

HP ProLiant Essentials Virtual Machine Management Pack 3.6 Release Notes

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1 Release Notes

These Release Notes indicate the changes since the release of HP ProLiant Essentials Virtual Machine Management Pack 3.5.

Version

HP ProLiant Essentials Virtual Machine Management Pack 3.6

What's new

- Support for HP Systems Insight Manager (HP SIM) 5.3
Installation capability on SIM Linux CMS and ICE-Linux (x86 and x86-64 32-bit modes)
- Support for Microsoft® SQL 2008 (Enterprise or Standard) and Oracle 10g for Windows® CMS
- Support for Microsoft Hyper-V™ 1.0 with certain limitations
- Support for PostgreSQL and Oracle for HP SIM Linux CMS
- Support for HP integrated Citrix XenServer 5.0
- Support for ESX 3.0.3, 3.5 U1/U2 ESXi 3.5 U1/U2
- Support for Xen on RHEL 5.2 and Xen on SLES 10 SP2 (Linux and Windows CMS)
- Supports installing VMM Agent and virtual machine host registration using the HP SIM Configure or Repair Agents tool
- Supports nonroot user for VMM Agent deployment
- Improved error messages
- New option to delete the Virtual Machine Management Pack database
- VirtualCenter clusters and resource pool nodes are populated in HP SIM. The associations between the clusters, resource pools, hosts, and virtual machines are created and updated periodically. This information is available in the **All System page** in HP SIM.
- For Linux CMS, the addition of core functionality, such as host registration, start virtual machine, stop virtual machine, pause virtual machines, copy virtual machines, and move virtual machines
- Configure and Repair Agents (CRA) works properly for both RHEL and SLES
- Added the RPMs needed to set up the virtual machine hosts (libvirt-CIM, libcmptutil and tog-Pegasus) to the main VMM RPM – For Linux or Windows CMS, these are installed to `[VMM install dir]/Agents`.
- Additional updates to add GUI information, such as total memory, free memory, transport size, and disk information.

Helpful information

- Virtual Machine Management Pack version 3.0 and later does not install HP Server Migration Pack. A separate installation is required and is not included with Virtual Machine Management Pack installation.
- Upgrading from earlier 2.x versions of VMM—SMP to Virtual Machine Management Pack 3.6 disables SMP functionality. Existing SMP licenses are still available in HP SIM and can be migrated with Server Migration Pack – Universal Edition (SMP Universal). The latest SMP Universal Edition is available at <http://www.hp.com/go/migrate>.
- Virtual Machine Management Pack version 3.6 uses VMM Agents version 3.6. To use the software, the agents on managed hosts must be upgraded to version 3.6. For more information, see the *HP ProLiant Essentials Virtual Machine Management Pack 3.6 User Guide*.
- When Virtual Machine Management Pack version 3.6 is upgraded from a previous version, VMware VirtualCenter settings are not retained. The settings in HP SIM must be re-entered.

- After Virtual Machine Management Pack 3.6 is upgraded from a previous version, tasks scheduled using Virtual Machine Management Pack 3.0 or earlier fail. To resolve this issue, delete and re-create the tasks.
- When Virtual Machine Management Pack is upgraded from 2.x to 3.6 or when a new installation with an Oracle® database is performed, a database name for Virtual Machine Management Pack must be saved for future reference when performing upgrades.
- When Virtual Machine Management Pack is uninstalled, the Virtual Machine Management Pack database is not removed from the database server.
- When an earlier version of VMM—SMP is upgraded to Virtual Machine Management Pack 3.6, the earlier Virtual Machine Management Pack database is not removed from the database server.
- Information appearing in the **Virtual Machine Disk Details** section on a virtual machine **System** page cannot be updated in real time, and if the virtualization product locks the virtual machine disk files, the information might be inaccurate.
- All managed nodes must be time synchronized with the CMS for certificate based authentication in Virtual Machine Management Pack 3.6.

Supported platforms

For more information about supported platforms and system prerequisites, see the *HP ProLiant Essentials Virtual Machine Management Pack 3.6 Support Matrix* at <http://www.hp.com/go/vmmanage>.

Limitations and known issues in Virtual Machine Management Pack 3.6

- When upgrading Virtual Machine Management Pack the following error message might appear:

```
<VMMInstallDIR>\jre\windows\filename.dll\jar file Failed to DeleteFile,
Press Abort, Retry or Cancel and installation process awaits user inputs
before continuing with the upgrade.
```

If you do not answer the prompts, the installation is aborted or timed out with Component Launch error code 5.

