

HP Insight Dynamics – VSE for ProLiant 4.1 Update 2 Documentation Addendum

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1 Introduction to this Addendum

This addendum includes additional information that was not included in ID-VSE 4.1 documentation, including online help and manuals. It also contains corrections for procedures in the current documentation for ID-VSE .

This addendum supplements the information in the online help and documentation for those relevant components. Pertinent information will be incorporated into future versions of ID-VSE documentation.

2 Additional and Corrected Documentation

General VSE Software

The following is additional or corrected information for VSE Software.

- **Agentless Data Collection Failures Due to WMI Query Errors** The following information was not included in the *HP Insight Dynamics – VSE for ProLiant Installation and Configuration Guide* document.

If agentless data collection fails due to WMI query errors, this may be because the WMI performance classes in Windows have been unregistered on the managed system, either by an inadvertent action by an administrator or a Windows problem. In this case, the error message displayed in the Visualization tab meter popups, and in `stdout` when running `capcollect` (either from a command prompt or from the **Optimize→Capacity Advisor→Collect Capacity Advisor Data** menu) is:

```
An error occurred in one or more WBEM/WMI queries to host [hostname]. Some data may be
unavailable/unreliable.
Verify that the correct version of WBEM/WMI is running on the host, then try restarting the CIM Server/WMI
Service on the host.
```

Following are corrective actions, any one of which may correct the problem.

- Ensure that the correct version of WBEM/WMI is running on the managed system.
 - Restart the CIM Server/WMI Service on the managed system, as suggested in the error message.
 - Reboot the managed system.
 - Run the command `wmiadapt /f` on the managed system. This forces an update of WMI Performance Counter classes in Windows.
- **TCP Port 135 Must be Opened for Agentless Data Collection and WMI Access** The following information was not included in the *HP Insight Dynamics – VSE for ProLiant Installation and Configuration Guide* document.

For VSE agentless data collection—and for general WMI access on Windows managed nodes from the CMS—the following port needs to be opened:

TCP port 135 (WMI/RPC)



NOTE: Additional ports may need to be opened for WMI/DCOM/RPC access. See the following MSDN article for details: <http://msdn.microsoft.com/en-us/library/ms809327.aspx>

In addition, the WMI service (`winnmgmt`) *must not be disabled* on any Windows systems configured for agentless data collection.

- **Encountered Exceptions on the VSE Integrity and HP 9000 Licensing Screens** If multiple browser windows or tabs are sharing the same user session while performing licensing operations, unexpected exceptions could occur.
Only use separate browser sessions for the same user while performing licensing tasks on the Central Management System.
Refer to the *Web Browser Considerations* help topic for more information.
- **Migrating and Applying Permanent Licenses Can Take a Long Time to Complete** Migrating old license types via the `vselicense` command and applying permanent licenses via the licensing screen can take a long time to complete.
Printed statements and a progress bar are presented to indicate an estimated time until completion.
This updates the information in the *HP Insight Dynamics VSE and HP VSE Management Software 4.1 Getting Started Guide*, the `vselicense(1M)` manpage, and the *VSE Licenses* help topic.

- **Inaccuracies in Related Information Section on Help Assistance Page** The Related Information section provided on the standalone (HP SMH) VM Manager and the VSE Management Software help “Assistance” topic include misinformation about online sources for documentation. The pages refer to a non-existent Product Information link at the following locations:

- HP Virtual Server Environment (<http://hp.com/go/vse>)
- HP Insight Dynamics – VSE (<http://www.hp.com/go/insightdynamics>)

This should be corrected to instruct the reader to access the online documentation directly at the following websites:

- Documentation for HP Insight Dynamics – VSE and related HP ProLiant software:
<http://www.hp.com/go/insightdynamics/docs>
- Documentation for VSE Management Software and related HP Integrity software:
<http://www.docs.hp.com/en/vse.html>



NOTE: The list of manuals listed in the Related Information section of these help pages omits the following manual:

HP Integrity Virtual Machines Manager Version 4.0 Release Notes

- **Corrections to Procedures for Installing VSE agents to Linux Managed Systems** The following are corrections for the VSE Management Software online help “Installing Agents” topic.
 - **Menu Changed for Installing Linux Agents** In the VSE Management Software online help “Installing Agents” topic, the reference in “Install Linux VSE Agents” to the menu item **Configure→Configure VSE Agents→Install Integrity Linux Agents...** should instead be **Configure→Configure VSE Agents→Install Linux Agents...** This affects Procedure 3, “Install Linux Managed System Software from the CMS”.
 - **Manual Installation of Linux Agents Applies to Both Integrity and ProLiant Linux Systems** In the VSE Management Software online help “Installing Agents” topic, the procedure for installing VSE agents manually to Linux managed systems indicates it applies only to Integrity systems. However, the procedure applies to both Integrity and ProLiant Linux systems. The procedure title should be “Procedure 6 Manual Installation of Linux Agents” (instead of “Procedure 6 Manual Installation of Integrity Linux Agents”).
 - **Incorrect Procedure for Installing VSE Agents Manually to Windows Systems** In the VSE Management Software online help “Installing Agents” section, the “Manual Installation of Windows Agents” procedure for installing VSE agents manually to Windows systems is incorrect. To manually install Windows agents, use the following procedure.

Procedure 2-1 Manual Installation of Windows Agents



NOTE: To manually install VSE Assist, copy the `setupva.exe` file from the depot directory on the CMS to the managed system and run it. This is a self-executing installer.

1. Copy the desired Windows install files (*file.msi*) from the depot directory on the CMS to `C:\` on the managed system.
2. Install the agents software using the `msiexec` command, as shown in the following example.

```
C:\> c:
C:\> cd \
C:\> msiexec /I WMIUtilProvider32.msi /norestart
```

This installs the agent interactively using the GUI and will prevent a reboot after installation. To install the agent with no interaction (quiet mode) and no GUI, use the `/qn` options with the `msiexec` command.

