HP Operations Agent

For the Windows ®, HP-UX, Solaris, Linux, and AIX operating systems Software Version: 11.03

Installation Guide

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Documentation Updates

The title page of this document contains the following identifying information:

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- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

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This site requires that you register for an HP Passport and log on. To register for an HP Passport ID, go to:

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Contents

Installation Guide	1
Contents	5
Overview	8
Downloading the HP Operations Agent 11.03.	9
Update Deployment Packages on the Management Server	10
Prerequisites	. 10
Install the Agent on the Management Server.	10
Back Up the OpenVMS Deployment Package (Only on HPOM for UNIX)	. 10
Install the Deployment Package	. 11
Verify the installation	. 11
Revert to Older Deployment Packages	. 12
Remove the Deployment Package Updates	13
Log Files	. 13
Update Deployment Packages on Management Servers in Clusters	. 15
Install the HP Operations Agent 11.03 on the Active Management Server	. 15
Install HP Operations Agent 11.03 Deployment Packages on the Active Management Server.	
Install the HP Operations Agent 11.03 on Other Management Servers in the Cluster	. 17
Synchronize Installer Scripts After Failover	. 17
Different Modes of the Agent Installation	. 19
Installing the HP Operations Agent 11.03	20
Prerequisites for Installing the HP Operations Agent 11.00.	. 20
Prerequisites for Windows	. 21
Disk Space	. 22
Prerequisites for Linux	. 23
Disk Space	. 24
Prerequisites for HP-UX	25
Disk Space	. 26

Prerequisites for Solaris.	26
Disk Space	27
Prerequisites for AIX	28
Disk Space	28
Prerequisites for Installing the HP Operations Agent 11.03.	29
Hardware Requirements	29
Software Requirements	30
Additional Requirements for vSphere Management Assistant Nodes	30
Install the HP Operations Agent 11.03 on a Node Manually	30
On Windows Nodes	30
On UNIX/Linux Nodes	31
Post-Installation Task for Nodes Under HPOM for Windows	31
Verify the installation	32
Installing the HP Operations Agent 11.03 Remotely	32
Before You Begin	32
Install the Agent	34
Verify Installation on the Node	35
Install the HP Operations Agent 11.00 and 11.03 Together	36
Preparing to Install the Agent 11.00 and 11.03 Together	36
Install on Windows Nodes	38
Install on UNIX/Linux Nodes	38
Installing the HP Operations Agent in the Inactive Mode	39
Install the Operations Agent 11.00 and 11.03 Together	40
Install on Windows Nodes	40
Install on UNIX/Linux Nodes	41
Configure an Inactive Agent to Switch to the Active Mode	41
Install from the HPOM Console	42
Prerequisites for Installing the HP Operations Agent from the HPOM Console	43
From the HPOM for Windows Console	43
From the HPOM for UNIX Console	44
Modify the Default Deployment Behavior	44
Reverting to the HP Operations Agent 11.02	44

Stopping Unnecessary Processes
Upgrading to the HP Operations Agent 11.03 from a Version Older than 11.00
Data Collection and Storage
Checks Before Upgrade
Check the Version of the Existing Agent
Check the Version of coda
Upgrading an Agent
Removing the HP Operations Agent
Removing the HP Operations Agent 11.03 53
Remove the HPOperations Agent 11.03 Remotely
Remove the HP Operations Agent from Linux Nodes
Reinstall the HP Operations Agent 11.03 on Linux
Removing the Agent with the oacleanall Script56
Removing the HP Operations Agent 11.00 and 11.03 Together
Installing the HP Operations Agent on Platforms Supported with Limitation
Install the HP Operations Agent on Platforms Supported with Limitation Remotely from. the HPOM for Windows Console
Install the HP Operations Agent on Platforms Supported with Limitation Remotely from. the HPOM for UNIX Console60
Install the HP Operations Agent on Platforms Supported with Limitation Remotely 60
Troubleshooting
Installation Fails on a Windows Node with the Error "MSI version is less than 4.5" 61
Deployment Package for a Platform is Downgraded to the Version 8.x
Remote Installation of the Agent from the HPOM for Windows Console Fails
Installing the HP Operations Agent 11.02 After an Unsuccessful Installation of the HP. Operations Agent 11.0262
Error Messages Appear in the "status.perfalarm" File After Installing the Agent with the "syncwpar" Command
Reinstallation of the Agent Fails on Windows 2003
Remote Installation from the HPOM Console Fails on Windows 7 x64 Nodes

Overview

You can obtain the HP Operations agent11.03 from the Software Support Online web site. The HP Operations agent 11.03 media is available in the ISO format—five different ISO files for five operating systems supported by the HP Operations agent.

The HP Operations agent 11.03 ISO file provides you with utilities to apply the update on the agent running on the managed node. The utilities also enable you to update the HP Operations agent 11.00 deployment packages available on the management server. Updating the deployment packages helps you deploy the agent 11.03 centrally from the management server to all managed nodes.

Downloading the HP Operations Agent 11.03

To download HP Operations agent 11.03 ISO files, follow these steps:

- 1. Go to the following web site: http://h20230.www2.hp.com/selfsolve/patches
- 2. Log on to the web site with your HP Passport credentials.
- 3. Search with the keyword HP Operations agent 11.03. The search result includes links to download the ISO files for the HP Operations agent 11.03.
- 4. Click one of the links and download the ISO file on your system.

The ISO files for the HP Operations agent 11.03 not only include updates for the agent 11.00 running on managed nodes, but they also include updates for deployment packages for the HP Operations agent 11.00. Although you can just install the updates on the agent locally on managed nodes, updating the deployment packages on the management server provides you with an additional patch deployment feature that simplifies the process of deploying the patch centrally and remotely from the management server to multiple nodes.

Tip: You are required to install the HP Operations agent 11.03 on the management server before installing the deployment packages. Therefore, if the managed nodes and the management server are running on different operating systems, you must download the ISO file for the management server's operating system too.

Update Deployment Packages on the Management Server

Skip this section if you do not use HPOM and installed the agent only on standalone nodes for system performance monitoring.

Prerequisites

Install the Agent on the Management Server

- 1. Make sure that HP Operations agent 11.00 deployment packages are installed on the management server.
- 2. Make sure that the HP Operations agent 11.00 is running on the management server.
- 3. Download the patch ISO file for the management server's operating system.
- 4. Transfer the downloaded ISO file onto the management server.
- 5. Log on to the management server with the root or administrator privileges.
- 6. Extract the contents of the ISO file into a local directory on the management server, or mount the ISO file.
- 7. Go to the directory where you extracted or mounted the ISO file, and then install the agent by running the following command:

On Windows

cscript oainstall.vbs -i -a

On UNIX/Linux

./oainstall.sh -i -a

8. Restart HPOM processes:

On HPOM for Windows

vpstat -3 -r stop

vpstat -3 -r start

On HPOM on UNIX/Linux

/opt/OV/bin/OpC/opcsv -stop

/opt/OV/bin/OpC/opcsv -start

Only on HPOM for UNIX 8.3x. /opt/OV/bin/ovstop -c

Only on HPOM for UNIX 8.3x. /opt/OV/bin/ovstart -c

Back Up the OpenVMS Deployment Package (Only on HPOM for UNIX)

If you are installing the HP Operations agent 11.03 deployment packages on the HPOM for UNIX management server, and if the HP Operations agent deployment package for the OpenVMS

platform is already available on the server, you must take a backup of the deployment package for OpenVMS before the installation procedure starts.

- 1. Log on to the management server as root.
- 2. Transfer the contents of the directory /var/opt/OV/share/databases/OpC/mgd_ node/vendor/hp/alpha/ovms into the /tmp directory (or any directory of your choice).

After installation, you must copy the backed-up contents of the ovms directory into the original location (/var/opt/OV/share/databases/OpC/mgd_node/vendor/hp/alpha/ovm).

Install the Deployment Package

To update the deployment packages on the management server, follow these steps:

- 1. Download the ISO file for the managed node platform.
- 2. Transfer the downloaded ISO file onto the management server.
- 3. Log on to the management server with the root or administrator privileges.
- 4. Extract the contents of the ISO file into a local directory on the management server, or mount the ISO file.
- From the command prompt, run the following command: On Windows cscript oainstall.vbs -i -m On UNIX/Linux ./oainstall.sh -i -m
- **Tip:** If you use different operating systems for different node groups in your environment, you must perform <u>step 1</u> through <u>step 5</u> for each operating system that is in use in your environment.

You can now apply the updates for 11.03 on managed nodes remotely and centrally from the management server. You can view the installation log file (oapatch.log) in the following location:

On Windows %ovdatadir%\shared\server\log

On UNIX/Linux /var/opt/OV/shared/server/log

You can use the HPOM console to install agent 11.00 and 11.03 together on a node where the agent 11.00 is not already installed. When you install the deployment package updates for the agent 11.03, the configuration variable INCLUDEUPDATES is introduced on the management server and automatically set to true by the installer, which ensures agent 11.00 and 11.03 are installed together on nodes where the agent 11.00 is not already installed. For more information about installing the agent from the HPOM console, see "Install from the HPOM Console" (on page 42). To modify the default value of the INCLUDEUPDATES variable, see "Modify the Default Deployment Behavior" (on page 44).

Verify the installation

To verify that the version 11.03 of the agent deployment package is installed on the management server, follow these steps:

- 1. Log on to the management server with the root or administrator privileges.
- 2. Go to the following directory:

On HPOM for Windows (32-bit systems)

%ovinstalldir%bin\OpC\agtinstall

On HPOM for Windows (64-bit systems)

%ovinstalldir%bin\win64\OpC\agtinstall

On HPOM on UNIX/Linux

/opt/OV/bin/OpC/agtinstall

3. View the package inventory.

To view the package inventory, run the following command:

On Windows

cscript oainstall.vbs -inv

On UNIX/Linux

./oainstall.sh -inv

The command displays the list of HP Operations agent 11.03 deployment packages that are installed on the system under the Active Agent Patches Installed section.

For example, if you install the deployment package for HP-UX and Windows, the command shows:

Active Agent Pa	tches In	stalled	
=======================================		======	
OAHPUX_00007	:HP-UX	:IPF32	:11.03.011
OAHPUX_00007	:HP-UX	:PA-RISC	:11.03.011
OAWIN_00007	:WIN	:IPF64	:11.03.011
OAWIN_00007	:WIN	:x64	:11.03.011
OAWIN_00007	:WIN	:x86	:11.03.011

Revert to Older Deployment Packages

You can revert to older deployment packages by removing the packages for the agent 11.03.

Removing the agent 11.03 deployment packages has the following effects in the package inventory:

- Deployment packages for the agent 11.02 are reinstated if the agent 11.02 packages were installed on the management server prior to installing the agent 11.03 packages.
- Deployment packages for the agent 11.01 are reinstated if the agent 11.01 packages were installed on the management server prior to installing the agent 11.03 packages
- Deployment packages for the agent 11.00 are reinstated if the agent 11.01 or 11.02 packages were not installed on the management server prior to installing the agent 11.03 packages.

Remove the Deployment Package Updates

To remove the updates applied on the deployment packages, follow these steps:

- 1. Log on to the management server with the root or administrator privileges.
- 2. Go to the following directory:

```
On Windows (32-bit systems)
%ovinstalldir%bin\OpC\agtinstall
On Windows (64-bit systems)
%ovinstalldir%bin\win64\OpC\agtinstall
On UNIX/Linux
/opt/OV/bin/OpC/install
```

 Run the following command: On Windows cscript oainstall.vbs -r -m -pn </SO_name> On UNIX/Linux ./oainstall.sh -r -m-pn </SO_name>

In this instance, *<ISO_name>* is the file name of the ISO file that you downloaded (without the extension .ISO). The following table lists the ISO file names for all five node platforms:

ISO File Names

Platform	File Name
Windows	OAWIN_00007
Linux	OALIN_00007
HP-UX	OAHPUX_00007
Solaris	OASOL_00404
AIX	OAAIX_00007

This procedure makes the following change to the deployment packages:

- Reinstates the agent 11.02 deployment packages if you installed the agent 11.02 packages prior to installing the agent 11.03 packages.
- Reinstates the agent 11.01 deployment packages if you installed the agent 11.01 packages prior to installing the agent 11.03 packages.
- Reinstates the agent 11.00 deployment packages if you did not install the agent 11.01 or 11.02 packages prior to installing the agent 11.03 packages.

