# Smart Plug-ins CD for OpenView Operations

## Installation/Upgrade Guide

**Software Version: 7.5**

**Microsoft Windows® Operating System**

**Manufacturing Part Number: B7491-90051**

**April 2005**

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Please visit the HP OpenView web site at:

**http://www.managementsoftware.hp.com/**

This web site provides contact information and details about the products, services, and support that HP OpenView offers.

You can also go directly to the support web site at:

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To find more information about access levels, go to the following URL:

**http://support.openview.hp.com/access_level.jsp**

To register for an HP Passport ID, go to:

**https://passport.hp.com/hpp2/newuser.do**

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# The Smart Plug-ins CD

The *HP OpenView Smart Plug-ins, New and Upgraded,* CD set contains a collection of OpenView Smart Plug-ins (SPIs) and complimentary applications. The products on this CD work in conjunction with OpenView Operations for Windows (OVO) as described in Chapter 2 of this manual. Please refer to that chapter regarding OVO version requirements. Using Volume 1 of the Smart Plug-ins, New and Upgraded, you can also print the product's accompanying documentation.

The Core SPIs—the Windows OS SPI, the UNIX OS SPI, and the WebServer SPI— are required for OVO to begin collecting system data. For this reason these SPIs are installed automatically. Other non-core products on the CD you can select, install, and evaluate. Permanent use requires that you obtain a license from Hewlett-Packard. For license information see SPI Licensing/Passwords on page 49.

The Smart Plug-ins contained on the CD work with OVO for Windows to help you manage areas of:

- BEA WebLogic Application Server
- BEA Tuxedo
- JMX Metric Builder
- IBM DB2
- IBM WebSphere

- Informix
- Microsoft Active Directory
- Microsoft Enterprise Servers
- Microsoft Exchange
- Microsoft SQL Server
- Microsoft Virtual Server
- Oracle
- PeopleSoft
- Remedy
- SAP
- Sybase

The following products, also on the CD, are complimentary and do not require a license:

- Smart Plug-in for Microsoft Windows OS
- Smart Plug-in for UNIX OS
- Smart Plug-in for Web Server

# Product Descriptions

The table below lists each product and the version included on the CD; the section that follows offers brief descriptions of each.

**Table 1      Product List**

| Product | Version |
| --- | --- |
| HP OpenView SPI for Microsoft Active Directory | B.03.10 |
| HP OpenView SPI for Microsoft Enterprise Servers | B.04.51 |
| HP OpenView SPI for Microsoft Exchange | B.09.00 |
| HP OpenView SPI for Microsoft Virtual Server | B.01.00 |
| HP OpenView SPI for BEA Tuxedo | B.02.55 |
| HP OpenView SPI for BEA WebLogic Application Server (including JMX Metric Builder) | B.03.61 |
| HP OpenView SPI for Databases (Oracle, Microsoft SQL Server, Sybase, and Informix) | B.09.01 |
| HP OpenView SPI for IBM DB2 | B.02.10 |
| HP OpenView SPI for IBM WebSphere Application Server (including JMX Metric Builder) | B.03.61 |
| HP OpenView SPI for PeopleSoft | B.02.20 |
| HP OpenView SPI for Remedy | B.01.10 |
| HP OpenView SPI for SAP | B.09.01 |
| HP OpenView SPI for Microsoft Windows OS | B.08.75 |
| HP OpenView SPI for UNIX/Linux OS | B.03.15 |
| HP OpenView SPI for Web Servers | B.04.31 |

- **HP OpenView Smart Plug-in for Microsoft Active Directory**

  The Smart Plug-in for Microsoft Active Directory adds master operations, replication, DNS, DIT, and Active Directory response time monitoring capabilities to OVO for Windows. The Active Directory SPI also includes a tool, the Topology Viewer, that generates a map, showing replication connections among Active Directory sites/domain controllers. In addition to the map, the Topology Viewer also provides a hierarchical rendering of Active Directory components.

  By using the Active Directory SPI, you stay informed of Active Directory-related conditions as follows:

  — Data is consistent across all domain controllers and replication is completing successfully in a timely manner.

  — Systems are able to cope with outages.

  — All role masters are running and domain controllers are not contending with overly utilized CPUs.

  — Active Directory is not experiencing capacity and fault-tolerance issues.

- **HP OpenView Smart Plug-in for Microsoft Enterprise Servers**

  The Smart Plug-in for Microsoft Enterprise Servers provides preconfigured policies for managing the operations and performance of Microsoft enterprise servers on your Windows nodes and offers these features:

  — Topology/service mapping

  — Service monitoring

  — Measurement threshold monitoring

  — Event monitoring

  The SPI for Microsoft Enterprise Servers supports the following Microsoft Enterprise Servers:

  — Application Center 2000

  — BizTalk Server 2000/2002

- — Commerce Server 2000/2002

- — Content Management Server 2001/2002

- — Internet Security and Acceleration Server 2000

- — SharePoint Portal Server 2001\2003

- **HP OpenView Smart Plug-in for Microsoft Exchange**

  The SPI for Microsoft Exchange Server adds Exchange server management capabilities to OVO with support for Exchange versions 2003, 2000, and 5.5. Management capabilities are also extended to include Exchange 2003 and 2000 Virtual Servers when Exchange is installed into Microsoft Cluster Service. The SPI for Exchange provides for service level performance monitoring and reporting for all Exchange Server functional areas. The SPI's features include:

  - — Performance, Usage, and Availability of Information Stores

  - — Transaction Log monitoring for size and back up

  - — SLA Message Delivery Monitor and Reporting

  - — Top Users of Messaging and Storage

  - — Message Traffic Analysis

  - — Queue monitoring, delivery time, and usage trends of the Messaging System

  - — Directory Access and Client Access Performance management

  - — Process and Service Monitoring. Event Forwarding

  - — Knowledge filled alarms with trouble-shooting links into Microsoft's knowledge base

  - — SRS, Virus Scan, Chat, Instant Messaging, and Conferencing Activity

- **HP OpenView Smart Plug-in for Microsoft Virtual Server**

  The Smart Plug-in for Microsoft Virtual Server 2005 (MSVS SPI) software extends the management scope of HP OpenView Operations to include the virtual computer environment of Microsoft Virtual Server 2005 (MSVS). The SPI provides the following features:

— Automatic service discovery and deployment based on discovered services. Virtual resources, such as virtual machines, virtual disks and virtual networks, can be discovered and then monitored.

— Monitoring the CPU utilization and availability of the virtual server service on the host server.

— Monitoring service level performance and reporting that covers all virtual machines in the managed Virtual Server environment. Resource monitoring/reporting includes the following:

  – CPU utilization

  – Disk usage and throughputs

  – Network utilization

  – Memory utilization

— Automatic notification of any change in the state of the power or configuration of the virtual machines.

— Tools to assist administration of the Virtual Server. Host tools assist in configuring the virtual server and guest tools help in the administration of virtual machines.

- **HP OpenView Smart Plug-in for BEA WebLogic Application Server**

  The Smart Plug-in for BEA WebLogic integrates BEA WebLogic Server into any IT environments managed by the HP OpenView family of products. The WebLogic SPI monitors the following areas:

  — Server performance

  — Transaction rates

  — Servlet executing times, time-outs, request rates

  — Enterprise Java Bean resource utilization

  — JDBC connection status

  — Java Message Service

  — Java Virtual Machine heap utilization

  — Web applications

— User-definable metrics to extend monitoring for the performance of any custom applications that expose MBean management data via JMX

- **HP Openview JMX Metric Builder**

  The JMX Metric Builder (JMB) is included as part of the IBM WebSphere and BEA WebLogic SPI solutions. This application allows you to define your own metrics (user defined metrics [UDMs]) that gather data from application MBeans registered in a JMX-compliant MBean server. The UDMs generate data about your applications that is collected and then monitored by OVO. Specifically, you can use the JMB for the following:

  — to browse MBeans registered in an MBean server.

  — to create user defined metrics that conform to the metric definitions DTD

  — to edit a UDM file by mapping MBeans to UDMs

  — to validate metric IDs

- **HP OpenView Smart Plug-in for BEA Tuxedo**

  The Smart Plug-in for BEA Tuxedo (Tuxedo SPI) works in conjunction with OVO to provide centralized management of distributed BEA Tuxedo systems and applications.

  The SPI provides support for:

  — monitoring BEA Tuxedo system events

  — monitoring Tuxedo system central event user log (ULOG)

  — monitoring critical server performance metrics

  — starting and stopping the administration servers in the Tuxedo domain

  — starting and stopping the application servers in the Tuxedo domain

  — viewing the servers and services in the Tuxedo domain

  — viewing the transactions (set of operations that act as a logical unit) in the Tuxedo domain

  — viewing the Tuxedo configuration file (TUXCONFIG) for the Tuxedo domain

  — compressing or deleting outdated ULOG files

&mdash; administering the Tuxedo server

- **HP OpenView Smart Plug-in for IBM DB2**

  The HP OpenView Smart Plug-in for IBM DB2 (DB2 SPI) provides centralized proactive monitoring and management of enterprise-wide DB2 databases from a central best-in-class console. Key features include:

  &mdash; 100 pre-defined thresholds to monitor key performance and activity areas at application, database, instance, and tablespace levels

  &mdash; monitoring of db2diag and Administration Notification Log files

  &mdash; monitoring of database status, tablespace usage, and key DB2 processes

  &mdash; ability to define metrics as desired

  &mdash; snapshot reports showing data at drill-down application levels, available as both alert-generated or user-generated

  &mdash; pre-defined graphs that can be generated with the OpenView Performance graphing tool to graphically represent areas like buffer pools, locks and deadlocks, agents and applications, and connections

  &mdash; integration with OpenView Operations service map to visually represent databases/instances, color-coded to show service availability/performance

  &mdash; integration with OpenView Reporter to provide management- ready reports on availability, workload and space utilization

- **HP OpenView Smart Plug-in for IBM WebSphere**

  The Smart Plug-in for WebSphere offers centralized tools that help you monitor and manage systems using IBM WebSphere. The WebSphere SPI monitors the following areas:

  &mdash; Server availability and performance and memory usage

  &mdash; Transaction rates,

  &mdash; Servlet executing times, time-outs, request rates

  &mdash; JDBC connection status

> — Web application processing and exception counts of scheduled WebSphere actions

> — Java message service processing

> — Cluster processing

- **HP OpenView Smart Plug-in for Informix**

  The SPI for Informix Dynamic Server (also referred to as the SPI for Databases) helps administrators manage Informix environments of any size, from a single Informix database managed with local tools to a distributed environment of hundreds of databases managed from a central, best-in-class console. Additional features of this SPI include:

  > — More than 45 pre-defined threshold events and over 150 logfile conditions

  > — Areas of focus include space management, transaction management, and memory metrics

  > — Interception of error log messages such as panics, chunk down, and lock table overflow

- **HP OpenView Smart Plug-in for Microsoft SQL Server**

  The SPI for MS SQL Server (also known as the SPI for Databases) helps administrators efficiently manage SQL Server environments of any size, from a single SQL Server database managed with local tools to a distributed environment of hundreds of databases managed from a central, best-in-class console.