3. Repeat the previous steps for each of the agents that you want to install.
- **Limitations for Japanese Online Help** The following limitations exist regarding the Japanese-localized help provided with this release of VSE software:
 - The VSE Management Software help is provided in English and Japanese. However, the help for the iCAP Manager product is not localized for Japanese. Only English help is provided for that component.
 - There are known problems with the search facility in the Japanese help. Using the search field in the Japanese help may not return a correct list of matching help topics.Alternatively, HP recommends using the “Index” link included in the left navigation under each product's list of topics, or the “VSE Master Index” link included in the top section of the left navigation.

Capacity Advisor

The following is additional or corrected information for Capacity Advisor.

- *HP Insight Dynamics - VSE Version 4.1 for ProLiant Installation and Configuration Guide*
 - **OpenPegasus Is Required for VSE Management of Linux Systems** OpenPegasus is required for VSE Management of Linux systems. RHEL distributions include OpenPegasus but do not install it by default.
Manually select OpenPegasus during RHEL installation, or install it later through the YaST installation and configuration tool from your distribution CD/DVD.
- *HP Capacity Advisor Version 4.1 User's Guide*
 - **Internet Explorer Times Out Before Report Generation Completes** In the case where you request a report using data from many managed systems (for example, over 100), Microsoft Internet Explorer may end the session connection before the report is complete. This ends the report creation; no report is generated for viewing or download.
One way to address this behavior is to create a registry key on your local Microsoft Windows system to extend the amount of time that Internet Explorer will wait before closing the connection, as follows:

```
Windows Registry Editor Version 5.00
[HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings]
"MaxConnectionsPer1_0Server"=dword:00000005
"MaxConnectionsPerServer"=dword:00000005
"ReceiveTimeout"=dword:5265C0
```

These settings cause the following to occur:
 - `MaxConnectionsPer1_0Server` and `MaxConnectionsPerServer` increase the maximum number of connections that can be used to handle the traffic from the browser. (Normally, the value is 2 connections per server; this example shows 5 connections per server.)
 - `ReceiveTimeout` extends the timeout boundary of the browser. Use hexadecimal values to adjust the time to the desired number of hours, with 24 hours being the maximum time that will work successfully.Other alternatives include:
 - Reducing the number of systems included in a single report to less than 100.
 - Requesting large reports in the Mozilla Firefox browser, where this behavior does not seem to occur.
- *HP Capacity Advisor Help*

capreport **CLI Does Not Generate Trend Reports for Some Locale Settings** Running capreport from the command line of a Microsoft Windows system that is set to a locale other than English or Japanese does not work when the trend option (-t trend) is used.

Workaround The same reports can be accessed using the GUI, which is not affected by this issue.

- *HP Capacity Advisor Help*

Different Paths to Profile Viewer Inconsistently Show Loads on VM Hosts

A profile view accessed from the **Visualization** tab (which is showing historic resource utilization for real systems) may differ from a profile view accessed from the scenario editor (which is showing a simulation of the VM host that may have been modified for purposes of the simulation). This is expected behavior. The utilization values shown in the **Visualization** tab are based on the actual observed global utilization values collected on the VM Host. The utilization values for a VM Host in the **Edit Scenario** window Profile Viewer shows the simulated utilization computed from the utilization values for each VM and, possibly, one "OTHER" workload that is currently placed on that VM Host.

- *HP Capacity Advisor Version 4.1 User's Guide*

In Rare Cases, VM Guest Network or Disk I/O Utilization May Appear to Exceed the I/O Utilization of the VM Host

When viewing historical network and disk I/O utilization profiles in the Capacity Advisor Profile Viewer, it may be noticed that the I/O utilization of a VM guest exceeds the utilization for its VM host at a given instance of time. Related to this, since the I/O high-water mark displayed for a VM guest (dashed blue line in the Profile Viewer graph) for a guest is based on the observed high-water mark for the host, it may be observed that a VM guest's I/O utilization will occasionally exceed the high-water mark value. In reality, it should never be possible for a VM guest's I/O utilization to exceed that of its host, since the host utilization is actually the aggregation of I/O utilization for all VM guest's running on that host.

The reason this may occur (in rare cases), is based on how data is collected separately, and in some cases from separate sources for hosts and guests, and how this data is interpolated and averaged into 5-minute sample intervals before being stored in the Capacity Advisor database. When sharp "peaks" occur in I/O utilization, it is very possible that these peaks will not align exactly in the same time intervals between host and guests, resulting in this anomaly. These anomalies become insignificant and in effect go away when averaging and analyzing this data over sample intervals greater than 5-minutes when possible.

Always collect data for both the host and guest(s) at the same time. Note that from within the Profile Viewer, a new data collection for the host also collects data for all of its guests. In most cases, minimizing the disparity in collection times between host and guest(s) will prevent large discrepancies from occurring (for example: seeing guest data exceed the high-water mark for the host). Minor discrepancies between host and guest I/O utilization may be unavoidable.

Instant Capacity Manager

The following is additional or corrected information for Instant Capacity Manager.

The following information was not included *iCAP Manager Help*.

- **Instant Capacity 9.01 or Later Supported** Instant Capacity (iCAP) Manager supports Instant Capacity 9.01 or later for management and monitoring. Releases prior to 9.01 are supported for monitoring functionality only.
- **GiCAP WBEM Provider Only Allows Privileged Access** The GiCAP WBEM provider only allows privileged access. As such, GiCAP information, including information about GiCAP groups, will not be available to non-privileged users.
Use WBEM certificate-based authentication for the systems that are GiCAP group managers. Certificate-based authentication requires WBEM A.02.05 or later.
- **Values Displayed by Instant Capacity Manager May Not Match the `icapstatus` Command Output on the Managed System** For the Instant Capacity Manager, when non-root accounts are used to retrieve WBEM data, some of the values displayed by Instant Capacity Manager may not match the `icapstatus` command output on the managed system.
Use a privileged account or WBEM Certificate-Based Authentication to access WBEM information on the managed nodes.