Log Files

The installation log file (oapatch.log) is located in the following directory on the management server:

On Windows

%ovdatadir%shared\server\log

On UNIX/Linux

/var/opt/OV/shared/server/log

Update Deployment Packages on Management Servers in Clusters

For HPOM management servers that exist in high-availability (HA) clusters, you must install the deployment packages for the HP Operations agent 11.03 only on active nodes. However, the HP Operations agent 11.03 must be running on each node in the cluster.

To install HP Operations agent 11.03 deployment packages, follow these steps:

- 1. "Install the HP Operations Agent 11.03 on the Active Management Server" (on page 15).
- <u>"Install HP Operations Agent 11.03 Deployment Packages on the Active Management Server"</u> (on page 17).
- 3. <u>"Install the HP Operations Agent 11.03 on Other Management Servers in the Cluster" (on page</u> <u>17)</u>
- 4. <u>"Synchronize Installer Scripts After Failover" (on page 17)</u>. Perform this step only after HPOM fails over to another node in the HA cluster.

Install the HP Operations Agent 11.03 on the Active Management Server

To install the agent in an HA cluster on the active management server, follow these steps:

1. Make sure that the management server meets the disk space requirement:

Disk Space Requirements

OS	Free Disk Space	
Windows	150 MB	
Linux	• 50 MB on /opt	
	 100 MB on /var 	
HP-UX	• 50 MB on /opt	
	• 100 MB on /var	
Solaris	• 50 MB on /opt	
	 100 MB on /var 	

Note: On UNIX/Linux. At least 20% of the original volume of the /tmp directory must be free while you install the agent.

- 2. Make sure that the HP Operations agent 11.00 is installed and configured on the management servers.
- 3. Disable the mechanism to monitor HPOM's resource group.

If you use HPOM for Windows, follow these steps on all nodes in the HA cluster:

- a. Log on to the management server as an administrator.
- b. Set the management server to the unplanned outage mode by running the following command:

ovownodeutil -outage_node -unplanned -node_name <FQDN_of_node>-on

In this instance, <*FQDN_of_node*> is the fully qualified domain name of the management server.

If you use HPOM on UNIX/Linux, follow these steps only on active nodes in the HA cluster:

- a. Log on to the management server as root.
- b. Disable monitoring of the resource group:

/opt/OV/lbin/ovharg -monitor <HA_resource_group_name> disable

In this instance, <*HA_resource_group_name*> is the HA resource group for HPOM on the management server.

- 4. Install the HP Operations agent 11.03 on the management server.
 - a. Log on to the management server as root or administrator.
 - b. Stop all agent and HPOM processes:

On Windows

vpstat -3 -r stop

%ovinstalldir%bin\opcagt -stop

On UNIX/Linux

/opt/OV/bin/OpC/opcsv -stop

/opt/OV/bin/opcagt -stop

Only for HPOM for UNIX 8.3x. /opt/OV/bin/ovstop

- c. Extract the contents of the HP Operations agent 11.03ISO file into a local directory. Alternatively, you can mount the ISO file.
- d. Go to the directory where you extracted (or mounted) the ISO file, and then run the following command:

On Windows

cscript oainstall.vbs -i -a

On UNIX/Linux

./oainstall.sh -i -a

e. Restart all HPOM processes:

On Windows

vpstat -3 -r stop

vpstat -3 -r start

On UNIX/Linux

/opt/OV/bin/OpC/opcsv -stop

/opt/OV/bin/OpC/opcsv -start

Only for HPOM for UNIX 8.3x. /opt/OV/bin/ovstop -c

Only for HPOM for UNIX 8.3x. /opt/OV/bin/ovstart -c

Install HP Operations Agent 11.03 Deployment Packages on the Active Management Server

Install the deployment packages for the HP Operations agent11.03 on the active management server:

- 1. Log on to the management server as root or administrator.
- 2. Go to the directory where you extracted (or mounted) the HP Operations agent11.03 ISO file.
- From the command prompt, run the following command: On Windows
 cscript oainstall.vbs -i -m

CSCI Dt Oainstall.vbs -I -n On UNIX/Linux ./oainstall.sh -i -m

Tip: If you use different operating systems for different node groups in your environment, you must perform <u>step 1</u> through <u>step 3</u> for each operating system that is in use in your environment.

Install the HP Operations Agent 11.03 on Other Management Servers in the Cluster

Verify that the HP Operations agent11.03 works correctly on the active node, and then install the HP Operations agent11.03 on other management servers in the cluster that are not active.

Follow the instructions in "Installing the HP Operations Agent 11.03" (on page 20) .

Synchronize Installer Scripts After Failover

After failover, perform this task to make sure that the correct version of the installer program for the HP Operations agent is transferred to the currently active node in the cluster (you need the installer program to remove the agent deployment packages or to view the package inventory).

After HPOM fails over to a node in the HA cluster, follow these steps:

- 1. Log on as root or administrator to the node where HPOM is currently active.
- 2. Run the following command:

On Windows

cscript %OvShareDir%server\installation\oainstall_sync.vbs

On UNIX/Linux

/var/opt/OV/shared/server/installation/oainstall_sync.sh

The command transfers the latest version of the <code>oainstall.vbs</code> or <code>oainstall.sh</code> script to the currently active node from the failed node.

3. View the package inventory for the agent on the currently active node to make sure that deployment packages for the HP Operations agent 11.03 are available.

To view the package inventory, run the following command:

On Windows

cscript oainstall.vbs -inv

On UNIX/Linux

./oainstall.sh -inv

The command displays the list of HP Operations agent 11.03 deployment packages that are installed on the system under the Active Agent Patches Installed section.

Different Modes of the Agent Installation

The HP Operations agent installer enables you to install the agent either on an HPOM-managed node or on a standalone server. If you install the agent on an **HPOM-managed** node, you must provide the details of the management server at the time of installation and make sure that the node belongs to the list of managed nodes in the HPOM console. This mode of the installation enables you to use the operations monitoring component of the agent to monitor the system and send alerts to the HPOM console.

If you want to use the HP Operations agent only to monitor system performance metrics locally, you can perform the installation without providing any details of the HPOM management server. This **standalone** mode of the installation enables you to use the performance collection component (and HP GlancePlus, if installed on UNIX/Linux) to monitor system performance metrics that indicate the health and performance of the system.

With the **-defer_configre** option, you can install the agent in the **inactive** mode—a mode where all the processes of the agent remain inactive after installation and the agent does not perform any tasks. At a later time, you can use the **-configure** option of the agent installer to set the agent running. The **-configure** option helps you set the operation of the agent in the HPOM-managed or standalone mode.

Agent Installation Mode	Description	
HPOM- managed/active	The agent is installed on a managed node and details of the management server (and the certificate server) are specified at the time of installation; the installation started all necessary agent processes. Remote installation from a management server always ensures this mode of the agent is set.	
Standalone/ active	The agent is installed on a standalone system. Management server details are not provided at the time of installation. However, the installation started all necessary agent processes.	
Inactive	The agent is installed with the -defer_configure option. The installation procedure places all the necessary files on the system, but the agent remains inactive after installation. You cannot use this mode of installation if you want to install the agent remotely from the management server. For information about installing the agent in the inactive mode, see <u>"Installing the HP</u> <u>Operations Agent in the Inactive Mode" (on page 39)</u> .	

Different Modes of the HP Operations Agent Installation

Installing the HP Operations Agent 11.03

You can install the HP Operations agent 11.03 manually on an HPOM-managed or standalone node, or you can use the HPOM management server to deploy the HP Operations agent 11.03 centrally on all managed nodes.

The installer program, which is available with the HP Operations agent 11.03 media, enables you to install the HP Operations agent 11.00 and 11.03 together on a node with a single command. To use this capability, you must ensure the node meets all the requirements for the HP Operations agent 11.00.

When you start the installation process, the installer first removes all hotfixes for the agent 11.00 that were installed with the Hotfix Deployment Tool, and then starts installing the agent 11.03.

Those hotfixes are, however, included in the HP Operations agent 11.02 and are brought in effect again after the installation is complete.

Note: No additional steps are required for installing the HP Operations agent on nodes in a highavailability cluster. The agent installation process does not stop cluster services or daemons running on the node. Installing the agent deployment packages, however, requires additional steps ("Update Deployment Packages on Management Servers in Clusters" (on page 15)).

To install only the HP Operations agent 11.03, do one of the following:

- Install from the management server:
 - To install from the HPOM console, see "Install from the HPOM Console" (on page 42).
 - To install with the command line, see <u>"Installing the HP Operations Agent 11.03 Remotely"</u> (on page 32)
- "Install the HP Operations Agent 11.03 on a Node Manually" (on page 30)

To install the HP Operations agent 11.03 with the HP Operations agent 11.00, do one of the following:

- To install from the HPOM console, see "Install from the HPOM Console" (on page 42).
- "Install the HP Operations Agent 11.00 and 11.03 Together" (on page 36)

Prerequisites for Installing the HP Operations Agent 11.00

Before you begin the installation, make sure that all the prerequisites are met. After evaluating your requirements, identify the most suitable option to install the product in your environment.

General Considerations

- If you want to deploy the agent remotely from the HPOM console, make sure firewall settings are disabled between the management server and nodes.
- If you want to install the agent manually on the node in a firewall-controlled environment, make sure that the firewall setting allows the agent to contact the management server through the port 383 on the management server.

- Before installing the product in an HPOM-managed environment, always make sure the node is added as a managed node before you begin the installation process.
- If you want to work with the agent immediately after installation, make sure the automatic certificate requests are enabled on the management server.
- In a highly-secure environment, if you disable the automatic certificate request property on HPOM, you must exchange certificate manually with the management server after the agent installation completes.
- The HP Operations agent is a cluster-aware application. However, the HP Operations agent software cannot fail over automatically to the standby node in the event of failover.

Prerequisites for Windows

User

To install the HP Operations agent on a Windows node, you must use a user with the administrative privileges; the user must have access to the default system share (the disk on which the **Programs Files** folder is configured) with the following additional privileges:

- Membership of the Local Administrators group
- Write access to the admin\$ share
- Read access to the registry
- Permission to log on as a service
- Permission to start and stop services

Necessary Software

- Windows Installer 2.0 or higher: The Windows Installer software is packaged with the Microsoft Windows operating system. The installer program of the HP Operations agent requires the version 2.0 of this software component to be present on the system. To check if the Windows Installer 2.0 or higher is present, follow these steps:
 - a. Log on to the Windows system.
 - b. From the Start menu, open the Run prompt.
 - c. At the Run prompt, type **regedit**, end then press **Enter**. The Registry Editor window opens.
 - d. In the Registry Editor window, expand HKEY_LOCAL_MACHINE > SOFTWARE > Microsoft, and then click DataAccess.
 - e. In the right pane, double-click FullInstallVer. The Edit String dialog box opens.
 - f. In the Edit String dialog box, check if the version string is set to 2.00 or higher.
- Windows Script Host: The Windows Script Host must be enabled on the system. The installer program of the HP Operations agent requires the Windows Script Host to be enabled. To check if the Windows Script Host is enabled, follow these steps:
 - a. Log on to the Windows system.
 - b. From the Start menu, open the Run prompt.
 - c. At the Run prompt, type **regedit**, end then press **Enter**. The Registry Editor window opens.

- d. In the Registry Editor window, expand HKEY_LOCAL_MACHINE > SOFTWARE > Microsoft, and then click Windows Script Host.
- e. In the right pane, look for the key Enabled:
- f. If the key Enabled is present, double-click the key and make sure the Value Data is set to 1. The Windows Script Host is disabled is the Value Data for the Enabled key is set to 0.
- g. If the key Enabled is not present, you can safely assume that the Windows Script Host is enabled.

Necessary Services

Before installing the agent, make sure the following services are running:

- Event Log
- Remote Procedure Call
- Plug and Play
- Security Accounts Manager
- Net Logon
- Remote Registry
- Server
- Workstation

To verify that the above services are running, follow these steps:

- 1. Log on to the system with the administrative privileges.
- 2. From the Start menu, open the Run prompt.
- 3. At the Run prompt, type services.msc, and then press Enter. The Services window opens.
- 4. In the Services window, check if the status of each of the above services is Started. If the status of one of the services is found to be anything other than Started, right-click the service, and then click **Start**.

