canned demo portal shown in Figure 4-1 on page 42 should appear.

If you do not get the SIP login page or if the demo portal does not appear, see “Troubleshooting Installation Problems” on page 43.

**Figure 4-1 Demo Portal with "guest" Login**



---

## Troubleshooting Installation Problems

---

### NOTE

FYI: Upon installation, SIP configures the Tomcat servlet engine to run on port 8080 and the Apache web server to run on port 80.

---

---

### NOTE

**Windows Only:** If the installation was successful but SIP doesn't launch, confirm that `cscript.exe` and `wscript.exe` are installed in the `\WINNT\System32` folder.

---

1. Look for errors in the following logs:

- *Windows NT/2000:*  
`<SIP_install_dir>/install/postinst.log`
- *UNIX:*  
`/var/opt/OV/SIP/install/postinst.log`  
`/tmp/postinstall.out`

2. Make sure the servlet engine is running.

- *Windows NT:*  
In the Control Panel, select Services, and check the status of Tomcat. If the process is not running, select Tomcat and click [Start]. Alternatively, you can use the command line: `net stop tomcat` and `net start tomcat`.

*Windows 2000:*

In the Control Panel, select Administrative Tools, then Services, and check the status of Tomcat. If the process is not running, select Tomcat and click [Start]. Alternatively, you can use the command line: `net stop tomcat` and `net start tomcat`.

If this fails, you can attempt to start it from a `.bat` file and observe the output:

From the command line, go to the following directory:

`<SIP_install_dir>\tomcat\bin`

Type: `startup.bat`

## Troubleshooting Installation Problems

If Tomcat does not start, record any error messages that are output, and call for support.

- *UNIX:*

Make sure `JAVA_HOME` has been properly set.

Run `/opt/OV/SIP/tomcat/bin/startup.sh`

Or, attempt to access the following URL for test purposes only:

`http://<yourhostname.com>:8080/examples/jsp`

If a page is displayed, then Tomcat is functioning properly.

3. If Tomcat is running but you get an error when you request the SIP URL (`http://yourhostname/ovportal`), review the following:

- Make sure that web server (IIS Admin Service on Windows and Apache on UNIX) is running correctly. To do so, go to the URL `http://yourhostname:80`
- On Windows, verify that the Tomcat filtering DLL is properly loaded in IIS.

*On Windows NT:*

Start: Programs -> Windows NT 4.0 Option Pack -> Microsoft Personal Web Server -> Internet Service Manager.

**Right-click on your Internet Information Server then choose Properties. In Master Properties, with WWW Service selected, click [Edit].**

**Select the ISAPI Filters tab, check the Status of the Filter Name: Tomcat.**

*On Windows 2000:*

Control Panel -> Administrative Tools -> Internet Services Manager.

**Right-click on your Internet Information Server then choose Properties. In Master Properties, with WWW Service selected, click [Edit].**

**Select the ISAPI Filters tab, check the Status of the Filter Name: Tomcat.**

- Verify that you installed SIP according to the installation instructions, and if you did, then call support.

4. When requesting the portal page, if you see a login page but cannot log in as "guest" try the following:
  - Check the `roles.log` file for any errors.  
*Windows NT/2000:* `<SIP_install_dir>\log\roles.log`  
*UNIX:* `/var/opt/OV/SIP/log/roles.log`
  - Run `create_role_db` to make sure the roles database is created. (On UNIX, make sure you have sufficient file permissions to write to the `/etc/opt/OV/SIP/conf/share/roles` directory.)

---

**NOTE**

For the command to work from outside the `bin` directory, add the following to your `PATH` variable:

*Windows NT/2000:* `%SIP_HOME%\bin`  
*UNIX:* `/opt/OV/SIP/bin`

- 
- Correct any errors that are detected, and run the command repeatedly until the `roles` directory is created.

Post-Installation Tasks  
**Troubleshooting Installation Problems**

---

# **5      Touring a Sample Portal**

## Getting Underway

Before you begin the tour, make sure that the environment variables are set as described in Chapter 2, “Pre-Installation Tasks,” on page 19.

This tour involves performing basic configuration tasks to establish communication between SIP and any or all of three OpenView management products: NNM, VP Navigator, and VP-IS. For the purposes of this tour, the configurations will allow you to see data displayed through the NNM, VP Navigator, and VP-IS modules. To fully configure these products to work with SIP, see the available manuals.

### Available Documentation

Detailed documentation for all aspects of SIP is available in PDF format in the product directories under the following directory:

*Windows NT/2000:* `SIP_install_dir\htdocs\C\manuals\`  
*UNIX:* `opt/OV/SIP/htdocs/C/manuals/`

For more information, see “Getting Additional Documentation” on page 14.

### Logging In To SIP

1. To log in to SIP, open a browser window and enter the following URL:  
`http://yourhostname/ovportal`

---

#### NOTE

**UNIX only:** If you configured the SIP web server to a port other than 80, use the following URL instead, where port is the configured web server port for SIP:

`http://yourhostname:port/ovportal`

If you are going to run SIP with a secure web server, the URL for accessing SIP is:

`https://yourhostname:port/ovportal`

---

2. At the SIP login page, type `admin` and click [Login]. As the “admin” user, you are initially operating in the Welcome role.



