

HP Server Automation Storage Visibility and Automation

for the HP-UX, IBM AIX, Red Hat Enterprise Linux, Solaris, SUSE Linux Enterprise Server, VMware, and Windows® operating systems

Software Version: 9.0

Release Notes

Document Release Date: August 2010
Software Release Date: August 2010



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notices

© Copyright 2000-2009 Hewlett-Packard Development Company, L.P.

Trademark Notices

Intel® Itanium® is a trademarks of Intel Corporation in the U.S. and other countries.

Java™ is a US trademark of Sun Microsystems, Inc.

Microsoft®, Windows®, Windows® XP are U.S. registered trademarks of Microsoft Corporation.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Documentation Updates

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

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

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

<http://h20230.www2.hp.com/selfsolve/manuals>

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

<http://h20229.www2.hp.com/passport-registration.html>

Or click the **New users - please register** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at:

www.hp.com/go/hpsoftwaresupport

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

Contents

- 1 What's New in Storage Visibility and Automation 9.07
 - Expanded Support7
 - Documentation Available.....7
- 2 What's Fixed in Storage Visibility and Automation 9.09
 - Database Scanner for Oracle9
 - QCCRID 937789
- 3 Known Problems, Restrictions, & Workarounds in Storage Visibility and Automation 9.0.....11
 - Database Scanner for Oracle11
 - QCCRID 8809111
 - QCCRID 9114311
 - QCCRID 9369012
 - Bug ID: 156909 / QCCRID 68263.....12
 - Storage Host Agent Extension12
 - Bug ID: 149406 / QCCRID 60760.....12
 - Bug ID: 149707 / QCCRID 61061.....13
 - Bug ID: 151921 / QCCRID 63275.....13
 - Bug ID: 152016 / QCCRID 63370.....13
 - Bug ID: 152942 / QCCRID 64296.....13
 - Bug ID: 154418 / QCCRID 65772.....14
 - Bug ID: 154971 / QCCRID 66325.....14
 - Bug ID: 155476 / QCCRID 66830.....14
 - Bug ID: 157044 / QCCRID 68398.....15
 - Bug ID: 157579 / QCCRID 68933.....15
 - Bug ID: 158923 / QCCRID 70277.....15
 - Bug ID: 159156 / QCCRID 70510.....15
 - Bug ID: 159580 / QCCRID 70934.....16
 - Bug ID: 164951 / QCCRID 76305.....16
 - Bug ID: 168716 / QCCRID 80070.....16
 - Bug ID:168889 / QCCRID 8024316
 - Bug ID: 167103 / QCCRID 78457.....17
 - QCCRID 10092217
 - QCCRID 10146417
 - QCCRID 11172417
 - Storage Agent.....18
 - Bug ID: 164789 / QCCRID 76143.....18
 - Other.....18
 - Bug ID: 155094 / QCCRID 66448.....18

1 What's New in Storage Visibility and Automation 9.0

Storage Visibility and Automation 9.0 is a storage enablement feature in Server Automation (SA) that offers storage management capabilities designed for server administrators by enabling end-to-end visibility and management of the entire storage supply chain. This feature helps storage administrators by providing tools that increase cost savings through application storage, dependency and visibility, storage audits, storage capacity and utilization trending, and scripting and automation.



While Storage Visibility and Automation is included as part of the Server Automation (SA) 9.0 release, it also requires compatible Storage Essentials (SE) for storage data discovery. SE 6.1.1 or later is required to view, report, or perform any Service Automation Visualizer (SAV) and Service Automation Reporter (SAR) operation on SAN objects, such as arrays, switches, volumes, and so on.

Expanded Support

Storage Visibility and Automation has been modified to support the following bare metal hypervisor architectures:

- VMware ESX 4
- VMware ESXi 4

See the *Storage Visibility and Automation Support Matrix* for detailed platform and environment support information.