Disk Space

For new installation

For the installation directory:

350 MB

For the data directory:

50 MB

For upgrade from old agent software

For the installation directory:

100 MB

For the data directory:

50 MB

Recommended Software and Services

For WMI Interceptor policies: The Windows Management Instrumentation (WMI) Service is required if you want to deploy the WMI Interceptor policies or Measurement Threshold policies. WMI is also used to monitor the WMI events and classes or to perform automatic service discovery on the node.

For SNMP MIB monitoring: If you want to monitor objects in an SNMP Management Information Base (MIB) on the agent system, make sure the SNMP agent (compliant with MIB-I and MIB-II) is installed on the system.

For HPOM actions and tools: For launching HPOM actions and tools on the node, the NT LM Security Support Provider service must be running.

Additional Requirements for Hyper-V on Windows Server 2008

To be able to monitor virtual systems, apply the following hotfix:

http://support.microsoft.com/kb/950050

To be able to log the BYLS class of metrics, apply the following hotfix:

http://support.microsoft.com/KB/960751

Prerequisites for Linux

User

To install the HP Operations agent on a Linux node, you must use a user with the root privileges.

Note: Because the HP Operations agent cannot be installed without the root user on a Linux node, you cannot install the agent on a vSphere Management Assistant (vMA) node (where the root user is disabled by default) remotely from the HPOM console.

Necessary Software

To install the HP Operations agent, the following runtime libraries and packages are required:

- C++ runtime:
 - For systems with kernel version 2.6: /usr/lib/libstdc++.so.5
 - For systems with kernel version 2.6 on Itanium : /usr/lib/libstdc++.so.6
- Curses runtime library:
 /usr/lib/libncurses.so.5
- On x64 systems:
 - libgcc-3.4.6-8.i386.rpm
 - glibc-2.3.4-2.36.i686.rpm
 - libstdc++-3.4.6-8.i386.rpm
 - compat-libstdc++-296-2.96-132.7.2.i386.rpm
 - compat-libstdc++-33.i386.rpm

libstdc++33-32bit-3.3.3-7.8.1.x86_64.rpm

Note: Make sure that libstdc++33-32bit-3.3.3-7.8.1.x86_64.rpm is installed before you install HP Operations agent 11.00 on SLES10 SP4 x64 system.

- On Red Hat Enterprise Linux on Itanium:
 - ia32el-1.6-14.EL4.ia64.rpm
 - libgcc-3.4.6-8.i386.rpm
 - glibc-2.3.4-2.36.i686.rpm
 - libstdc++-3.4.6-8.i386.rpm
 - compat-libstdc++-296-2.96-132.7.2.i386.rpm
 - ncurses-5.4-13.i386.rpm
 - libtermcap-2.0.8-39.i386.rpm
 - bash-3.0-19.3.i386.rpm
 - zlib-1.2.1.2-1.2.i386.rpm
 - freetype-2.1.9-5.el4.i386.rpm
 - expat-1.95.7-4.i386.rpm
 - fontconfig-2.2.3-7.i386.rpm
 - xorg-x11-Mesa-libGL-6.8.2-1.EL.18.i386.rpm (Use the --force and --nodeps options while installing this package.)
 - xorg-x11-libs-6.8.2-1.EL.18.i386.rpm
 - xorg-x11-deprecated-libs-6.8.2-1.EL.18.i386.rpm
 - compat-libstdc++-33-3.2.3-47.3.i386.rpm
 - libunwind

If you want to remotely install the agent from the HPOM for Windows console, make sure OpenSSH 5.2 or higher is installed on the system.

Disk Space

For new installation

For the installation directories (/opt/OV and /opt/perf):

350 MB

For the data directories (/var/opt/OV and /var/opt/perf):

350 MB

For upgrade

For the installation directories (/opt/OV and /opt/perf):

100 MB

For the data directories (/var/opt/OV and /var/opt/perf):

350 MB

Note: If you do not have sufficient space in the installation or data directory, you can symbolically link the install or data directory to another location on the same system by using the In -s command.

For example, to symbolically link the **/opt/OV** directory to the **/new** directory, run the following command:

In -s /new /opt/OV

Recommended Software and Services

- For SNMP MIB monitoring: If you want to monitor objects in an SNMP Management Information Base (MIB) on the agent system, make sure the SNMP agent (compliant with MIB-I and MIB-II) is installed on the system.
- For xglance: To use the xglance utility, make sure the following components are available on the system:
- Open motif toolkit 2.2.3 (On Linux platforms other than Red Hat Enterprise Linux 5.x and SUSE Linux Enterprise Server 10.x on x86_64 and Itanium, the 32-bit version of the Open motif toolkit and associated libraries must be present.)

Prerequisites for HP-UX

User

To install the HP Operations agent on an HP-UX node, you must use a user with the root privileges.

Necessary Software

On HP-UX, make sure that the following patches are installed:

- For HP-UX 11.23. PHKL_36853, PHCO_38149 (or superseding patches)
- For HP-UX 11i v1. PHNE_27063 (or superseding patch)
- For HP-UX 11i v1. PHCO_24400 s700_800 11.11 libc cumulative patch (or superseding patch)
- For HP-UX 11.11 PA-RISC. PHCO_38226 (or superseding patch)
- For HP-UX 11.31. PHCO_36530 (or superseding patch)
- For HP-UX 11i v1. The following patches are required for the performance tools to function with VERITAS Volume Manager 3.2:
 - PHKL_26419 for HP-UX B.11.11 (11.11) (or superseding patch)
 - PHCO_26420 for HP-UX B.11.11 (11.11) (or superseding patch)

On HP-UX systems running on Itanium, the libunwind library must be available.

If multiple processor sets are configured on an HP-UX 11i v1 system and you are using the log application=prm switch in the parm file to log APP_metrics by the PRM Group, you must install the following patch:

PHKL_28052 (or superseding patch)

On HP-UX 11i v1 and higher, the performance tools work with Instant Capacity on Demand (iCOD). The following kernel pstat patch should be installed to correctly report iCOD data (If iCOD is not installed on your system, do not install the kernel patch.):

PHKL_22987 for HP-UX B.11.11 (11.11) (or superseding patch)

HP GlancePlus, included in this version of the HP Operations agent, works with Process Resource Manager (PRM) version C.03.02.

HP-UX 11.11 and higher running EMC PowerPath v2.1.2 or v3.0.0 must have the latest EMC patches installed.

- For the EMC PowerPath v2.1.2 release, use the following patch: EMCpower_patch213 HP.2.1.3_b002 (or superseding patch)
- For the EMC PowerPath v3.0.0 release, use the following patch: EMCpower_patch301 HP.3.0.1_b002 (or superseding patch)

Disk Space

For new installation

For the installation directories (/opt/OV and /opt/perf):

400 MB

For the data directories (/var/opt/OV and /var/opt/perf):

550 MB

For upgrade

For the installation directories (/opt/OV and /opt/perf):

400 MB

For the data directories (/var/opt/OV and /var/opt/perf):

550 MB

Note: If you do not have sufficient space in the installation or data directory, you can symbolically link the install or data directory to another location on the same system by using the In -s command.

For example, to symbolically link the **/opt/OV** directory to the **/new** directory, run the following command:

In -s /new /opt/OV

Recommended Software and Services

For SNMP MIB monitoring: If you want to monitor objects in an SNMP Management Information Base (MIB) on the agent system, make sure the SNMP agent (compliant with MIB-I and MIB-II) is installed on the system.

Prerequisites for Solaris

User

To install the HP Operations agent on a Solaris node, you must use a user with the root privileges.

Necessary Software

Before you install the HP Operations agent on a Solaris node, make sure to install the following or superseding patches:

Operating System Version	Platform	Required Patches
9	64-bit (SPARC)	111712-12 SunOS 5.9 64-bit shared library patch for C++
		• 112963-22 Linker Patch (32-bit)
		• 111722-04 SunOS 5.9 Math Library libm patch
10	32-bit (x86)	• 118345-03 SunOS 5.10_x86: Id & libc.so.
		 119964-03 SunOS 5.10_x86 Shared library patch for C++_x86
		 120754-01 SunOS 5.10_x86 libmtsk
	64-bit	• 117461-04 Linker
	(SPARC/x64)	• 120753-01 libmtsk
		 119963-19 SunOS 5.10: Shared library patch for C++

In addition, make sure the following packages are available:

SUNWlibC

SUNWlibms

SUNWmfrun

SUNWxwplt

Kernel Settings

Set the following minimum kernel parameter values for Solaris 9:

semsys:seminfo_semmni=30

semsys:seminfo_semmns=200

semsys:seminfo_semmsl=100

For Solaris 10, no specific kernel settings are required.

Disk Space

For new installation

For the installation directories (/opt/OV and /opt/perf):

350 MB

For the data directories (/var/opt/OV and /var/opt/perf):

350 MB

For upgrade

For the installation directories (/opt/OV and /opt/perf):

100 MB

For the data directories (/var/opt/OV and /var/opt/perf):

350 MB

Note: If you do not have sufficient space in the installation or data directory, you can symbolically link the install or data directory to another location on the same system by using the In -s command.

For example, to symbolically link the **/opt/OV** directory to the **/new** directory, run the following command:

In -s /new /opt/OV

However, before using symbolic links on Solaris nodes for the agent installation, you must apply the hotfix QCCR1A120832. Contact HP Support to obtain this hotfix.

Recommended Software and Services

For SNMP MIB monitoring: If you want to monitor objects in an SNMP Management Information Base (MIB) on the agent system, make sure the SNMP agent (compliant with MIB-I and MIB-II) is installed on the system.

Prerequisites for AIX

User

To install the HP Operations agent on an AIX node, you must use a user with the root privileges.

Necessary Software

- The **libC.a** library is required for the HP GlancePlus to function correctly. The library is bundled within the **xIC.rte** package, which is available from your AIX Operating System optical media.
- The bos.perf.libperfstat package is required for the communication daemon.
- If you want to remotely install the agent from the HPOM for Windows console, make sure OpenSSH 5.2 or higher is installed on the system.

Disk Space

For new installation

For the installation directory (/usr/lpp/OV and /usr/lpp/perf):

350 MB

For the data directory (/var/opt/OV and /var/opt/perf):

350 MB

For upgrade

For the installation directory (/usr/lpp/OV and /usr/lpp/perf):

350 MB

For the data directory (/var/opt/OV and /var/opt/perf):

350 MB

Note: If you do not have sufficient space in the installation or data directory, you can symbolically link the install or data directory to another location on the same system by using the In -s command.

For example, to symbolically link the **/usr/Ipp/OV** directory to the **/new** directory, run the following command:

In -s /new /usr/Ipp/OV

Recommended Software and Services

For SNMP MIB monitoring: If you want to monitor objects in an SNMP Management Information Base (MIB) on the agent system, make sure the SNMP agent (compliant with MIB-I and MIB-II) is installed on the system.

For xglance: To use the xglance utility, make sure the following components are available on the system:

- Open Motif 2.1 or higher
- X11 Revision 6 (X11R6)

To collect and log cross-partition metrics, the xmservd or xmtopas daemon must be available. xmtopas is a part of perfagent.tools file set and xmservd is bundled with the Performance Toolbox for AIX component (a licensed software program).

Prerequisites for Installing the HP Operations Agent 11.03

Hardware Requirements

For information about supported architecture types, see the Support Matrix at:

http://h20230.www2.hp.com/sc/support_matrices.jsp

The following table describes the disk space requirements for the HP Operations agent 11.03:

OS	Free Disk Space
Windows	150 MB
Linux	• 50 MB on /opt
	• 100 MB on /var
HP-UX	• 50 MB on /opt
	• 100 MB on /var
Solaris	• 50 MB on /opt
	• 100 MB on /var
AIX	• 50 MB on /usr
	• 100 MB on /var

Disk Space Requirements

Note: On UNIX/Linux. At least 20% of the original volume of the /tmp directory must be free while you install the agent.

Software Requirements

• **Operating system:** For a list of supported operating systems, see the Support Matrix at:

http://h20230.www2.hp.com/sc/support_matrices.jsp

- HP Operations agent 11.00 must be installed and configured on the node.
- Windows Installer 4.5 or higher must be installed on Windows nodes.
- Remove all test binaries for the HP Operations agent from all Windows nodes (test binaries are hotfixes that are distributed by HP Support for testing purposes only).