## Displaying NNM Data

The Service Information Portal runs independently from NNM, but you can configure the two applications to work together. Through SIP, NNM can provide up-to-date network information, such as alarms, maps, device status, and any requested SNMP data.

The instructions in this tour help you configure NNM so that you can see data in the Alarms and Topology modules. For information on configuring the NNM Network Device Health module, see *Configuring NNM* ([Configuring\\_NNM.pdf](#))

## Starting NNM

If NNM is not currently running on the NNM management station (either on a local or a remote machine), start it:

*Microsoft Windows NT/2000:*

- Start the NNM services by clicking Start:Programs->HP OpenView->Network Node Manager Admin->NNM Services-Start.
- Start the NNM interface by clicking Start:Programs->HP OpenView->Network Node Manager.

*UNIX:*

- To start the NNM background processes, log in as root and type:  
`/opt/OV/bin/ovstart -c`
- To start the NNM interface, type:  
`/opt/OV/bin/ovw`

## Establishing a Connection Between SIP and NNM

To establish communication between SIP and NNM for the purposes of this tour, you need to tell SIP about one of your NNM management servers, configure the NNM management station to allow SIP to get information from it, and configure a few portal view files with the name of the management station (so you can see some data through the portal).

### **Adding an NNM Management Station to the SIP Master List**

There are two ways to tell SIP about your NNM management stations: through editing of an XML file (explained below) and through the use of a contrib program that offers an interface for easy configuration of the XML file. (Be aware that contrib programs are not fully supported.)

#### **To Add an NNM Management Station Using a Contrib Program:**

1. To start the contrib application, run:

*Windows NT/2000:*

`SIP_install_dir\SIP\contrib\bin\edit_nmConfig.bat`

*UNIX:*

`/opt/OV/SIP/contrib/bin/edit_nmConfig.bat`

2. In the NNM Station Configuration dialog, click the [Add] button.
3. In the NNM Station dialog, in the Hostname field type the NNM management station.
4. Select the NNM Version and the OS Type, and the Web Server, OVwDb, and OVALarmSrv Ports will be entered for you automatically.
5. Select "Use as SNMP Data Source," "Use as NNM Alarms Data Source," and "Use as Ovw Symbol Source."
6. Click [OK].
7. On the NNM Station Configuration dialog, click [Save], and then close the dialog box by clicking the [Exit] button.
8. Verify the changes to the nmConfig.xml file by opening it and looking at the configuration:

*Windows NT/2000:*

`SIP_install_dir\SIP\conf\share\modules\NM\nmConfig.xml`

*UNIX:* `/etc/opt/OV/SIP/conf/share/modules/NM/nmConfig.xml`

9. Restart the servlet engine as described in "Restarting the Servlet Engine" on page 51.

#### **To Add an NNM Management Station by Directly Editing the XML File:**

1. Make a backup of the XML configuration file before you customize it. If you edit the file and get incorrect XML syntax, you may want the ability to revert to the previous version of the file.

*Windows NT/2000:*

*SIP\_install\_dir*\SIP\conf\share\modules\NM\nmConfig.xml

*UNIX:* /etc/opt/OV/SIP/conf/share/modules/NM/nmConfig.xml

2. On the SIP server, open the nmConfig.xml in an ASCII editor:
3. Read the comments in this file carefully. They will guide you through the process of configuring the NNM stations list. Set up an <NNMStation> element block for one of the NNM management stations you want to access (including NNM running on the same machine as SIP, if applicable).
4. Set the following attributes to "yes":
  - snmpDataSource="yes"
  - alarmsDataSource="yes"
  - symbolRegSource="yes"

Set the ports being used by the NNM management station. See the comments in the sample NNMStation entry and at the top of this file for information about determining ports.

5. When finished, save and close the XML file.
6. Validate the XML syntax, as described in "Validating XML Files" on page 61.
7. Restart the servlet engine, as described in the following section.

### Restarting the Servlet Engine

After changing the nmConfig.xml file, you must stop and restart the servlet engine before changes take effect:

- *WindowsNT/2000:*

From the Control Panel, select Services. Stop and then restart Tomcat. Alternatively, you can use the command line: **net stop tomcat** and **net start tomcat**.

- *UNIX:*

As root, stop and restart the web server and servlet engine by typing the following. (The DISPLAY variable must be configured prior to restarting the web server and servlet engine.)

Stop on HP-UX: **/sbin/init.d/ovsip stop**

Start on HP-UX: **/sbin/init.d/ovsip start**

## Touring a Sample Portal

### Displaying NNM Data

Stop on Solaris: `/etc/init.d/ovsip stop`  
Start on Solaris: `/etc/init.d/ovsip start`

### **Configuring the NNM Management Station to Allow SIP to Obtain Information**

You can skip this task if SIP is running on the same computer as NNM.

In this step, you modify the files that configure which computers are allowed to request information from an NNM management station.

