Version 5.2

This document contains information for the following HP StorageWorks EVA replication software products:

- HP StorageWorks Business Copy EVA
- HP StorageWorks Continuous Access EVA
- HP StorageWorks Replication Solutions Manager 5.2
- HP Dynamic Capacity Management

To determine which versions of HP StorageWorks EVA controller software are supported with HP Replication Solutions Manager 5.2, see Table 1.0, “EVA software solution compatibility,” in the HP StorageWorks Enterprise Virtual Array Compatibility Reference. See “Product websites and documentation” on page 18 for the document location.

For information about HP EVA XCS, see the HP StorageWorks Enterprise Virtual Array Release Notes for the specific version.

The information included here is not documented elsewhere. HP recommends that you read this information thoroughly.

**IMPORTANT:**

For information about the supported storage arrays, management server hardware and software, and replication environments, including restrictions, see the HP StorageWorks Enterprise Virtual Array Compatibility Reference.

**Update recommendation**: HP recommends that all users upgrade to HP Replication Solutions Manager 5.2.

**Enhancements**

The following enhancements are available with all software releases described in this document:

- **HP Command View EVA**—Version support for HP Command View EVA 9.3 added.
- **Instant restore for HP Business Copy EVA**—Instant restore is now supported for HP Business Copy EVA objects that are part of a DR group.
- **Enhanced VMware VMFS support**—Complete support for HP Business Copy EVA operations on VMFS host volumes.
- **Improved export/import of jobs**—Provides a simple, intuitive way to export/import a single or multiple jobs in XML format.
- **New 4–phase local replication process**—An additional Prepare phase has been added to the local replica (snapshot/snapclone/mirrorclone) creation process.
- **HP Continuous Access EVA destination host access mode changes**—The HP Continuous Access EVA destination host access modes have been changed from PRESENT ONLY/READ ONLY/DISABLE to INQUIRY ONLY/READ ONLY/NONE.
- **Asynchronous volume deletion**—Volume deletion is now asynchronous to improve performance.
- **Java Runtime Environment 1.6**—Upgrading to JRE 1.6 is supported.
IMPORTANT:
JRE 1.4 is required to install HP Replication Solutions Manager Host Agent 5.2 on HPUX and Solaris x86 platforms. After installing HP Replication Solutions Manager Host Agent 5.2, you can upgrade JRE to Version 1.6. However, you must retain JRE 1.4 on the machine running HP Replication Solutions Manager Host Agent 5.2. If you remove JRE 1.4, the replication manager uninstallation may fail.

HP StorageWorks Business Copy EVA
HP Business Copy EVA is a set of local replication features enabled in the EVA controller software. There are no local replication enhancements or workarounds in this revision.

Using HP Business Copy EVA with Oracle Implementation Guide
The Using HP Business Copy EVA with Oracle Implementation Guide has been discontinued. For information about using HP Business Copy EVA with Oracle, see the HP StorageWorks Replication Solutions Manager Administrator Guide.

HP StorageWorks Continuous Access EVA
HP Continuous Access EVA is a set of remote replication features enabled in the EVA controller software. To identify the HP Continuous Access EVA features supported by controller software versions, see Table 6.3, “Remote replication features supported by controller software version,” in the HP StorageWorks Enterprise Virtual Array Compatibility Reference.

HP Dynamic Capacity Management EVA workarounds and limitations
This section describes HP Dynamic Capacity Management (DC-Management) EVA workarounds and limitations.

Using the DC-Management analysis tool
The DC-Management analysis tool is intended for use only with host volumes that support DC-Management. However, the tool can be invoked for any host volumes that appear in the replication manager GUI, which allows you to generate reports regardless of whether or not DC-Management is supported on the operating system. Reports for operating systems not supported by DC-Management are for informational purposes only and cannot be used to estimate DC-Management policy settings. See the HP StorageWorks Enterprise Virtual Array Compatibility Reference for operating systems supported by DC-Management.

Adding the DC-Management license
If the following error message appears when you add the DC-Management license, apply the hotfixes described below:
HP StorageWorks Replication Solutions Manager

HP Replication Solutions Manager (the replication manager) is value-added software that simplifies and automates the use of HP Business Copy EVA and HP Continuous Access EVA. This section describes replication manager upgrade information, enhancements, and workarounds.

