SANworks by Compaq

Upgrade Instructions for Enterprise Virtual Array

Part Number: AA-RS29A-TE

First Edition (July 2002)

Product Version: 2.0

This document provides the instructions to upgrade Version 1.x of the *StorageWorks* ™ Enterprise Virtual Array by Compaq to Version 2.0.

For the latest version of this document and other storage system documentation, visit the Compaq storage website at: http://www.compaq.com/products/strorageworks

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Intended Audience

This document is intended for customers who need to upgrade the StorageWorks Enterprise Virtual Array by Compaq (Enterprise Virtual Array) from V1.0 to V2.0.

Additional documentation is available from the Compaq website at: http://www.compaq.com/products/storageworks/enterprise/documentation.html.

Compatibility Matrix

The Enterprise Virtual Array uses various firmware and software that work with each other to manage the storage solution. When you are considering an upgrade, it is important to ensure that all of the software and firmware versions are compatible. This section provides a matrix that summarizes which versions of software and firmware are compatible with each other. Use Table 1 to ensure that you are using compatible software versions.

The *SANworks* ™ HSV Element Manager by Compaq (HSV Element Manager) V2.0 software is compatible with the following:

Software

- SANworks Virtual Controller Software by Compaq (VCS) V2.00
- SANworks Open SAN Manager by Compaq (OSM) 1.0C

Hardware

- SANworks Management Appliance by Compaq (Management Appliance) GI
- Management Appliance GII

Table 1 indicates the compatible versions of software and firmware.

NOTE: Refer to the release notes for the host server to determine which version of SANworks Secure Path by Compaq you should use.

Table 1: Software and Firmware Compatibility

	HSV Element Manager V1.0	HSV Element Manager V2.0
VCS V1.01	Yes	No
VCS V1.02	Yes	No
VCS V2.00	No	Yes
OSM V1.0A	Yes	No
OSM V1.0B	Yes	No
OSM V1.0C	Yes	Yes
Appliance Manager V1.0A	Yes	No
Appliance Manager V1.0B	Yes	Yes

Prerequisites

IMPORTANT: Before you can upgrade to VCS V2.00, you must be running VCS V1.02 on the HSV Controllers. If you need assistance in upgrading to VCS V1.02, please contact a Compaq Authorized Service Representative. Refer to Customer Advisory OI020228_CW01 (Revision:0).

Before you begin the Enterprise Virtual Array V2.0 upgrade procedure, you must have the following kits:

1. ***SANworks by Compaq Virtual Controller Software Version 2.00*** kit (QC-6RNAA-RC)

   In addition to documentation, this kit contains the following important items:

   a. *VCS License Key Retrieval Sheet*

   b. *SANworks by Compaq Enterprise Virtual Array System Software Version 2.00* CD

      This CD contains the following:

      - VCS V2.00
      - Firmware upgrades

2. ***MA UPD 1.0C/LIC/CD JAN2002*** kit (QC-6M4AA-SE)

   In addition to documentation, this kit contains the following important items:

   a. *SANworks by Compaq Management Appliance Update, Jan 2002* CD

This CD contains the following:

- OSM Version 1.0C
- Appliance Manager Version 1.0B
- HSV Element Manager Version 1.01
- HSG Element Manager Version 1.0C
- Compaq Insight Manager Version 5.2
- CSS 2105 Version 1.0
- Storage Allocation Reporter Version 1.0 C
- Automation Manager Version 1.0
- Notification Utility Version 1.0
- Software License Manager Version 1.0
- Hotfixes

3. ***MA V1.0C Service Pack 2*** kit (QC-6M4AA-SF)

   In addition to documentation, this kit contains the following important item:

   a. *Management Appliance Software Update V1.0C Service Pack 2* CD

Overview of Enterprise Virtual Array V2.0 Upgrade Process

Upgrading from Enterprise Virtual Array V1.0 to V2.0 involves several steps, which must be done in the prescribed order. If you do not perform the upgrade process in the appropriate order, you may not be able to manage the storage system using the HSV Element Manager.

Compaq highly recommends that you perform this upgrade procedure during off-peak hours. The upgrade process may cause a fully configured HSV Controller to exceed OS-specific timeout values.