1. On the NNM management station, open the following two authorization configuration files in an ASCII editor:

*Windows NT/2000:*

`NNM_install_dir\NNM\conf\ovw.auth`  
`NNM_install_dir\NNM\conf\ovwdb.auth`

*UNIX:*

`/etc/opt/OV/share/conf/ovw.auth`  
`/etc/opt/OV/share/conf/ovwdb.auth`

These files control which computers are allowed to request information from NNM.

If you see a line that simply has two + symbols (+ +), you can skip this step because NNM is configured to allow any computer to request information (security not configured).

2. Add a `SIPserverHostName +` line to the list for the SIP server that needs to obtain information from this NNM management station.

### **Enabling the Alarms and Topology Modules**

No further configuration steps are required to enable the Alarms module; however, you need to configure a few more things to enable the Topology module, as described below. If you want to configure NNM's Network Device Health module, refer to *Configuring NNM* (Configuring\_NNM.pdf).

1. Make a backup of the XML configuration files listed in step 2 before you customize them.
2. To enable the sample Topology modules to work in your environment, on the SIP server, open the following sample portal view files (listed below), search for the string `$LOCALHOST`, and replace it with the exact name of the NNM management station you configured in the `nmConfig.xml` file (for example, `mountain.my.co.com`).

*Windows NT/2000:*

```
SIP_install_dir\SIP\conf\share\views\samples\  
business.xml  
liveDemo.xml  
technical.xml
```

*UNIX:*

```
etc/opt/OV/SIP/conf/share/views/samples/  
business.xml  
liveDemo.xml  
technical.xml
```

3. Save and close the files.
4. Validate the XML syntax, as described in “Validating XML Files” on page 61.

---

**NOTE**

The NNM modules are now configured to display NNM data. You can continue to the next section to view data through the NNM modules, or you can go to "Displaying VantagePoint Internet Services Data" to complete the VantagePoint Internet Services configuration steps.

---

## Displaying Data through the Alarms and Topology Modules

Whenever the servlet engine is restarted, you must log in again to SIP. See “Logging In To SIP” on page 48, and log in as "admin" user.

---

**NOTE**

Because of module initialization that takes place after the servlet engine is restarted, portal pages can take longer to display the first time a module is displayed.

---

To see the NNM modules, you will need to switch to a role that displays one of the sample portal views that you modified in “Enabling the Alarms and Topology Modules” on page 52: `business.xml`, `liveDemo.xml`, and `technical.xml`.

- In the SIP button bar is a drop-down list box for switching roles. Switch to any of the following roles to display a portal view with

## Touring a Sample Portal

### Displaying NNM Data

configured NNM Alarm and Topology modules and go to the `Network` tab:

- Live Demo
- Acme Technical
- Acme Business

---

**TIP**

Before the Topology Module can display a submap, NNM must be running on the NNM management station with the requested map open.

---

## Displaying VantagePoint Internet Services Data

VantagePoint Internet Services (VP-IS) collects information about internet services and displays the data in SIP as a set of gauges and charts. SIP communicates with VP-IS and requests information for display through the gauges, or it requests that VP-IS generate images that SIP will present through the Internet Services module.

The instructions in this tour help you configure VPIS so that you can see data in the Internet Services modules. For more detailed configuration information, see *Configuring VP-IS and Presenting Data* (Configuring\_and\_Presenting\_VPIS.pdf)

1. To enable VP-IS to communicate with SIP, make sure that VP-IS is NOT running in Restricted Views.
2. Make a backup of the XML configuration file cited in step 3 before you customize it. If you edit the file and get incorrect XML syntax, you may want the ability to revert to the previous version of the file.
3. To present VP-IS data through SIP, you must first map a SIP role to a VP-IS server and customer. For the purposes of this tour, you will map the LiveDemo role. On the SIP server, open the following file:

*Windows NT/2000:*

`SIP_install_dir\SIP\conf\share\roles\samples.xml`

*UNIX:*

`/etc/opt/OV/SIP/conf/share/roles/samples.xml`

4. Find the LiveDemo role and add the Property elements, as shown below, replacing the Property values as appropriate:

```
<Role name="LiveDemo" title="LiveDemo">
  <PortalViewRef href="samples/liveDemo.xml"/>
  <EditPermission level="ViewAdmin"/>
  <MgmtDataRef href="AllData"/>
  <Properties>
    <Property name="VPIS.server"
      value="yourserver.domain.com"/>
    <Property name="VPIS.customer" value="CustomerX"/>
  </Properties>
</Role>
```

## Touring a Sample Portal

### Displaying VantagePoint Internet Services Data

---

**NOTE**

To enable other roles to view VP-IS data, you can add these properties to the following roles that are also in the `samples.xml` file:

- LiveDemoReadOnly
- LiveDemoPreferences
- NOC
- AcmeTechnical
- AcmeBusiness

- 
5. Save and close the file.
  6. Validate the XML syntax. (See “Validating XML Files” on page 61.)
  7. Update the roles database so that the changes take effect. At the command prompt, run this command:

*Windows NT/2000:*

```
%SIP_HOME%\bin\create_role_db
```

*UNIX:*

```
/opt/OV/SIP/bin/create_role_db
```

---

**NOTE**

To run this command from outside the `bin` directory, add the following to your `PATH` variable:

*Windows NT/2000:* %SIP\_HOME%\bin

*UNIX:* /opt/OV/SIP/bin

If the `create_role_db` command does not run properly, make sure your `JAVA_HOME` environment variable is set correctly, as described in “Setting `JAVA_HOME` Environment Variable” on page 27.