Logical Server Management

The following is additional or corrected information for the logical server management feature in Virtualization Manager.

Logical Server Management Requirements

The following information was not included in the *HP Insight Dynamics – VSE for ProLiant Installation and Configuration Guide* document.

The Logical Servers feature in Virtualization Manager supports the following software. If you are using other versions of these products, intermittent failures, especially during moves, can occur.

- **Quick Move Requirement** If you want to move a Hyper-V virtual machine logical server using the Quick Move operation type, you must have checked Enable High Availability when you created or modified the logical server before it was activated, the datastore must be shared in the MS Cluster, and the virtual machine must be in a cluster node.
- **Requirements for ESX and Hyper-V Virtual Machine Logical Servers**
 - VMware ESX Server 3.0.2 (Build 52542) or higher, and VMware VirtualCenter 2.0.2 or higher (Build 50618), with vCenter Server credentials configured in HP SIM.
OR
VMware ESX Server 3.5 Update 1 (Build 82663) or higher, and VirtualCenter 2.5 Update 4 or higher, with vCenter Server credentials configured in HP SIM.
OR
VMware ESX Server 3i 3.5.0, with vCenter Server credentials configured in HP SIM.
OR
VMware ESXi 4 VMware vSphere Client, with vCenter Server credentials configured in HP SIM.
OR
Microsoft Windows Server Hyper-V 2008, with minimum Hyper-V Manager Build 6.0.6001.18016, and the updates listed in “vseassist Troubleshooting Utility”.
 - For ESX virtual machine logical servers, VMware Tools must be installed on the guest operating system. Use the Inventory menu in the VMware Virtual Infrastructure Client, then select **Virtual Machine**→**Install/Upgrade VMware Tools**.

- A virtual machine that is managed by logical server management must keep its Universal Unique Identifier (UUID) when prompted by VMware. When you power on a virtual machine on a hypervisor that was moved to a new location (for example, from one blade to another), a VMware message appears, asking you if you want to create a new UUID for the virtual machine, or keep the UUID that was generated for the virtual machine when the logical server was activated. Select Always Keep, then click OK to continue powering on the virtual machine. If you do not select Always Keep or Keep, the moved logical server will not operate correctly.
 - Logical server management supports ESX virtual machine logical server storage using the Virtual Machine File System (VMFS), DAS, SAN, NFS, and iSCSI datastores. Hyper-V virtual machine logical server storage is supported using Microsoft Cluster Server (MSCS). Virtual machines that are created using raw device files are not supported.
- **Requirements for Virtual Connect Server Blade Logical Servers**
 - *Firmware for ProLiant blades only in a VC Domain Group:* Virtual Connect Manager 1.24 or higher, HP BladeSystem Onboard Administrator 2.20 or higher, HP Integrated Lights-Out (iLO) 1.70, and the latest available firmware update for your server blade BIOS.
 - *Firmware for Integrity blades only, or a combination of ProLiant and Integrity blades in a VC Domain Group:* Virtual Connect Manager 1.31 or higher, HP BladeSystem Onboard Administrator 2.25 or higher, HP Integrated Lights-Out (iLO) 1.70, MP T.03.06, and the latest available firmware update for your server blade BIOS.
 - You can activate a Virtual Connect blade logical server only if you specified shared (SAN) storage as your storage configuration when you created the logical server.

Logical server management requires that the operating system boots only from SAN, and does not support any operating system that boots from a non-SAN disk.



NOTE: A virtual machine host that is running on a Virtual Connect blade with a SAN boot disk can be managed as a Virtual Connect blade logical server.

- Logical server management leverages Virtual Connect Enterprise Manager and Virtual Connect Manager to provide VC-based functionality. HP recommends that you are familiar with these technologies. See <http://www.hp.com/go/vcem> and <http://www.hp.com/go/bladessystem/virtualconnect> for more information.
- After installing or upgrading firmware, use the **Tools**→**Logical Servers**→**Refresh...** menu selection to refresh the logical server database with the VM Manager and Virtual Connect Enterprise Manager inventories.
- **Configuring HP SIM with Onboard Administrator Credentials** The user Administrator of the Onboard Administrator for each C-class enclosure that is managed by Virtual Connect Enterprise Manager must be configured into HP SIM 5.3 and higher for the CMS on which logical server management in Virtualization Manager is running.

In VSE 4.1, Onboard Administrator credentials are obtained using the HP SIM System Sign In credentials. In the previous release, the credentials were obtained from the WBEM protocol. To set the OA credentials in HP SIM, perform the following steps.

1. Select the OA from the **System and Event Collections** panel.
2. Select the **Tools & Links** tab.
3. Click **System Credentials...**
4. Click **Edit system credentials...**
5. Enter the username and password for the OA node, and click **OK**.
6. To confirm that the OA credentials are correctly set, click **View all credentials...** to verify the entry.

- **Configuring HP SIM for SAN Storage Validation** To discover disk arrays into HP SIM and enable storage validation for Virtual Connect blade logical servers, perform the following steps. Note that this procedure works only for certain HP arrays for which you have loaded the software in advance on the CMS.
 1. From the upper, blue menu bar, select **OptionsDiscovery...**, then click the **[New...]** button.
 2. Click the radio button next to **Discover a single system**.
 3. For each disk array, fill in the Name (such as SMA_EVA or SMA_MSA) and the IP address of the Storage Management Appliance (such as Command View server for EVA, or Array Configuration Utility server for MSA).
 4. Click the **Configure global protocol settings** link. Under WBEM settings, make sure that the **Enable WBEM** checkbox is checked.
 5. Click the **Global Credentials** link, and enter the SMA username and password.
 6. Click **[OK]**.
 7. On the **Discovery** page, select the newly created discovery task.
 8. Click the **[Run Now]** button.