  The key features include:

  > — More than 30 pre-defined threshold events and several logfiles conditions

  > — Specific focus on space management, concurrency problems, and workload metrics

  > — Interception of hundreds of error log messages such as corruptions and space shortages

- **HP OpenView Smart Plug-in for Oracle**

The HP OpenView SPI for Oracle Database Servers (also known as the SPI for Databases) helps administrators efficiently monitor distributed enterprise-wide Oracle environments from a central, best-in-class console. The key features include:

— More than 80 pre-defined threshold events and over than 90 logfile conditions

— Specific areas of focus on space management, table/index performance, and rollback segments

— Snapshot reports of database environments when alerts occur

— Thresholds based on ratios and percentages rather than raw data

— Continuos availability monitoring of the Oracle listener - a single point of failure

- **HP OpenView Smart Plug-in for Sybase**

  The HP OpenView SPI for Sybase Adaptive Server (also known as the SPI for Databases) helps administrators efficiently manage Sybase environments of any size, from a single Sybase database managed with local tools to a distributed environment of hundreds of databases managed from a central, best-in-class console. The key features include:

— More than 65 predefined threshold events and more than 15 log file conditions

— Focus on replication, index tuning, and resource hogs

— Interception of over 1,000 error log messages such as corruptions and space shortages

- **HP OpenView Smart Plug-in for PeopleSoft**

  The HP OpenView SPI for PeopleSoft is based on standard HP OpenView processes and is an extension of the OpenView platform. It helps IT organizations with PeopleSoft environments to efficiently manage database availability and performance impact of PeopleSoft environments. The key features include:

— Encompassing of PeopleSoft, BEA Tuxedo, database and process scheduler

- — Dynamic monitoring of logfiles for the complete environment

- — Batch job status information includes failures or delays

- — Manages database availability and performance impact on PeopleSoft

- **HP OpenView Smart Plug-in for Remedy Action Request System Integration**

  The HP OpenView SPI for Remedy Action Request System (ARS) provides IT organizations with a pre-configured smart link between OpenView Operations and Remedy ARS service desk. Additional SPI for Remedy ARS features include:

  - — the ability to automatically create and track Remedy Action Requests from HP OpenView Operations

  - — dynamic updates of HP OpenView Operations events based on Action Request status changes.

- **HP OpenView Smart Plug-in for SAP**

  The Smart Plug-in for SAP extends HP OpenView management capabilities to help you manage all IT elements necessary for delivering R/3 services; for example, R/3 programs, application servers, databases and their servers, and operating systems. In addition, the SPI for SAP can help you manage a variety of business-critical applications as well as the overall IT environment. Unlike a product that is specialized for R/3-only management, the SPI for SAP, working in conjunction with OVO for Windows, offers a more feature rich set of IT systems management capabilities that include:

  - — Availability Management: monitors alerts from CCMS, Syslogs, batch jobs, processes, files, R/3 status, etc.

  - — Performance management: a consolidated view of SAP R/3 performance information and overall system-resource characteristics, including: frequency, response, and wait time for Dialog, Update, Batch, and Spool processes

  - — Remote monitoring: ability to monitor SAP systems running in unsupported environments

— SAP ITS (Internet Transaction Server) monitoring: checks the status and availability of the various components of the ITS server, including; AGate, WGate, and Web Server

— Service Reports: reports that correlate and display long-term data about your IT environment, allowing you to analyze trends

- **HP OpenView Smart Plug-in for Microsoft Windows OS (complimentary)**

  The HP OpenView SPI for Microsoft Windows OS (Windows OS SPI) helps administrators efficiently manage Windows machines on the network and is the OVO extension for a number of Microsoft DNA-based business applications services. It adds value by providing out-of-the-box solutions including:

  — Monitoring of events and processes for key Microsoft back office applications (Certificate Server, Cluster Server, Index Server, Message Queue Server, Proxy Server, SNA Server, System Management Server, and Transaction Server)

  — Monitoring of events, processes and performance for Microsoft Windows core components (Active Directory Server, Terminal Server, Network Infrastructure and Operating System health)

  — Monitoring of events, processes and performance for Microsoft Internet Information Server and Microsoft Site Server

  — Monitoring events for antivirus applications from McAfee and Norton

  — Monitoring events for backup and storage applications from Veritas

  — OpenView Operations for Windows integrations with HP Systems Insight Manager and Microsoft Operations Manager.

- **HP OpenView Smart Plug-in for UNIX OS (complimentary)**

  The HP OpenView SPI for UNIX Operating systems has capabilities that include:

  — Monitoring system health for HP-UX, Sun Solaris, IBM AIX, and Linux (Red Hat, Suse, Debian, TurboLinux), and Tru64 environments

  — Providing out-of- the-box monitoring for hardware components, services, and performance monitoring (also supports Veritas Volume Manager and Solstice Disk Suite)

- — The ability to configure performance agent alarms with OpenView Operations policies

- — The ability to discover and monitor Sun cluster nodes, shared devices, resource groups, quorum devices, NAFO groups, and private interconnects for the sun cluster nodes

- — The ability to monitor Veritas Cluster server resources and events

- **HP OpenView Smart Plug-in for Web Servers (complimentary)**

  The HP OpenView Web Server SPI is designed to monitor and manage web servers. It provides preconfigured policies to monitor processes, log files, and performance of web servers. For management

  capabilities, the SPI provides tools. The following web servers are currently supported by the SPI:

  - — Apache from Apache Software Foundation (ASF) and HP Apache

  - — iPlanet

  - — SunONE

**2**

# Smart Plug-ins Upgrade/Installation, Uninstallation

This chapter contains instructions and information on:

- Upgrading Smart Plug-ins on a Remote Console on page 22

- Upgrading Smart Plug-ins on a Local Management Server/Console on page 23

- Installing Smart Plug-ins (for the first time) on page 25

- Uninstalling Smart Plug-ins on page 34

- Installing Smart Plug-ins in a Cluster Environment on page 39

- Uninstalling Smart Plug-ins in a Cluster Environment on page 41

The installation instructions contained in this chapter apply to all SPIs/applications and are therefore general. For more exact instructions pertaining to the specific product(s) you plan to install, print a copy of the product's installation instructions. For the name/location of the document(s) you need, see Table 3 on page 48.

➤ The CD contains the complete software for each listed product, which can be used for a 60-day evaluation period; after the 60-day period, a license is necessary for continued use.

# Before Installation

**Verify you have met the prerequisite:** On the management server, installation of OpenView Operations (OVO) **7.5**, or **7.x plus patches** to achieve **7.5 equivalency**.

**Be prepared to print individual Smart Plug-in documentation:** Before you complete the installation from the CD, please print and read the instructions as detailed in the individual product's documentation (contained in the \Documentation\ directory on CD Volume 1. It is important that you follow the product's specific instructions as they contain unique steps that must be completed *after installation from the New and Upgraded Smart Plug-ins* CD. These steps enable a successful installation and configuration.

**Review CD contents:** Please refer to the SPI_CD_Readme.html file for the list of SPIs specific to Volume 1 and Volume 2 of the HP OpenView New and Upgraded Smart Plug-ins. For installing/uninstalling specific SPIs, it is recommended you use the CD containing the SPI(s) you want to add/remove.

# Upgrading Smart Plug-ins on a Remote Console

To upgrade a remote console-only installation.

1   At the console-only system, insert the *New and Upgraded Smart Plug-ins for OV Operations for Windows*, Volume 1, in the CD-ROM drive.

2   Follow the instructions on screen until the following dialog appears.

**Figure 1    Remote console packages are detected and previously installed product packages are automatically upgraded after selecting Next.**
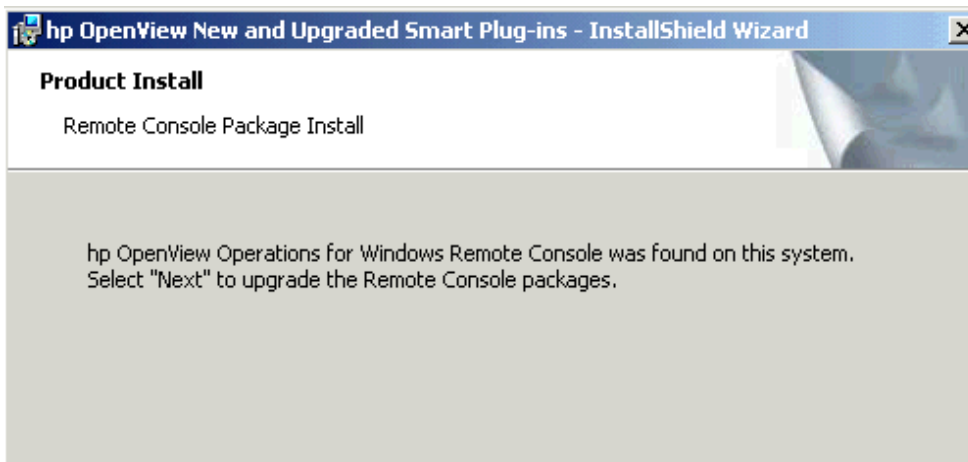


3   Click **Next.**

The upgrade of all previously installed packages now occurs.

4   Repeat the procedure with Volume 2 of the CD set to upgrade Smart Plug-ins contained on that CD.

(Please see the SPI_CD_ReleaseNotes.html for details on the SPIs contained on volumes 1 and 2.)

# Upgrading Smart Plug-ins on a Local Management Server/Console

**For Core Smart Plug-ins (Windows OS, UNIX OS, WebServer):** The upgrade of the complimentary Core SPIs requires a few manual steps that are covered in the documentation specific to the individual Core SPI. Some steps are necessary to prevent data loss. Please perform the actions as outlined in each document:

•   For the WINOSSPI, see:
    \Documentation\ReleaseNotes\WinOS_ReleaseNotes.html

- For the UNIX OS SPI, see:
  `\Documentation\SPI Guides\UnixOS_ReleaseNotes.html`

- For the Web Server SPI, see:
  `\Documentation\ReleaseNotes\webserver_ReleaseNotes.html`

When you have completed the actions, you can move forward with the upgrade process. Upgrading Core Smart Plug-ins occurs automatically when you start the installation process and select a Smart Plug-in on the New and Upgraded Smart Plug-ins, Volume 1 CD and start the installation process. Any previous installation is detected and the new version is installed over the previous version.

**For purchased/evaluation SPIs**: Upgrading SPIs that you have purchased or may purchase is the same as a new installation. Before starting, however, please review the SPI documentation, which describes in detail any required pre-installation preparation steps for upgrading SPIs. By completing required steps, you avoid unnecessary data loss.

# Installing Smart Plug-ins (for the first time)

**Prerequisite:** Install OpenView Operations on the management server before you install the *Smart Plug-in(s)* you are purchasing by meeting requirements and completing installation steps as contained in the following documents located on the OpenView Operations for Windows CD:

**Table 2      OpenView Operations for Windows CD Documentation**

| Document | Directory\File name |
|---|---|
| Release Notes for OpenView Operations for Windows | \Documentation\Releasenotes\ OVOReadme.html |
| *OpenView Operations for Windows Installation Guide* | \Documentation\OVOGuides\ OVOInstallguide.pdf |
| *OpenView Operations for Windows Upgrade Guide* | \Documentation\OVOGuides\ OVOW Upgrade guide.pdf |

**To install the Smart Plug-ins on the management server:**

1   Insert the *Smart Plug-ins, New and Upgraded,* Volume 1, CD into the CD-ROM drive of the management server/console system.