- 
8. After the roles database is updated, you can return to the SIP portal interface and switch to the Live Demo role.
  9. You can view VP-IS modules by going to the `Services` tab.
  10. You can now interactively edit this module by selecting the edit button on the title bar of the Internet Services module.



## Displaying VantagePoint Navigator Data

VantagePoint Navigator (VPN) works with SIP to provide service management data to your customers through several VPN modules. You need to configure the VPN integration before service management data is accessible in SIP.

The instructions in this tour help you configure VP Navigator so that you can see data in the VPN modules. For more detailed configuration information, see *Configuring VantagePoint Navigator* (`Configuring_VPNavigator.pdf`)

### Starting VPN Services

- Make sure that VantagePoint Navigator Service Engine process is running.

Check the status of the Service Engine process (`opcsvcm`) by running:

```
/opt/OV/bin/OpC/opcsv -status
```

### Establishing a Connection Between SIP and VPN

1. Make a backup of the `servers.xml` file before you customize it. If you edit the file and get incorrect XML syntax, you may want the ability to revert to the previous version of the file. The file is located in the following directory:

*Windows NT/2000:*

```
SIP_install_dir\SIP\conf\share\modules\service\
```

*UNIX:* `/etc/opt/OV/SIP/conf/share/modules/service/`

2. To establish a connection between the VPN servers and SIP you need to configure the `servers.xml` file. Using an ASCII editor, open the file.
3. Configure `servers.xml` by copying and pasting the `Server` element and replacing the values of the `Name`, `Label`, and `Host` attributes with those of an actual Vantage Point Navigator server. Make sure the updated server element is placed outside the comment block.
4. The `Port` element defines the port number through which SIP communicates with VPN. The default port is 7278. If you need to

## Displaying VantagePoint Navigator Data

change it, see *Configuring VantagePoint Navigator* (Configuring\_VPNavigator.pdf).

5. Save `servers.xml` into the same directory.
6. Validate the XML syntax. See "Validating XML Files" on page 61.

## Creating a Customer-to-Service Mapping

The sample "Customer" for this tour is Acme. You need to map a list of services to the Acme organization in the customer model.

1. Make a backup of the XML configuration file cited in step 2 before you customize it. If you edit the file and get incorrect XML syntax, you may want the ability to revert to the previous version of the file.
2. Using an ASCII editor, edit `CustomerModel.xml` located in:  
*Windows NT/2000:*  
`SIP_install_dir\SIP\conf\share\organizations\  
UNIX:  
/etc/opt/OV/SIP/conf/share/modules/organizations/`
3. Find the Acme organization, and modify the `ServiceList` element to include the names of some of your existing VPN services. Remove the names of the sample services listed for the Acme organization.

---

### NOTE

Run this VPN command to get a list of top level services (as root):  
`opcservice -list`

4. Make sure the `Depth` attribute for each service is set to "0". This means: show all services from the service depth and below. For example, for the "email" service, "0" indicates that you want to show all services from email and below.

## Restarting the Servlet Engine

- After changing `servers.xml` and `CustomerModel.xml`, you must stop and restart the servlet engine before changes take effect:

*WindowsNT/2000:*

From the Control Panel, select Services. Stop and then restart

Tomcat. Alternatively, you can use the command line: `net stop tomcat` and `net start tomcat`.

*UNIX:*

As `root`, stop and restart the web server and servlet engine by running the following. (The `DISPLAY` variable must be configured prior to restarting the webserver and servlet engine.)

Stop on HP-UX: `/sbin/init.d/ovsip stop`

Start on HP-UX: `/sbin/init.d/ovsip start`

Stop on Solaris: `/etc/init.d/ovsip stop`

Start on Solaris: `/etc/init.d/ovsip start`

## Displaying Data Through VPN Modules

Whenever the servlet engine is restarted, you must log in again to SIP. See “Logging In To SIP” on page 48, and log in as “admin” user.

---

### NOTE

Because of module initialization that takes place after the servlet engine is restarted, portal pages can take longer to display the first time a module is displayed.

- 
1. In the SIP button bar is a drop-down list box for switching roles. Switch to `Live Demo` and select the `Services` tab.

---

### NOTE

Because the `Live Demo` role can view all management data, it can view the services for the `Acme` organization.

- 
2. Scroll to the drop-down list boxes at the bottom of the page.
  3. In the left column, select the module to add (`Service Cards` or `Service Health`) and then click the `[Add]` button.
  4. To the right column, add `Service Browser` and `Service Graph`.