Documentation Available

The following documentation is provided with this release:

- *Storage Visibility and Automation Release Notes*
- *Storage Visibility and Automation Support Matrix*
- *Storage Visibility and Automation Installation & Administration Guide*
- *SE Connector Installation Guide*
- *Storage Visibility and Automation Upgrade Guide*
- *Storage Visibility and Automation User Guide*
- *Storage Compliance User Guide*
- *Storage Reports User Guide*
- *Storage Visibility and Automation Online Help*

For information about new or modified features for Server Automation (SA), Service Automation Visualizer (SAV), Service Automation Reporter (SAR), and Storage Essentials (SE) please refer to separate *Release Notes* for those products.

2 What's Fixed in Storage Visibility and Automation 9.0



For information about fixed defects for Server Automation (SA), Service Automation Visualizer (SAV), Service Automation Reporter (SAR), and Storage Essentials (SE), please refer to the *Release Notes* for those products or features.

Database Scanner for Oracle

QCCRID 93778

Description: The supply chain for all database instances built on ASM is not reported.

Platform: Independent

Subsystem: Database Scanner for Oracle

Symptom: This problem occurs when the database instances are built on top of Oracle ASM and more than one of these database instances are on the same Oracle server. In this situation, the discovery process saves the ASM files used by only one of the database instances. ASM files used by the other database instances will not be saved. For example, not all SAN arrays will be reported on for all database instances built on ASM. The SAN arrays will be reported for only one database instance—the database instance that was most recently synchronized.

Resolution: Fixed.

3 Known Problems, Restrictions, & Workarounds in Storage Visibility and Automation 9.0



For information about known defects for Server Automation (SA), Service Automation Visualizer (SAV), Service Automation Reporter (SAR), SE Connector, and Storage Essentials (SE), please refer to the *Release Notes* for these products, features, or components.

Database Scanner for Oracle

QCCRID 88091

Description: Certain files (utility scripts) are not automatically removed from a managed server. These are Database Scanner for Oracle binaries that are copied to a managed server during each snapshot process.

Platform: Independent

Subsystem: Database Scanner for Oracle

Symptom: Each time you create a Database Scanner snapshot, you will see these files on the managed server because they are copied to it during the snapshot process.

Workaround: If you need to repurpose a managed server and it still has these files on it, you should remove them to *clean* the server. To remove all Database Scanner for Oracle binaries from a managed server, perform the following steps:

- 1 From the Navigation pane, select **Devices** ► **Servers** ► **All Managed Servers**.
- 2 Right-click the managed server and then select **Run Script** ► **Select Script**.
- 3 In the Run Server Script window, click **Select Script** to display the Select Script dialog.
- 4 In either the Browser Scripts tab or the Browse Folders tab, select the "post-uninstall script for Database scanner for Oracle [unix|win]" script and then click **Select**.

To view this script, you must have permissions on the "/Opware/Tools/Server Modules com.opsware.server.module.storage.dbscanner.oracle" folder.

- 5 In the Run Server Script window, click **Next** and then click **Start Job** in the Options pane. Do not specify any additional parameters.

When the job successfully finishes, all files related to the Database Scanner for Oracle will no longer be on the *cleaned* managed server.

QCCRID 91143

Description: The status of an ASM Diskgroup shown in the Properties view is different than the status shown in the Database Configuration Assistant (DBCA) view.

Platform: Independent

Subsystem: Database Scanner for Oracle

Symptom: In the Properties view, the status is CONNECTED. In the DBCA, the status is MOUNTED. By definition, the status of ASM Diskgroup is relative to the database instance. What is reported in the Properties view matches the status for one database instance only.

Workaround: None.

QCCRID 93690

Description: The Server ► Relationships ► SAN Switches panel only displays SAN switches to which the given server is directly connected. In some cases, a server may depend on SAN switches that are not displayed in this panel. For example, a virtual server may be using storage allocated from a hypervisor that was allocated storage from a SAN.