💡 TIP:
See “New Features” in the HP StorageWorks Replication Solutions Manager online help for a list of updated job commands, user interface features, and new templates.

Oracle integration support

Starting with HP Replication Solutions Manager 5.1, Oracle integration will no longer be supported. If you are using HP Replication Solutions Manager 5.0 or earlier with an Oracle application integration license, you must migrate your existing Oracle integration jobs before upgrading to HP Replication Solutions Manager 5.1. For instructions on how to migrate jobs, see Appendix A, "Using the replication manager with Oracle tools," in the HP StorageWorks Replication Solutions Manager Administrator Guide.

⚠️ CAUTION:
You can migrate your jobs after the upgrade to HP Replication Solutions Manager 5.1, but if you do so, the Oracle integration jobs will not work.

Installing HP Replication Solutions Manager server 5.2 in a Postgre SQL configuration

After you install HP Replication Solutions Manager server 5.2, if another application installs Postgre SQL in the same directory, the replication manager database could be corrupted. To avoid this situation, install the other applications in a different directory. Otherwise, you must reinstall HP Replication Solutions Manager server.

Installing the replication manager on a domain member

If your system is part of a domain, you can assign privileges to domain groups or you can set local authorization for user access.
Installing HP Replication Solutions Manager server and HP Replication Solutions Manager host agent on a domain system or cluster node with domain authentication

1. On a domain controller, create the following groups in the Active Directory Users and Computers window:
   - **HP Storage Admins**—Administrator group for the replication manager server
   - **HP Storage Users**—User group for the replication manager server
   - **HP Host Agent Admins**—Administrator group for the replication manager host agent
2. Add domain users with administrator privileges to the newly created groups.
3. Start the installation.
   An InstallShield window opens.
4. When prompted, *Do you want to set administrative and user level privileges to domain groups?*, select *Yes, set the permissions for domain groups.*
5. When prompted, enter the domain and group names.
6. Click **Next** to continue the installation.

Installing HP Replication Solutions Manager server and HP Replication Solutions Manager host agent on a domain system or cluster node with local authentication

1. Browse to **Administrative Tools > Computer Management > Local Users and Groups > Groups**.
2. Create the following groups:
   - **HP Storage Admins**—Administrator group for the replication manager server
   - **HP Storage Users**—User group for the replication manager server
   - **HP Host Agent Admins**—Administrator group for the replication manager host agent
3. Add domain users with administrator privileges to the newly created groups.
4. Start the installation.
   An InstallShield window opens.
5. When prompted, *Do you want to set administrative and user level privileges to domain groups?*, select *No, do not set the permissions for domain groups.*
6. Click **Next** to continue the installation.

Upgrading the replication manager

See Table 2.3, “HP Replication Solutions Manager upgrade support,” in the *HP StorageWorks Enterprise Virtual Array Compatibility Reference* for supported upgrade paths for the replication manager server software and host agent software.

Upgrading the replication manager in console mode

During an upgrade of the replication manager in console mode, the system automatically reboots and continues the upgrade in GUI mode. To avoid continuing the upgrade in GUI mode:

1. Click **Cancel** in the Welcome dialog box.
2. Enter the following command:

   `setupwin32.exe -console`
Installing other applications or libraries when HP Replication Solutions Manager 5.2 is already installed

1 IMPORTANT:
   • HP Command View EVA must be upgraded to version 9.3 before upgrading to RSM 5.2.
   • HP Replication Solutions Manager Server 5.1 is not supported with HP Command View EVA 9.3
   • HP Replication Solutions Manager Server 5.2 is not supported with HP Command View EVA 9.2.
   • If HP Command View for Tape Libraries 2.6 is installed, you must remove it before installing HP Command View EVA 9.3.

Installing HP Command View EVA with HP Command View for Tape Libraries

1 IMPORTANT:
   • HP Command View for Tape Libraries 2.4 is a limited release that is available upon request. For more information, contact your HP representative.
   • HP recommends that you install HP Command View for Tape Libraries 2.6 before installing HP Replication Solutions Manager to avoid Postgre SQL error messages.

For issues related to HP Command View for Tape Libraries, see the HP StorageWorks Command View EVA Release Notes.