This message might appear if any hpvmmsvcj.exe process stalls during upgrade. As a result, some of the files might not get deleted during uninstall procedure of Virtual Machine Management Pack.

To resolve this issue, before starting the upgrade process, stop the HP Virtual Machine Management Pack service on the CMS, and then check if there are any stalled hpvmmsvcj.exe processes. If any processes are stalled, select to stop those processes before starting the upgrade.
- The failed host recovery feature in Virtual Machine Management Pack is provided as a Technology Preview for HP integrated Citrix XenServer 5.0 resource pool environment.
- Citrix XenServer virtual machines which are recovered to an alternate host in the resource pool using the **Recover VMs of Failed Host** option must be started manually when the failed Citrix XenServer is repaired and booted up.
- When you upgrade Virtual Machine Management Pack from version 3.5 or version 3.5.1 to version 3.6, for any previously registered embedded VMware ESXi and Citrix XenServer hosts, the VMM service on the CMS might fail to establish communication. In addition, the critical status icon displays in the **VM** column when the sign-in credentials are not set for the node in HP SIM. To resolve this issue, add the sign-in credentials and run **Identify systems** HP SIM tool on the node.
- The total memory for HP integrated Citrix XenServer 5.0 virtual machines obtained from the hypervisor is rounded to the nearest upper value. There might be a small difference in value between the actual memory allocated for the HP integrated Citrix XenServer 5.0 virtual machines and the memory displayed in the **Performance** tab.
- When upgrading from Virtual Machine Management Pack 2.x to Virtual Machine Management Pack 3.6, the **All Server Migrations Events** collection link might appear in the **Events** tab below the **Customize Collections in HP SIM** section. To remove this link, from the command prompt, enter the following: `call mxquery -r "All Server migrations Events"`

- When you launch Remote Desktop or Remote Console from the **VM Host System** page or **VM Guest System** page of HP SIM, the following message might appear:
Internet Explorer cannot download remote.rdp from *server name or ip address*
To resolve this issue, clear the **Do not save encrypted pages to disk** box under **Tools**→**Internet Options**→**Advanced (tab)**→**Security (section)** in Internet Explorer.
- Virtual Machine Management Pack Quick Move is supported only for one High Availability (HA) configured Hyper-V virtual machine for each LUN.
- With the Virtual Machine Management Pack Failed Host Recovery feature, the power status of the recovered virtual machines are restored to the last known power status before the source host failed.
- There is a known issue with SAN Moves, resulting in orphaned virtual machines when VMWare ESX Servers involved in the operation are managed by VMware VirtualCenter.
- Restore virtual machine from backup operation shows backup repository location as the default restore location. To resolve this issue, select the appropriate restore location.
- When a move operation is performed on VMware ESX 2.5.5 virtual machines that are managed by VMware VirtualCenter 2.0.2 U1, the source virtual machines remain intact on the source host.
- The Partition, Format, and Type information is not available for HP integrated Citrix XenServer and VMware ESX virtualization layers.
- The **Task Results Page** for a virtual machine move, copy, template, and backup operations involving HP integrated VMware ESXi or HP integrated Citrix XenServer does not display the remaining time for the operation completion.
- The available backup for a virtual machine is unusable after the virtual machine move operation, except for HP integrated Citrix XenServer.
- When registering a host on a 64-bit CMS, the following error message might appear:
`'chcp' is not recognized as an internal or external command operable program or batch file.`
You can ignore this error message, because it is a Windows error and does not affect Virtual Machine Management Pack.
- The same agent-based virtual machine host cannot be managed by more than one CMS at the same time.
- After an upgrade from Virtual Machine Management Pack 2.x or 3.x, an unknown or critical icon appears in the **VM** column. To resolve this issue and have the Normal icon appear, run the post Virtual Machine Management Pack upgrade task.
- Scheduled tasks created by Virtual Machine Management Pack as part of prefailure event handling must be rescheduled on the CMS if there is a preceding DRS configuration in VMware VirtualCenter and the prefailure handling execution is preferred using the Set Alternate host option.
- Copy, move, and Live Move operations involving HP integrated VMware ESXi, require VMware VirtualCenter 2.5 or later.
- HP and VMware are investigating intermittent failures when using Virtual Machine Management Pack to initiate moves and copies of virtual machines to and from VMware ESX Server 3i and when initiating VMotion and SAN fast moves where the ESX hosts are managed by VirtualCenter 2.5. In some cases, these operations fail prematurely, disabline VirtualCenter from performing any actions.
Currently, HP and VMware suggest retrying the command until it successfully completes. HP and VMware are actively pursuing a resolution of this issue. For additional details, see the Troubleshooting chapter of the *Virtual Machine Management Pack User Guide*.
- Only instantaneous network metrics appear for virtual machines that are running HP integrated Citrix XenServer 4.0 in the **Performance** tab.