Platform: Independent

Subsystem: Database Scanner for Oracle

Symptom: The content pane for Relationships (SAN Switches and SAN Fabrics) on a virtual server is empty (“No items found”).

Workaround: None.

Bug ID: 156909 / QCCRID 68263

Description: Tablespace's free space view does not match the Oracle Enterprise Manager (OEM) view.

Platform: Independent

Subsystem: Database Scanner for Oracle

Symptom: In the tablespace view, the free space does not match what is displayed in the Oracle Enterprise Manager (OEM) tablespace.

Workaround: None

Note: There is an OEM bug about some tablespaces showing the incorrect used size. The Database Scanner for Oracle gets the tablespace used size directly from all of its data files, which avoid the OEM bug.

Storage Host Agent Extension

Bug ID: 149406 / QCCRID 60760

Description: Solaris LVM RAID on Soft Partition on slices stops responding.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: This configuration produces a defective storage supply chain.

Workaround: None

Bug ID: 149707 / QCCRID 61061

Description: The Storage Host Agent Extension reports two single port cards when a single dual port card is present.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: The SNIA v1 HBA API reports ambiguous information with regard to ports on a multi-port card. Some vendors may model dual port cards as two single-port cards. This is the information that ASAS reports on—output that shows a single dual port card with a single serial number, where each adapter has its own unique node WWN.

Workaround: None

Bug ID: 151921 / QCCRID 63275

Description: There is no distinction between the volume types “Mirror Concatenated” and “Mirror Striped” in the Volume Manager labels.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: When you add a mirror to concatenated or stripe, the volume display labels both as “Mirrored” and does not distinguish between concatenated or striped in the label. Note that “Mirrored Concatenated” and “Mirror Striped” are distinct on the volume manager on the host, such as on the Veritas Volume Manager.

Workaround: None—the type of the volume manager might not match the native tool, such as the Veritas Volume Manager. The STORAGE_TYPE value is the immediate node in the supply graph, which is the storage type of the most decendent volume.

Bug ID: 152016 / QCCRID 63370

Description: The STORAGE_DRIVE value is incorrectly formatted for SunOS 5.10 disks.

Platform: Unix

Subsystem: Storage Host Agent Extension

Symptom: The value stored in STORAGE_COMPONENTS.STORAGE_DRIVE is a different format on Solaris 5.10 than on Solaris 5.8 and 5.9. The different format for 5.10 causes a broken storage supply chain on affected servers.

Workaround: Check the version number in the /etc/format.dat file on the server. If it is less than 1.28, update the file.

Bug ID: 152942 / QCCRID 64296

Description: QLogic 9.1.4.15 HBA API is defective.

Platform: Windows

Subsystem: Storage Host Agent Extension

Symptom: On a Windows 2003 server with the SNIA library from QLogic, Fibre Channel Adapter and storage volume information might not be discovered by the Storage Host Agent Extension, causing `fibrepoxxy.exe` to stop responding.

Workaround: For Windows Server 2003 and Microsoft Windows 2000 operating systems, use the native Microsoft SNIA library instead of the SNIA that is provided by the QLogic driver. Download the Fibre Channel Information Tool to add the Microsoft HBAAPI support to the operating system. For Windows 2003 SP1 or later, the Microsoft HBAAPI support is built in. If the SNIA's version of `hbaapi.dll` is installed on the operating system, remove it.

Bug ID: 154418 / QCCRID 65772

Description: The Unix QLogic snapshot is missing information in the Hardware view and Volumes pane.

Platform: Unix

Subsystem: Storage Host Agent Extension

Symptom: When you snapshot a Unix server that has a QLogic driver installed, there is no FC adapter information in the Hardware view. There is also no composition and connectivity information for any SAN volume in the Volumes pane.

Workaround: Install patches 108434 and 108435 on Solaris 8 SPARC servers. The Storage Host Agent Extension on Solaris 5.8 SPARC requires these patches.