**Figure 2    InstallShield Wizard guides you through the installation.**
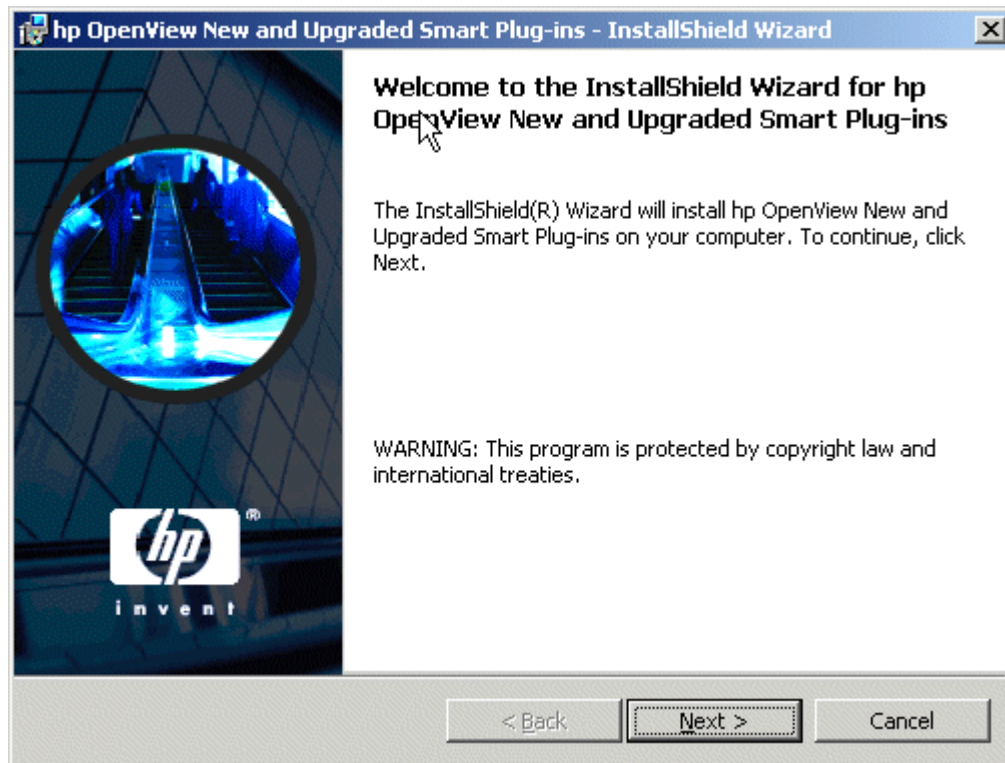


**2**    Click **Next** to continue.

**Figure 3     Product manuals and release notes are available in the
\Documentation\ directory on Volume 1 of the New and Upgraded
Smart Plug-ins CD. Please see the index (SPI_Docs_index.htm) for the
complete list of documents, each of which you can open by clicking
the document name.**
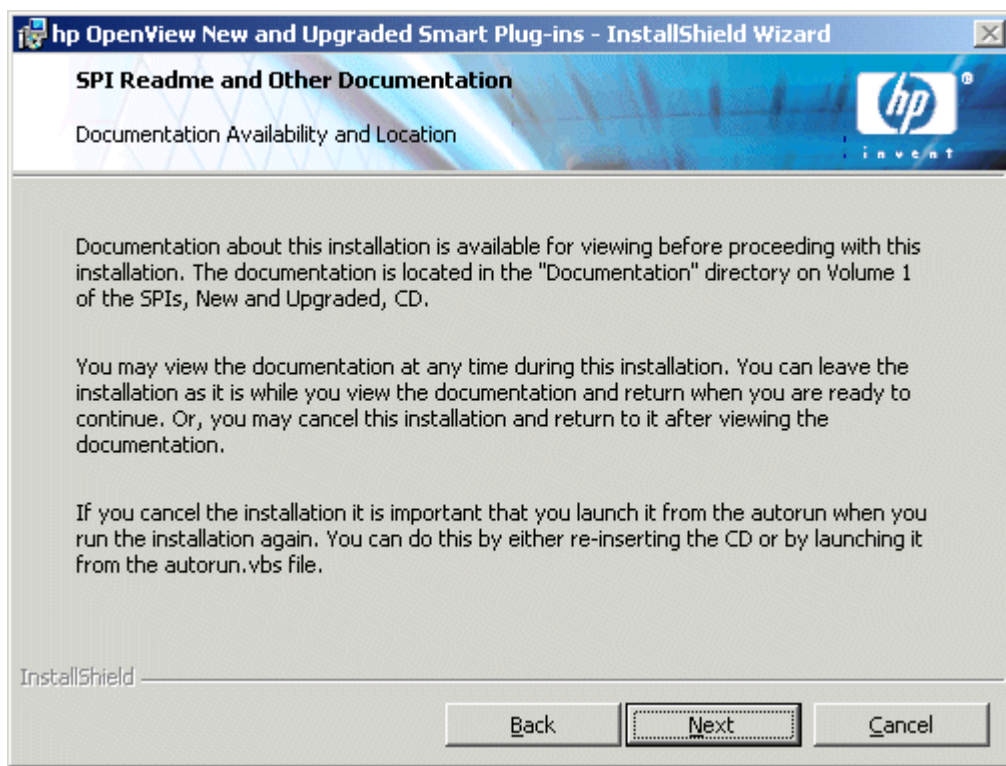


3   Click **Next** to proceed.

4   In the next dialog, select those Smart Plug-ins you want to install or
    upgrade.

**Figure 4** **The menu selection varies, depending on which SPI CD, volume 1 or 2, you are using. The selections below are on Volume 1.**
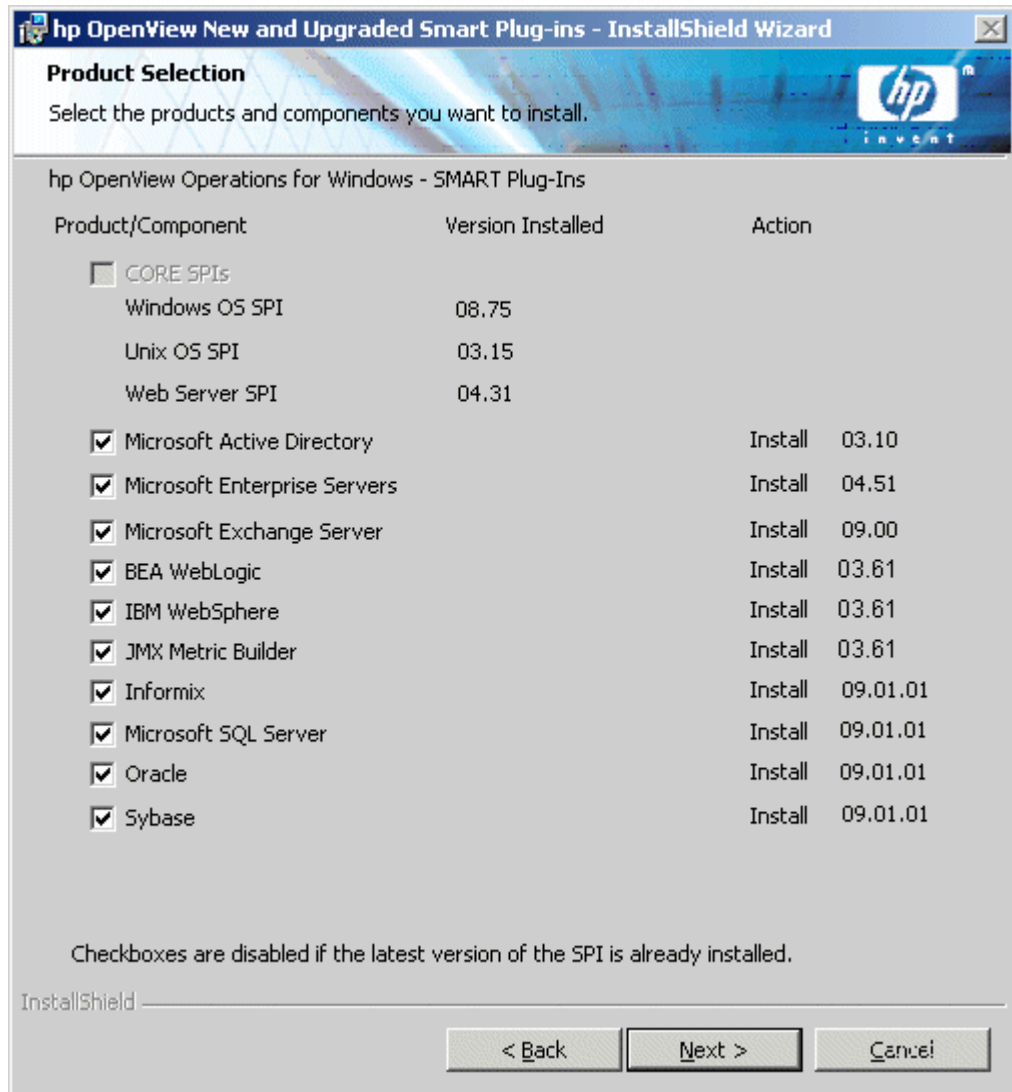


Any Smart Plug-in selected on Volume 1 results in an automatic upgrade, as needed, of the Core SPIs.

**5**   Click **Next**.

**6**   Indicate your acceptance of licensing agreement terms by selecting the
**I accept the terms in the license agreement** button.

**Figure 5      Licensing information is located in Chapter 3. For details
on obtaining a permanent license, see** SPI Licensing/Passwords **on
page 49**.
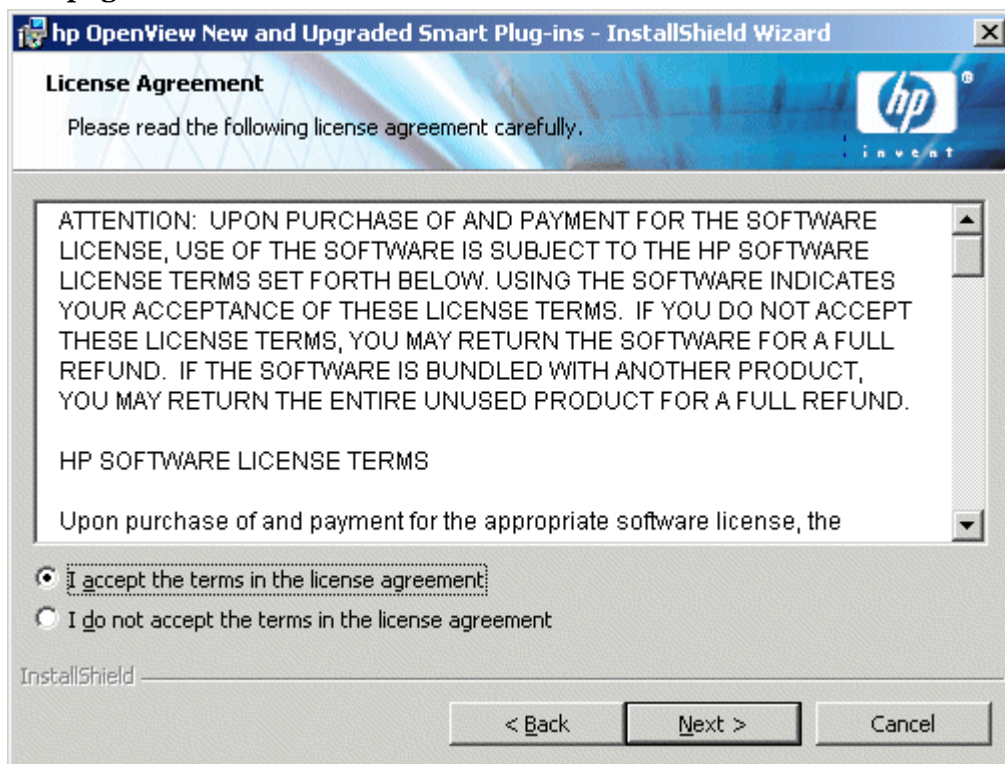


**7**   Click **Next**.

**Figure 6    All selections made in previous dialogs can be reviewed by choosing the Back button, if necessary; otherwise, you are ready to install your new or upgraded SPIs.**
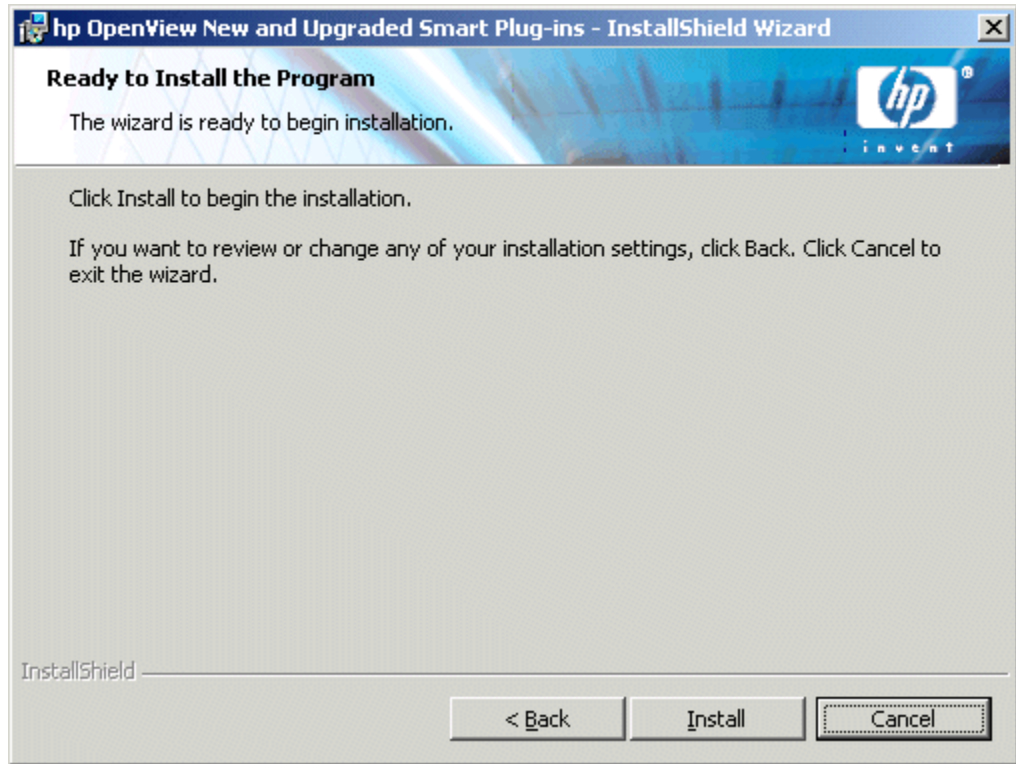