Additional Requirements for vSphere Management Assistant Nodes

• Login requirement

By default, the root login is disabled on vSphere Management Assistant (vMA). As a result, you cannot deploy the agent remotely from the HPOM console to a vMA node. The <code>oainstall</code> script also requires the root privileges. Therefore, you must use the <code>sudo</code> command to switch to the root user before installing the agent manually on the vMA node.

viserver.properties

Since installation of the HP Operations agent 11.03 overwrites the old viserver.properties file with a new one, you may lose some configuration data. Therefore, on the vMA node, you must always back up the existing viserver.properties file (which is available in the /var/opt/perf directory) before installing the HP Operations agent 11.03.

After installation, you must replace the new <code>viserver.properties</code> file with the file that you backed up

Install the HP Operations Agent 11.03 on a Node Manually

The HP Operations agent 11.03 media enables you to install the agent manually using commandline utilities. The installer programs, available with the media, enable you to install the product on a node in the HPOM-managed environment or on a standalone system.

Note: The HP Operations agent 11.00 media provided you with the <code>oasetup</code> program, which could be used in installing the agent (instead of the <code>oainstall</code> scripts). Although the agent 11.03 ISO file includes the <code>oasetup</code> program (within the <code>patches</code> directory), use only the <code>oainstall</code> script for installing the HP Operations agent 11.03.

On Windows Nodes

- 1. Log on to the node with the administrator privileges.
- 2. Make sure the HP Operations agent 11.00 is already installed and running on the system.
- 3. Extract the contents of the ISO file into a local directory.
- 4. Go to the directory where you extracted the contents of the ISO file.

Note: Before installing the HP Operations Agent 11.03 patch (OAWIN_00008), if you have already installed the Performance Manager 9.0 (component patch HPPM8X9XCPW_00002)

and LCore hotfixes in your system, remove the hotfix inventory *xml* files, e.g. *HPOvXpl-HFWIN_00045.xml* from the location %*OvDataDir*%*installation**inventory*.

 Run the following command to install the agent (on an HPOM-managed node or on a standalone system): cscript oainstall.vbs -i -a

After you run the command, the installation procedure begins. At the end of the installation, the agent starts its operation on the node and all the necessary components start running.

If you install the HP Operations agent on the HPOM for Windows management server (that is, if you select the management server as a managed node), you must manually restart all HPOM processes by running the following commands on the management server:

- vpstat -3 -r stop
- vpstat -3 -r start

On UNIX/Linux Nodes

- 1. Log on to the node with the root privileges.
- 2. Make sure the HP Operations agent 11.00 is already installed and running on the system.
- 3. Extract the contents of the ISO file into a local directory.
- 4. Go to the directory where you extracted the contents of the ISO file.
- 5. Run the following command to install the agent (on an HPOM-managed node or a standalone system):

./oainstall.sh -i -a

After you run the command, the installation procedure begins. At the end of the installation, the agent starts its operation on the node and all the necessary components start running.

If you install the HP Operations agent on the HPOM on UNIX/Linux management server (that is, if you select the management server as a managed node), you must manually restart all HPOM processes by running the following commands on the management server:

- /opt/OV/bin/OpC/opcsv -stop
- /opt/OV/bin/OpC/opcsv -start
- Only on HPOM for UNIX 8.3x. /opt/OV/bin/ovstop -c
- Only on HPOM for UNIX 8.3x. /opt/OV/bin/ovstart -c

Post-Installation Task for Nodes Under HPOM for Windows

If the agent node is managed by HPOM for Windows and if you remotely installed the HP Operations agent 11.00 on the node from the HPOM console, you must perform the following steps after manually installing the agent 11.03 on the node:

- 1. Go to the console tree of the HPOM console.
- 2. Right-click the node, and then click **All Tasks > Synchronize > Packages**.

Verify the installation

To verify that the HP Operations agent 11.03 is installed on the system successfully, follow these steps:

1. Go to the following directory on the node:

On Windows

%ovinstalldir%bin

On HP-UX, Linux, or Solaris

/opt/OV/bin

On AIX

/usr/lpp/OV/bin

2. Run the following command:

On Windows

ovdeploy -inv -includeupdates

On UNIX/Linux:

./ovdeploy -inv -includeupdates

The command lists the version of the agent installed on the system.

Note: On AIX nodes, preinstallation details appear twice in the log file.

Installing the HP Operations Agent 11.03 Remotely

From the management server, you can install the HP Operations agent 11.03 remotely on managed nodes.

Before You Begin

- 1. Make sure that the HP Operations agent 11.00 is installed and configured on the node (the agent must be running on the node).
- 2. Determine the location of the OVO-Agent.xml file on the management server for the node where you want to install the HP Operations agent 11.03.

Location of the OVO-Agent.xml File on the HPOM for Windows Management Server

Node Platform	Location of the OVO-Agent.xml File
Windows (Itanium)	<pre>%ovdatadir%shared\Packages\HTTPS\windows\ ms\5.2 6.0 6.1\ipf64\Operations- agent\11.00.044\64\https\oawin_00007</pre>
Windows (x64)	<pre>%ovdatadir%shared\Packages\HTTPS\windows\ ms\5.1 5.2 6.0 6.1\x64\Operations- agent\11.00.044\64\https\oawin_00007</pre>
Windows (x86)	%ovdatadir%shared\Packages\HTTPS\windows\

Node Platform	Location of the OVO-Agent.xml File	
	<pre>ms\5.0 5.1 5.2 6.0 6.1\x86\Operations- agent\11.00.044\32 64\https\oawin_00007</pre>	
HP-UX (Itanium)	<pre>%ovdatadir%shared\Packages\HTTPS\hp-ux\ hp\11.23 11.31\ipf32\Operations- agent\11.00.044\64\https\oahpux_00007</pre>	
HP-UX (PA-RISC)	<pre>%ovdatadir%shared\Packages\HTTPS\hp-ux\ hp\11.11 11.23 11.31\pa-risc\Operations- agent\11.00.044\32 64\https\oahpux_00007</pre>	
Linux (Itanium)	<pre>%ovdatadir%shared\Packages\HTTPS\linux\ linux\2.6\ipf64\Operations-agent \11.00.044\64\https\oalin_00002</pre>	
Linux (POWER)	<pre>%ovdatadir%shared\Packages\HTTPS\linux\ linux\2.6\powerpc\Operations-agent \11.00.044\64\https\oalin_00007</pre>	
Linux (x86)	%ovdatadir% shared\Packages\HTTPS\linux\linux\2.6\x86\Operations- agent \11.00.044\32 64\https\oalin_00007	
Linux (x64)	<pre>%ovdatadir%shared\Packages\HTTPS\linux\ linux\2.6\x64\Operations-agent \11.00.044\64\https\oalin_00007</pre>	
Solaris (SPARC)	<pre>%ovdatadir%shared\Packages\HTTPS\solaris\ sun\5.9 5.10\sparc\Operations- agent\11.00.044\32 64\https\oasol_00404</pre>	
Solaris (x86)	<pre>%ovdatadir%shared\Packages\HTTPS\solaris\ sun\5.10\x86\Operations-agent \11.00.044\32 64\https\oasol_00404</pre>	
AIX (5.3)	<pre>%ovdatadir%shared\Packages\HTTPS\aix\ ibm\5.3\powerpc\Operations-agent \11.00.044\32 64\https\oaaix_00007</pre>	
AIX (6.1)	<pre>%ovdatadir%shared\Packages\HTTPS\aix\ ibm\6.1\powerpc\Operations-agent \11.00.044\64\https\oaaix_00007</pre>	

Location of the OVO-Agent.xml file on the HPOM on UNIX/Linux Management Server

Node Platform	Location of the OVO-Agent.xml File
Windows	/var/opt/OV/share/databases/OpC/mgd_node/vendor/ms/
(Itanium)	ipf64/win2k3/A.11.00.000/RPC_BBC/OAWIN_00007
Windows	<pre>/var/opt/OV/share/databases/OpC//mgd_node/vendor/ms/</pre>
(x64)	x64/win2k3/A.11.00.000/RPC_BBC/OAWIN_00007
Windows	/var/opt/OV/share/databases/OpC/mgd_node/vendor/ms/
(x86)	x86/winnt/A.11.00.000/RPC_BBC/OAWIN_00007
HP-UX	/var/opt/OV/share/databases/OpC/mgd_node/vendor/hp/
(Itanium)	ipf32/hpux1122/A.11.00.000/RPC_BBC/OAHPUX_00007
HP-UX (PA- RISC)	/var/opt/OV/share/databases/OpC/mgd_node/vendor/hp/ pa-risc/hpux1100/A.11.00.000/RPC_BBC/OAHPUX_00007
Linux	/var/opt/OV/share/databases/OpC/mgd_node/vendor/linux/
(Itanium)	ipf64/linux26/A.11.00.000/RPC_BBC/OALIN_00007
Linux	/var/opt/OV/share/databases/OpC/mgd_node/vendor/linux/
(POWER)	powerpc/linux26/A.11.00.000/RPC_BBC/OALIN_00007
Linux	<pre>/var/opt/OV/share/databases/OpC/mgd_node/vendor/linux/</pre>
(x86)	x86/linux26/A.11.00.000/RPC_BBC/OALIN_00007
Linux (x64)	/var/opt/OV/share/databases/OpC/mgd_ node/vendor/linux/x64/linux26/A.11.00.000/RPC_BBC/OALIN_ 00007
Solaris	/var/opt/OV/share/databases/OpC/mgd_node/vendor/sun/
(SPARC)	sparc/solaris7/A.11.00.000/RPC_BBC/OASOL_00404
Solaris	/var/opt/OV/share/databases/OpC/mgd_node/vendor/sun/
(x86)	x86/solaris10/A.11.00.000/RPC_BBC/OASOL_00404
AIX (5.3)	/var/opt/OV/share/databases/OpC/mgd_node/vendor/ibm/ rs6000/aix5/A.11.00.000/RPC_BBC/OAAIX_00007
AIX (6.1)	<pre>/var/opt/OV/share/databases/OpC/mgd_node/vendor/ibm/ rs6k64/aix5/A.11.00.000/RPC_BBC/OAAIX_00007</pre>

Install the Agent

To install the agent remotely from the command line, follow these steps:

- 1. Log on to the management server as root or administrator.
- 2. Go to the following directory on the management server:

On Windows:

%ovinstalldir%bin

On UNIX/Linux:

/opt/OV/bin

3. Run the following command:

ovdeploy -install -bundle <path-to-OVO-Agent.xml>-host <node name> -ovrg server

In this instance:

<path-to-OVO-Agent.xml> is the path to the OVO-Agent.xml file for the node type (see Table: Location of the OVO-Agent.XML File).

<node name> is the FQDN of the node

The command installs the HP Operations agent 11.03 on the node.

4. Run the following command on the management server to check that the installation is successful:

For Windows nodes:

ovdeploy -cmd "%ovinstalldir%bin\opcagt -version" -host <node_name>

For HP-UX, Linux, or Solaris nodes:

ovdeploy -cmd "/opt/OV/bin/opcagt -version" -host <node_name>

For AIX nodes:

ovdeploy -cmd "/usr/lpp/OV/bin/opcagt -version" -host <node_name>

The command output shows 11.03 if the installation is successful.

Note: On AIX nodes, the preinstall log messages will appear twice on a successful installation of the HP Operations agent 11.03.

Verify Installation on the Node

To verify that the installation is successful, follow these steps on the node:

- 1. Log on to the node as administrator or root.
- 2. Go to the following directory:

Windows:

%ovinstalldir%bin

HP-UX, Linux, or Solaris:

/opt/OV/bin

AIX:

/usr/lpp/OV/bin

3. Run the following command:

Windows:

ovdeploy -inv -includeupdates

UNIX/Linux:

./ovdeploy -inv -includeupdates

The command output shows the list of components upgraded by the installer in the ${\tt PATCH}$ section.

Install the HP Operations Agent 11.00 and 11.03 Together

The HP Operations agent 11.03 installer enables you to install the agent 11.03 along with the base agent version 11.00. The installer first installs the agent 11.00 on the system, and then installs the updates available with the agent 11.03.