Note: There is no known workaround for Red Hat 3 or Red Hat 4 servers using QLogic controllers.

Bug ID: 154971 / QCCRID 66325

Description: Veritas Storage Foundation 4.3 with QLogic 9.1.4.15 results in invalid fibre proxy SCSI addresses.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: The SAN storage volume displays both LUN and Root as the Service Type. There are two lines for the physical drives: One line displays LUN and the other displays Root.

Workaround: None

Bug ID: 155476 / QCCRID 66830

Description: There is no support for mounting Windows 32 file systems on non-drive letter locations.

Platform: Windows

Subsystem: Storage Host Agent Extension

Symptom: The file system is not shown on the server storage file system panel when the partition and format on the Windows server is mounted to an empty NTFS folder.

Workaround: None

Note: The Storage Host Agent Extension does not report file systems that have non-drive letter mount points. The Storage Host Agent Extension does not report file systems that have multiple mount points.

Bug ID: 157044 / QCCRID 68398

Description: Fibreproxy is broken on Windows 2000 SP4 server with a QLA2310 HBA and vendor driver version 9.1.4.10.

Platform: Windows

Subsystem: Storage Host Agent Extension

Symptom: A storage inventory snapshot does not gather and supply complete data, including storage volume and FCA information.

Workaround: None

Bug ID: 157579 / QCCRID 68933

Description: Running fibreproxy on a Windows server with Emulex installed returns multiple FibreChannelTargetMappings.

Platform: Windows

Subsystem: Storage Host Agent Extension

Symptom: When you run take a Storage Host Agent Extension snapshot by running fibreproxy on a Windows server where Emulex LP850, LP952, LP9002, or LP9402 is installed, three FibreChannelTargetMappings are returned, two of which are duplicates. This symptom does not occur with Emulex driver 1.30a9.

Workaround: None

Bug ID: 158923 / QCCRID 70277

Description: Disabling all MPIO paths for a device causes diskproxy and mpioproxy to stop responding.

Platform: AIX

Subsystem: Storage Host Agent Extension

Symptom: If you run the `chpath` command as shown below to take a Storage Host Agent Extension snapshot for each available path to the device, all the MPIO paths to a logical device become disabled. In this state, the system calls used by the diskproxy and mpioproxy will stop responding.

```
chpath -l hdisk2 -p fscsi0 -s disable xx
```

Workaround: None

Bug ID: 159156 / QCCRID 70510

Description: After you remove a LUN mapping, the old LUN mapping information still displays in the SAN array volume view and in the server storage volume view. An additional access path is displayed in the SAN array volume view (Access Path subview) for the volume for which LUN mapping was removed. The access path that shows no initiator device and/or initiator port information is the correct one.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: For a mounted SAN volume on a server, when LUN mapping for the same SAN volume on the storage array is updated to remove the initiator ports, the server still reports that it sees the volume. As a result, an incorrect access path for the SAN volume is displayed. The Storage Agent for the storage array correctly updates the LUN mapping when the next synchronization is run and shows no initiator ports for the LUN mapping. The incorrect access path is removed from the display when the next Storage Host Agent Extension snapshot is run.

Workaround: Take a snapshot of the server to which the volume was mapped or partitioned.

Bug ID: 159580 / QCCRID 70934

Description: SAV displays incorrect information after adding a zone to a fabric.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: A fabric zone to card WWN does not correlate to the server, but a zone to the port WWN does have correct correlation. The zone is not associated to the correct server/port/WWN.

Workaround: None

Bug ID: 164951 / QCCRID 76305

Description: Multipath information does not display correctly for an HP-UX 11iv2 server in the SA Client.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: The multipath information is not reported correctly for a server that has HP-UX 11iv2 OS installed and Veritas DMP managing the multipathing in the SA Client. The SNIA library does not support HBA_GetFcpTargetMappingsV2r.