8    Click **Install** to begin the installation.

**Figure 7    Once the installation begins, you are updated as to its progress.**
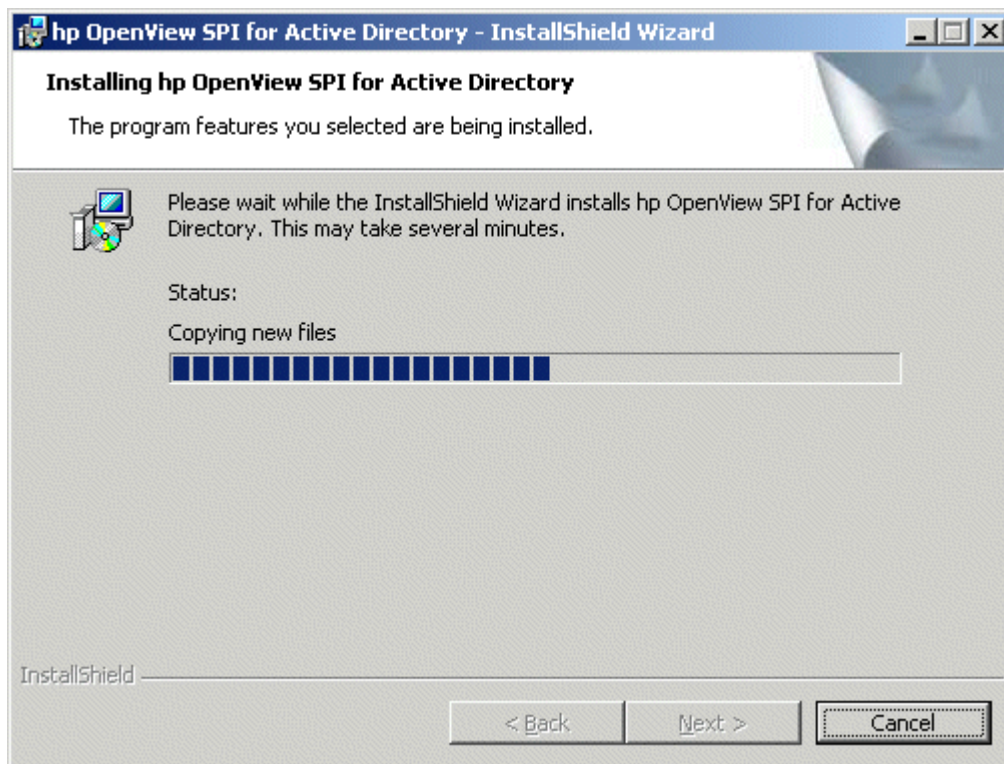


> ➤ Selecting the Cancel button after the installation has started does not halt the entire installation process but only that of the current product (shown in the Status area); installation of the next selected product then begins.

You will see various status dialogs as the install program proceeds. Depending on the speed of your system and the components selected for installation, this process could take several minutes or more.

**9** Click **Finish** to conclude the installation.

**Figure 8    This dialog allows you to complete the installation or upgrade of any SPI on Volume 1. As necessary, you can insert the SPI CD, Volume 2, to install any other remaining Smart Plug-in.**
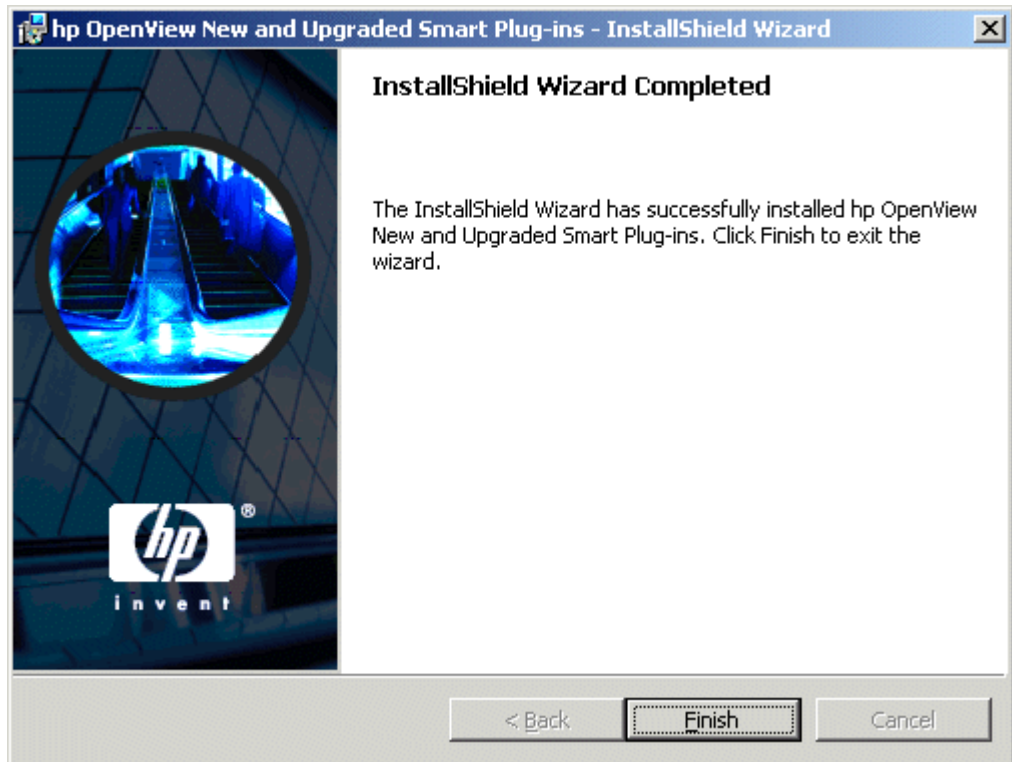
**Figure 9     The second SPI CD (Volume 2) takes you through the same procedure as Volume 1, but you can select the SPIs shown below for installation.**
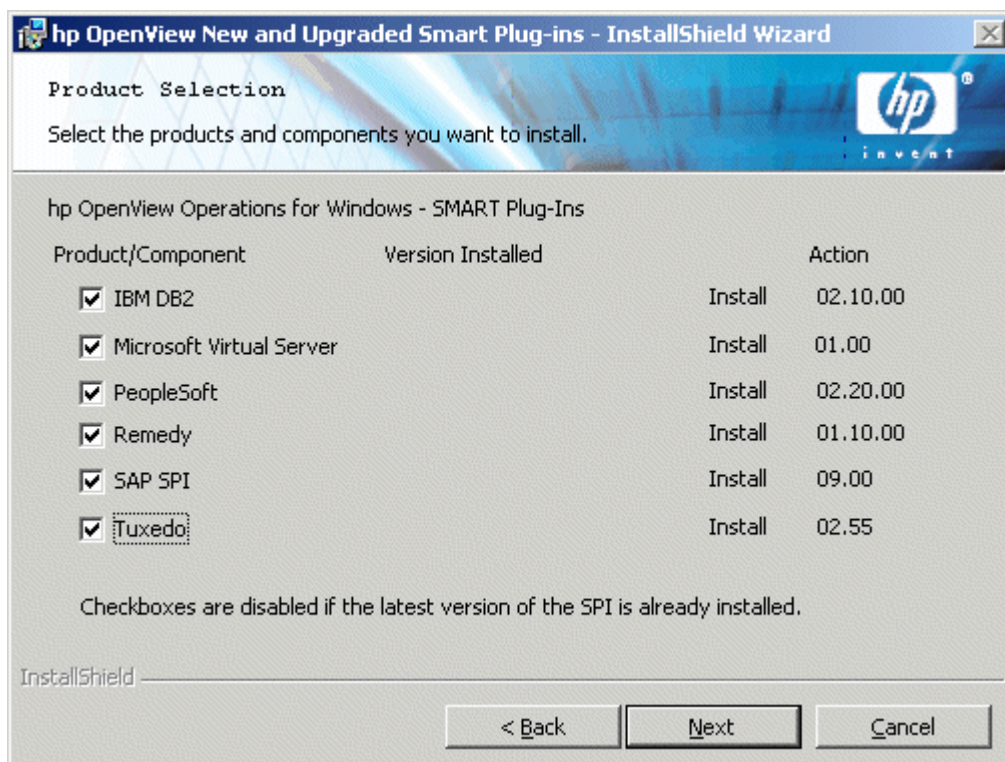


After you have installed all your purchased SPIs, please see the individual product's documentation (locations are described in the chapter that follows) for configuring your product.

# Uninstalling Smart Plug-ins

Two methods are available for removing SPIs:

**1** Use Volume 1 or Volume 2, according to which Smart Plug-ins you installed (please see the SPI_CD_ReadMe.txt file for a list the specific SPIs contained on each CD).

or

**2** Use the Windows **Control Panel→Add/Remove Programs**.

To specify the Smart Plug-in(s) you want to remove, please use the procedure below, or you can use the Microsoft Windows Control Panel and proceed as you would to uninstall any product using that method.

⚠ Before removing any Smart Plug-in, please see the specific product's documentation for complete removal of its components, such as policies and tools. In most cases, removal of policies, tools, etc., requires manual steps. Once you have completed those steps, you can proceed to uninstall SPI program files from the management server, using either the CDs or the Add/Remove Programs method from the Windows Control Panel.

## Method 1: Uninstall, Using the CDs

**1** Insert the appropriate volume of the HP OpenView New and Upgraded Smart Plug-ins CD in the CD-ROM drive.

**2** Select the **Remove products** radio button to proceed to the product selection dialog.

**Figure 10    To remove a Smart Plug-in, use the CD from which you installed the SPI (Volume 1 or Volume 2).**
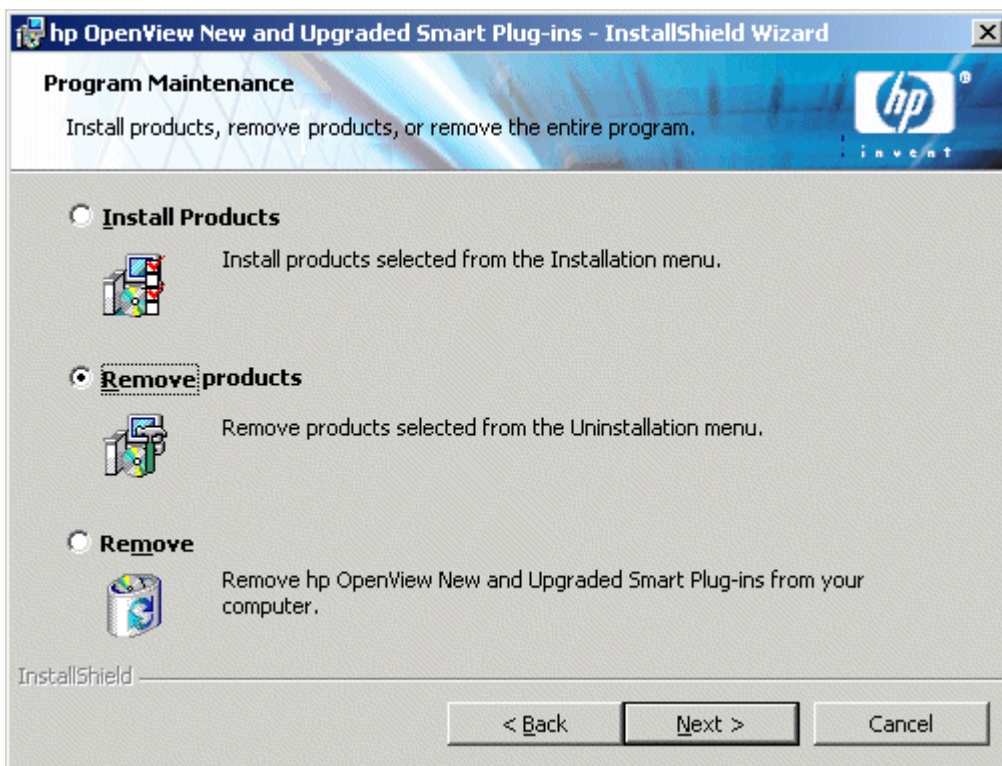


3    In the Product Selection Uninstall dialog, you can check each product you want to remove; then click **Next**.

4    Click **Next**.

Follow the instructions as they appear on screen to complete the uninstall.