---

### NOTE

Notice that some modules contain submodules with links embedded in the submodule titles. These links are clickable and lead to more detailed

Touring a Sample Portal

## **Displaying VantagePoint Navigator Data**

information. Likewise, some of the modules may contain graphics that are clickable and link to detailed data.

---

## Validating XML Files

The Service Information Portal will detect and report an invalid XML configuration file. However, after you make modifications to XML files, you may want to validate your XML syntax.

Provided with SIP is the command `xmlvalidate`, which checks whether the XML file is both well-formed and valid. This command uses the same XML parser as SIP, so if the file passes `xmlvalidate`, it will work with SIP. An XML file is “well-formed” if it conforms to a minimal set of rules defined for all XML documents. It is “valid” if it conforms to the DTD listed at the beginning of the XML file.

For the command to work from outside the `bin` directory, add the following to your `PATH` variable:

*Windows NT/2000:* `%SIP_HOME%\bin`

*UNIX:* `/opt/OV/SIP/bin`

The correct usage of the `xmlvalidate` command is:

```
xmlvalidate <xml filename>
```

Sometimes an error reported by `xmlvalidate` may not clearly indicate how to fix the problem. For example, a message like `Attribute 'name' must be declared for element type 'XYZ'` is likely an indication that the attribute `'name'` has been misspelled.

As an alternative to `xmlvalidate`, you can find an XML validation tool for Windows NT and Windows 2000 at [www.xmlspy.com](http://www.xmlspy.com).

## What You Can Customize

The HP OpenView Service Information Portal is your tool for creating personalized portals for your customers. If you are operating in a role that grants editing permissions through the portal interface (such as ViewAdmin), you see an [Options] button in the portal button bar. If you are not already in the "Live Demo" role, switch to it now.

Here is a list that illustrates the kinds of options you can customize:

- The user name that appears in a portal button bar.
- A portal's skin.
- A portal's refresh interval.
- Tab names and column layout.
- The header and footer of a portal page.
- The modules that are presented through a portal.

## Customizing through the XML Files

All of the options listed above can be customized through the portal interface. However, others require that you edit the configuration files directly. HP OpenView Service Information Portal uses eXtensible Markup Language (XML) for all configuration information. For information on configuration files, see the *SIP Administrator Guide* ([Administrator\\_Guide.pdf](#)).

## Customizing the Portal Through the Interface

1. In the button bar on the portal page, click the [Options] button. This button appears to users who have been assigned an editing permissions level of "UserPreferences" or "ViewAdmin." Because you are logged in as "Admin" you have ViewAdmin privileges. If you were logged in as "guest," (whose editing permissions level is ReadOnly) you would not see the [Options] button.

---

### NOTE

On the Options page are three sections: User Options, Portal Options, and Tab Settings. When a user's editing permissions level is

set to "User Preferences," only the User Options section appears. When the user has full editing privileges through the portal interface ("ViewAdmin"), all three sections appear.

2. Change some of the options on this page and click [OK] to save them and return to the main portal page. Following is a table that explains which configuration files store which of the options that are set on the Options page. It describes some interesting customizations that you can make:

**Table 5-1 Customizing the Portal through the Graphical Interface**

Option Type	Configuration File
User Options: Display Name Skins	<p>These two options are stored by default in the portal view file assigned to the role that you are operating as.</p> <p>However, if you change these two options, a "user preferences" XML file is created based on your login name and is stored in the following directory:</p> <p><i>Windows NT/2000: SIP_install_dir\SIP\conf\share\users\            UNIX: /etc/opt/OV/SIP/conf/share/users/</i></p> <p>For example, if you log into SIP as "boss," you are assigned the role of Acme Business and you see the portal view called <code>business.xml</code>. If you customize Display Name and Skins, a file named <code>boss.xml</code> is created in the users directory. Thereafter, when you log in as "boss," you see the <code>business.xml</code> portal view file, but the Display Name and Color Scheme (Skins) attributes in that file are overridden by those in the <code>boss.xml</code> user preferences file.</p> <p>Try It!</p>

Touring a Sample Portal  
**What You Can Customize**

**Table 5-1 Customizing the Portal through the Graphical Interface**

Option Type	Configuration File
Portal Options Page Refresh Rate Show Display Name Show Date/Time  Tab Settings	<p>These options are configured on a portal view basis. Individual users cannot customize them. They are stored in the portal view file that is associated with the role and located in the following directory or one of its subdirectories:</p> <p><i>Windows NT/2000:</i> <code>SIP_install_dir\SIP\conf\share\views\</code>  <i>UNIX:</i> <code>/etc/opt/OV/SIP/conf/share/views/</code></p> <p>However, there is an exception: If in the User-Role package file, which defines the roles and associated portal views, you have defined the <code>copy</code> attribute of the <code>PortalViewRef</code> element, changes to Portal Options and Tab Settings (as well as changes to any of the modules), will be written out to a file other than the shared portal view file. For example, the role defined below is Acme Technical. If you were to switch to that role through the drop-down list box on the portal button bar and make any changes through the interface (other than to Display Name and Skins), those changes would be saved to the file:</p> <p><code>../views/samples/Acme/technical.xml.</code></p> <pre>&lt;Role name="AcmeTechnical" title="Technical"&gt;   &lt;PortalViewRef href="samples/technical.xml"                 copy="Acme/technical.xml"/&gt;   &lt;EditPermission level="UserPreferences"/&gt;   &lt;MgmtDataRef href="AcmeOrg"/&gt; &lt;/Role&gt;</pre> <p>Try It!</p>



## Data Security: Ensuring that a Customer Sees Only Their Own Data

When your customers see management data through the portal, it is critical that they see only the data that is relevant to them. You must take explicit steps to ensure that only the information relevant to a specific customer is displayed in their portal.

