HP ProLiant Essentials
Virtual Machine Management Pack

Quick Setup Poster

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Overview

The HP ProLiant Essentials Virtual Machine Management Pack (VMM) extends the functionality of HP Systems Insight Manager (HP SIM) to provide virtual machine management capability for Microsoft® Virtual Server 2005 and VMware virtualization technologies. HP SIM, in turn, delivers the essential capabilities required to manage all your server platforms.

This document provides basic information about installing and using the Virtual Machine Management Pack. For detailed infrastructure, installation, configuration, and usage information, refer to the *HP ProLiant Essentials Virtual Machine Management Pack User Guide.*

Prerequisites and planning

Planning

The Virtual Machine Management Pack is installed during or after HP SIM installation. Installation requires a valid HP SIM administrator account. HP SIM tools communicate with managed virtual machine hosts (such as virtualization hosts) through Secure Shell (SSH). Sufficient permissions on the managed virtual machine hosts are required for SSH installation. The remote agent requires approximately 50 MB disk space on the managed virtual machine host.

License keys can be added immediately for the managed virtual machine hosts upon successful Virtual Machine Management Pack installation.

Requirements

The following prerequisites must be completed for the Virtual Machine Management Pack to function properly.

HP Systems Insight Manager 4.2 SP2 or later

HP SIM 4.2 SP2 or later must be installed and running in the server environment to properly install and use the Virtual Machine Management Pack. HP SIM 4.2 SP2 or later must be installed on a Microsoft Windows® server.

If you are not currently running HP SIM 4.2 SP2 or later, select one of the following migration paths, depending on your server environment. For server environments currently using:

- **HP Systems Insight Manager 4.1**—Refer to the *HP Systems Insight Manager Installation and User Guide* located on the Management CD to upgrade to HP SIM 4.2 SP2 or later.

- **HP Insight Manager 7**—Refer to the *HP Systems Insight Manager Installation and User Guide* to upgrade to HP SIM 4.2 SP2 or later, using the provided data migration tools to easily migrate Insight Manager 7 key management data and configuration settings.

- **Neither Systems Insight Manager nor Insight Manager 7**—Refer to the *HP Systems Insight Manager Installation and User Guide* to install HP SIM 4.2 SP2 or later from the Management CD.

For more information about HP SIM, refer to

http://www.hp.com/servers/manage

HP SIM Central Management Server

The Virtual Machine Management Pack installs and runs on the HP SIM Central Management Server (CMS). The CMS, in turn, must meet the following requirements to successfully use the Virtual Machine Management Pack. CMS software requirements listed here are independent of requirements for the Virtual Machine Management Pack. For specific hardware and software requirements for the HP SIM server, refer to the *HP Systems Insight Manager Installation and User Guide*.

Table 1: HP SIM CMS requirements

Component	Requirement
Software	HP SIM 4.2 SP2 or later with OpenSSH and Windows Management Instrumentation (WMI) Mapper installed and configured
Hardware	155 MB of available disk space for the Virtual Machine Management Pack

NOTE: This version of the Virtual Machine Management Pack does not support HP SIM database implementations using Oracle®.

NOTE: Users who install the Virtual Machine Management Pack must also have access to the HP SIM database.

Virtual machine host

For supported versions of virtualization technology required on your virtual machine host, refer to the *HP ProLiant Essentials Virtual Machine Management Pack Support Matrix* at

http://www.hp.com/go/vmm

Table 2: Virtual machine host requirements

Component	Requirement
Software	• VMM Agent • Insight Manager agents for VMware ESX Server • SSH or OpenSSH installed, enabled and configured for HP SIM
Hardware	65 MB of available disk space for the VMM agent (100 MB during installation)

NOTE: Insight Manager agents for VMware ESX Server are available from **http://www.hp.com/solutions/vmware**.

1 Installing the Virtual Machine Management Pack

> **NOTE:** You must have administrative rights in HP SIM to install and use the Virtual Machine Management Pack.

> **NOTE:** HP SIM will be restarted at the end of Virtual Machine Management Pack installation.

Installing from the Web

After you download the Virtual Machine Management Pack from the Web, launch the VMM executable and follow the on-screen instructions to complete the installation process.