## Method 2: Use the Windows Control Panel → Add/Remove Products

1    From the **Start** menu select **Settings→Control Panel** and open **Add/ Remove Programs**.

**Figure 11    Select hp OpenView Operations New and Upgraded Smart Plug-ins to proceed to remove SPIs.**
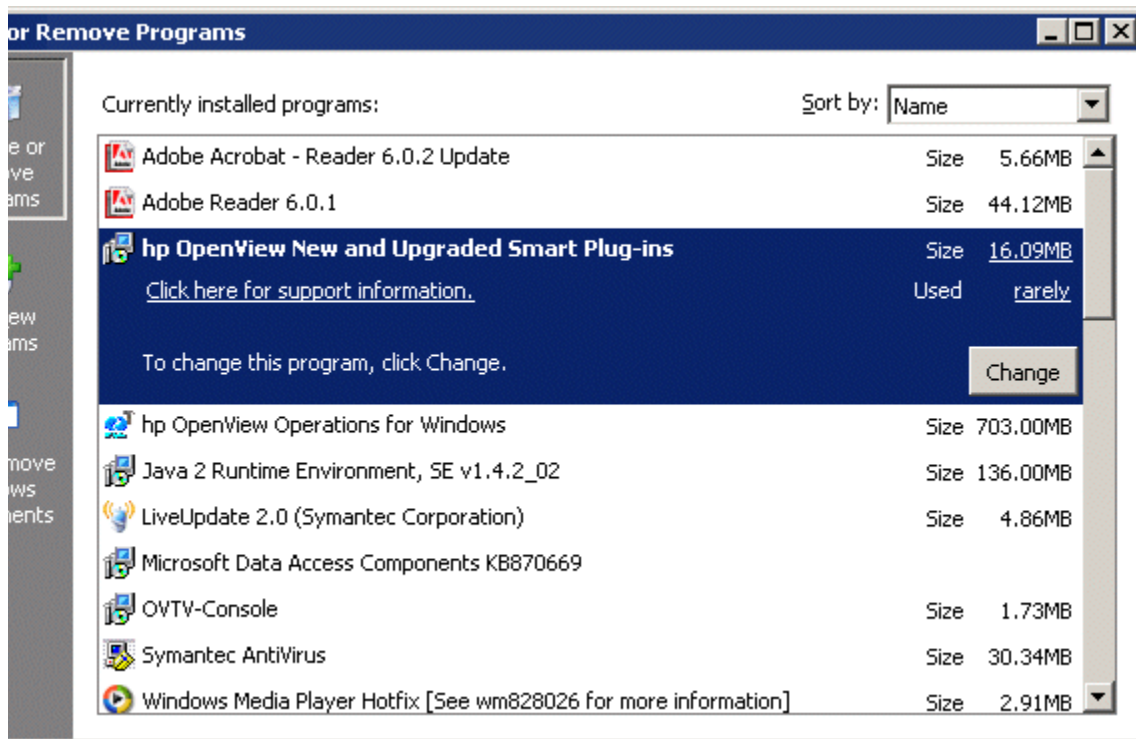


Please note that when you use the Windows Control Panel to uninstall any SPI, you have two uninstall options: (1) to remove selected SPIs or (2) to remove Open View Operations for Windows altogether. If you want to remove OpenView Operations and the SPIs both, you must first remove all Smart Plug-ins from managed nodes (as directed by the individual Smart Plug-in documentation) and then from the management server. You can then remove OpenView Operations.

**2** Select **HP OpenView New and Upgraded Smart Plug-ins** and click the **Change** button.
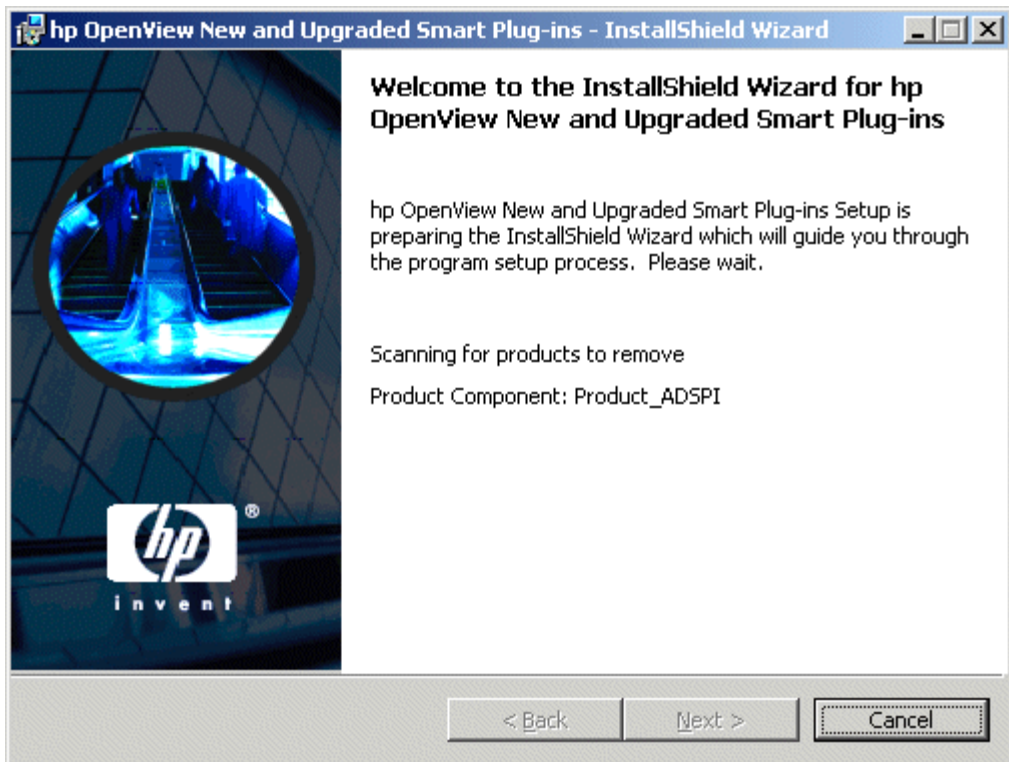


**3** Continue to the Product removal selection window by clicking **Next**.

**4** Select **Remove Products** and select the SPI(s) you want to remove.

**Figure 12   When you select the "Remove products," you proceed in the next dialog which allows you to interrupt the uninstallation and, if desired, read documentation. Then you can proceed to the dialogs that follow, where you select the Smart Plug-ins you want to remove.**



5   Proceed then, as instructed.

# Installing Smart Plug-ins in a Cluster Environment

**Prerequisites:** First install OpenView Operations management server on each system in the cluster. When the management server cluster installations are complete, you will have created the setup for the Smart Plug-in(s) installation. In addition, please be sure that each node in the cluster has sufficient disk space for the Smart Plug-ins you are installing.

**Cluster installation overview:** Follow the steps in the section that follows to complete the installation as described below:

— *For the first installation (Node A) in the cluster*—you will follow the standard installation procedure, making product choices as shown in Figure 4 on page 28 and Figure 9. After you complete the installation on Node A, you will receive an instruction to proceed to the next system, Node B.

— *For the Node B installation in the cluster*, you follow the same procedure, only you will no longer need to make product choices. The installation detects the cluster configuration and copies all the needed product choices from Node A to Node B.

— *For Node C and all remaining installations in the cluster*, proceed as you did with Node B, where you no longer choose products but allow the installation packages to be copied from Node B (the previously installed system within the cluster) to Node C (the current system within the cluster) until you are finished.

**Task 1:    At the first cluster-aware management server, select and install Smart Plug-ins.**

▶ Before beginning, please be sure that sufficient disk space is available on each management server for the SPI(s) you plan to install. To try to cancel the installation, once begun, could result in partial installations and require manual removal of the partially installed components.

Please complete all tasks shown in the instructions starting beneath the heading Installing Smart Plug-ins (for the first time) on page 25. Make product selections from Volume 1 (shown in Figure 4) and/or Volume 2 (shown in Figure 9).

If you are installing from both CDs, finish installing the Smart Plug-ins from both Volume 1 and Volume 2. Then proceed to the next management server.

**Task 2:** **At the next cluster-aware management server, install pre-selected Smart Plug-ins.**

The task that follows is repeated on each management server in the cluster and prompts you to continue to every management server (as was defined in the OpenView Operations cluster installation) until you are finished.

Figure 13    Insert the New and Upgraded Smart Plug-ins (Volume 1 or Volume 2) in the CD-ROM drive of the management server and follow instructions as they appear on screen.

**Figure 14    As you proceed on the second management server in the cluster, you see the message below.**
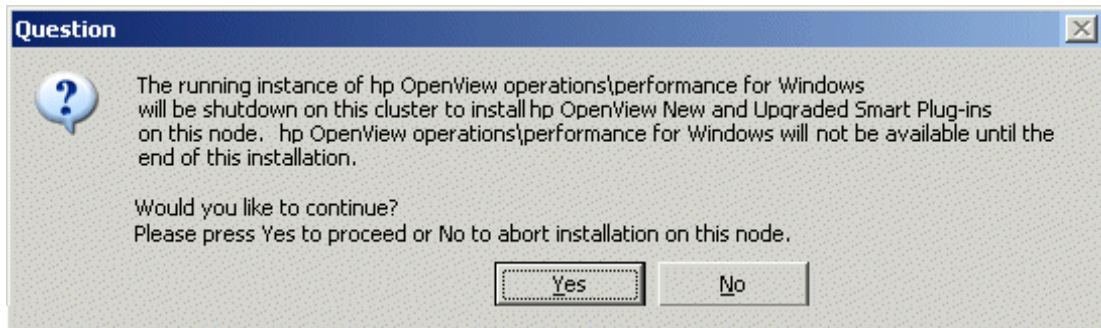


6    After the second management server installation is complete, proceed as directed to the next management server until you have completed the installation on every management server in the cluster.

Please note that the OpenView Operations console will not function properly until installations are completed on all nodes in the cluster.

# Uninstalling Smart Plug-ins in a Cluster Environment

⚠️ To reduce the number of nodes in a cluster, you must first uninstall the entire cluster, then re-install all programs you want running on the remaining nodes. To uninstall a Smart Plug-in from one node in a cluster will cause the entire cluster to fail.

**Task 1:    Remove Smart Plug-in components from managed nodes.**

Please see the documentation of the Smart Plug-in you are removing. Follow the uninstallation instructions specific to the Smart Plug-in to remove deployed SPI components from all managed nodes.

**Task 2:    Uninstall Smart Plug-in(s) from the cluster-aware management servers.**

Simply uninstall the product from each system in the cluster as described below.