The SIP security model is made up of authentication and authorization. Authentication is the process by which a user identifies and validates him/herself to the system. Authorization is the access privileges granted to an authenticated user that determines what the user can see and do while logged into the system.

### Authentication

SIP supplies several authentication providers from which you can choose for validating a user's login information and helping protect your data from unauthorized access. Additionally, SIP offers you the capability of integrating a custom authentication provider.

Information in Chapter 6, "Configuring an Authentication Provider," on page 61 of the SIP "Administrator Guide," ([Administrator\\_Guide.pdf](#)) will help you determine the type of authentication provider that best suits your needs and explain exactly how to configure an authentication provider.

### Authorization

After a user is authenticated and considered a valid SIP user, another level of security ensures that the user sees only the data you want him to see, and changes only the things you want her to change.

SIP uses an authorization model called the User-Role Model. Access rights are associated with roles. A **role** defines what a user can see and do through the portal at a particular point in time. By associating users with roles and assigning to each role what you want the user to be able to see and do, you achieve portal security.

All valid portal users are associated with at least one role. Users that are associated with multiple roles can easily switch between them through a drop-down list in the interface.

A role consists of four parts:

- **A portal view**

A portal view is what is displayed by the portal to a user. It is a configured set of modules and how they appear on tabs. It is also a configured set of portal view attributes, such as name in the welcome banner, portal color scheme, refresh rate, default tab, portal header, and portal footer, and others. (Two of these attributes—the name in the welcome banner and the color scheme—can be overridden by the user if they have at least "UserPreferences" editing permissions.)

- **An editing permissions level**

Editing permission levels define the editing operations that a user can perform through the portal interface. Each level of editing permissions includes all the operations defined by the previous level and adds some additional operations. The three levels are: ReadOnly, UserPreferences, and ViewAdmin. For an explanation of each, see "Choosing the Level of Edit Permissions for a Role" on page 282 of the SIP "Administrator Guide" ([Administrator\\_Guide.pdf](#)).

- **A set of management data**

Management data refers to the information about services, nodes, and interfaces that is displayed by management modules through the portal. In the User-Role Model, you specify the customers (organizations) whose data will be displayed to the users who are associated with a given role. Only the management data associated with the specified organizations is displayed. The actual mappings from customer (organizations) to resources (services, node, and interfaces) is defined in the "Customer Model."

- **An extensible list of role properties**

Role properties is an extensibility mechanism used to provide authorization information associated with a role that is not defined in the predefined role XML elements. Modules such as those based on the Generic module can use this element to get user-role information.

The User-Role Model is explained in more detail in Chapter 14, "Deploying Customer Portals," on page 261 of the SIP "Administrator Guide," ([Administrator\\_Guide.pdf](#)). The filtering of customer data is explained in Chapter 8, "Filtering Data by Customers," on page 117.

## Supplied Portal Roles and Views

This section describes the roles supplied with SIP.

As stated previously, roles define what you can see and do through the portal.

If you are assigned to more than one role, you can see a drop-down list in the portal titlebar.

To switch roles, simply choose a different role from the drop-down list.

Logging into SIP as the user "admin" gives you access to the roles described in Table 5-2 on page 67. In each role definition, you will see the associated portal view, edit permissions level, and management data.

**Table 5-2 Roles Available to User "admin"**

<b>Role</b>	<b>Definition</b>	<b>Description</b>
Welcome	Portal View: welcome.xml Edit Permissions: UserPreferences Management Data: NoData	Displays important information, such as SIP release notes, sources of documentation, directory structure diagrams, and modules designed to be used during portal development to give you information about a portal's configuration.
Demo	Portal View: cannedDemo.xml Edit Permissions: ReadOnly Management Data: NoData	A canned demonstration portal consisting of non-functioning modules.
Live Demo	Portal View: liveDemo.xml Edit Permissions: ViewAdmin Management Data: AllData	Displays NNM and VP-IS modules that require some configuration to get management data.
Live Demo (Read-only)	Portal View: liveDemo.xml Edit Permissions: ReadOnly Management Data: AllData	A variation of the LiveDemo role that allows the user to view data but not change anything.
Live Demo (Preferences)	Portal View: liveDemo.xml Edit Permissions: UserPreferences Management Data: AllData	A variation of the "Live Demo" role that allows the user to change only user preferences.