Installing from the Management CD

1. Insert the HP Management CD into the CD ROM drive of the HP SIM CMS. An autorun menu appears.

2. Read the license agreement displayed. If you agree to the terms of the license agreement, click **Agree** to continue.

3. From the autorun, select the **Products** tab.

4. If installing Virtual Machine Management Pack at the same time as HP SIM 5.0, click **Install** located under HP Systems Insight Manager. Refer to the *HP Systems Insight Manager Installation and User Guide* to perform a typical installation, selecting Virtual Machine Management Pack for installation.

   If installing Virtual Machine Management Pack separately, click **Install** located under HP ProLiant Essentials Virtual Machine Management Pack.

5. Enter the HP SIM account credentials, and click **Next**.

6. Click **Finished** when the Virtual Machine Management Pack installation completes. The Virtual Machine Management Pack installation does not require a reboot.

2 Upgrading the Virtual Machine Management Pack

The Virtual Machine Management Pack can be upgraded to the current version by completing the steps in the previous section.

New versions of the Virtual Machine Management Pack require the upgrading of VMM agents. To upgrade the VMM agent on the previously managed virtual machine hosts, select **Deploy>Virtual Machine Management Pack>Upgrade Agent**. Virtual machine hosts are then displayed in the Virtual Machine Management Pack console.

3 Navigating the Virtual Machine Management Pack interface

The HP SIM toolbar menu is expanded with the Virtual Machine Management Pack installation, as shown in the following figure.
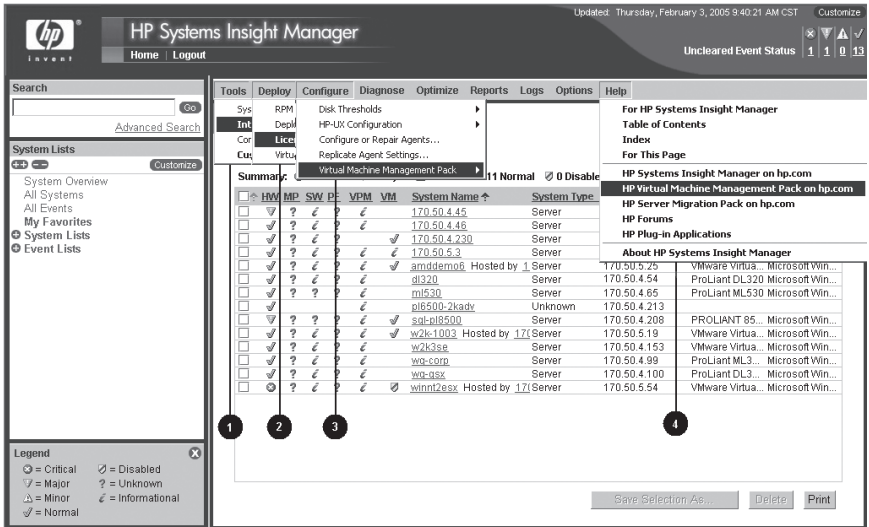

Table 3 lists the appropriate menu to select from the HP SIM toolbar, as illustrated in the previous figure, to initiate a Virtual Machine Management Pack action.

Table 3: Virtual Machine Management Pack interface

Menu	Action
1	Access the Virtual Machine Management Pack console.
2	Deploy VMM agent and license hosts.
3	Register and unregister virtual machine hosts with the Virtual Machine Management Pack console.
4	Open the Virtual Machine Management Pack website.

4 Performing post-installation configuration tasks

NOTE: These tasks must be performed before using the Virtual Machine Management Pack.

1. Log in to HP SIM from the administrator account.

2. From within HP SIM, perform a discovery so the Virtual Machine Management Pack can access target systems in the network. For more information about performing discovery and other basic HP SIM tasks, refer to the *HP Systems Insight Manager Installation and User Guide*.

Installing OpenSSH

OpenSSH provides secure communications between the virtual machine host and CMS by encrypting online traffic to eliminate network-level attacks. You must install OpenSSH on Windows hosts before the VMM agent can be deployed from the CMS.