Replication manager restrictions

The following restrictions apply:
   • The replication manager supports 2,048 LUNs per array.
   • HP Replication Solutions Manager 5.2 is not backward compatible with HP Command View EVA 9.1 or earlier.
   • For information about operating system support, see Table 4.2, "Supported EVA software operating environments," in the HP StorageWorks Enterprise Virtual Array Compatibility Reference.
   • Host Agent 5.2 is not supported with VMDirect settings.

Using HP DButil with SQL

You can use HP DButil to prepare any SQL Server database for backup. If you use HP DButil, you must use HP Replication Solutions Manager to create the snapshot, snapclone, or fractured mirrorclone. Do not use DButil with other backup solutions such as HP Storage System Scripting Utility or HP Command View XP. For more information about HP DButil, see the HP StorageWorks DButil user guide.

Replication manager workarounds

This section provides important notes and workarounds.
Enabled host information is not displayed

If the replication manager does not display HBA information for an enabled host, HP recommends that you install the Fibre Channel Information Tool (fcinfo) on the host. You can download fcinfo from the following Microsoft website:


Using the DButil setcred command

When the DButil setcred command exceeds 55 characters, the stored encoded string includes a crif parameter that DButil cannot decode. To prevent this, ensure that all input parameters are less than or equal to 55 characters, or edit the dbutil.conf file to remove the crif entry.

Installation and configuration

Database migration failure

If the install fails when upgrading to HP Replication Solutions Manager 5.2, the following error message is displayed:

The Export DB operation has failed. Continuing will uninstall the previous version of RSM Server without exporting the DB. To manually export the DB, see the HP StorageWorks Replication Solutions Manager installation guide and then continue with upgrade.

When you receive this message, perform the following steps:

1. Click Cancel to stop the current HP Replication Solutions Manager installation.
2. Manually export the Replication Solutions Manager database.
   For instructions, see the HP StorageWorks Replication Solutions Manager User Guide or online help.
3. Upgrade HP Replication Solutions Manager by launching the Replication Solutions Manager Server 5.2 installer. If you see the same error message, continue the upgrade by clicking Next.

Exporting databases during uninstallation

During uninstallation, if a user account creation fails while exporting a database, export the database manually and continue to uninstall HP Replication Solutions Manager. For more information, see the HP StorageWorks Replication Solutions Manager User Guide or online help.

Host agent installer behavior on a non-Windows platform

When installing the host agent on a non-Windows host, if you do not accept the license agreement twice, you must restart the installation in order to complete installation of the host agent.

Aborting an OpenVMS installation

When aborting an OpenVMS installation, ignore the following error message.

Aborting...

%NONAME-F-NOMSG, Message number 00000004
Repliocation manager jobs

Unmounting a Windows host volume job during I/O

If you attempt to perform an unmount operation from the Host Volume tab, either by running a job command or right-clicking a host volume and selecting unmount, the host volume will unmount immediately. To prevent this, make sure the host volume is not being used before performing any unmount operations.

Parallel job restrictions

The following restrictions apply when processing parallel jobs:

• HP Replication Solutions Manager 5.2 host agent software running on Windows 2008 has been qualified to support up to five parallel jobs.

• A single instance of HP Replication Solutions Manager 5.2 server software supports eight parallel jobs with the following exceptions: five parallel jobs on Windows host volumes and one parallel job on Linux host volumes. The parallel jobs can be of any type, such as HP DC-Management or HP Business Copy EVA on host volumes or storage volumes.

Available options are not displayed properly after virtual disk failure

The replication manager and HP Command View EVA user interfaces do not properly display the available options for a mirrorclone after the source virtual disk has failed. The replication manager displays only the Fracture option, but you will not be able to use it. HP Command View EVA displays only the Detach option.

Resolution: Detach the link between the mirrorclone and the source virtual disk in HP Command View EVA, and then restart the replication manager.

Name not unique error when creating virtual disk

If you make storage-related changes outside the replication manager, they are not reflected immediately in the replication manager database. This can lead to failures when attempting user interface actions or running jobs in the replication manager.

For example, if you create a virtual disk using the replication manager and later delete that virtual disk using HP SSSU, and then use the replication manager to create a new virtual disk with the same name, the operation fails and a message is displayed indicating that the new disk name is not unique.

Resolution: Immediately after making storage-related changes outside the replication manager, perform a Global Refresh in the replication manager to ensure that the changes are reflected in the replication manager database.