Workaround: None

Bug ID: 168716 / QCCRID 80070

Description: Broken supply chain on AIX 5.2 with Powerpath.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: On servers running AIX 5.2 with PCI-X Fibre Channel Adapters, the supply chain does not display after taking an inventory snapshot.

Workaround: None

Bug ID: 168889 / QCCRID 80243

Description: Logical volume devices appear to be under Veritas DMP control when they are not taking a new snapshot.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: If you disable a volume in Veritas DMP and subsequently take a new Storage Host Agent Extension snapshot, the updated volume appears as though it remains managed by Veritas DMP.

Workaround: When constructing LVM modules on the HP-UX 11.31 platform, use agile DSF devices. There is no workaround for other platforms.

Bug ID: 167103 / QCCRID 78457

Description: The Storage Disk panel appears empty after upgrading to SA 7.50 and ASAS 7.50.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: If you perform a core upgrade to SA 7.50 and ASAS 7.50 and then run the customer extension to upgrade a Storage Host Agent Extension on the host, the host disappears from the INTERFACE table and the host's STORAGE_DRIVE does not appear in the STORAGE_COMPONENT table.

Workaround: It may take one to two hours for the host and drives to repopulate their tables. Verify that the host is present in the INTERFACE table and that the STORAGE_DRIVE element is present in the STORAGE_COMPONENT table.

QCCRID 100922

Description: When an HP-UX 11.23 server is presented with a LUN via dual port HBA, the user interface shows only one FC target mapping.

Platform: HP-UX 11.23

Subsystem: Storage Host Agent Extension

Symptom: The NGUI panel Inventory->Storage->Volumes->[Select Access Path View]->Select a LUN presented via dual ports HBA, the bottom panel will show only one target mapping instead of two entries. This occurs when an HBA driver does not support the SNIA HBA 2.0 version.

Workaround: None.

QCCRID 101464

Description: For LUNs managed by Solaris Native MPXIO, the multipath count is displayed as 1. This behavior is seen on Solaris versions before Solaris 5.10 Update 3.

Platform: Independent

Subsystem: Storage Host Agent Extension

Symptom: For Solaris versions before Solaris 5.10 Update 3, the Storage Host Agent Extension inventory snapshot specification fails to discover the information related to Solaris Native MPXIO software. Because of this, MPXIO managed multipathed LUNs will have their path count as 1.

Workaround: None.

QCCRID 111724

Description: The Storage Host Agent Extension does not support virtual servers that have VMDK created on NFS datastore.

Platform: All VMware servers

Subsystem: Storage Host Agent Extension

Symptom: Host Storage Inventory will fail on VMware servers that have VMDK on NFS datastore. Therefore, no storage information will be collected on VMWare servers with this configuration.

Workaround: None.

Storage Agent

Bug ID: 164789 / QCCRID 76143

Description: File systems mounted to a directory containing more than 255 characters do not appear in the file system list in the SA Client.

Platform: Independent

Subsystem: Storage Agent

Symptom: If you create a mount point folder with a mount name containing more than 255 characters (including spaces), an error similar to the following will appear:

```
twist exception: java.sql.SQLException: ORA-12899: value too large for column
"TRUTH"."AIM_FILE_SYSTEM"."CAPTION" (actual: 259, maximum: 255)
```

Workaround: Do not use more than 255 characters for the entire path to the mounted directory, starting at the root.

Other

Bug ID: 155094 / QCCRID 66448

Description: Advanced Search results for Storage System Discovery Date do not display correctly.

Platform: Independent

Subsystem: SA Client (Search)

Symptom: If the user profile setting on the SAS Web Client is UTC, all discovered dates will display as expected. If the user profile setting is set to a timezone other than UTC, some discovery dates for SAN arrays, NAS filers, and switches will not display as expected, although they are technically correct.

Workaround: Set the user profile to UTC.