It will take a few minutes for the disk array(s) to be discovered into HP SIM.
- **Replacing a VC-Enet module** If you are managing Virtual Connect blade logical servers and you determine that you must replace your only VC-Enet module, perform the following steps:
 1. Insert an extra baremetal VC-Enet module in the secondary interconnect bay.
 2. Force VC failover to the secondary module.
 3. After failover, remove the primary module and move the module from the secondary bay to the primary bay.

For more information, see the HP Virtual Connect Enterprise Manager documentation.

Logical Server Management Additional Documentation

The following information was not included in the *HP Virtualization Manager and Logical Server Management Version 4.1 Getting Started Guide*.

- **Logical Server Needs to be Moved or Deactivated before Replacing Blade** When replacing a blade in an enclosure which is currently hosting a logical server, the logical server needs to be moved or deactivated prior to replacing the blade. Once the new blade has been installed, discovered, and licensed, it is necessary to perform the **Tools→Logical Servers→Refresh** menu selection for Virtual Connect. Then either reactivate the logical server on that blade or move it back from the location to which it had been moved.
- **Do Not Perform Operations on Logical Servers Outside of Virtualization Manager** Do not use VMM, VMware ESX, VMware VirtualCenter, MS System Center Virtualization Manager, or Virtual Connect Enterprise Manager to perform operations other than moves on logical servers. If you use tools other than Virtualization Manager to manage logical servers, unpredictable results can occur, and modifications to the underlying resources managed by logical server management will not be reflected in the logical server.

For example:

- If you modify the power state of a managed resource outside of logical server management, the power state of the logical server is displayed incorrectly until logical server management resets its data.
- If you attempt to delete a logical server using HP SIM, the logical server temporarily disappears from the HP SIM collection, but the logical server is not actually deleted and will reappear when the logical server management server is restarted.

Performing move operations outside of Virtualization Manager is permitted on:

- logical servers created on virtual machines that are moved by VMware Distributed Resource Scheduler (DRS),
- logical servers created on Virtual Connect blades that are moved by blade failover,
- logical servers created on virtual machines moved by VMM,
- logical servers created on virtual machines moved by VMware vCenter Server,
- logical servers created on virtual machines moved by MS System Center Virtualization Manager, and
- logical servers created on Virtual Connect blades moved by Virtual Connect Enterprise Manager.

In these cases, logical server management detects the new location and updates its resources to reflect the change for virtual machines and blades. You can manually refresh server resources by using the **Tools**→**Logical Servers**→**Refresh...** menu selection.

- **Creating and Managing Logical Servers on Microsoft Windows Server Hyper-V 2008** This release includes support for creating and managing logical servers on Microsoft Windows Server Hyper-V 2008. See the white paper *Managing Microsoft Windows Server 2008 Hyper-V with HP Insight Dynamics* for information and restrictions about using logical servers on Hyper-V.

Following are examples of restrictions on using Hyper-V with logical servers. See the aforementioned white paper for more details.

- Install Microsoft Windows Server Hyper-V 2008 patches (listed in the “Requirements for ESX and Hyper-V Virtual Machine Logical Servers” section).
- Logical server management does not allow you to create a Hyper-V virtual machine logical server on a quorum disk or import a virtual machine with storage configured on a quorum disk.
- After you have enabled High Availability (HA) on a logical server and allocated storage, you cannot modify the logical server to disable HA. In addition, you cannot modify a non-HA enabled logical server to enable HA. You enable HA by checking the **Enable High Availability** checkbox in Step 1 of the Create Logical Server wizard when you have chosen Logical Server Platform Type as Hyper-V Virtual Machine. Checking this box allows Hyper-V Quick Move operations and enables failover clustering.
- If you import a Hyper-V virtual machine whose configuration file (.vmx) is in the default location on the hard disk in \ProgramData\Microsoft\Windows\Hyper-V, deactivating the logical server will appear to be successful but will not actually unregister the virtual machine. Subsequent operations on the logical server will fail. If you create a Hyper-V virtual machine using logical server management, this limitation does not apply.
- You can create a Hyper-V virtual machine logical server with an IDE controller but not a SCSI controller. (You can create an ESX virtual machine logical server with a SCSI controller but not an IDE controller.)
- The logical server's storage configuration can contain no more than four storage devices.
- The logical server's storage device and network names must contain at least one character.
- The logical server's virtual machine and storage device name cannot contain two or more contiguous spaces.
- **Supported Datastores Include NFS and iSCSI** The online help for the **Create: Storage Configuration for Virtual Machines** screen incorrectly states that NFS storage is not supported. This release of logical server management supports NFS and iSCSI storage for ESX virtual machine logical servers, in addition to Virtual Machine File System (VMFS), DAS, and SAN. Hyper-V virtual machine logical server storage is supported using Microsoft Cluster Server (MSCS). Virtual machines that are created using raw device files are not supported.

- Reactivating a Hyper-V Virtual Machine** You can reactivate a Hyper-V virtual machine logical server only on the same virtual machine on which the logical server was deactivated. The list of available targets contains one target host with valid storage, because the disk is available to only one host in the Microsoft cluster.

If you subsequently move the logical server, you can select from multiple target hosts.
- Virtual Connect Enterprise Manager Domain Groups using Hardware Default Settings for World-Wide Names and MAC Addresses are Not Supported in Logical Servers** Logical servers require portable WWNs and MAC addresses that can be moved from blade to blade. HW-DEFAULT settings used in VC profiles are those of the physical server blades, and those WWNs and MAC address will not move with the profile on a profile migration.