Too many concurrent DR group creation jobs

When creating multiple DR groups, some jobs fail during the CreateDrGroup step. The message Storage system lock error is displayed in the event pane.
**Resolution:** Do not create more than three DR groups concurrently.

**Multiple SetNotificationPolicy job commands may fail**

When setting email notification for a job that contains more than one SetNotificationPolicy job command, you only receive notification for the last command set. For example, if the job contains the following commands, you will only receive email notification for a job failure:

```
SetNotificationPolicy ( "john.smith@mycompany.com", "john.smith@mycompany.com", JOB_STARTED_OR_STOPPED)
SetNotificationPolicy ( "john.smith@mycompany.com", "john.smith@mycompany.com", JOB_FAILED )
```

**Resolution:** If you experience this problem when using multiple SetNotificationPolicy job commands, use only one SetNotificationPolicy job command at a time.

**Aborted job appears to hang**

When a job is aborted, the replication manager waits for all pending operations within that job to complete. If an operation to the remote system, such as EnableHost, cannot be cancelled, the aborted job appears to hang.

**Resolution:** The job abort completes when the remote operation completes or when you restart the replication manager service or the enabled host.

**Job scheduler does not handle Daylight Savings Time properly**

The job scheduler handles Daylight Savings Time (DST) correctly in the replication manager unless you try to schedule a job on the day that DST changes (spring or autumn). For example, if DST begins on Sunday at 2:00 a.m., and you try to schedule a job that day, one hour is added to the time. (The job scheduler increments the scheduled jobs by one hour.)

**Resolution:** If you want to schedule a job on the day that DST changes, you must set the job one hour earlier than required. However, if you try this procedure on any day after the day that DST begins, the job scheduler will work as expected.

**Clarification of WaitDrGroupSynchronizationTransition job command**

The description of the WaitDrGroupSynchronizationTransition job command states that the job is halted until the I/O mode of the DR group is changed. However, the job behavior is as follows:

- If the DR group is in enhanced asynchronous mode and you change the mode to synchronous, the job waits until the state of the log is merging (log running down), not until the I/O mode has changed to synchronous.
- If the DR group is in asynchronous mode and operating normally, the job does not wait.

**FractureHostVolumeMirrorclones job command limitation**

You can use the FractureHostVolumeMirrorclones job command for multiple mirrorclones on the same host. However, you can only mount one host volume from each mirrorclone. You must mount all other mirrorclones manually. This job command does not work for multiple mirrorclones on different hosts.
Other replication manager issues

Installing Open-FCoE on SUSE Linux Enterprise Server 11

If you have a host running SUSE Linux Enterprise Server 11 for x86, and you install Open-FCoE on that host, HP Replication Solutions Manager indicates that the host is in an unknown state. To prevent this situation:

1. Open the host's `etc/hba.conf` file in a text editor and comment-out the line `org.openfc /usr/lib/open-fcoe/libhbalinux.so.1`.
2. Save the file.
3. Restart the host agent.

Local replication on iSCSI host volumes

Typically, three Job Options are offered when running the local replication wizard:
- Run Once and Don't Save
- Run Now and Save
- Save Only

For iSCSI host volumes, only the Save Only option is available. To run a job for iSCSI host volumes:

1. Click Save Only in the Host Volume Local Replication Wizard window.
2. Enter a name for the job in the Job Name box, such as Job1.
   Click Finish to exit the wizard.
3. In the RSM - Jobs window, under the Replication tree, select Jobs.
4. On the List tab, under Jobs, right-click the saved job, and then click Edit.
   The Editing Jobs window opens.
5. Double-click to select the following line: `PresentStorageVolumes ($Rep1, $mount_host, HOST_FC_PORT) onerror pauseat E3:`.
   The Editing Task window opens.
6. Click the box to the right of Host Type (the box with three dots in it).
   The Argument Editor window opens.
7. Change the argument from HOST_FC_PORT to HOST_iSCSI.
8. Click OK on both the Argument Editor and Editing Task windows.
9. Click Save in the RSM - Jobs window to save the job.
10. Right-click the saved job and click Run.

Enabling Add Presentation for an extending virtual disk

Do not enable Add Presentation for an extending virtual disk. A virtual disk must be in a normal operational state before presenting it to a host. See the Remote replication guidelines chapter in the HP StorageWorks Replication Solutions Manager User Guide for more recommendations about virtual disks.