You can use the oainstall script to install both versions of the HP Operations agent locally on a managed node, or you can use the ovdeploy command to remotely install these versions of the HP Operations agent on a managed node from the management server.

Note: The HP Operations agent 11.00 media provided you with the <code>oasetup</code> program, which could be used in installing the agent (instead of the <code>oainstall</code> scripts). Although the agent 11.03 ISO file includes the <code>oasetup</code> program (within the <code>patches</code> directory), use only the <code>oainstall</code> script for installing the HP Operations agent 11.03.

Preparing to Install the Agent 11.00 and 11.03 Together

Before you attempt to install the HP Operations agent 11.00 and HP Operations agent 11.03 together, make sure that the node meets all the prerequisites.

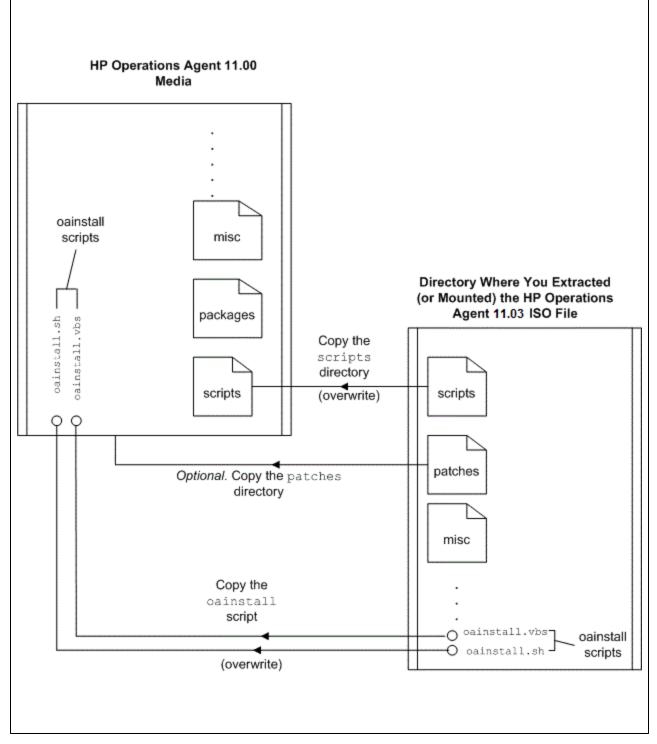
- 1. See the *Prerequisites* section in the *HP Operations Agent (11.00) Installation Guide* and make sure all the prerequisites are met.
- 2. See the <u>"Prerequisites for Installing the HP Operations Agent 11.03" (on page 29)</u> section and make sure all the prerequisites are met.
- 3. Extract the contents of the media ISO file for the agent 11.00 into a local directory.

Note: Since this procedure involves overwriting certain files in the agent 11.00 media, do not mount the 11.00 media. If the media is mounted on the system, you will not be able to overwrite any files.

- 4. Extract the contents of the ISO file for the agent 11.03 into a local directory, or mount the ISO file on the system.
- 5. From the directory where you extracted (or mounted) the contents of the HP Operations agent11.03 ISO file, copy the oainstall script (oainstall.vbs for Windows; oainstall.sh for UNIX/Linux) into the directory where you extracted the contents of the HP Operations agent 11.00 media.
- 6. From the directory where you extracted (or mounted) the contents of the HP Operations agent11.03 ISO file, copy the scripts directory to the directory where you extracted the contents of the HP Operations agent 11.00 media.

Because the HP Operations agent 11.03 ISO file also includes a scripts directory, you must overwrite the contents of the existing scripts directory while copying.





Tip: You can transfer the patch directory as well from the directory where you extracted (or mounted) the HP Operations agent 11.03 ISO file into the directory where you extracted the contents of the HP Operations agent 11.00 if you like to create a package that can be reused for installing the HP Operations agent 11.00 and 11.03 together on different nodes.

Install on Windows Nodes

To install the agent 11.00 and 11.03 together, follow these steps:

- 1. Log on to the system with the administrator privileges.
- 2. To install on a standalone node (the standalone mode of installation):

cscript oainstall.vbs -i -a -includeupdates -patch_dir <patch_directory>

3. To install on an HPOM-managed node (the HPOM-managed mode of installation)

cscript oainstall.vbs -i -a -includeupdates -patch_dir <patch_directory> -s <management_ server>[-cs<certificate_server>-install_dir <install_directory> -data_dir <data_directory>]

In this instance, <patch_directory> is the directory where the agent 11.03 ISO file is extracted (or mounted). <management_server> is the FQDN of the management server; <certificate_server> is the FQDN of the certificate server; <install_directory> is the loation where all packages and binary files are placed on the node; <data_directory> is the loation where all data and configuration files are placed on the node.

The command may fail if you are installing the agent on a platform that is certified as a *supported platform* for the agent 11.0x only with this release. In that case, run the following command instead:

cscript oainstall.vbs -i -a -minprecheck -includeupdates -patch_dir <patch_directory>

Tip: You can extract the contents of the HP Operations agent 11.03 ISO file into the same directory where you extracted the contents of the HP Operations agent 11.00 media. In that case, do not use the **-patch_dir** option. Specifying the **-includeupdates** option ensures that the installer looks for the 11.03 updates in the current directory.

After you run the command with necessary options and arguments, the installation procedure begins. At the end of the installation, the agent starts its operation on the node and all the necessary components start running.

If you install the HP Operations agent on the HPOM for Windows management server (that is, if you select the management server as a managed node), you must manually restart all HPOM processes by running the following commands on the management server:

- vpstat -3 -r stop
- vpstat -3 -r start

Install on UNIX/Linux Nodes

To install the agent 11.03 and 11.00 together, follow these steps:

- 1. Log on to the system with the root privileges.
- 2. To install on a standalone node (the standalone mode of installation):

./oainstall.sh -i -a -includeupdates -patch_dir <patch_directory>

3. To install on an HPOM-managed node (the HPOM-managed mode of installation)

./oainstall.sh -i -a -includeupdates -patch_dir <patch_directory> -s <management_ server>[-cs <certificate_server>]

In this instance, <patch_directory> is the directory where the agent 11.03 ISO file is extracted (or mounted). <management_server> is the FQDN of the management server; <certificate_server> is the FQDN of the certificate server

Note: When you install HP Operations Agent 11.00 and 11.03 together on a node, follow these steps:

1. Copy the oareqcheck.awk file from the location - patches/<patch number>/<architecture>/<file>. For example, patches/OAAIX_00007/AIX_ powerpc32/oareqcheck.awk

2. Save the oareqcheck.awk file in the directory where you have extracted the HP Operations agent 11.00 ISO file. The directory location is /<platform>/<architecture>.

Example – For AIX, copy the oareqcheck.awk file from patches/OAAIX_00007/AIX_ powerpc32/oareqcheck.awk to packages/AIX/AIX_powerpc32

Tip: With HP Operations Agent 11.03, the file oareqcheck.awk is identical for all UNIX platforms.

The command may fail if you are installing the agent on a platform that is certified as a *supported platform* for the agent 11.0x only with this release. In that case, run the following command instead:

./oainstall.sh -i -a -minprecheck -includeupdates -patch_dir <patch_directory>

Tip: You can extract the agent 11.03 media into the same directory where you extracted the media for the agent 11.00. In that case, do not use the **-patch_dir** option. Specifying the **- includeupdates** option ensures that the installer looks for the 11.03 updates in the current directory.

After you run the command with necessary options and arguments, the installation procedure begins. At the end of the installation, the agent starts its operation on the node and all the necessary components start running.

If you install the HP Operations agent on the HPOM on UNIX/Linux management server (that is, if you select the management server as a managed node), you must manually restart all HPOM processes by running the following commands on the management server:

- 1. /opt/OV/bin/OpC/opcsv -stop
- 2. /opt/OV/bin/OpC/opcsv -start
- 3. Run the following commands if you are running the agent on an HPOM for UNIX 8.3x server:
 - a. /opt/OV/bin/ovstop -c
 - b. /opt/OV/bin/ovstart -c

Installing the HP Operations Agent in the Inactive Mode

You can install the HP Operations agent 11.00 and 11.03 in the inactive mode without specifying any configuration details. This mode of installation does not perform necessary configuration tasks to enable the agent to run on the system, but only creates the necessary directory structure and places necessary files on the system.

The advantage of using this mechanism is the ability to clone the image of a system where the HP Operations agent is installed in the inactive mode. Cloning a system with preinstalled HP Operations agent eliminates the requirement to install the agent on the system after adding the system to the list of managed nodes.

Install the Operations Agent 11.00 and 11.03 Together

Although you can install the HP Operations agent 11.03 alone in the inactive mode, a requirement for this installation is the HP Operations agent 11.00 also must be available on the system in the inactive state. Installing the HP Operations agent 11.00 and HP Operations agent together simplifies the installation procedure.

Install on Windows Nodes

To install the agent 11.00 and 11.03 together, follow these steps:

- 1. Log on to the system with the administrator privileges.
- 2. To install the agent (on an HPOM-managed or standalone node), go to the directory where you extracted the contents of the HP Operations agent11.00 media, and then run the following command:

cscript oainstall.vbs -i -a -includeupdates -defer_configure -patch_dir <patch_directory>

The command may fail if you are installing the agent on a platform that is certified as a *supported platform* for the agent 11.0x only with this release. In that case, run the following command instead:

cscript oainstall.vbs -i -a -minprecheck -includeupdates -defer_configure -patch_dir <patch_directory>

In this instance, *<patch_directory>* is the directory where the contents of the agent 11.03 ISO file are extracted.

Tip: You can extract the contents of the HP Operations agent 11.03 ISO file into the same directory where you extracted the contents of the HP Operations agent 11.00 media. In that case, do not use the **-patch_dir** option. Specifying the **-includeupdates** option ensures that the installer looks for the 11.03 updates in the current directory.

In this instance, *<directory>* is the directory where you extracted (or mounted) the contents of the HP Operations agent 11.03 ISO file.

After you run the command with necessary options and arguments, the installation procedure begins. At the end of the installation, all agent files are placed on the system, but the agent remains inactive.

To check the status of the agent installed, follow these steps:

- 1. Goto %ovinstalldir%bin.
- 2. Run the following command:

opcagt

The following message appears:

```
Agent is in the inactive state.
```

Install on UNIX/Linux Nodes

To install the agent 11.03 and 11.00 together, follow these steps:

- 1. Log on to the system with the root privileges.
- 2. To install the agent (on an HPOM-managed or standalone node), go to the directory where you extracted the contents of the agent 11.00 media, and then run one of the following commands:

./oainstall.sh -i -a -includeupdates -defer_configure -patch_dir <patch_directory>

The command may fail if you are installing the agent on a platform that is certified as a *supported platform* for the agent 11.0x only with this release. In that case, run the following command instead:

./oainstall.sh -i -a -minprecheck -includeupdates -defer_configure -patch_dir <patch_ directory>

In this instance, *<patch_directory>* is the directory where the agent 11.03 ISO file is extracted (or mounted).

Tip: You can extract the agent 11.03 media into the same directory where you extracted the media for the agent 11.00. In that case, do not use the **-patch_dir** option. Specifying the **- includeupdates** option ensures that the installer looks for the 11.03 updates in the current directory.

After you run the command with necessary options and arguments, the installation procedure begins. At the end of the installation, all agent files are placed on the system, but the agent remains inactive.

To check the status of the agent installed, follow these steps:

1. On HP-UX, Linux, or Solaris, go to /opt/OV/bin.

On AIX, go to /lpp/usr/OV/bin.

2. Run the following command:

./opcagt

The following message appears:

Agent is in the inactive state.

Configure an Inactive Agent to Switch to the Active Mode

After installing the HP Operations agent in the inactive mode, you can perform the following configuration tasks to switch the agent to the active mode:

- 1. Log on to the node as root or administrator.
- 2. Go to the following location:

On Windows 64-bit nodes:

%ovinstalldir%bin\win64\OpC\install

On other Windows nodes:

%ovinstalldir%bin\OpC\install

On HP-UX, Linux, and Solaris:

/opt/OV/bin/OpC/install

On AIX:

/usr/lpp/OV/bin/OpC/install

3. For an installation in an HPOM-managed environment, run the following command:

On Windows:

cscript oainstall.vbs -a -configure -srv <management_server> [-cert_srv <certificate_ server>]

On UNIX/Linux:

./oainstall.sh -a -configure -srv <management_server> -cert_srv <certificate_server>

4. For a standalone installation, run the following command:

On Windows:

cscript oainstall.vbs -a -configure

On UNIX/Linux:

./oainstall.sh -a -configure

At the end of the procedure, the agent starts its operation on the node and all the necessary components start running.