IMPORTANT: Before you can upgrade to VCS V2.00, you must be running VCS V1.02 on the HSV Controllers. If you need assistance in upgrading to VCS V1.02, please contact a Compaq Authorized Service Representative. Refer to Customer Advisory OI020228_CW01 (Revision:0).

1. Redeem your license keys.
2. Upgrade the Management Appliance to the January, 2002 version.
3. Clear the passwords on all HSV Controllers.
4. Upgrade the HSV Element Manager software from V1.01 to V2.0.
5. Load the V2.0 licenses for the Enterprise Virtual Array.
6. Upgrade the storage system software from V1.021 to V2.000.

   NOTE: After you have upgraded an HSV Controller to V2.00, you cannot downgrade the HSV Controller to V1.x.

7. Enter the new passwords on the HSV Controllers.
8. Upgrade the Fibre Channel Adapter (FCA) drivers, SANworks Secure Path by Compaq, and platform kits on each host server.

Step 1: Redeeming License Keys

See the *StorageWorks by Compaq Enterprise Virtual Array License Instructions* for more information about obtaining licenses.

Step 2: Upgrading the Management Appliance

The Management Appliance must be upgraded to the January, 2002 release. Use the *SANworks by Compaq Management Appliance Update, January 2002* CD and follow the detailed instructions in the *SANworks by Compaq Management Appliance Update Installation Card* to upgrade the Management Appliance.

Step 3: Removing Passwords From the HSV Controllers

Use the following procedure to remove storage system password protection.

IMPORTANT: Changing a system password on the controller requires changing the password on any HSV Element Manager with access to this system.

Using the Operator Control Panel (OCP) on the HSV Controller:

1. Press ▶ to go to step 2, Clear Password.
2. Press ▼to go to Clear Password.
3. Press ▼to select Clear Password.
4. Press ▼ to go to step 5, CLEAR PASSWORD YES.
5. Press ◀ to clear the password.

   The password is cleared. The system automatically returns to the default display.

Step 4: Upgrading the HSV Element Manager from V1.01 to V2.0

After you have loaded VCS V1.02 on the HSV Controllers, you can upgrade the HSV Element Manager to Version 2.0. The HSV Element Manager V2.0 cannot manage an HSV Controller with VCS V1.02. Therefore, you should load the V2.0 licenses and upgrade the HSV Controllers to VCS V2.00 immediately after you upgrade the HSV Element Manager to Version 2.0.

IMPORTANT: Remove the passwords from the HSV Controllers before you begin the following procedure.

To upgrade the HSV Element Manager to V2.0, perform the following steps:

1. Browse to the **Compaq SANworks Management Appliance Home** page at:

   http://appliancehostname:2301

   NOTE: The default appliance name of the Management Appliance GI is swma and the last six characters of the Management Appliance serial number. Browse to port 2301 only.

   The default appliance name of the Management Appliance GII is sma and all 12 characters of the Management Appliance serial number. Browse to port 2301 only.

2. Click anywhere on the **Management Appliance Home** page.

   The **Compaq Web-based Management Account Login** screen displays.

3. Enter the user name and password, and click **OK**.

   The **SANworks Open SAN Manager** page for V1.0C displays.

4. Select the **Applications** folder and then the **Installation Services** folder in the **Navigation** pane.

5. Select **Install Products**.

   The **Install a SANworks Application** page displays.

6. Insert the *Management Appliance Software Update V1.0C Service Pack 2* CD in the SANworks Management Appliance CD-ROM drive.

7. Choose **CDROM**.

8. Click **Next Step**.

   The **Select the Application** page displays.

9. Select **HSV Element Manager V20** from the drop-down list box.

10. Click **Install**.

    A confirmation box displays.

11. Click **OK**.

    The HSV Element Manager installation begins, and you will see a message indicating when the installation completes.

12. Verify that the HSV Element Manager V2.0 installation was successful by completing the following steps:

    a. Click **Install Products** in the **Installation Services** folder.

       The **Install a SANworks Application** page displays.

    b. Click **Previous Installs**.

    c. Ensure that HSV Element Manager V20 is displayed on the **Display System Software Packages** page.