Management server host name changes

If you change the host name of the management server running the replication manager in HP Command View EVA, and then add the management server as an enabled host in HP Replication
Solutions Manager using the previous host name, it will not work. You must delete the enabled host and add it again using the new host name. Also, ensure that any jobs that reference this host are updated with the new host name.

Incorrect message displayed during host volume resize

During a host volume resize, the following message may appear:


This error message is incorrect. The correct message is Not enough space in the destination array.

HP OpenVMS host agent

Host agent log file is locked

The HP OpenVMS host agent process locks the log file so that it cannot be edited.

Resolution: To remove the lock, do one of the following:

- Enter the @sys$startup:rsmha$shutdown command to stop the host agent process. You can now access the log file.
- Enter the $backup/ignore=interlock rsm$ path: [rsmha.logs]RSMHA_RG1V08-060208-1.LOG newfilename.log command to back up the log file to another file. A copy of the log file contents is placed in the file you specify. You can now edit the contents of the log file.

Presenting a virtual disk to an OpenVMS host

When presenting a virtual disk to an OpenVMS host, ensure that the host name is the same in both HP Replication Solutions Manager and HP Command View EVA; otherwise, the presentation will fail and you will need to re-execute the operation.

Specifying mount points for an HP OpenVMS host agent

When executing the MountHostVolume job on an HP OpenVMS host, the Mount Point specification can cause an error. If you leave the Mount Point box blank, the HP OpenVMS host agent reads the disk label and attempts to mount the volume with the existing label. If you specify a name, the HP OpenVMS host agent changes the disk label to the specified name and attempts to mount the volume. In either case, if the job fails, an error is returned to the server.

HP OpenVMS host volume replicate mount job fails

The HP OpenVMS host volume replication job incorrectly reports Unmount failed during rollback. The host volume might have been dismounted successfully at the host.

Resolution: Continue the paused job.

HP OpenVMS IPv6 cluster support setup limitations

To set up IPv6 on an HP OpenVMS cluster:

1. Create a LAN-based cluster.
2. Assign different IPv6 addresses to all nodes.
3. Assign another common IPv6 address to all nodes that will be active on only one node at a time.
4. Add this IP address as an enabled host to the replication manager server. It shows the EVA host ports for all cluster nodes on which the IPv6 address is set.

Unable to launch the CLUI client from an IPv6 HP OpenVMS host

Launching the CLUI client from an IPv6 HP OpenVMS host is not supported because there is no IPv6-compliant Java Virtual Machine (JVM) for HP OpenVMS 8.3.

HP Tru64 UNIX host agent

AdvFS domains are limited
The HP Tru64 UNIX host agent supports only one AdvFS domain on a virtual disk, specifically, on the C partition.

Job template and commands are limited
On an HP Tru64 UNIX host, the `MountExistingStorageVolumes` job template and the `createHostVolumeDiscrete` command support UNIX File System (UFS) volumes only.

Mount jobs fail
Running the `MountEntireVolumeGroup` or `MountHostVolume` job fails with an error such as the following:

```
/dev/disk/dsk786c is an invalid device or cannot be opened
```

**Resolution:** Log in to the host and unmount all filesets on the domain for which the error occurred, and then rerun the job.

Issue with UNIX job templates
A job fails during the `createHostVolumeGroup` operation when used in the following job templates:

- Replicate host volume group, mount entire group to host
- Replicate host volume group, mount component(s) to host

**Resolution:** Manually clean up the host on which the volume group was created, and then rerun the job.

Spaces in paths are not supported
When using the remote CLUI client on a UNIX host and entering commands that include a directory path, do not include spaces in the path name. You must replace spaces with a wildcard character to ensure that the command will work. For example:

```
clui.sh -f '/Kumar?Anand/13_showHOST_AGENT.txt'
```
HP-UX host agent

Java Installation prerequisite

Install JVM 1.4 before installing HP-UX host agent 5.2.

Using clui.sh with HP-UX

When the clui.sh utility is executed, the following error message is displayed:

./../../../_jvm/bin/java: not found

To prevent this, edit the clui.sh file to replace $DIR/../../../_jvm/bin/java with the Java installed path.