If you installed the HP Operations agent on the HPOM for Windows management server (that is, if you select the management server as a managed node), you must manually restart all HPOM processes by running the following commands on the management server:

- vpstat -3 -r stop
- vpstat -3 -r start

If you installed the HP Operations agent on the HPOM on UNIX/Linux management server (that is, if you select the management server as a managed node), you must manually restart all HPOM processes by running the following commands on the management server:

- 1. /opt/OV/bin/OpC/opcsv -stop
- 2. /opt/OV/bin/OpC/opcsv -start
- 3. Run the following commands if you are running the agent on an HPOM for UNIX 8.3x server:
 - a. /opt/OV/bin/ovstop -c
 - b. /opt/OV/bin/ovstart -c

Install from the HPOM Console

Installation of the deployment packages for the HP Operations agent 11.03 on the management server makes necessary changes in the configuration to enable you to install the agent 11.03 and 11.00 (together) remotely on nodes from the HPOM console. You cannot install the agent 11.03 alone on the node from the HPOM console.

Prerequisites for Installing the HP Operations Agent from the HPOM Console

- Auto granting of the certificates must be enabled on the management server.
- the INCLUDEUPDATES variable must be set to true on the management server. Installing deployment packages for the HP Operations agent 11.03 ensures that this variable is set to true ("Update Deployment Packages on the Management Server" (on page 10)).

For verification, run the following command on the management server:

ovconfget -ovrg server depl INCLUDEUPDATES

If the command returns true, you can go ahead with installation. Otherwise, you must change the setting to true.

- If you want to install the agent on one of the newly supported platforms, you must install the hotfix QCCR1A128349 for HPOM on UNIX/Linux. Contact HP Support to obtain this hotfix. You do not need any additional hotfixes if you are using HPOM for Windows.
- The HP Operations agent 11.00 must be installed and running on the node
- The node must also meet the requirements listed in <u>"Prerequisites for Installing the HP</u> Operations Agent 11.03" (on page 29)

From the HPOM for Windows Console

To install the agent 11.03 and 11.00 together from the HPOM for Windows console:

Follow the instructions in the Remote Agent Installation section in HPOM for Windows Online Help.

Note: You need not select the **Run prerequisites check automatically before deployment** check box while installing the agent. The installation process on the node always performs prerequisite checks and the error or failure messages are annotated with the deployment job in the HPOM console. You can reduce the installation time by clearing this check box.

Depending on the original state of the node, you will see one of the following results:

- If the node did not have any agent software installed, the agent 11.00 and 11.03 are installed.
- If the node had old agent software that *can* be upgraded to the version 11.00, the existing agent is upgraded to the version 11.00 first, and then the agent 11.03 is installed.

Note: In the above two scenarios, the remote installation mechanism first installs the HP Operations agent 11.00 on the node, and then installs the HP Operations agent 11.03. Therefore, the installation process might take longer than usual.

- If the node has old agent software that *cannot* be upgraded to the version 11.00, the installation fails.
- If the agent 11.00 was already installed on the node, follow these additional steps after the remote installation is complete:
 - a. In the console tree, right-click the node, and then click **All Tasks > Reinstall/Update**. The Reinstall/Update Node dialog box opens.
 - b. Select **Update**, select **Packages** in the Scope section, clear the Deploy Only if Version is Lower check box, and then click **OK**.

c. After the installation is complete, go to the console tree of the HPOM console, right-click the node, and then click **All Tasks > Synchronize > Packages**.

The agent 11.03 is now installed on the node.

Note: Installation from the HPOM console might take longer than usual as HPOM first installs the HP Operations agent 11.00 on the node, and then installs the HP Operations agent 11.03.

From the HPOM for UNIX Console

To install the agent 11.03 and 11.00 together from the HPOM for UNIX console:

Follow the instructions in the HPOM for UNIX: New Agent Installation section in HPOM for UNIX Online Help to install the agent remotely from the HPOM console.

Depending on the original state of the node, you will see one of the following results:

- If the node did not have any agent software installed, HPOM installs both the agent versions 11.00 and 11.03. Make sure to select the **Force** check box in the Install Agent window.
- If the agent 11.00 was already installed on the node, you must select the **Force** check box in the Install Agent window while installing the agent. At the end of the installation, the agent 11.03 is installed.
- If the node has older agent software that *cannot* be upgraded to the version 11.00, installation fails.
- If the node had old agent software that *can* be upgraded to the version 11.00, the existing agent is upgraded to the version 11.00 first, and then the agent 11.03 is installed (this two-step upgrade takes place automatically; no additional steps are involved).

Note: Installation from the HPOM console might take longer than usual as HPOM first installs the HP Operations agent 11.00 on the node, and then installs the HP Operations agent 11.03.

Modify the Default Deployment Behavior

If you do not want to install the 11.03 patch and HP Operations agent 11.00 together anymore, follow these steps:

- 1. Log on to the management server with the administrator or root privileges.
- 2. Go to the directory *%ovinstalldir%*bin or /opt/OV/bin.
- 3. Run the following command:

ovconfchg -ovrg server -ns depl -set INCLUDEUPDATES false

Reverting to the HP Operations Agent 11.02

After installing the agent 11.03, if you want to revert to the agent 11.02, you can do so by removing the agent from the node. However, this is not possible if the agent 11.02 was not installed on the node prior to installing the agent 11.03. See <u>"Removing the HP Operations Agent 11.03" (on page 53)</u> for more details.

Stopping Unnecessary Processes

If you do not want to use all the components of the HP Operations agent, you can run specific commands to stop unnecessary processes. Stopping unnecessary processes is useful when you are upgrading only from the HP Operations agent, HP Performance Agent, or HP GlancePlus and you do not want to use the other components of the HP Operations agent 11.00.

When you are upgrading from the HP Operations agent only

In this scenario, you can stop the rtmd process if you do not want to use the Performance Collection Component and RTM.

The simplest way to stop the rtmd process is running the **ovc** -stop rtmd command. However, the rtmd process starts running again when you restart the system. Therefore, it is important to unregister the process from the control component instead of just stopping its operation.

Perform the following steps to unregister the rtmd process:

- 1. Log on to the node as root or administrator.
- 2. Go to the following directory:

On Windows

%ovinstalldir%bin

On HP-UX, Linux, or Solaris

/opt/OV/bin

On AIX

/usr/lpp/OV/bin

3. Run the following command:

ovcreg -del rtmd

The command stops the rtmd process and unregisters the rtmd process from the control component.

Note: The Performance Collection Component processes (such as midaemon, ttd, and so on) still continue to run on the node. Even when you do not want to use the Performance Collection Component, it is recommended that you do not stop those processes.

When you are upgrading from the HP Performance Agent only

In this scenario, you can stop the rtmd process if you do not want to use RTM.

The simplest way to stop the rtmd process is running the **ovc -stop rtmd** command. However, the rtmd process starts running again when you restart the system. Therefore, it is important to unregister the process from the control component instead of just stopping its operation.

Perform the following steps to unregister the rtmd process:

Log on to the node as root or administrator.

1. Go to the following directory:

On Windows

%ovinstalldir%bin

On HP-UX, Linux, or Solaris

/opt/OV/bin

On AIX

/usr/lpp/OV/bin

2. Run the following command:

ovcreg -del rtmd

The command stops the rtmd process and unregisters the rtmd process from the control component.

When you are upgrading from HP GlancePlus only

HP GlancePlus does no require the ovc process. When you want to run only HP GlancePlus (and no other components of the HP Operations agent 11.00), follow these steps:

- 1. Log on to the node as root.
- 2. Go to the following directory:

On HP-UX, Linux, or Solaris

/opt/OV/bin

On AIX

/usr/lpp/OV/bin

3. Run the following command stop all agent processes (including processes for the Performance Collection Component):

opcagt -kill

This command stops all HP Operations agent processes.

4. Run the following command to restart the midaemon process:

On HP-UX, Linux, or Solaris

/opt/perf/bin/midaemon

On AIX

/usr/lpp/perf/bin/midaemon

5. Run the following command to restart the perfd process:

On HP-UX, Linux, or Solaris

/opt/perf/bin/perfd

On AIX

/usr/lpp/perf/bin/perfd

The ovc process is already stopped by the command that was run in <u>step 3</u>. However, the ovc process will start running again when you restart the system.

Run the following command to prevent the ovc process from starting its operation when the system is restarted:

On HP-UX, Linux, or Solaris

/opt/OV/bin/ovconfchg -ns ctrl -set START_ON_BOOT false

On AIX

/usr/lpp/OV/bin/ovconfchg -ns ctrl -set START_ON_BOOT false

The ovc process does not start anymore after you restart the system.

Perform <u>step 6</u> through <u>step 8</u> to prevent the Performance Collection Componentcomponent from starting its operation when the system is restarted

6. Go to the following location:

On Linux

/etc/sysconfig

On HP-UX

/etc/rc.config.d

On Solaris and AIX

/etc/default

- 7. Open the ovpa file with a text editor.
- 8. Set the variable ${\tt OVPA}$ ${\tt START}$ to 0, and then save the ${\tt ovpa}$ file

If the ttd process does not start after you restart the system, run the following command:

On HP-UX, Linux, or Solaris

/opt/perf/bin/ttd

On AIX

/usr/lpp/perf/bin/ttd

Upgrading to the HP Operations Agent 11.03 from a Version Older than 11.00

You can upgrade an older version of the HP Operations agent, HP Performance Agent, or HP GlancePlus to the HP Operations agent 11.03. The upgrade procedure upgrades the agent first to the version 11.00, and then to the version 11.03. The following versions can be directly upgraded:

- HP Operations agent: 8.53, 8.60
- HP Performance Agent: 4.70, 5.00
- HP GlancePlus: 4.70, 5.00

The installation of the HP Operations agent 11.00 fails if any agent software older than the specified versions is installed. Before installing the HP Operations agent 11.00 on nodes with the HP Operations agent older than 8.53, the HP Performance Agent older than 4.70, and HP GlancePlus older than 4.70, do one of the following:

• Upgrade the agent software to the version that can be upgraded to the HP Operations agent 11.00.

This is the preferred method of upgrade. This method ensures necessary packages and policies are retained on the node.

• Remove the agent software completely.

This may result in removal of policies and instrumentation files from the node. After upgrading, make sure necessary policies and instrumentation files are deployed on the node again.

Data Collection and Storage

The older versions of the HP Operations agent stores the system performance data in the form of about 50 metrics in the embedded performance component (**EPC**), which is also known as **coda**. The HP Performance Agent collects more than 500 system performance metrics (with the help of the **scope** collector) and uses the log file-based storage mechanism to store the data. The version 11.00 of the HP Operations agent uses the data collection and storage mechanism of the HP Performance Agent, and therefore, collects a richer set of metrics and stores the metric data into the log file-based data store. However, any references to the EPC in external programs or HPOM policies are directed to the scope collector and the log file-based data store. This ensures that all previously deployed policies and integrations work without any interruptions after upgrading from an older version of the HP Operations agent.

Note: The data collection mechanism of the HP Operations agent requires root/administrator privileges to collect data. You can configure only the Operations Monitoring Component to run with a non-root/non-privileged user while the Performance Collection Component continues to run with root/administrator. For more information on configuring the Operations Monitoring Component to run with a non-root/non-privileged user, see the *Configuring the Agent User* section in the *HP Operations Agent User Guide*.

Checks Before Upgrade

Before beginning the upgrade process, you must verify the versions of the agent software installed on the node.

Check the Version of the Existing Agent

To check the version of the agent software on the node, follow these steps:

On Windows

Log on to the node with the administrative privileges.

Check the version of the HP Operations agent:

Open a command prompt.

Run the following command:

opcagt -version

If the output of the command shows that the version is lower than A.8.53, you must upgrade to the version 8.53 or 8.60 first (or completely remove the installed version) before installing the HP Operations agent 11.00.

Check the version of the HP Performance Agent:

Open a command prompt.