\When creating the VC Domain Group in Virtual Connect Enterprise Manager, the user must select the option for portable WWNs and MAC Addresses. See Virtual Connect Enterprise Manager documentation for details.
- Cannot Cancel Logical Server Operations** After a logical server operation is started, you can view its status on the **Report→Logical Server Job Status...** screen, but you cannot cancel it. Running jobs do not time out. If a job seems to be running for a long period of time (more than two hours), the job may have completed but some issues may have been encountered with the underlying software. The job will continue to run and the logical server will be locked. The lock is released on the next restart of the Logical Server Automation service.
- Cannot Modify or Delete Multiple Network Port Using Logical Server Management Operations** You can import a Virtual Connect server blade that has a port with multiple networks, but you cannot modify or delete that port using logical server management operations. (Assigning multiple networks to a single network port is also called VLAN trunking.)
- Hyper-V Manages One Highly Available Virtual Machine Per Datastore** Logical Server Management follows the same convention established by Microsoft SCVMM of allowing only one Hyper-V HA virtual machine per clustered datastore. Therefore, when you create a highly available Hyper-V virtual machine logical server and you configure storage, datastores that already have an HA virtual machine enabled are not presented as available storage selections. Similarly, if you attempt to import an HA virtual machine, and there are virtual machines on the same datastore, the HA virtual machine will not be imported. Hyper-V only allows access to only one member of a cluster at a time.
- Move ESX Virtual Machine Logical Servers Among Multiple Clusters** You can move ESX virtual machine logical servers among multiple clusters, as long as the clusters are contained in one VMware VirtualCenter.
- When Moving a High Availability-enabled Hyper-V Virtual Machine, only the Quick Move Operation Type Is Available** When you are moving a High Availability-enabled Hyper-V virtual machine logical server, only the Quick Move operation type is available. For non-HA enabled Hyper-V virtual machine logical servers, only Copy Move is available.
- Entering VirtualCenter Credentials in HP SIM** If you uninstall Virtual Machine Manager 3.5 and then install a later version, you must re-enter VMware VirtualCenter credentials in HP SIM. (VMware VirtualCenter is required for ESX virtual machine logical server operations.)
- Initiating Multiple Move Operations Simultaneously** You can initiate multiple move operations at the same time, but Virtual Connect Enterprise Manager queues the move operations and performs them serially. VM Manager can perform up to 10 move operations at one time.

Virtual Connect Blade Logical Servers

The following information was not included in the Logical Servers topics in *HP Virtualization Manager Help*.

- **Correcting Problems Powering On a Logical Server** Occasionally a Virtual Connect blade logical server or virtual machine logical server fails to power on and returns an error. If you encounter this problem, check the firmware versions and hardware as described below.

Check Firmware Versions The Requirements section lists the recommended firmware versions of Virtual Connect Manager, Onboard Administrator, Integrated Lights Out (iLO) and server blade BIOS. A firmware version different than the recommended version could cause a power request to fail.

Check Hardware Using Onboard Administrator Most power issues are related to the hardware itself. For example, power problems can be caused by temperature, fan speed, fans not installed in an effective configuration, insufficient power because of power supply location, Blades and Interconnect Modules health problems, or device failure errors in general. These problems can be identified using the Onboard Administrator Rack Overview page (available in HP SIM through Integrated Manager) or Onboard Administrator Insight Display.

The Rack Overview page provides error icons that identify the system status. Critical and major errors influence power requests and should be corrected quickly. For more information, see the “Enclosure Power Management” section of the *HP BladeSystem c-Class Onboard Administrator User Guide* at <http://bizsupport.austin.hp.com/bc/docs/support/SupportManual/c00705292/c00705292.pdf>.

- **Delete of VC-Based Logical Server does not Delete Underlying Profile** When you delete a Virtual Connect blade logical server, the underlying VC profile, if it exists, is not deleted and the profile will continue to use the WWN and MAC addresses. (The profile may not have been created if the logical server has never been activated.) If a storage pool entry was being used by the deleted logical server, the WWNs that are still being used by the profile are replaced by newly allocated WWNs so that the maximum number of logical servers sharing the storage entry is not changed. The SAN Administrator must present the LUNs to these new WWNs before they can be used. (Mark the new WWNs as “Not Ready” on the Storage Entry screen to be sure they are not used prematurely.)

Unmanage the logical server to delete the underlying VC profile and allow the WWNs and MAC addresses to be available for reuse. HP recommends that you do not use **Unmanage Logical Server** to delete a VC-based logical server that has been previously activated. An exception to this recommendation is if you plan to manage the profile using VCEM.

- **Use Caution When Renaming or Moving a Virtual Connect Domain Group** Use caution when renaming or moving a Virtual Connect domain group, which is accomplished by checking Change Logical Server Associations using the **Tools→Logical Servers→Refresh...** menu selection. Do not use this functionality to merge Virtual Connect domain groups. This functionality must only be used to reassociate logical servers to a new domain group name. Do not specify an existing domain group for the New Domain Group Name, otherwise your logical servers may become unusable.
- **Virtual Connect Flex-10 Support** Virtual Connect Flex-10 Ethernet Module for c-Class BladeSystem is supported in this release. Flex-10 technology increases the number of NICs per connection. If you activate or move a Virtual Connect blade logical server and you have a large number of networks configured, the blades with Flex-10 are shown in the list of available targets with a soft error icon indicating insufficient NICs.

If you know that the target enclosure and blade support Flex-10, check that the error message concerns insufficient NICs. In these cases, you can ignore the message and select the target.