MountEntireVolumeGroup (LVM2) fails

If LVM2 is installed on two HP-UX hosts (host1 and host2), and host1 has a volume group created using LVM2 and host2 does not, the MountEntireVolumeGroup command from host1 to host2 fails.

Resolution: Run the vgscan -k command on host2 before executing the MountEntireVolumeGroup command.

Resize host volume and LUN fail

The resize host volume (VxVM) and LUN fail during I/O.

Resolution: Stop all I/O operations on the host volume and rerun the job. If the job fails with the same error, umount all volumes belonging to the disk group. Stop and start all volumes in the disk group. Remount all volumes and rerun the job.

IBM AIX host agent

IBM AIX properties do not display cluster membership

When right-clicking Enabled Hosts > View Properties, the cluster membership for the IBM AIX host does not appear. This feature is not supported at this time.

IBM AIX mount support

HP does not support mounting a replicated host volume to the same IBM AIX host.

Linux host agent

Replication of partitioned disks on SUSE Linux Enterprise Server 10 and 11 Itanium platforms

Host volumes representing partitions may not be listed on the replication manager Host Volume tab for a host agent running on SUSE Linux Enterprise Server 10 and 11 Itanium platforms.

Resolution: SUSE Linux Enterprise Server 10 and 11 Itanium do not provide an FDISK utility with the base operating system. You can build the FDISK tool from the util-linux-2.12a.tar.gz source
Problem rebooting a Linux host while a job is running

Linux can reassign host volumes during a reboot. Therefore, HP recommends that you not reboot a Linux host while a job is running. Doing so may cause subsequent actions to operate on the incorrect host volume or disk device.

Sun Solaris host agent

Java installation prerequisite

Install JVM 1.4 before installing Sun Solaris x86 host agent 5.2.

Using clui.sh with Sun Solaris

When the clui.sh utility is executed, the following error message is displayed:

```
.//.../_jvm/bin/java: not found
```

To prevent this, edit the clui.sh file to replace $DIR/../../_jvm/bin/java with the Java installed path.

Memory leak in Sun Solaris host agent

There is a memory leak in pluggable authentication module (PAM) and SNIA host adapter libraries on Sun Solaris platforms.

Resolution: After ensuring that the host agent software patches are current, disable authentication and enable the host bus adapter (HBA) to read information using hbainfo.cfg.

Windows host agent

GPT disk shrink issue

Shrinking GUID partition table (GPT) disks on a Windows host to the same-size partition disables subsequent expand and shrink operations.

Resolution: Ensure that the GPT disk size is 100 MB greater than the partition before performing a shrink operation.

Windows 2003 VDS hotfix for memory leak

A memory leak occurs when you use the Virtual Disk Service (VDS) framework to extend a volume in a loop in Windows Server 2003. When you view the Processes tab in Task Manager, you see that one or more of the following processes consume a great deal of memory:

- diskpart.exe
- dmadmin.exe
- vds.exe

Resolution: A VDS hotfix is available on the Microsoft Support website:

http://support.microsoft.com/kb/938390/en-us
Cannot shrink LUN less than 50% on Windows Server 2008

Windows 2008 host volumes can be shrunk up to 50%. If the policy is set to shrink beyond 50%, the resize fails after reaching 50% of the actual host volume size, and the following error message is displayed:

The requested host volume shrink size is greater than available size.

No contexts defined message

If the No contexts defined message is displayed when the replication manager server starts:

1. Remove the HP Replication Solutions Manager server software.
2. Reboot the system.
3. Reinstall the HP Replication Solutions Manager server software.

Job commands not completing tasks on Windows 2003 cluster

Local replication jobs to remove host volumes fail when run on a Windows 2003 cluster. Job commands, including DiscoverDiskDevices and DeleteHostVolume, are not supported on a Windows cluster host when the cluster name/IP is used in the job. These commands are supported if performed on a host name or IP specific to a node in the cluster.

Resolution: Jobs that include these commands should use an enabled host that was added using a host name or IP specific to a node rather than to the cluster IP.

CreateHostVolumeDiscrete job verb mounts wrong partition

On a Windows 2003 host, both the primary and extended partitions are created on a disk. The partitions differ before and after a host reboot. As a result, if you run the CreateHostVolumeDiscrete command after a reboot, but use pre-reboot partition numbers in the command, the job will mount to different partitions.