- If you install Virtual Machine Management Pack 3.6 with HP SIM 5.2, and later upgrade to HP SIM 5.3, then you must execute the following commands from *SIM installed Location/tools* folder in a command window.
 - `mxttool -r -f vmmRegSim.xml -x force`
 - `mxttool -a -f vmmReg.xml`

These steps are necessary for new virtual machine host registrations.

- When perform a deploy template operation, ensure enough storage space exists on the target HP integrated Citrix XenServer and HP integrated VMware ESXi with version 3.6, because no warning message appears while initiating the operation on the target HP integrated Citrix XenServer and HP integrated VMware ESXi.
- Registration of a Hyper-V host might take longer than a half hour. If this occurs, you must run the Identify Systems by selecting the host, and then selecting **Options→Identify Systems**.
- Remote Desktop, Launch VNC, and Launch VC require Active-X plugins to be enabled in the browser.
- Remote Desktop and Launch VNC for Windows and Linux virtual machines hosted on Xen on RHEL and Xen on SLES are not allowed.
- For Linux distributions, HP and VMware recommend that the latest security and hot-fix updates be applied to Xen hosts. On some systems, SLES 10 SP2 x86_64 stalls when booted on the Xen kernel. To resolve this issue, update the kernel with the latest Novell updates.
- By default, the Xen loopback driver limits the number of supported Ethernet ports to 6. This limitation can be identified by the `Link vethX is missing` message in the Linux boot logs, `/var/log/boot.msg`, where *X* is the port number above 5. This message is generated while creating the Xen network bridge devices and can be fixed manually by executing the `/etc/xen/scripts/network-bridge start` command. In this failure state, the `/etc/xen/scripts/network-bridge start` command displays the following instructions:

```
Link veth6 is missing.
```

This might be because you have reached the limit of the number of interfaces that the loopback driver supports. If the loopback driver is a module, you should raise this limit by passing it as a parameter (`nloopbacks=<N>`). If the driver is compiled statically into the kernel, then you should set the parameter using `loopback.nloopbacks=<N>` on the domain 0 kernel command line.

To resolve this issue, add the appropriate `loopback.nloopbacks=<N>` as a kernel parameter in the `/boot/grub/menu.lst` file for the Xen boot definition.

- The management of Xen hosts relies on various services, including WBEM providers and SSH, running in Dom0 on the host. In addition, Xen relies on the `xend` and `xenstore` services for allocation and management of Xen guests. When these services are lacking resources, the information and services they provide becomes less reliable. You must reserve enough resources to enable these services to operate.
- When a new Xen guest is started, the `xend` process must allocate resources (memory, network, disk, and so on) to the guest. For example, Dom0 manages memory by initially claiming all available memory on the system. As guests are started, the `xend` process requests that Dom0 relinquish memory to the DomU. There is a limit to how small the Dom0 memory can be, defined by the `dom0-min-mem` parameter in the `/etc/xen/xend-config.sxp` file. This value defaults to 256MB, which is sufficient only to support the minimum services to keep Xen running, for example, `xend` and `xenstored`. Additional services, including `tog-Pegasus` (the CIMOM), the CIM providers, and `SSHD`, require additional memory reserved for Dom0. At least 1 GB for the `dom0-min-mem` parameter on a minimally configured Xen server is acceptable.
- The speed and efficiency of some operations, such as virtual machine guest copy and move can be affected by the available memory on Dom0. As memory contention on Dom0 increases, these operations can also affect the reliability of other services on the host. If the server is expected to perform many simultaneous control, copy, or move operations, then the amount of memory reserved for Dom0 must be increased to improve caching.