13. Remove the *Management Appliance Software Update V1.0C Service Pack 2* CD from the SANworks Management Appliance CD-ROM drive.

    When the installation completes, a message displays indicating that you must update the storage system software (that includes VCS). Because the current system software version is V1.021, VCS software version is 1.02 and the current HSV Element Manager is V2.0, you must upgrade the VCS software to V2.00. The HSV Element Manager V2.0 can manage only VCS V2.00.

Step 5: Loading V2.0 Licenses for the Enterprise Virtual Array

Because you are upgrading the Enterprise Virtual Array to V2.0, the recommended action is to upgrade all of your licenses at the same time.

See the *StorageWorks by Compaq Enterprise Virtual Array License Instructions* for instructions on obtaining licenses.

When you receive the license key from the License Key Retrieval Website, enter it in the HSV Element Manager using the following steps:

1. Launch the HSV Element Manager.

NOTE: In the Navigation pane, a red X will be displayed with the Storage System icon representing the Storage System that must be upgraded to V2.0. A message will also display in the Content pane indicating you must upgrade to VCS V2.0.

2. Click **Options** in the **Session** pane.

The **Management Agent Options** page displays.

3. Click **Set Licensing Options.**

The **Licensing Options** page displays.

4. Click **Enter Lic Line**.

The **Add a License** page displays.

5. Paste the license key in the dialog box.
6. Click the **Add License** button.
7. Click **View Lic Lines** to validate the new license was entered.

The **View Licenses** page displays. The license key entered will be displayed.

Step 6: Upgrading the Storage System Software from V1.021 to V2.000

To upgrade the Enterprise Virtual Array System Software (including VCS on the HSV Controllers) from Version 1.021 to Version 2.000, perform the following steps:

IMPORTANT: Add your V2.0 licenses using **Options** in the Session Pane.

1. Open the *HSV Element Manager* in your browser.

   Each V1.021 storage system is displayed with a red X.

2. Select a storage system.
3. Click **Code Load**.

   The **Code Load Storage System** page displays.

4. Click **Browse** and select the file containing Version 2.000 of the storage system software from the installation CD-ROM.

   The standard format for the filename is ent-vxxxx.sss, where *xxxx* represents the version number.

   Select the file named *ent-v2000.sss*.

5. Click **Next Step.** A pre-application notes page is displayed. The notes offer important cautions applicable to the code update process.
6. Click **Next Step,** then confirm by clicking OK on popup.

   The new storage system software is loaded onto the HSV Controller, and the firmware on the associated Fibre Channel Drive Enclosures is upgraded.

   A post-update message displays. The HSV Controller restarts. A 60-second timer indicates the HSV Controller's progress.

NOTE: During the EMU firmware upgrade, all of the disk drives are listed in the Unmappable Hardware folder and all of the disk enclosure bays disappear. The firmware upgrade can take up to 10 minutes to complete. After the upgrade has completed, the disk enclosure bays are listed under the Disk Enclosure elements.

7. Click **Finish** after the HSV Controllers have restarted and progress counter counts down to 0.

   The HSV Element Manager client refreshes.

Step 7: Adding Passwords to the HSV Controllers

Use the following procedure to add a password to the HSV Controller pair:

IMPORTANT: Changing a system password on the controller requires changing the password on any HSV Element Manager with access to this system.

Using the OCP on the HSV Controller:

1. Press ▶ to go to step 2, Change Password.
2. Press ▶ to go to step 3, CHANGE PASSWORD NO.
3. Press ▼ to go to step 4, CHANGE PASSWORD YES.
4. Press ◀ to accept YES and go to step 5.
5. Press either ▲ or ▼ to select an uppercase or lowercase character.
6. Press ▶ to accept a character and select the next password character. The character display changes to an asterisk.
7. Repeat steps 5 and 6 for the remaining seven characters.
8. Press ◀ to accept the password.
9. Press ◀.

   The password is changed. The system automatically returns to the default display.

Step 8: Upgrading Hosts

After you have upgraded the storage system software to V2.000, you can upgrade the platform kits on your host servers.

Please refer to the platform-specific installation documentation for detailed upgrade instructions. All documents are listed on the following website:

http://www.compaq.com/products/storageworks/enterprise/documentation.html