- Error When Activating, Importing, or Moving a Virtual Connect Blade Logical Server** The following error may be displayed when you try to activate, import, or move a Virtual Connect blade logical server:

Error retrieving HP Onboard Administrator IP address from HP SIM.

If this occurs, HP SIM might have not discovered the HP BladeSystem Onboard Administrator (OA), or the Onboard Administrator discovered by HP SIM and associated with the enclosure is not the active OA.

Delete both the inactive and active OA nodes from HP SIM and manually rediscover the nodes using the HP SIM menu selection **Options→Discovery**.
- HP SIM May Lose Connectivity To The Onboard Administrator** Occasionally when you are performing operations on a Virtual Connect blade logical server, HP SIM loses connectivity to the Onboard Administrator. When this occurs, you may see the following error:

Error retrieving HP Onboard Administrator of Enclosure {0} from HP SIM.

Check hardware using the Onboard Administrator, and check to see if there is a server with critical or major errors. If so, obtain the server's bay number and connect to the OA using SSH. Reset the server using the reset bay bay-number command and wait for the bay to come up. Run Discovery for the OA using the HP SIM menu selection **Options→Discovery**, then refresh the logical server resources using the **Tools→Logical Servers→Refresh...** menu selection. You should run HP SIM discovery and manually refresh server resources when this error is displayed even if a server does not have critical or major errors. See the Onboard Administrator and HP SIM documentation for more information.
- Five-Star Headroom Rating Cannot Be Determined** If a workload was not previously created on a target blade, dragging and dropping a logical server onto the target correctly shows zero stars, because the headroom rating cannot be determined. Previously, a headroom rating was always displayed. The suitability of the target (Available or Rejected) is correctly displayed.

ESX and Hyper-V Virtual Machine Logical Servers

The following information was not included in the Logical Servers topics in *HP Virtualization Manager Help*.

- Hyper-V Virtual Machine May Appear As 0** If your Hyper-V host is not registered to VMM, the MAC address of the Hyper-V virtual machine may appear as 0 if the virtual machine has not been powered on. If the host is registered to VMM, the virtual machines are assigned a MAC address when the logical servers are activated. A MAC address is required for you to manage logical servers.

Check the **Power On the VM or the Blade** checkbox when you activate the virtual machine logical server. If the logical server is already activated, use the **Logical Servers→Power→On...** menu selection to power on the virtual machine or wait for the automatic refresh to occur (every 60 minutes).
- Synchronize The Clocks On The Hosts and Virtual Machines** If you are performing operations on ESX virtual machine logical servers, be sure that you have synchronized the clocks on the hosts and virtual machines. If the VM hosts are managed by VMware VirtualCenter and the hosts' clocks are not synchronized, some issues may occur while managing the virtual machines that may affect logical servers.

Use clock synchronization software such as the Windows Time Service or the Network Time Protocol to synchronize the hosts' clocks.
- VM Displayed Without Association in Virtualization Manager Perspectives After Deactivation** When you deactivate a virtual machine logical server, the virtual machine is

unregistered from the VM host. The virtual machine is then displayed without an association in Virtualization Manager perspectives. This is expected behavior.

If you view the virtual machine using the HP SIM System tab, you may see a message stating that the VM is unregistered from the VM host, and to register the VM using the native virtualization console. **Do not register the VM using the native virtualization console.** The virtual machine is re-associated with the VM host and the logical server when it is subsequently activated.

- **Selecting Only Shared Datastores Unused By Other Hyper-V VM Guests** If you create a Hyper-V virtual machine logical server and check the Enable High Availability checkbox on the Create Logical Server Identity screen, when you subsequently configure storage on the Create Logical Server Storage screen, you can select only shared datastores that are not used by any other Hyper-V VM guests. If you do not check Enable High Availability, the available storage on the Create Logical Server Storage screen contains both local datastores and shared datastores that are not being used by HA-enabled VM guests.
- **Moving an ESX Virtual Machine** If you are moving an ESX virtual machine logical server, there may be a delay in the population of possible target hosts if the CMS and VirtualCenter are in different network domains (subnets). Similarly, if you are moving the logical server using drag and drop, there may be a delay before the hosts appear as valid targets.

All Logical Servers

The following information was not included in the Logical Servers topics in *HP Virtualization Manager Help*.

- **(ProLiant Only) Possible Tasks Required After Upgrading from ID-VSE 4.01 to 4.1** If you are upgrading from ID-VSE 4.01 to 4.1 and you want to continue to use your existing 4.0 logical servers in 4.1, you may need to perform additional upgrade tasks to correct problems that may occur. For example, after an upgrade, when you create a logical server there may not be any selectable Logical Server Platform Types or only a subset of expected Platform Types on the Create Logical Server Identity screen.

Before beginning an upgrade, HP recommends that you read the white paper *Upgrading Logical Servers from HP Insight Dynamics – VSE for ProLiant Version 4.0 to Version 4.1* at <http://www.docs.hp.com/en/vse.html>, which describes these additional tasks.

- **Logical Server Controller Service Merged Into Logical Server Automation Service** In this release, the Logical Server Controllers service has been merged into the Logical Server Automation service. Logical Server Automation is a Windows service that you can start, stop, and restart using Windows **Control Panel**→**Administrative Tools**→**Services**.

If you see the following error in the Virtualization Manager after restarting the Logical Server Automation service, the service has not completely started up:

```
com.hp.vse.lsa.exception.LsaGutsRmiServerException:  
LSA_GUTS_RMI_SVR_ERR
```

Wait at least two minutes after a restart before attempting to perform a logical server operation such as activate or move.

- **Logical Server Operation Fails When Resource Fails** If you are performing a logical server operation and a resource managed by logical server management fails, the logical server operation also fails and the logical server is left in an inconsistent state. For example, if a VM Host crashes, a server blade bay is shut down, or HP SIM is unexpectedly restarted, the logical server may be shown in an incorrect state (often its last known state).