Touring a Sample Portal  
**Supplied Portal Roles and Views**

**Table 5-2 Roles Available to User "admin"**

<b>Role</b>	<b>Definition</b>	<b>Description</b>
Acme Technical	Portal View: technical.xml (with copy to Acme/technical.xml) Edit Permissions: UserPreferences Management Data: AcmeOrg	Demonstrates filtering by customer (in this case, Acme). Requires the same configuration as "Live Demo" to get live management data. In addition, you need to associate valid nodes and interfaces with the Acme organization in CustomerModel.xml in order for the NNM modules to present data.
Acme Business	Portal View: business.xml (with copy to Acme/business.xml) Edit Permissions: UserPreferences Management Data: AcmeOrg	Demonstrates filtering by customer. Demonstrates customizing a view file for a particular customer (in this case a business user). Requires the same configuration as "Live Demo." In addition, you need to associate valid nodes and interfaces with the Acme organization in CustomerModel.xml in order for the NNM modules to present data.
Integration Examples	Portal View: integration.xml Edit Permissions: ReadOnly Management Data: NoData	Demonstrates use of the Generic Module to integrate data into the portal. For more examples, see the modules in the ../integrations directory.
Create A View	Portal View: blank.xml (with copy to samples/scratch.xml) Edit Permissions: ViewAdmin Management Data: AllData	Provides an empty portal view that you can use to create a new customized portal view. The updated view is stored in ../views/samples/scratch.xml

## Supplied Modules

Several modules are supplied with SIP, some of which you have become familiar with while going through the sections: Displaying NNM Data, Displaying VP-IS Data, and Displaying VP Navigator Data.

In addition to the modules that display management data, SIP supplies several general modules as well, as described in Table 5-3:

**Table 5-3**

<b>Module</b>	<b>Description</b>	<b>Purpose</b>
Bookmarks	A way of integrating website links into the portal interface.	Deploy in Customer Portals
Message Board	A way of getting important information, in the form of messages, to your customers through the portal interface.	Deploy in Customer Portals
Generic Module	The Generic module provides a clean, simple way to integrate your own content into a portal view beyond what the standard modules offer. No programming is required. All modules displayed through the "Demo" and "Integrations" roles are based on the Generic module. For information on integrating your own applications and data through use of the Generic module, see the <i>SIP Administrator Guide</i> (Administrator_Guide.pdf).	Use to create integrations of your own applications and data
User/Role Information	A way of displaying user, role (including edit permissions level and management data), and user preferences information about the current user.	Use during portal development to verify what data the portal is displaying.

Touring a Sample Portal  
**Supplied Modules**

**Table 5-3**

<b>Module</b>	<b>Description</b>	<b>Purpose</b>
Managed Resources	Information about the specific nodes, interfaces, and services associated with the organization(s) that are mapped to the current role.	Use during portal development to verify what data the portal is displaying.
Test Module	Displays what information SIP knows about your web browser. Includes information such as HTTP headers, browser cookies, etc.	Use to troubleshoot web browser problems.

## Making Plans to Pilot Your Own Voyage

Service Information Portal provides many possibilities for building customized and personalized portals. This short tour has given you but a general idea of SIP's power and flexibility. There is so much more.

The *SIP Administrator Guide* ([Administrator\\_Guide.pdf](#)) and the supplemental manuals will be your guides from this point forward, explaining how you can optimize your use of HP OpenView's Service Information Portal.

### What Next...

1. Learn about SIP's Configuration Files.
2. Implement a supplied or custom authentication provider.
3. Implement a customer model—a mapping of customers to their resources.
4. Learn about SIP's customer data filtering approach.
5. Decide on an approach to portal development and deployment that suits your needs.
6. Design a custom look and feel to your portals.
7. Integrate your own applications and data.
8. Deploy your customer portals.

Touring a Sample Portal  
**Making Plans to Pilot Your Own Voyage**



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# Glossary

## A-B

**authentication** The process by which a user identifies and validates him/herself to the system.

**authentication provider** A configured component of the system that authenticates users that attempt to use the system.

**authorization** The granting of access privileges to an authenticated user that determines what the user can see and do while logged into the system.

## C

**configuration** The combination of settings of software parameters and attributes that determine the way the software works, the way it is used, and/or how it appears.

**configuration file** A file that contains specifications or information that can be used for determining how a software program should look and operate.

**configure** To define and/or modify specified software settings to fulfill the requirements of a specified environment, application and/or usage.

**current role** The currently selected role for a logged in SIP user. The Role drop-down list box

in the portal button bar shows the current role, and allows it to be changed.

**customer data filtering** The use of attributes as a mask for constraining the data that is to be acted on, used, or displayed in the user interface. In HP OpenView Service Information Portal, the information that is presented in the user interface for a given user login is filtered by the specific management data that is associated with a given role. Customer data filtering can also be described as “customer segmentation.”

**customer model** A mapping of customers to resources, where resources are associated hosts, interfaces, and services. A customer model can be defined in several XML files, or a mix of programs and files.

SIP 2.0 uses the so-called “Simple Customer Model” that is defined via an XML DTD.