Run the following command:

perfstat -v

The output of the command shows the versions of different components of the HP Performance Agent. If the version of the component **ovpa.exe** is listed as lower than C.04.70, you must upgrade to the version 4.70 or 5.00 first (or completely remove the installed version of the HP Performance Agent) before installing the HP Operations agent 11.00.

On UNIX/Linux

Log on to the node with the root privileges.

Check the version of the HP Operations agent:

Open a command prompt.

Run the following command:

opcagt -version

If the output of the command shows that the version is lower than A.8.53, you must upgrade to the version 8.53 or 8.60 first (or completely remove the installed version) before installing the HP Operations agent 11.00.

Check the version of the HP Performance Agent:

Open a command prompt.

Run the following command:

perfstat -v

The output of the command shows the versions of different components of the HP Performance Agent. If the version of the component **ovpa** is listed as lower than C.04.70, you must upgrade to the version 4.70 or 5.00 first (or completely remove the installed version of the HP Performance Agent) before installing the HP Operations agent 11.00.

Check the version of HP GlancePlus:

Open a command prompt.

Run the following command:

perfstat -v

The output of the command shows the versions of different components of the HP Performance Agent and HP GlancePlus. If the version of the component **glance** is listed as lower than C.04.70, you must upgrade to the version 4.70 or 5.00 first (or completely remove the installed version of HP GlancePlus) before installing the HP Operations agent 11.00.

Check the Version of coda

If the available coda version on the system is between 10.50.215 and 10.50.245, it is recommended that you take a backup of the coda data by using data analysis tools (like HP Reporter or HP Performance Insight).

Before you begin to upgrade, follow these steps:

- 1. Log on to the node with the root or administrative privileges.
- 2. Go to the following location:

On Windows: %ovinstalldir%bin

On HP-UX, Linux, or Solaris: /opt/OV/bin

On AIX: /usr/Ipp/OV/bin

3. Run the following command:

ovcodautil -status -verbose

The command output displays the version of coda.

Alternatively, open the **coda.txt** file from the log directory (*%ovdatadir*%**log** on Windows; /**var/opt/OV/log** on UNIX/Linux), and then check the version of coda (next to the statement Starting CODA).

If the coda version is lower than 10.50.215 or higher than 10.50.245, proceed with the upgrade. Otherwise, take a backup of the data available in coda by using data analysis tools (like HP Reporter or HP Performance Insight), and then begin the upgrade procedure.

Upgrading an Agent

After verifying that all the prerequisites are met, you can upgrade the agent to the HP Operations agent 11.03 by following the instructions in available in <u>"Prerequisites for Installing the HP</u> <u>Operations Agent 11.00" (on page 20)</u> and <u>"Prerequisites for Installing the HP Operations Agent 11.03" (on page 29)</u>.

The following table lists possible upgrade scenarios:

Upgrade Scenario	Tasks	Additional Information
 Upgrading an HPOM- managed node with only the HP Operations agent Upgrading an HPOM- managed node with the HP Operations agent and HP Performance Agent. 	 Make sure all node prerequisites are met. See <u>"Prerequisites for Installing the HP</u> Operations Agent 11.00" (on page 20) and <u>"Prerequisites for Installing the HP</u> Operations Agent 11.03" (on page 29) Make sure all upgrade prerequisites are met. See <u>"Checks Before Upgrade"</u> (on page 48). Install the HP Operations agent 11.00 and 11.03 	While using the oainstall program, you need not specify the details of the management server or certificate server. If you want to use a management server (or certificate server) different from the original one, you can specify the FQDN of the new management server while running the oainstall program. The new management server takes effect as soon as the upgrade is complete.

Agent Upgrade Scenarios

Upgrade Scenario	Tasks	Additional Information
Upgrading an HPOM- managed node with the HP Operations agent, HP Performance Agent, and HP GlancePlus.	together. See <u>"Install the</u> <u>HP Operations Agent</u> <u>11.00 and 11.03 Together"</u> (on page 36)	
 Upgrading a standalone node with only the HP Performance Agent. Upgrading a standalone node with only HP GlancePlus. Upgrading a standalone node with only HP 	 Make sure all node prerequisites are met. See <u>"Prerequisites for</u> <u>Installing the HP</u> <u>Operations Agent 11.00"</u> (on page 20) and <u>"Prerequisites for</u> <u>Installing the HP</u> <u>Operations Agent 11.03"</u> (on page 29) Make sure all upgrade prerequisites are met. See <u>"Checks Before Upgrade"</u> (on page 48). 	At a later time, you can configure the node with an HPOM management server by running the oainstall program with the - configure option.
HP Performance Agent and HP GlancePlus.	3. Install the HP Operations agent 11.00 and 11.03 together. See <u>"Install the</u> <u>HP Operations Agent</u> <u>11.00 and 11.03 Together"</u> (on page 36)	

If you install the agent 11.03 on a node with only an older version of the HP Operations agent (without the HP Performance Agent), you can use the enhanced data store to log the data collected by different HP Operations Smart Plug-ins (SPIs).

To facilitate the SPIs to log the data into the log file-based data store, follow these steps:

Note: If the system is a shared WPAR where you installed the HP Operations agent by using the syncwpar or syncroot command, skip this procedure.

- 1. Log on to the node with the root or administrative privileges.
- 2. Go to the following location:

On Windows: %ovdatadir%conf\dsi2ddf

On UNIX/Linux: /var/opt/OV/conf/dsi2ddf

- 3. Remove the **nocoda.opt** file.
- 4. Go to the following location:
 - On Windows: *%ovinstalldir*%**bin**

On HP-UX, Linux, or Solaris: /opt/OV/bin

- On AIX: /usr/Ipp/OV/bin
- 5. Restart the agent by running the following commands:

opcagt -stop

opcagt -start

If the node is monitored by multiple SPIs, and if you want different SPIs to log data into different data stores (log file-based data store and coda), see the SPI documentation.

On Shared WPAR

If you install the agent on a shared WPAR by using syncwpar or syncroot, the **nocoda.opt** file is not automatically created. Therefore, if only an older version of the HP Operations agent (8.53 or 8.60) existed on the shared WPAR, data logging mechanism for SPIs on the shared WPAR automatically switches to the log file-based data store. If you do not want the SPIs on the shared WPAR to use the new data store, manually create a file (without any content), and then save the file as **nocoda.opt** into the /**var/opt/OV/conf/dsi2ddf** directory.

Chapter 7

Removing the HP Operations Agent

To remove the HP Operations Agent complete product from Windows ®, HP-UX, Solaris, Linux, and AIX operating systems see Removing the HP Operations Agent 11.00 and 11.03 Together.

To remove HP Operations Agent 11.03 see <u>Removing the HP Operations Agent 11.03</u>.

To remove HP Operations Agent from Linux, see <u>Remove the HP Operations Agent from Linux</u> Nodes.

Removing the HP Operations Agent 11.03

To remove the HP Operations agent 11.03, follow these steps after you log on to the node as root or administrator:

- **Note:** You cannot remove the HP Operations agent 11.03 alone from Linux nodes; you can only remove the complete product (versions 11.00 and 11.03 together) from Linux nodes. Do not follow these steps on Linux nodes. To remove the complete product from Linux nodes, see "Remove the HP Operations Agent from Linux Nodes" (on page 55).
- 1. Go to the following directory: On Windows (32-bit systems) %ovinstalldir%bin\OpC\install On Windows (64-bit systems) %ovinstalldir%bin\win64\OpC\install On HP-UX or Solaris /opt/OV/bin/OpC/install On AIX /usr/lpp/OV/bin/OpC/install
- Run the following command to remove the agent 11.03: On Windows
 cscript oainstall.vbs -r -a -pn OAWIN_00007

On HP-UX

./oainstall.sh -r -a -pn OAHPUX_00007

On Solaris

./oainstall.sh -r -a -pn OASOL_00404

On AIX

./oainstall.sh -r -a -pn OAAIX_00007

On all platforms other than Linux, uninstallation of the HP Operations agent 11.03 reinstates the version of the HP Operations agent that was in effect on the node prior to installing the version 11.03, which means:

- The version 11.02 is reinstated on the node if the HP Operations agent 11.02 was installed on the node prior to installing the version 11.03.
- The version 11.01 is reinstated on the node if the HP Operations agent 11.01 was installed on the node prior to installing the version 11.03
- The version 11.00 is reinstated on the node if the HP Operations agent 11.01 or 11.02 was *not* installed on the node prior to installing the version 11.03.

When you roll back the HP Operations agent to the version 11.00, 11.01 or 11.02, the scope collector may stop logging data into the existing log files. To resolve this, follow these steps:

- a. Log on to the node as an administrator or root.
- b. Stop the scope collector:

On Windows

%ovinstalldir%bin\ovpacmd -stop col

On HP-UX, Linux, and Solaris

/opt/perf/bin/ovpa -stop scope

On AIX

/usr/lpp/perf/bin/ovpa -stop scope

c. Go to the following directory:

On Windows:

%ovdatadir%datafiles

On UNIX/Linux:

/var/opt/perf/datafiles

d. Take a backup of all log files for future use, and then delete all the files in the directory.

You can transfer the backed-up log files on a system where the version 11.03 is running and use the extract, export, or utility command or a data analysis tool (such as HP Performance Manager) to view the data that was collected by the version 11.03 of the HP Operations agent.

- e. After you take a backup of log files, delete all files under the datafiles directory.
- f. Start the scope collector:

On Windows

%ovinstalldir%bin\ovpacmd -start col

On HP-UX, Linux, and Solaris

/opt/perf/bin/ovpa -start scope

On AIX

/usr/lpp/perf/bin/ovpa -start scope

For information on removing the agent on Linux, see <u>"Remove the HP Operations Agent from Linux</u> Nodes" (on page 55).

Remove the HPOperations Agent 11.03 Remotely

To remove the agent 11.03 from a managed node remotely by using the ovdeploy command from the management server, follow these steps:

- **Note:** You cannot remove the agent 11.03 alone from Linux nodes; you can only remove the complete product (versions 11.00 and 11.03 together) from Linux nodes. Do not follow these steps on Linux nodes. To remove the complete product from Linux nodes, see <u>"Remove the HP Operations Agent from Linux Nodes"</u> (on page 55).
- 1. Log on to the management server as root or administrator.
- 2. Go to the following directory on the management server:

On Windows:

%ovinstalldir%bin

On HP-UX, Solaris, or Linux:

/opt/OV/bin

3. Run the following command:

ovdeploy -remove -patch <patch-ID>-host <node name>

In this instance:

<patch-ID> is the name of the patch ISO file that was downloaded while installing the patch (see ISO file names).

<node name> is the FQDN of the node.

Note: Do not specify the FQDN of a Linux node. You cannot remove just the agent 11.03 from a Linux node.

On all platforms other than Linux:

- If you installed the agent 11.02 prior to installing the agent 11.03, removing the agent 11.03 reinstates the agent 11.02 on the node.
- If you did not install the agent 11.01 prior to installing the agent 11.03, removing the agent 11.03 reinstates the agent 11.01 on the node.
- If you did not install the agent 11.01 or 11.02 prior to installing the agent 11.03, removing the agent 11.03 reinstates 11.00 on the node.

For information on removing the agent on Linux, see <u>"Remove the HP Operations Agent from Linux</u> Nodes" (on page 55).

Remove the HP Operations Agent from Linux Nodes

You cannot remove the agent 11.03 alone from Linux nodes. However, you can remove both the versions of the agent (11.00 and 11.03) together with a single command.

To remove the agent 11.00 and 11.03 from Linux nodes, follow these steps:

- 1. Log on to the node as root.
- 2. Goto/opt/OV/bin/OpC/install.

3. Run the following command:

./oainstall -r -a

The command removes both the versions of the agent (11.00 and 11.03).

Reinstall the HP Operations Agent 11.03 on Linux

On Linux systems, you cannot remove just the agent 11.03 with the agent 11.00 still in effect. Uninstallation procedure removes both the versions of the agent (11.00 and 11.03) completely from the Linux system. If you want to install the agent 11.03 again on the same system, do one of the following:

- Install the agent 11.00 and 11.03 together ("Install the HP Operations Agent 11.00 and 11.03 <u>Together</u>" (on page 36)).
- Install the agent 11.00 first (follow the instructions in the HP Operations Agent 11.00 Installation Guide), and then install the agent 11.03 (see <u>"Install the HP Operations Agent 11.03 on a Node</u> Manually" (on page 30)).