Unmanage the logical server, manually repair the resource (profile or virtual machine), and import the server blade or virtual machine when it becomes available.

Partition Manager

The following information was not included in the *Partition Manager Help*.

- **Warnings about Partition Manager Servlets in HP SIM Logs** Warnings about loading parmgr servlet classes appear in the mxdomainmanager log. The warning is about nonexistent servlet classes and is logged into the HP SIM log file. These warnings can be ignored.
- **Browser Hangs When Partition Manager and pdweb are Used Simultaneously to View I/O Information** From HP SIM, SMH is launched in a separate window and pdweb is opened from SMH. If you open Partition Manager from VSE and display the I/O page at the same time, then when both pdweb and Partition Manager are used to view I/O information, the browser hangs.

Close the browser and open HP SIM again.

- **Help Files are Not Displayed when a Partition Manager Help Link is Used in a Locale Other Than English and Japanese** The Partition Manager **Help** links do not work when in any locale other than English and Japanese.

Use the HP SIM help button on the top right when using locales other than English or Japanese.

Virtualization Manager

The following information was not included in the *HP Virtualization Manager and Logical Server Management Version 4.1 Getting Started Guide* and the *HP Virtualization Manager Help*.

- **IPM Power/Thermal Report Functions do not Work Correctly When Display is Entered from Virtualization Manager IPM Icon or Link** A user who opens the IPM Power/Thermal Report using the HP Insight Power Manager icon or the IPM link in the metric callout window on the Virtualization Manager **Visualization** tab will find that several screen functions will be broken or missing:

- If the user presses the **Draw Graph** button, the data will not redraw the graph. In this situation, an “Error on page” message appears in the lower left corner of the report browser window.
- The time scale of graph cannot be changed.
- The “HP Power Management Actions” table has an extraneous column labeled “MxNode” with a value such as
"com.hp.mx.core.tools.powermgr.datatypes.MxNodeKey@42".
- The **Configure Alert** button and **Save as Collection** buttons are missing.

The IPM Power/Thermal Report operates correctly when accessed in the following way:

1. Select a system by clicking the appropriate check box on the **Visualization** tab of Virtualization Manager.
2. From the HP SIM menu bar, click **Reports→Insight Power Manager→Display Power/Thermal Data...**

A correctly functioning report will open for the selected system.

- **Virtualization Manager Visualization Tab Occasional “ConcurrentModificationException” Error** Virtualization Manager's **Visualization** tab has a toolbar which contains a **Search** button and associated text input field. On rare occasions when you type some text in the field and hit the enter key or click the **Search** button the page is replaced with the error:

```
Serious Error
A serious error has occurred. Please contact your HP support representative
and supply the following information.
Exception
java.util.ConcurrentModificationException
at java.util.AbstractList$Itr.checkForComodification(AbstractList.java:449)
at java.util.AbstractList$Itr.next(AbstractList.java:420)
at com.hp.vse.glib2.base.AbstractHtmlGadgetContainer.emitSimple(AbstractHtmlGadgetContainer.java:224)
```

```
at com.hp.vse.glib2.box.GBoxContainer.emit(GBoxContainer.java:548)
...
```

Re-enter Virtualization Manager via the **Tools**→**VSE Management...** link or by clicking the **All VSE Resources** collection or one of the collections under it in HP SIM's left pane. Then re-enter your search.

- **Insight Recovery and Insight Orchestration Links are Non-Responsive** **Insight Recovery** and **Insight Orchestration** links are non responsive for unauthorized users, within the **Virtualization Manager** tab. This issue occurs when the user is unauthorized to access Insight Recovery or Insight Orchestration.

To correct the problem, give user authorization for Insight Recovery and Insight Orchestration.

- **"404 Not Found" Error while Launching iLO Remote Console** In some cases, when the user clicks on the iLO remote console technology icon, the browser will return a "404 Not Found" error.

Login to the iLO, ensure that all necessary licenses are applied and ensure that HP SIM Single-Sign-On is properly configured. Rediscover the iLO on the Central Management System.

- **Single-Sign-On May Not Work When Launching to the Onboard Administrator or iLO** In some cases, when the user clicks the technology icon for a Single-Sign-On configured iLO or Onboard Administrator, they are required to manually login.

Login to the iLO or Onboard Administrator, ensure that all necessary licenses are applied and HP SIM Single-Sign-On is properly configured. Rediscover the iLO or Onboard Administrator on the Central Management System.

- **Differences between the Virtualization Manager Online Help and HP Virtualization Manager and Logical Server Management Version 4.1 Getting Started Guide**
 - In the online help "Tabs and Menus" topic, "Table 7 - Report Menu", the help shows a table row for the **Utilization Report...** menu option. "Table 1-7 - Report Menu" in the manual correctly shows this menu option as **Capacity Advisor Utilization Report...**
 - In the online help Starting topic, the figure showing the HP SIM Tools menu shows the **Insight Control Management** menu option. The manual correctly shows this menu option as **Insight Software**.
 - In the online help Understanding Power Settings subtopic, information in the text shows the **Calibrate**→**Power Settings...** menu path. This should be **Calibrate**→**Power Settings (All Selected Systems)...**
 - In the online help "Technology Icons" subtopic, "Table 2 - Technology Icons", the table is missing information for Hyper-V clusters. The manual documents this technology in Table 2-2.

vseassist Troubleshooting Utility

The following updates information in the *vseassist(1M) man page*, which is also included in the "Command Reference" section of the *HP Insight Dynamics VSE and HP VSE Management Software 4.1 Getting Started Guide*, and in the *Troubleshooting* help topic.

- **vseassist Does Not Provide Managed Node Configuration Checks for Integrity Linux Managed Systems** `vseassist` does not provide Managed Node Configuration checks for Integrity Linux managed systems. However, `vseassist` does provide CMS to Managed Node Communication checks.