**customer model data source** A configured URL or file that provides the mappings or partial mappings of customers to resources.

**customize** To design, construct and/or modify software to meet the needs and preferences of a particular customer or user. For HP OpenView Service

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Information Portal, customizing is synonymous with assigning to customers what will be displayed to them. Customization tasks include customizing content, tabs, and tab layout, customer filtering, and the setting of options.

**customization** The process of designing, constructing and/or modifying software to meet the needs and preferences of a particular customer or user.

## D

**default role** Any role in the User-Role Model that has the "defaultRole" attribute set to "yes." The default role is the role that is selected when a user logs into the portal and does not have a role configured for them. This is used only if there is no explicit user entry but there is a portal view file named for the login user. The default role is effectively a way to enable the "user-specific view file" mechanism for logging in. If no default role exists, there is no role to associate with the "user-specific view file" and the user is not authorized to use it. Only one role may be specified as the default role.

**default user** Any user in the User-Role Model that has the "defaultUser" attribute set to "yes". This user is selected when no user is found for a login after a user was authenticated.

## E

**edit permissions** That which determines the editing operations that are available to a user through the program interface.

**edit permissions level** A group of operations that a user is authorized to perform through the program interface. Each level includes all the operations defined by the previous level and adds some additional operations.

**extensible** Software functionality whose capability, scope or effectiveness can be increased.

**extend** The act of increasing the capabilities, scope, and/or effectiveness of a program. The capabilities of HP OpenView Service Information Portal can be extended through the generic module and through the writing of XML.

## F

**filter** A set of attributes and values that act as a pattern or mask through which data is passed. Filters allow matching-relevant information to be extracted and acted on while non-matching-irrelevant information is blocked.

---

## L

**login** The string used to identify a user for authentication purposes.

## M

**Management Data Filter** The security mechanism that defines what data is displayed through the portal.

**message** A communication using text and/or images. In HP OpenView Service Information Portal, messages are presented to customers via the message board module.

**Message Board** A module that is used for presenting messages to customers.

**message content** The information that is presented in a message. Message content may include text and/or graphics.

**module** A self-contained software component that performs a specific type of task or provides for the presentation of a specific type of data. Modules can interact with one another and with other software. In HP OpenView Service Information Portal, modules present specific sets of functionality to the user through the portal framework. Examples of modules include the Message Board, Service Browser, Network

Device Health, and the Alarm Module.

**module instance** An instantiation of the module in a portal view file. Module Instance will likely differ from other instances in the portal view file by changing the XML description for that instance. For example, one could have an instance of the Alarms module displaying "All Alarms" and another instance displaying "Router Alarms."

## P

**page** A single display or presentation of information on the World Wide Web. Typically a web page consists of an HTML file, referenced graphics files, and associated scripts.

**portal** A web site that provides a variety of different types of information and which serves as a gateway to other web sites. HP OpenView Service Information Portal consists of the framework and modules. It provides information and access to other websites through the modules and submodules.

**portal framework** A program that acts as the basic structure to support other software modules or programs that provide additional functionality for the user. In HP OpenView Service Information Portal, the framework provides a

---

mechanism for the modules to present information to the user. The framework also provides the structure for customization, configuration and extension of the portal's functionality.

**portal view** Consists of modules, tabs, and view properties. Each user account that is set up by an administrator has one or more roles, and each role is associated with one portal view. A portal view can be shared by multiple users.

**portal view file** A configuration file that contains specifications or information that can be used for determining how software should look to a given user. In HP OpenView Service Information Portal, portal view files are XML files that contain all information needed to render a portal view.

## R

**role** That which defines what a user can see and do through the portal at a particular point in time. A role can be shared by multiple users.

**role properties** An extensibility mechanism used to provide authorization information associated with a role and that is not defined in the predefined role XML elements.

## S

**skin** A setting that controls the visual appearance of the user interface. Skins can determine the color scheme, fonts, graphics, and other attributes presented in the user interface. The skins in the HP OpenView Service Information Portal are based upon W3C's Cascading Style Sheets. Existing skins may be extended, or new ones added to the 'css' files located under the `htdocs/styles` directory.

**submodule** A portion of a software module that provides a subset of the functionality provided by the module. A submodule performs a specific task or presents a specific set of data. In HP OpenView Service Information Portal submodules present different variations of the type of data presented by the Module. For example, one submodule of the Network Device Health Module presents Network health for Routers while another submodule presents Network health for Servers.

## T

**tab** A page in the user interface that has a small index-card like projection. The projection typically presents the name for the page and allows navigation to the page by clicking. In HP OpenView Service Information Portal the main portal

---

pages have tabs. Service Information Portal provides one tab, but multiple tabs can be created using the Customize Content option on the Options page. Similar types of modules can be grouped together using tabs.

## U

**user preferences** The attributes that are associated with a specific user. In Service Information Portal, user preferences control the name that appears in the portal header, and the color scheme, or “skins” that control the portal colors and fonts.

**User-Role Model** An authorization model that achieves security by associating users with roles and assigning to each role what the user is able to see and do. The User-Role Model consists of all User Role Package files.

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