Removing the Agent with the oacleanall Script

If the installation of the agent is incomplete or unsuccessful, you must always try reinstallation only after uninstalling the agent. If the uninstallation command (oainstall.sh -r -a or cscript oainstall.vbs -r -a) fails to remove the agent, use the oacleanall script.

The scripts directory includes a set of oacleanall scripts—one script for each platform. You must choose the appropriate script to bring the system back to its original state. The following table lists the commands for all supported platforms.

Operating System	Architecture	Command
Windows	Itanium	cscript oacleanall_Windows_ IA64.vbs
	x86	cscript oacleanall_Windows_ X86.vbs
	x64	cscript oacleanall_Windows_ X64.vbs
Linux	Itanium	./oacleanall_Linux2.6_IA64.sh
	x86	./oacleanall_Linux2.6_X86.sh
	x64	./oacleanall_Linux2.6_X64.sh
	power (64-bit)	./oacleanall_Linux2.6_ PPC64.sh
HP-UX	PA-RISC	./oacleanall_HP-UX_PA32.sh
	Itanium	./oacleanall_HP-UX_IA32.sh

Operating System	Architecture	Command
Solaris	SPARC	./oacleanall_Solaris_ SPARC32.sh
	x86	./oacleanall_Solaris_X86.sh
AIX	power (32-bit)	./oacleanall_AIX_ powerpc32.sh
	power (64-bit)	./oacleanall_AIX_ powerpc64.sh

Note: This script removes the agent (11.03 and 11.00) from the system completely and irrecoverably. Use this script only to reverse the effect of an incomplete, unsuccessful, or incorrect installation of the agent.

Removing the HP Operations Agent 11.00 and 11.03 Together

To remove the HP Operations agent complete product (versions 11.00 and 11.03) using a single command, follow these steps after you log on to the node as root or administrator:

- 1. Go to the following directory: On Windows (32-bit systems) %ovinstalldir%bin\OpC\install On Windows (64-bit systems) %ovinstalldir%bin\win64\OpC\install On HP-UX or Solaris /opt/OV/bin/OpC/install On AIX /usr/lpp/OV/bin/OpC/install
- 2. Run the following command to remove the agent:

On Windows

cscript oainstall.vbs -r -a

On UNIX/Linux

./oainstall.sh -r -a

The command removes the agent (11.00 and 11.03 together) from the node. After uninstallation, the complete data directory remains on the system (on Windows: <code>%ovdatadir%; on UNIX/Linux: /var/opt/OV)</code>.

Alternatively, if you do not want to retain the data files on the system, run the following command:

On Windows

cscript oainstall.vbs -r -a -clean

On UNIX/Linux

./oainstall.sh -r -a -clean

The command removes the agent (11.00 and 11.03 together) from the node. After uninstallation, only the following files remain on the system:

On Windows

%ovinstalldir%inventory\Operations-Agent.xml

%ovdatadir%log\oainstall.log

%ovdatadir%log\oainstall.bin

On HP-UX, Linux, or Solaris

/opt/OV/inventory/Operations-Agent.xml

/var/opt/OV/log/oainstall.log

/var/opt/OV/log/oainstall.bin

On AIX

/usr/lpp/OV/inventory/Operations-Agent.xml

/var/opt/OV/log/oainstall.log

/var/opt/OV/log/oainstall.bin

Chapter 8

Installing the HP Operations Agent on Platforms Supported with Limitation

See the *HP Operations Agent Support Matrix* document for more details on platforms supported with limitation.

The installer may fail to install the HP Operations agent on platforms supported with limitation. You may see the following error when you try to install the agent on such platforms:

The product bundle selected may not yet be supported on this node

To install the HP Operations agent on such nodes, you must run the installer with the - **minprecheck** option along with the -**i** and -**a** options.

Examples

To install the HP Operations agent 11.03 on a Windows system, run the following command:

cscript oainstall.vbs -i -a -minprecheck

To install the HP Operations agent 11.03 on a UNIX/Linux system, run the following command:

./oainstall.sh -i -a -minprecheck

Install the HP Operations Agent on Platforms Supported with Limitation Remotely from the HPOM for Windows Console

To install the HP Operations agent 11.03 remotely from the HPOM for Windows console on platforms supported with limitation, you must perform the following preinstallation tasks on the management server:

- 1. Log on to the management server as administrator.
- 2. Go to the directory %ovdatadir%share\conf\PMAD.
- Rename the agent_install_defaults.cfg.sample file to agent_install_ defaults.cfg.

Tip: Take a backup of the agent install defaults.cfg.sample file.

4. Open the agent_install_defaults.cfg file with a text editor and add the following line:

[eaagt]

MINPRECHECK=TRUE

5. Save the file.

You can now follow the steps in <u>"From the HPOM for Windows Console" (on page 43)</u> to install the HP Operations agent 11.03 remotely from the HPOM console.

Install the HP Operations Agent on Platforms Supported with Limitation Remotely from the HPOM for UNIX Console

To install the HP Operations agent 11.03 remotely from the HPOM for UNIX console on platforms supported with limitation, you must perform the following preinstallation tasks on the management server:

- 1. Log on to the management server with the root privileges.
- 2. Go to the directory /etc/opt/OV/share/conf/OpC/mgmt_sv.
- 3. Rename the file *bbc_inst_defaults.sample* to *bbc_inst_defaults*.
- 4. Open the file *bbc_inst_defaults* with a text editor and add the following line:

[eaagt]

MINPRECHECK=TRUE

5. Save the file.

Follow the steps in <u>"From the HPOM for UNIX Console" (on page 43)</u> to install the HP Operations agent 11.03 remotely from the HPOM console.

Note: After installing the HP Operations Agent 11.03 using MINPRECHECK, the changes done in the profile file must be reverted. When you install using MINPRECHECK, the version check for the Operating System and Architecture will be skipped.

Install the HP Operations Agent on Platforms Supported with Limitation Remotely

To install the HP Operations agent 11.03 remotely on platforms supported with limitation:

- 1. Log on to the management server with root or administrator privileges.
- 2. Go to the following directory on the management server:

On Windows:

%ovinstalldir%bin

On UNIX/Linux:

/opt/OV/bin

3. Add the following line in a text file:

[eaagt]

MINPRECHECK=TRUE

4. Run the following command:

ovdeploy –install –bundle <path_to_OVO-Agent.xml> –node <node name> –af <path_of_ profile_file>\<profile_file_name> –1 –configure <profile_file_name>

The command installs the HP Operations Agent 11.03 on the node.

Chapter 9

Troubleshooting

While installing the HP Operations agent 11.03, you may experience certain problems. This section helps you troubleshoot such problems and provides you with information to help you avoid problems from occurring.

Installation Fails on a Windows Node with the Error "MSI version is less than 4.5"

Installation of the HP Operations agent 11.03 on a Windows node fails with the following message in the command line console (as well as in the <code>oapatch.log</code> file):

[FAIL] Check if MSI engine version is 4.5 or higher. MSI version is less than 4.5, installation not supported, update to Service Pack 2

Solution:

- 1. Go to the patches\OAWIN 00007 directory on the HP Operations agent 11.03 media.
- 2. Go to one of the following directories depending on the architecture of the Windows node:
 For Itanium nodes: Windows_IA64
 - For x64 nodes: Windows_X64
 - For x86 nodes: Windows_X86
- 3. Run one of the following commands depending on the architecture of the Windows node:
 - For Itanium nodes: wusa Windows6.0-ia64.msu /quiet /norestart
 - For x64 nodes: wusa Windows6.0-x64.msu /quiet /norestart
 - For x86 nodes: wusa Windows6.0-x86.msu /quiet /norestart

Tip: Alternatively, you can double-click the *.msu file.

- 4. Restart the system.
- 5. Try to install the HP Operations agent again.

Deployment Package for a Platform is Downgraded to the Version 8.x

This scenario is seen on a management server where you installed the HP Operations agent 11.03 deployment package only for select platforms (and not for all the five platforms).

You might see that the 11.03 deployment package is automatically downgraded to the version 8.x after performing the following operations:

- 1. Removing the agent 11.00 deployment package for a platform that was not updated with the agent 11.03
- 2. Installing the agent 11.00 deployment package again for the same platform

Solution:

After installing the agent deployment package 11.03 for a platform, if you want to remove and reinstall the agent 11.00 deployment package for another platform, make sure you do the following at the time of reinstallation:

- 1. Copy the oainstall.vbs or oainstall.sh script from the directory where you extracted or mounted the agent 11.03 ISO file.
- 2. Place the copied oainstall.vbs or oainstall.sh script into the directory where you extracted or mounted the agent 11.00 ISO file.
- 3. Copy the scripts sub-directory from the directory where you extracted or mounted the agent 11.03 ISO file.
- 4. Place the copied scripts sub-directory into the directory where you extracted or mounted the agent 11.00 ISO file.
- 5. Now start reinstalling the agent 11.00 deployment packages. After installation, an alreadyinstalled instance of the agent 11.03 deployment package does not get automatically downgraded to the version 8.x anymore.

Remote Installation of the Agent from the HPOM for Windows Console Fails

Installation of the agent (11.00 and 11.03 together) from the HPOM for Windows console fails; the <code>oapatch.log</code> file is not created. The following error message appears in the HPOM console:

(PMD1240) Cannot deploy package 'Operations-agent' to node <node_ name>. The agent API returned the following errors: (depl81) Unable to deploy OVO-Agent.xml to node <node_name> (depl81) Unable to deploy oasetup to node <node_name>

The installation mechanism first transfers and installs the packages for the agent 11.00 on the node, and then triggers the installation of the agent 11.03 packages. This failure occurs if the agent tries to start its processes on the node even before the installation of the agent 11.03 is complete.

Solution:

1. On the HPOM management server, set the SELFPATCHUPLOADRETRYLIMIT variable to a higher value (such as, 90). Run the following command on the management server to set this variable to a value of your choice:

ovcongchg ovrg -server -ns depl -set SELFPATCHUPLOADRETRYLIMIT <value>

2. Try to install the agent 11.00 and 11.03 together again from the HPOM console.

Installing the HP Operations Agent 11.02 After an Unsuccessful Installation of the HP Operations Agent 11.02

After an unsuccessful installation of the HP Operations agent 11.03, you can install the HP Operations agent 11.02 by following the instructions in the *HP Operations Agent (11.01) Installation Guide*. However, on Windows nodes, you must perform an additional step.

Before installing the HP Operations agent 11.02 on a Windows node, go to the %ovinstalldir%bin\OpC\install directory on the node, and then replace the existing oasetup.exe file with the oasetup.exe file that was shipped with the HP Operations agent 11.00 media. You can copy the oasetup.exe file from the HP Operations agent 11.00 media or from a system where the HP Operations agent 11.00 is running.

If you do not complete this task, uninstallation of the HP Operations agent 11.02 will fail.

Error Messages Appear in the "status.perfalarm" File After Installing the Agent with the "syncwpar" Command

On AIX systems, after you install the HP Operations agent by using the <code>syncwpar</code> command, the following error messages appear in the <code>status.perfalarm</code> file (in the <code>/var/opt/perf/log</code> directory):

ERROR: Connection to localhost failed ((bbc-42) Unable to connect to the OV Communication Broker.Update to Service Pack

Solution:

Start the ovc process by running the following command:

/usr/lpp/OV/bin/ovc -start

Reinstallation of the Agent Fails on Windows 2003

Reinstallation of the agent (11.00 or 11.03) on Windows 2003 fails with the following error:

```
The service 'lanmanserver' is not running on the system. This service is required to run this tool.
```

Solution:

- 5. Restart the Server service (service name: lanmanserver) from the Services window:
 - 1. At the Run prompt, type **services.msc**, and then press **Enter**.
 - 2. In the Services window, right-click Server, and then click Restart.

Remote Installation from the HPOM Console Fails on Windows 7 x64 Nodes

Remote installation of the HP Operations agent from the HPOM console fails on Windows 7 x64 nodes with the following error:

REQCHK8016 The platform/OS version on node <node_name> is not yet supported - please consult the latest support matrix; if platform is supported ignore prerequisite check and check prerequisites manually

Solution:

Clear the **Run prerequisites check automatically before deployment** option while installing the agent from the HPOM console.

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