1    At the management console, select **Start**→**Settings**→**Add or Remove Programs** and select **HP OpenView New and Upgraded Smart Plug-ins** and select Change.
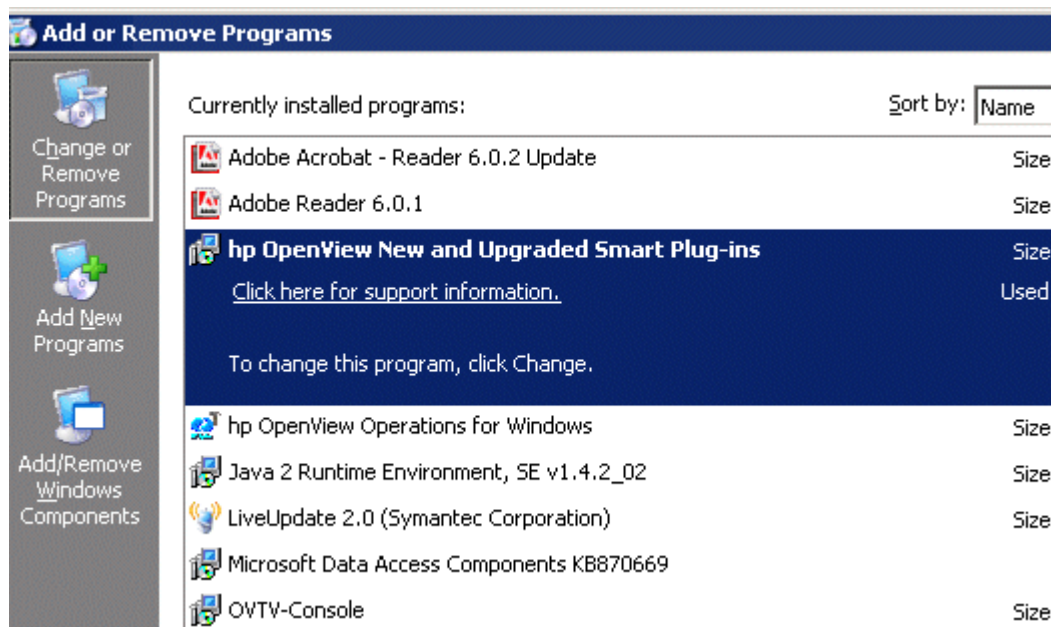
or

Insert either Volume 1 or Volume 2 of the New and Upgraded Smart Plug-ins CD in the CD-ROM.
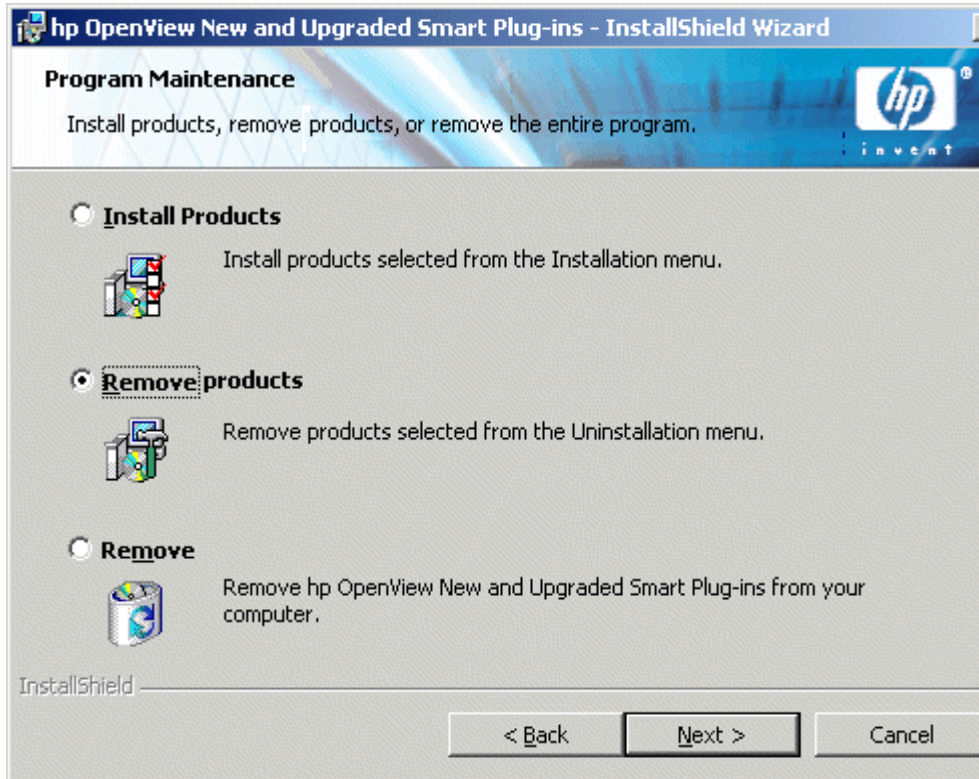
2   Whether using the Smart Plug-ins CD or the Control Panel, proceed to product selection and select all Smart Plug-ins installed on the cluster-aware management server.
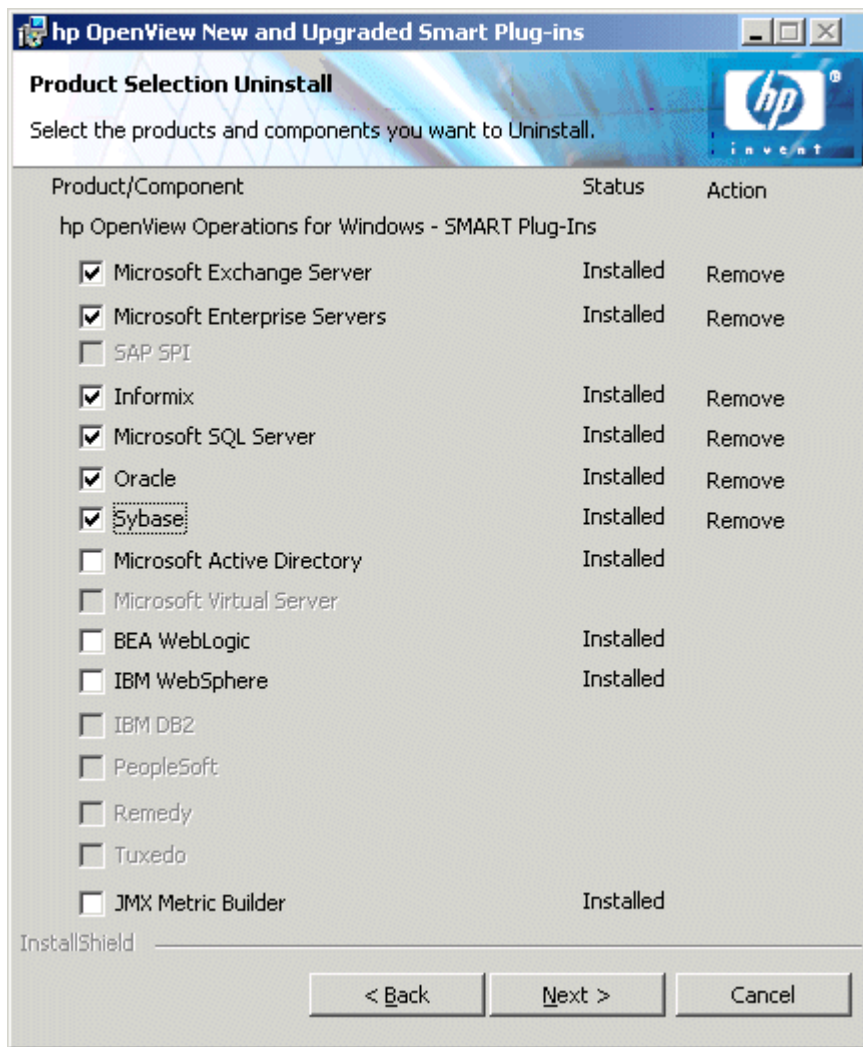
**Figure 15    First remove SPI policies/programs from all managed nodes (see the individual SPI documentation); then use the SPI CD or the Control Panel→Add/Remove Programs to remove SPIs from each management server in the cluster.**
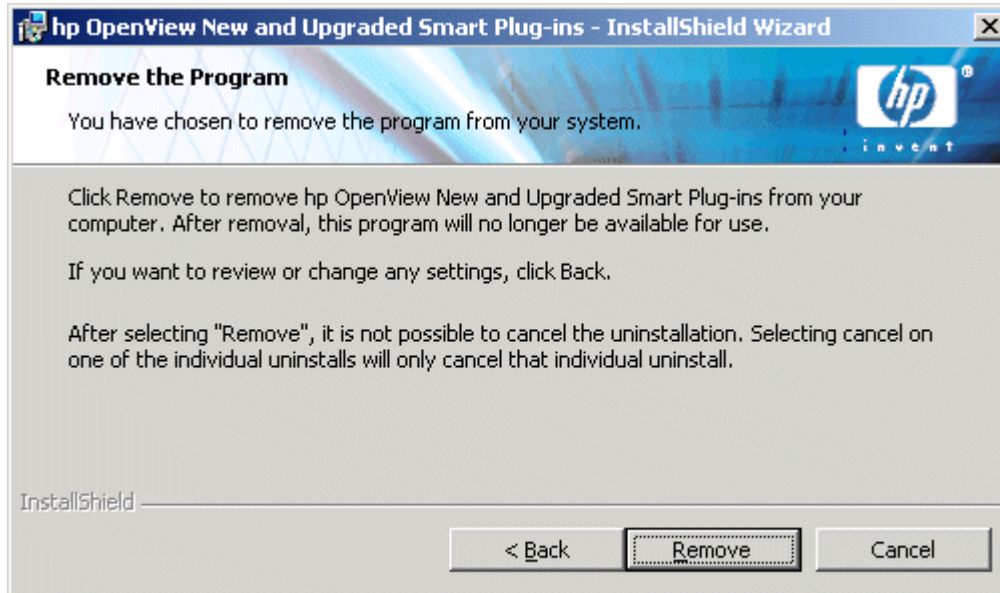


> ⚠️    **Please be certain you want to follow through on an uninstallation. To cancel an uninstallation in a cluster after it has begun could result in the need to manually remove program components later.**

**3**    When you have finished the uninstallation on one management server, proceed to the next management server in the cluster.
(You can choose any management server in the cluster to begin the uninstallation; when the first uninstallation completes, you are prompted to proceed to each subsequent management server until you reach the last.)

**Figure 16    After selecting which Smart Plug-ins to remove from the first node in the cluster and completing the uninstallation on that node, you are prompted to proceed to the next node. Your initial selections on the first node are used for removing the identical Smart Plug-ins from the second.**
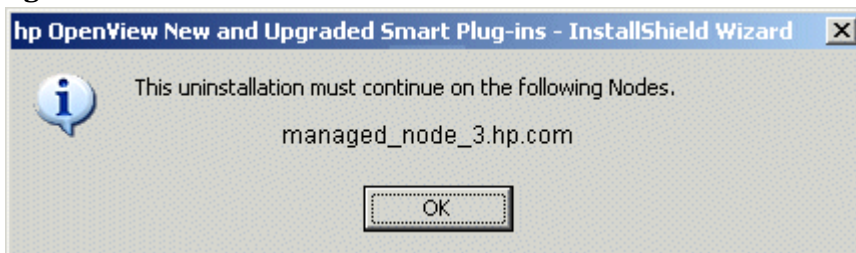


**Figure 17    When you uninstall SPIs from the last node in the cluster, you are notified that the cluster uninstall is complete.**
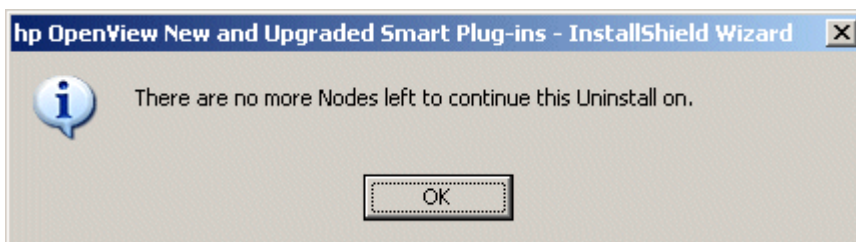
# How to Correct Failed Policy Removal

If a managed node is down or disconnected from the management server during an uninstallation, unwanted policies remain on the node. You can remove "ghost" policies by following these steps:

**1** At the managed node, stop the OpenView subagent (select **Control Panel**→**Administrative Tools**→**Services**→**HP ITO Agent**; right-click and select **Stop**.

**2** Manually delete policies by opening directories, selecting them, right-clicking, and choosing **Delete**.

(Locations for policy types are folders: *<agent>\<file folder>\<File_GUID*. Specific folders are: **Nodeinfo**, **Service Discovery**, **Flexible Management**, and **Config File**.

**3** For remaining policy types, remove corresponding files from: *<agent_directory>*/conf/OpC/vpwin/*<file folder>*.

**4** Restart the OpenView subagent by selecting **Control Panel**→**Administrative Tools**→**Services**→**HP ITO Agent**; right-click and select **Start**.