Resolution: After the host reboots, re-create the job in the replication manager using the changed partition number.

HBA information is not available for the enabled Windows 2003 host

HBA information does not appear for the enabled Windows 2003 host.

Resolution: Install the fcinfo package on the host. This package is available at:

IPv4 and IPv6 on the same system

If you have both IPv4 and IPv6 on the same system, by default, the replication manager host agent binds to IPv4. If IPv4 is disabled, then the host agent binds to IPv6.

Resolution: To change the default behavior, remove the # character to uncomment the line containing the SERVER_NAME_IP parameter, and then modify the SERVER_NAME_IP value in the hprsmha.cfg file in the host agent install folder. This parameter can be set to a valid IP or host name that is network accessible from the host running the replication manager server software. You must restart the host agent service for this change to take effect.
Instant restore with Windows guest operating system on VMware

To ensure that data is consistent and online on a VMware guest after an instant restore operation on a raw-device-mapped LUN, HP recommends that you perform the following procedure in the replication manager:

1. Flush the host volume's cache and quiesce all I/O to the host volume.
2. Initiate the instant restore operation.
3. Upon successful completion of the instant restore operation, unpresent the virtual disk and perform a rescan on the ESX server using the VMware Infrastructure (VI) client.
4. Initiate a rescan from the disk management console on the Windows guest operating system.
5. Present the virtual disk to the ESX server, and then perform a rescan from the disk management console on the Windows guest operating system.
6. Ensure that the original mount point is available, and then verify the restored data.

ESX server used as mount host with Windows guest operating system on VMware

If Windows 2008 is a guest operating system on VMware, and the ESX server will be used as a mount host in any replication job, perform the following steps from the mount host:

1. Open the command prompt.
2. Run diskpart.
3. Execute the san policy =OnlineAll command.
4. Reboot mount_host.

Running the CLUI client using Java on a host

To run the CLUI client using Java on a host machine:

1. Set PATH to RSM host agent/CLUI installation folder/RSMHostSW\JDK\bin.
2. Run the CLUI client from the command line:
   
   Java -jar cluiclient.jar CLUI command

Document corrections

• The HP Replication Solutions Manager online help does not include the Host Type parameter for the following job commands:
  • CreateHostVolume
  • CreateHostVolumeDiscreet
  • CreateDiskDevice
  • CreateHostVolumeGroup
  • DeleteHostVolumeGroup
  • DeleteHostVolume
  • PresentStorageVolume
  • PresentStorageVolumeGuest
  • PresentStorageVolumes
  • PresentStorageVolumesGuest
  • UnpresentStorageVolume
• UnpresentStorageVolumes

For information on using the Host Type parameter with these commands, see the HP Storage-Works Replication Solutions Manager Job Command Reference.

Product websites and documentation

You can find the documents referenced in these release notes on the Manuals page of the HP Business Support Center website:

http://www.hp.com/support/manuals

Under Storage, click Storage Software, and then select your product.
<table>
<thead>
<tr>
<th>Product</th>
<th>HP website</th>
</tr>
</thead>
</table>
| EVA3000 | [http://www.hp.com/support/manuals](http://www.hp.com/support/manuals)  
Click **Disk Storage Systems** under Storage, and then click **HP StorageWorks 3000 Enterprise Virtual Array** under EVA Disk Arrays. |
| EVA4000/6000/8000 | [http://www.hp.com/support/manuals](http://www.hp.com/support/manuals)  
Click **Disk Storage Systems** under Storage, and then click **HP StorageWorks 4000/6000/8000 Enterprise Virtual Arrays** under EVA Disk Arrays. |
[http://www.hp.com/support/manuals](http://www.hp.com/support/manuals)  
Click **Disk Storage Systems** under Storage, and then click **HP StorageWorks 4100 Enterprise Virtual Array** under EVA Disk Arrays. |
| EVA4400 | [http://www.hp.com/go/eva4400](http://www.hp.com/go/eva4400) |
| EVA5000 | [http://www.hp.com/support/manuals](http://www.hp.com/support/manuals)  
Click **Disk Storage Systems** under Storage, and then click **HP StorageWorks 5000 Enterprise Virtual Array** under EVA Disk Arrays. |
| HP SAN design | Documentation of SAN topics such as fabric design, switches, and SAN extensions  