VSE Agent Software Installation

The following is additional or corrected information for VSE Agent software installation.

- **VSE Agent Install Fails when Invalid System Type is Specified** When installing VSE agents from the Configure or Repair Agents task to a group of systems, all of the installs will fail if an invalid system type is included. For example, VSE agents cannot be installed to a VMWare host. If a VMWare host is included in the systems selected, then all of the installs fail, not just the invalid system.

Remove the invalid system from the selected group of systems, and run the Configure or Repair Agents task again to install the VSE agents.

- **"chcp" Error when Installing VSE Agents to a 64-bit Windows Managed System** When installing VSE agents to a 64-bit Windows managed system, the following message will be displayed in the `stderr` of the install task:

```
'chcp' is not recognized as an internal or external command, operable program or batch file.
```

This is an issue with the remote command execution facility (DTF) of SIM, and the message can be ignored.

3 Support and Other Resources

Contacting HP

Information to collect before contacting HP

Be sure to have the following information available before you call contact HP:

- Software product name
- Hardware product model number
- Operating system type and version
- Applicable error message
- Third-party hardware or software
- Technical support registration number (if applicable)

How to contact HP technical support

Use the following methods to contact HP technical support:

- In the United States, see the Customer Service / Contact HP United States website for contact options:

http://welcome.hp.com/country/us/en/contact_us.html

- In the United States, call 1-800-HP-INVENT (1-800-474-6836) to contact HP by telephone. This service is available 24 hours a day, 7 days a week. For continuous quality improvement, calls might be recorded or monitored.
- In other locations, see the Contact HP Worldwide website for contact options:

<http://welcome.hp.com/country/us/en/wwcontact.html>

Registering for software technical support and update service

Insight Control suites and select ProLiant Essentials software products include one year of 24 x 7 HP Software Technical Support and Update Service. This service provides access to HP technical resources for assistance in resolving software implementation or operations problems.

The service also provides access to software updates and reference manuals, either in electronic form or on physical media as they are made available from HP. Customers who purchase an electronic license are eligible for electronic updates only.

With this service, Insight Control and ProLiant Essentials customers benefit from expedited problem resolution as well as proactive notification and delivery of software updates. For more information about this service, see the following website:

<http://www.hp.com/services/insight>

There are two methods for registering:

- If you received a license entitlement certificate, automated registration for this service takes place upon online redemption of the license certificate/key.
- If the license information you received for your product instructs you to register for Software Technical Support and Update Service, you must follow the instructions in order to be eligible for telephone support and product updates.

How to use your software technical support and update service

After you have registered, you will receive a service contract in the mail containing the Customer Service phone number and your Service Agreement Identifier (SAID). You need your SAID when you call for technical support. Using your SAID, you can also go to the Software Update Manager (SUM) web page to view your contract online and elect electronic delivery for product updates.

Warranty information

HP will replace defective delivery media for a period of 90 days from the date of purchase. This warranty applies to all Insight Control Management, HP Systems Insight Manager, and ProLiant Essentials products.

HP worldwide customer service contact numbers

HP worldwide customer service contact numbers are available at the following website:

http://welcome.hp.com/country/us/en/wwcontact_us.html

HP authorized resellers

For the name of the nearest HP authorized reseller, see the following sources:

- In the United States, see the HP U.S. service locator website at:
http://www.hp.com/service_locator
- In other locations, see the Contact HP worldwide website at:
<http://welcome.hp.com/country/us/en/wwcontact.html>

Documentation feedback

HP welcomes your feedback. To make comments and suggestions about product documentation, send a message to:

docsfeedback@hp.com

Include the document title and manufacturing part number in your message. All submissions become the property of HP.

Related Information

The latest versions of manuals and white papers for HP Insight Dynamics – VSE, the VSE Management Software, and related products can be downloaded from the HP Web:

- Documents for HP Insight Dynamics – VSE and related HP ProLiant software can be found at <http://www.hp.com/go/insightdynamics/docs>.
- Documents for VSE Management Software and related HP Integrity software can be found at <http://docs.hp.com/en/vse.html>.

For more information about HP Insight Dynamics - VSE, the VSE Management Software, and VSE-related products and solutions, visit the following HP websites:

- HP Virtual Server Environment: <http://www.hp.com/go/vse>
- HP Insight Dynamics – VSE: <http://www.hp.com/go/insightdynamics>

Typographic Conventions

This document uses the following typographical conventions:

<i>Book title</i>	The title of a book. On the web, this can be a hyperlink to the book itself.
Command	A command name or command phrase, for example <code>ls -a</code> .
Computer output	Information displayed by the computer.
Ctrl+x or Ctrl-x	A key sequence that indicates you must hold down the keyboard key labeled Ctrl while you press the letter x.
ENVIRONMENT VARIABLE	The name of an environment variable, for example, <code>PATH</code> .
Key	The name of a keyboard key. Return and Enter both refer to the same key.

Term	A term or phrase that is defined in the body text of the document, not in a glossary.
User input	Indicates commands and text that you type exactly as shown.
<i>Replaceable</i>	The name of a placeholder that you replace with an actual value.
[]	In command syntax statements, these characters enclose optional content.
{ }	In command syntax statements, these characters enclose required content.
	The character that separates items in a linear list of choices.
...	Indicates that the preceding element can be repeated one or more times.
WARNING	An alert that calls attention to important information that, if not understood or followed, results in personal injury.
CAUTION	An alert that calls attention to important information that, if not understood or followed, results in data loss, data corruption, or damage to hardware or software.
IMPORTANT	An alert that calls attention to essential information.
NOTE	An alert that contains additional or supplementary information.
TIP	An alert that provides helpful information.