<div style="text-align: right;">

**3**

</div>

# Documentation, Licensing, and Troubleshooting

This chapter contains information and instructions on:

- Documentation for the Smart Plug-ins on page 48

- SPI Licensing/Passwords on page 49

- Troubleshooting with Self-Healing Services on page 58

For details on configuring the specific product(s) you have installed, print the product's manual, which you can find in the Table 3 on page 48. Or from Volume 1 CD, open the SPI_docs_index.htm, click the document name, and the document opens immediately.

**Figure 18    See the SPI_docs_index.htm in the Documentation directory, SPI CD, Volume 1, for links to documentation.**

# Documentation for the Smart Plug-ins

Volume 1 of the Smart Plug-ins CDs, New and Upgraded, contains all products' documentation. Each Smart Plug-in has its own procedures that must be followed for a successful installation and configuration. View or print the installation documentation and release notes for each product you plan to install.

**Table 3    Product Installation Instructions and Release Notes**

| Product | SPI Guides & Release Notes: \Documentation\index.htm (includes links) |
|---|---|
| HP OpenView SPI for BEA Tuxedo | See online Help for configuring instructions. `\ReleaseNotes\Tuxedo_ReleaseNotes.html` |
| HP OpenView SPI for BEA WebLogic Application Server | `\SPI Guides\WebLogic_AppServer_ ConfigGuide.pdf` `\Releasenotes\WebLogic_AppServer_ReleaseNotes.html` |
| HP OpenView SPI for Databases (Informix, Microsoft SQL Server, Oracle, and Sybase) | `\SPI Guides\Databases_Config.pdf` `\Releasenotes\Databases_ReleaseNotes.html` |
| HP OpenView SPI for IBM DB2 | `\SPI Guides\DB2_Config.pdf` `\Releasenotes\DB2_ReleaseNotes.htm` |
| HP OpenView SPI for IBM WebSphere | `\SPI Guides\WebSphere_AppServer_Config.pdf` `\Releasenotes\WebSphere_AppServer_ ReleaseNotes.html` |
| HP OpenView SPI for Microsoft Active Directory | `\SPI Guides\ActiveDirectory_Config.pdf` `\Releasenotes\ActiveDirectory_ReleaseNotes.html` |
| HP OpenView SPI for Microsoft Enterprise Servers | See online Help for configuring instructions. `\Releasenotes\EnterpriseServers_ReleaseNotes.html` |
| HP OpenView SPI for Microsoft Exchange | `\SPI Guides\Exchange_Config.pdf` `\Releasenotes\Exchange_ReleaseNotes.html` |
| HP OpenView SPI for Microsoft Virtual Server | `\Releasenotes\VirtualServer_ReleaseNotes.html` |
| HP OpenView SPI for Microsoft Windows OS | `\Releasenotes\WindowsOS_ReleaseNotes.html` |
| HP OpenView SPI for PeopleSoft | `\SPI Guides\PeopleSoft_Config.pdf` `\Releasenotes\PeopleSoft_ReleaseNotes.html` |

**Table 3    Product Installation Instructions and Release Notes (cont'd)**

| Product | SPI Guides & Release Notes: \Documentation\index.htm (includes links) |
|---|---|
| HP OpenView SPI for Remedy | `\Releasenotes\Remedy_ReleaseNotes.pdf` |
| HP OpenView SPI for SAP | `\SPI Guides\SAP_Config.pdf` <br> `\Releasenotes\SAP_ReleaseNotes.html` |
| HP OpenView SPI for UNIX OS | `\Releasenotes\UnixOS_ReleaseNotes.html` |
| HP OpenView SPI for Web Server | `\Releasenotes\WebServers_ReleaseNotes.html` |
| JMX Metric Builder | `\Releasenotes\JMX_Metric_Builder_ReleaseNotes.html` |

# SPI Licensing/Passwords

Each SPI can be used for 60 days without a license. Within this time period, however, you should obtain a license/password to ensure continued, uninterrupted use of the SPI you purchase.

▶  The terms "license" and "password" are used interchangeably and mean essentially the same thing: a license key that allows permanent use of the Smart Plug-in.

To obtain a license/password for the SPI, you can use the OpenView Operations Obtain License tool. When you launch the tool, you will see that you can choose from three methods to obtain the required license/password:

- **Method #1 — retrieve license/password from a direct Internet connection (on the system)**: If you have an Internet connection from the OVO console, you can directly access license/password key information. In addition, information about the server you are using is automatically detected (unless you are connecting to the Internet through a proxy server, in which case, you will have to enter the proxy server IP address).

- **Method #2 — retrieve license/password saved in a file:** If you do not have an Internet connection from the OVO console, use this method, where you obtain the license/password from another system and save in a

file on the system on which you are installing the SPI. You store the information gained from the support hot line in a file on the OVO console and import it during the procedure.

- **Method #3: — retrieve license/password through email/fax connection:** If you prefer, you can send an email or a fax with your order number and retrieve license/password information in that way.
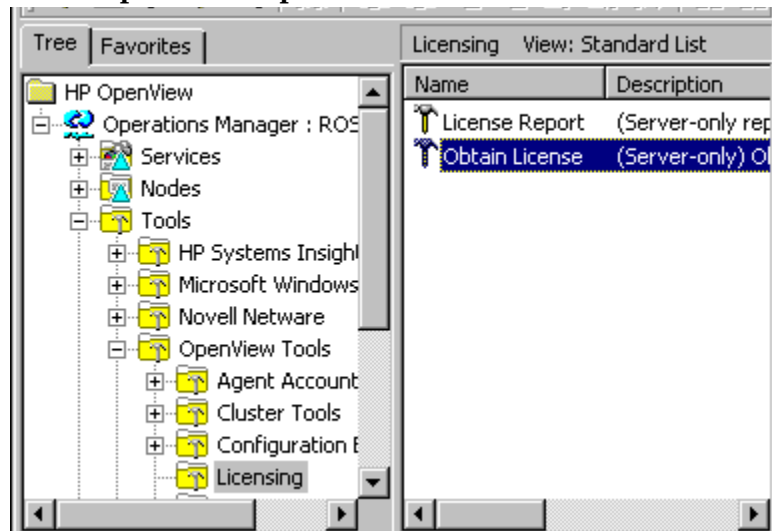
## Retrieving and Installing a License Key

**Prerequisite for all methods:** The License Entitlement Certificate, included with the purchased Smart Plug-in (the License Entitlement Certificate contains the unique *Product Order Number*).

For all methods you use the Obtain License Tool, as explained in the procedure that follows:

1   At the OVO console select **Tools→OpenView Tools→Licensing** and double-click **Obtain License.**

**Figure 19   Use the OVO Obtain License tool to start the process to obtain a permanent password.**



2   In the Obtain License dialog select your *<product_name>* and click **OK**.

**Figure 20    In the Obtain License dialog, you select the product that you want to obtain the permanent password for.**
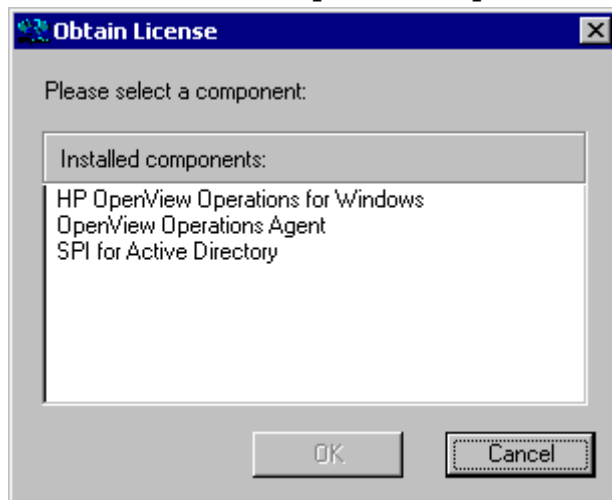


When you finish the process, an email confirmation containing the Permanent Password Certificate will be sent to you for your records. (The certificate shows product information as well as the password/license you have been issued.) Depending on the method you use, the password can be automatically installed on your system.

## Obtain License/Password Information from the Web

**Prerequisite:** The License Entitlement Certificate, included with the purchased Smart Plug-in (the License Entitlement Certificate contains the unique *Product Order Number*).

1    At a system with Internet access, launch your Internet browser, and in the Address text box enter **https:\\www.webware.hp.com**

2    Select **Generate password(s)**.

**Figure 21   Accessing the HP web site for licensing information.**
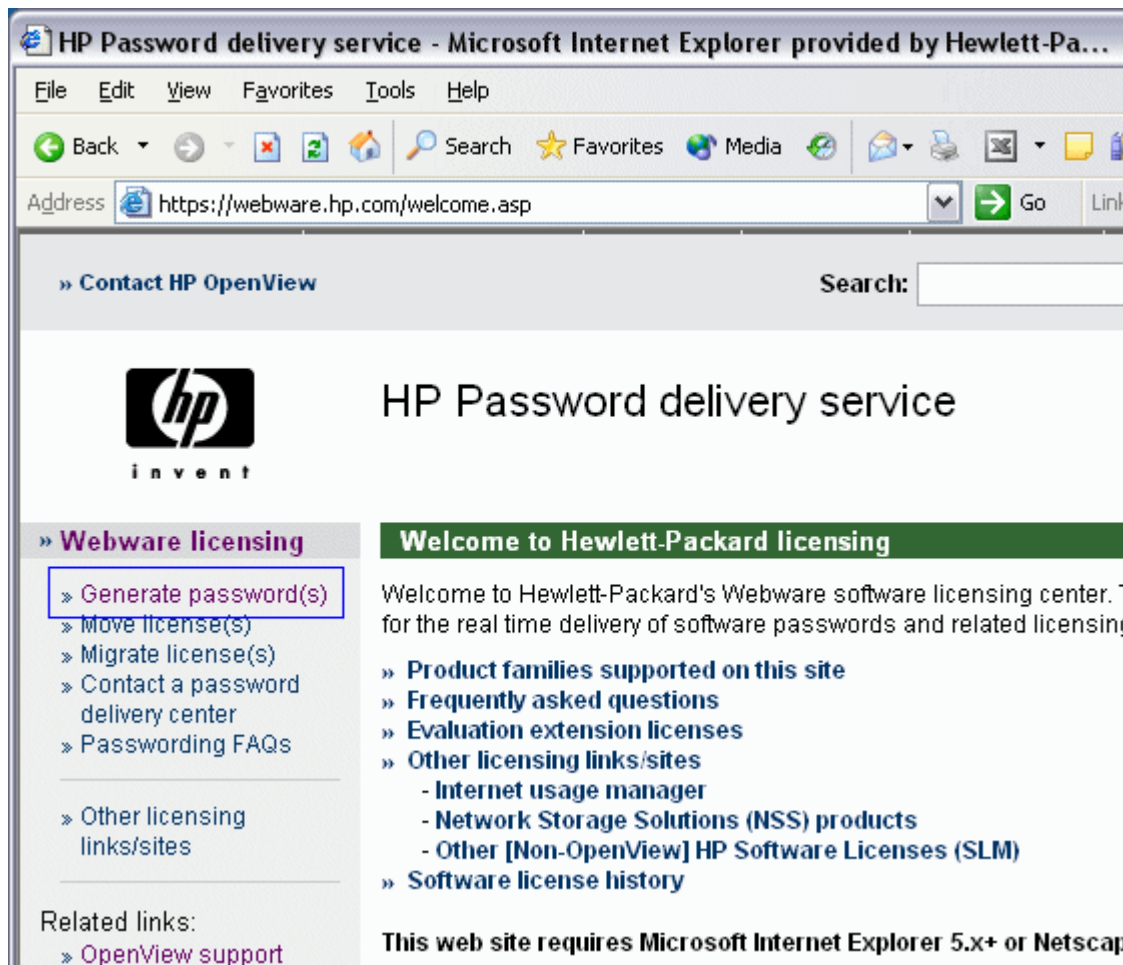


3   In the page that appears, review the information, then scroll to the bottom of the page and click **Next**.

4   In the password delivery service page in the Order Number text box, enter the order number for your SPI (as it appears in the License Entitlement Certificate included with the product).