- To minimize the amount of resources needed by Dom0, the number of services running on Dom0 must be minimized. Unnecessary services such as web servers, graphics systems (X-windows, Gnome, vncserver, and so on), and print services must be removed, if possible. Some functionality, such as configuring virtual machine guests with virt-manager can be done by redirecting the X display to an X-Windows server running on another host rather than on Dom0.
- Virtual machine guest copy and move operations also consume large amounts of network resources. To support the movement of Xen guests between hosts, not necessarily accessible to each other, copy and move operations between hosts are channeled through the CMS. Dedicated high throughput networking between the CMS and the hosts minimize the throughput bottlenecks for simultaneous operations. Likewise, sufficient memory on the CMS improves the overall throughput of simultaneous operations. Published minimums for CMS are for keeping CMS services running. Additional CPU and memory resources are needed to better support concurrent operations.
- Linux host registration requires proper HP SIM identification that relies on the installation of the hp-snmp-agents package available from PSP. This enables HP SIM to detect the server information on Linux Xen hosts.
- Tog-Pegasus, sblim-cmpi-base, and Libvirt-CIM must be installed on the Xen virtual machine hosts (RHEL and SLES). On RHEL, tog-Pegasus and sblim-cmpi-base are available on the distribution media and must be installed from there. On SLES, the sblim-indication_helper package (required by sblim-cmpi-base) must be installed from the distribution media (tog-Pegasus is not available on SLES media). The other virtual machine host dependencies are installed by executing CRA.
- The installation of PSP can disable the Xen kernel from booting by default under certain conditions. After PSP is installed, run `uname -a` to ensure "-xen" appears after the kernel version. The `/boot/grub/menu.lst` file can be modified to re-enable Xen as the default kernel (using the default parameter).
- CRA has a known issue in reporting error conditions from CRA subtasks back to the top Configure and Repair Agents task. The top Configure and Repair Agents task is an umbrella task, and depending upon the target agent selected, one or several related sub-tasks are launched. For a detailed listing of CRA tasks, and results on whether they were successful, go to **All Tasks and Logs**→**View Task Results**.
- Full Virtual Machine Management Pack functionality requires that Xen hosts and Xen guests be associated. Host and guest association occurs when hosts and guests are fully discovered using a directed discovery (ping discovery). Horizontal discovery on Xen hosts and SSH discovery on Xen guests require that Sign-in credentials be set. Sign-in credentials are specified during the discovery setup by clicking **Credentials** in the HP SIM Discovery tool.

If an x86_64 guest is not properly identified, make sure the following system properties are set:

- Serial Number : Enter the UUID of the guest
- UUID: Enter the UUID of the guest
- System Type: Server
- System Subtype:
 - Virtual Machine Guest
 - Xen VM Guest (optional)
- OS Type: Linux (optional)

Re-identify the system after setting these values.

- By default, SUSE Linux implements persistent device names for network devices, which associates a specific MAC address to a Linux network device. This can be observed by the names and contents of the `/etc/sysconfig/network/ifcfg-eth-*` files. A failed network configuration is the result when a SUSE Linux virtual machine guest is assigned a different MAC address. Since a virtual machine copy changes the UUID and the MAC address, copying a SUSE Linux virtual machine results in networking issues. These persistent network names are no longer valid, and the new devices are not automatically enabled. Novell has identified this as an issue and provided a solution document on its web site at www.novell.com/support/documentLink.do?externalID=3048119. To resolve this issue,

before copying the virtual machine guest when copying SUSE Linux virtual machine guests, perform the following steps:

1. Clear the udev configuration for the network devices.
 2. Rename the Ethernet configuration files.
 3. Change network configurations to not use udev.
- SE Linux is currently not supported.

2 For more information

For more information about Virtual Machine Management Pack, see the following resources:

- <http://www.hp.com/go/vmmanage>
- *HP ProLiant Essentials Virtual Machine Management Pack 3.6 User Guide*
- *HP ProLiant Essentials Virtual Machine Management Pack 3.6 Support Matrix*
- *HP ProLiant Essentials Virtual Machine Management Pack 3.6 Installation Guide for Windows*
- *HP ProLiant Essentials Virtual Machine Management Pack 3.6 Installation Guide for Linux*

For more information about HP SIM, see the following resources:

- <http://www.hp.com/go/hpsim>
- *HP SIM Technical Reference Guide*
- *HP Systems Insight Manager Help Guide*