To install OpenSSH on Windows hosts, select **Deploy> Deploy Drivers, Firmware, and Agents>Install OpenSSH**. Click the HP SIM help icon (**?**), and follow the instructions to complete the procedure.

If you have OpenSSH already installed, you must configure it using the `MxAgentConfig` command. From the command prompt, enter:

```
mxagentconfig -a -n <hostname> -u <username> -p <password>
```

For more information about the `MxAgentConfig` command, go to HP SIM online help and search for key phrase "Getting started using the command line interface commands."

Deploying the VMM agent

Select a single server or multiple servers to deploy the VMM agent.

VMM agent for Windows host

To deploy the VMM agent to Windows virtual machine hosts:

1. Select **Deploy>Virtual Machine Management Pack> Deploy Windows Agent**. The Deploy Windows Agent page displays.

2. Select the target Windows virtual machine hosts by selecting the checkbox next to the appropriate systems. The checkbox at the top of the column can be used to select or deselect all of the systems listed on the page.

3. Click **Apply Selections**.

4. Verify that the correct target hosts are displayed in the list, click **Change Targets** if it is necessary to reselect target hosts, and then click **Next**.

5. To deploy the Windows agent immediately, click **Run Now**.

6. View task results in the HP SIM Events list after the task completes.

VMM agent for VMware ESX Server host

📝 **NOTE:** The VMware ESX Server host uses the VMM Linux agent.

To deploy the VMM agent to VMware ESX Server hosts:

1. Select **Deploy>Virtual Machine Management Pack>Deploy Linux Agent**. The Deploy Linux Agent page displays.
2. Select the target Linux virtual machine hosts by selecting the checkbox next to the appropriate systems. The checkbox at the top of the column can be used to select or deselect all of the systems listed on the page.
3. Click **Apply Selections**.
4. Verify that the correct target hosts are displayed in the list, click **Change Targets** if it is necessary to reselect target hosts, and then click **Next**.
5. To deploy the Linux agent immediately, click **Run Now**.
6. View task results in the HP SIM Events list after the task completes.

Licensing servers

Five fully functional, 60-day trial licenses are provided with the Virtual Machine Management Pack for evaluation purposes. These licenses are available after the Virtual Machine Management Pack is installed and can be applied to systems from the Virtual Machine Management Pack License Wizard.

🖊 **IMPORTANT:** After a license is applied to a specific server, the license cannot be removed or transferred to another server.

📝 **NOTE:** VMM agents must be deployed before licensing servers.

To apply licenses to virtual machine hosts:

1. Select **Deploy>License Manager>Virtual Machine Host License Wizard**. The License Wizard page displays.
2. Select the target virtual machine hosts to license by selecting the checkbox next to the system. The checkbox at the top of the column can be used to select or deselect all of the systems listed on the page.

🖊 **IMPORTANT:** Only HP SIM-identified virtual machine hosts can be selected for licensing.

3. Click **Apply Selections**.
4. Verify that the correct target hosts are displayed in the list, click **Change Targets** if it is necessary to reselect target hosts, and then click **Next**.
5. Select the server by selecting the checkbox next to the system. The checkbox at the top of the column can be used to select or deselect all of the systems listed on the page. Click **Apply License**.
6. Click **Next**.
7. Click **Run Now** to run the Identify Systems task, which establishes association in HP SIM between the hosts and guests.

   If the Identify Systems task is not successfully completed at this time, run the task manually by selecting **Options>Discovery>Identify Systems** from the HPSIM console.

NOTE: The Virtual Machine Management Pack does not support the HP SIM License Manager Add Key from File feature.

To purchase additional licenses, refer to

http://www.hp.com/go/vmm

For more information about licensing, refer to the *HP ProLiant Essentials Virtual Machine Management Pack User Guide*.

Support and information

For HP support and software updates, refer to

http://www.hp.com/go/vmm

HP Customer Support provides 90 days of phone-based support with Monday through Friday, 9-to-5 service coverage hours in your local time zone. For information:

- In the United States and Canada, call 1-800-HP-INVENT (1-800-474-6836). For continuous quality improvement, calls may be recorded or monitored.

- Outside the United States and Canada, go to the HP website for additional support information at

  http://www.hp.com/support