5   Click **Next**.

6   In the page that appears, select the check box next to **HP OpenView <Smart Plug-in name>** and click **Next**.

7   In the page that appears showing your product number, name, version, enter information in columns as follows:

   — **# LTU**: number of SPI licenses you have purchased

   — **Management Server Host Name**: name of the management server on which OVO for Windows is installed.

   — **IP Address**: as above, the IP address of the OVO for Windows server (must be correct or your license cannot be installed successfully)

   — **Platform**: select the Windows version used on the OVO for Windows server.

8   Click **Next**.

9   In the member login page enter your mail address, then your existing or first-time password/password verification, and click **login**.

10  In the address information page, enter information as required and click **Next**.

**11** In the permanent password certificates page above the certificate, click the text: **Save password file for** *<product_number>*.



Locations for certificates and passwords: The location of a stored certificate is in a file titled *<product_number>*.dat.asp. In addition, the Permanent Password Certificate can also be mailed to an mail address. Please note that the default location for the installed license key is:
\Program Files\Common Files\Hewlett-Packard\PPP\LicFile.txt.

# Individual SPI License Information

The following table indicates licenses required for SPIs and applications included on the Smart Plug-in CD set.

**Table 4    Licensing Information**

| HP OpenView Product: | License Number | License Description |
|---|---|---|
| HP OpenView Smart Plug-in for BEA WebLogic Server | B9155AA<br>B9141AA<br>B9142AA<br>B9143AA<br>B9144AA | OV SPI BEA Weblogic Tier 4, LTU<br>OV SPI BEA Weblogic Tier 3, LTU<br>OV SPI BEA Weblogic Tier 2, LTU<br>OV SPI BEA Weblogic Tier 1, LTU<br>OV SPI BEA Weblogic Tier 0, LTU |
| HP OpenView Smart Plug-in for BEA Tuxedo | B9152AA<br>B7476AA<br>B7477AA<br>B7478AA<br>B7479AA | OV SPI BEA Tuxedo Tier 4, LTU<br>OV SPI BEA Tuxedo Tier 3, LTU<br>OV SPI BEA Tuxedo Tier 2, LTU<br>OV SPI BEA Tuxedo Tier 1, LTU<br>OV SPI BEA Tuxedo Tier 0, LTU |
| HP OpenView Smart Plug-in for IBM DB2 | BA184AA<br>BA183AA<br>BA182AA<br>BA181AA<br>BA180AA | OV SPI for IBM DB2 Tier 4, LTU<br>OV SPI for IBM DB2, Tier 3, LTU<br>OV SPI for IBM DB2, Tier 2, LTU<br>OV SPI for IBM DB2, Tier 1, LTU<br>OV SPI for IBM DB2, Tier 0, LTU |
| HP OpenView Smart Plug-in for IBM WebSphere | B9173AA<br>B9174AA<br>B9175AA<br>B9176AA<br>B9177AA | OV SPI IBM WebSphere Tier 4, LTU<br>OV SPI IBM WebSphere Tier 3, LTU<br>OV SPI IBM WebSphere Tier 2, LTU<br>OV SPI IBM WebSphere Tier 1, LTU<br>OV SPI IBM WebSphere Tier 0, LTU |
| HP OpenView Smart Plug-in for Informix | B9149AA<br>B7460AA<br>B7461AA<br>B7462AA | OV SPI Informix Tier 4, LTU<br>OV SPI Informix Tier 3, LTU<br>OV SPI Informix Tier 2, LTU<br>OV SPI Informix Tier 1, LTU |
| HP OpenView Smart Plug-in for Microsoft SQL Server | B7473AA<br>B7474AA<br>B7475AA | OV SPI MS SQL Server Tier 2, LTU<br>OV SPI MS SQL Server Tier 1, LTU<br>OV SPI MS SQL Server Tier 0, LTU |
| HP OpenView Smart Plug-in for Microsoft Active Directory | B9170AA<br>B9171AA<br>B9172AA | OV SPI Active Directory Tier 2, LTU<br>OV SPI Active Directory Tier 1, LTU<br>OV SPI Active Directory Tier 0, LTU |

**Table 4    Licensing Information (cont'd)**

| HP OpenView Product: | License Number | License Description |
|---|---|---|
| HP OpenView Smart Plug-in for Microsoft Enterprise Servers | B9160AA<br>B9161AA<br>B9162AA | OV SPI Active Directory Tier 2, LTU<br>OV SPI Active Directory Tier 1, LTU<br>OV SPI Active Directory Tier 0, LTU |
| HP OpenView Smart Plug-in for Microsoft Exchange | B7449AA<br>B7450AA<br>B7451AA | OV SPI MS Exchange Tier 2, LTU<br>OV SPI MS Exchange Tier 1, LTU<br>OV SPI MS Exchange Tier 0, LTU |
| HP OpenView Smart Plug-in for Microsoft Windows OS | N/A | Licensed with OVO agents |
| HP OpenView Smart Plug-in for Oracle | B9150AA<br>B7464AA<br>B7465AA<br>B7466AA<br>B7467AA | OV SPI Oracle Tier 4, LTU<br>OV SPI Oracle Tier 3, LTU<br>OV SPI Oracle Tier 2, LTU<br>OV SPI Oracle Tier 1, LTU<br>OV SPI Oracle Tier 0, LTU |
| HP OpenView Smart Plug-in for PeopleSoft | B7452AA<br>B7453AA<br>B7454AA<br>B7455AA | OV SPI PeopleSoft Tier 3, LTU<br>OV SPI PeopleSoft Tier 2, LTU<br>OV SPI PeopleSoft Tier 1, LTU<br>OV SPI PeopleSoft Tier 0, LTU |
| HP OpenView Smart Plug-in for Remedy | B7480AA | OV SPI Remedy Tier 0, LTU |
| HP OpenView Smart Plug-in for SAP | B9148AA<br>B7456AA<br>B7457AA<br>B7458AA<br>B7459AA | OV SPI SAP Tier 4, LTU<br>OV SPI SAP Tier 3, LTU<br>OV SPI SAP Tier 2, LTU<br>OV SPI SAP Tier 1, LTU<br>OV SPI SAP Tier 0, LTU |
| HP OpenView Smart Plug-in for Sybase | B9151AA<br>B768AA<br>B7469AA<br>B7470AA | OV SPI Sybase Tier 4, LTU<br>OV SPI Sybase Tier 3, LTU<br>OV SPI Sybase Tier 2, LTU<br>OV SPI Sybase Tier 1, LTU |

**Table 4      Licensing Information (cont'd)**

| HP OpenView Product: | License Number | License Description |
|---|---|---|
| HP OpenView Smart Plug-in for UNIX OS | N/A | Licensed with OVO agents |
| HP OpenView Smart Plug-in for Web Server | N/A | Licensed with OVO agents |
| HP OpenView Storage Data Protector Integration for OVO | N/A | Provided out-of-the-box with the Data Protector starter packs: Cell Manager on Windows B6961AA/BA Cell Manager on Solaris B6951DA/CA Cell Manager on HP-UX B6951AA/BA |

# Troubleshooting with Self-Healing Services

Many Smart Plug-ins now have access to improved SPI troubleshooting capabilities. Those including the capability are:

— the complimentary Core SPIs of UNIX OS, Windows OS, and Webserver and the Network Diagnosis Add-On Module (NDAOM)

— BEA WebLogic Application Server SPI

— BEA Tuxedo SPI

— IBM DB2 SPI

— IBM WebSphere SPI

— Databases SPI, which covers Oracle, Microsoft SQL Server, Informix, and Sybase

— Microsoft application SPIs covering: Active Directory, Exchange Server, Enterprise Servers, and Virtual Server

— PeopleSoft SPI

— Remedy Action Request System SPI

— SAP SPI

Troubleshooting information can be obtained through two separate methods:

- **Self-Healing Services** software and online support: The client software can be downloaded from the HP Software Support Online web site and is included as part of your support contract. The software and its web-linked capabilities allow you to gather relevant troubleshooting data that you can use to independently investigate the problem or submit to the HP secure web site. This web site contains a wealth of information, potentially leading to a quick solution. The Self-Healing Services client software supports managed nodes running on Windows, HP-UX, and Solaris (check the web site in the section that follows for specific, current operating system support).

- **Self-Healing Info** tool: This tool can be run on any managed node supported by the Smart Plug-in. When run, the tool gathers data that you can send to HP support to diagnose the SPI problem.

# The Self-Healing Services Client Software

The SPIs listed previously easily integrate with HP OpenView Self-Healing Services client software, an added benefit of your HP support contract. Self-Healing Services speeds up problem resolution by allowing you to quickly open an incident and send the data straight to a secure HP support site, where is stored with its particular information. If you choose, you can also have the site produce an incident report. The support site organizes such troubleshooting information and makes the information available. In this way you have access to a database of problems and their resolutions so that your issue may be quickly addressed.

### Download the Self-Healing Services Software

To prepare to use Self-Healing Services, complete the following steps:

1  Install Self-healing Services on all managed nodes running on supported operating systems (as of November 2004, they are HP-UX, Solaris, and Windows).
   Download the software from the HP Openview Software Support Online web site at: http://support.openview.hp.com/self_healing.jsp

2  Install all SPI software and configure the SPI according to the individual SPI documentation.
   (When you finish, you will have deployed all the necessary files to allow the SPI to integrate with Self-Healing Services.)

### Register with Self-Healing Services; Restart the Service

After installing/configuring your SPI software and Self-Healing Services software on each managed node, you must register the SPI for its use:

1  At the management server, select **Tools→Self-Healing.**

2    In the Self Healing group, double-click the **Self-Healing Register** tool, and select the nodes on which you want to launch the tool and click **Launch..**.. (The tool now registers any Smart Plug-in for use with Self-Healing Services on each node.)

▶    The Self-Healing Register policy is automatically deployed whenever instrumentation is deployed on a newly added node. You must manually deploy on nodes that are already managed. The policy runs a program every night, registering detected Smart Plug-in for use with Self-Healing Services.

3    Select **Policy Management**→**Policy groups** and right-click the **Self-Healing Register** policy.

4    Select **All Tasks**→**Deploy on..**.. and check each managed node (for nightly registration with Self-Healing Services).

5    At each managed node, restart Self-Healing Services so that the current SPI is detected and integrated with Self-Healing Services.

### Use Self-Healing Services

Whenever you see a problem with the operation of your Smart Plug-in, you can now go to the Self-Healing Services web site and open an incident. To open an incident, you open the Manual Submission page and choose your Smart Plug-in from the drop-down list. Self-Healing Services automatically gathers error-related data for the selected SPI. Please see the Self-Healing Services manuals/online Help for details on its use.

The list below shows how the SPI name appears (in bold) for selection in the Self-Healing Services web page:

— Smart Plug-in for UNIX (complimentary core SPI)
   **smart plug-in for UNIX os**

— Smart Plug-in for Windows (complimentary core SPI)
   **smart plug-in for windows**

— Smart Plug-in for Webservers (complimentary core SPI)
   **smart plug-in for webservers**

— Network Diagnosis Add-On Module
   **network diagnosis add-on module**

— Smart Plug-in for BEA WebLogic Application Server|
   **smart plug-in for BEA weblogic application server**

— Smart Plug-in for BEA Tuxedo
   **smart plug-in for BEA tuxedo**

— Smart Plug-in for IBM DB2
   **smart plug-in for ibm db2**

— Smart Plug-in for IBM WebSphere
   **smart plug-in for Websphere**

— Smart Plug-in for Databases
   **smart plug-in for databases**

— Smart Plug-in for Microsoft Active Directory
   **smart plug-in for Microsoft Active Directory**

— Smart Plug-in for Microsoft Exchange Server
   **smart plug-in for ms exchange**

— Smart Plug-in for Microsoft Enterprise Servers
   **smart plug-in for Microsoft Enterprise Servers**

— Smart Plug-in for Microsoft Virtual Server
   **smart plug-in for Microsoft Virtual Server**

— Smart Plug-in for PeopleSoft
   **smart plug-in for peoplesoft**

— Smart Plug-in for Remedy Action Request System
   **smart plug-in for Remedy Action Request System**

— Smart Plug-in for SAP
   **smart plug-in for SAP**

*You can choose Manual submission to open an incident in Self-Healing Services.*

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