

# Compaq SANworks

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Release Notes  
Management Appliance Update for Enterprise Only

Part Number: AA-RNEAD-TE

**Fourth Edition (November 2001)**

**Product Version:** N/A

*This document summarizes features and characteristics of the applications on the Management Appliance Update for Enterprise Only CD that are not covered elsewhere in the documentation.*

**COMPAQ**

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Release Notes: Management Appliance Update for Enterprise Only  
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## Release Package Contents

The Management Appliance Update Kit consists of the following:

- Management Appliance Update for Enterprise Only CD
- Management Appliance Update for Enterprise Only Cover Letter
- Management Appliance Update for Enterprise Only Read Me First Card
- Compaq SANworks Management Appliance Element Manager for Enterprise Only User Guide
- Management Appliance Update for Enterprise Only Installation Card
- Management Appliance Update for Enterprise Only Release Notes
- Compaq Software Replication License Agreement
- Compaq Worldwide Limited Warranty Statement
- Compaq Worldwide Telephone Numbers

## **Intended Audience**

This document has been prepared for customers who order the Management Appliance Update Kit for Enterprise Only, and for Compaq service personnel responsible for installing, configuring, and maintaining systems that include the product.

## **Operating System Support**

The following are prerequisites for running the Management Appliance Update software:

- Hardware - SANworks Management Appliance, Version 1.0
- Software - SANworks Open SAN Manager, Version 1.0B

## **Downloading Future Management Appliance Software Updates**

To download future Management Appliance updates, visit us on the web at:

*<http://www.compaq.com/products/sanworks/managementappliance>.*

You can access the latest update by selecting Software & Drivers.

## **Management Appliance Update for Enterprise Only Installation Card Update**

The Management Appliance Update for Enterprise Only September 2001 Installation Card is included in your Management Appliance Update for Enterprise Only November 2001 kit. The installation instructions remain the same for the November update except references to HSV Element Manager Version 1.0 should be Version 1.01 and references to September 2001 Update should be November 2001 Update.

Section IV, step 12, substep 9) should read “Element Manager for StorageWorks HSV Application Software, Version 1. 01 should be displayed.”

When you install Management Appliance Update for Enterprise Only November 2001 over Management Appliance Update for Enterprise Only September 2001 and then uninstall the November 2001 Update, the September 2001 Update still appears on the uninstall list. Although it appears on the uninstall list, the September 2001 Update is not present on the Management Appliance because the November 2001 Update installed over it.

The Management Appliance Update Patch 09012001 is included on the Management Appliance Update November 2001 CD. Installation instructions for the 0901 Patch follow.

### **Installing the Management Appliance Update Patch 09012001**

Use the following procedure to install the Management Appliance Update Patch 09012001 patch:

1. Expand the **Applications** folder in the Navigation pane on the Open SAN Manager Version 1.0B home page.
2. Expand the **Installation Services** folder.
3. Click **Install Products** in the Installation Services folder. The **Install a SANworks Application** screen displays.
4. Click the **CDROM** option button in the Content pane.
5. Click **Next Step. Select the Application** screen displays.
6. Select Patch 09012001 from the drop down box in the Content pane.
7. Click the **Install** button. A pop-up box displays.
8. Click **OK**. Patch 09012001 installs.

When installation completes (approximately 5 minutes), the following message displays:

Installation ends.

Details:

Patch 09012001 - Installation Complete

To verify installation, browse to

*http://<yourappliance>:2301/AppInsCpqInstaller/SAMDisplayPatch.htm*

**NOTE:** Replace <yourappliance> with the default or current name of your Management Appliance.

The **Display System Software Patches** screen displays. A successful patch installation will show Patch 09012001.

9. Click **OK**.

This completes installation of Patch 09012001

## Open SAN Manager Version 1.0B Release Notes

### Clarifications for OSM

This section provides clarification on the following items related to the behavior of OSM 1.0B.

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### New Features

The following are new features of OSM 1.0B:

- Changed Management Appliance in the *Configuration Services* folder to Appliance Manager.
- Enhanced functionalities and user interface for the Configuration Service Tool (Appliance Manager).
- Compaq Management Web Agents added in the *Compaq Utilities* folder.
- CSS 2105 Element Manager hyperlink added.
- *Volume Management* folder removed from the OSM 1.0B Navigation tree in the Navigation pane. Volume Management features are scheduled for future release.

**NOTE:** Clicking **Exit** on the OSM home page only closes the window. It does not log you off OSM.

## Netscape Browser Settings

For systems using the Netscape browser to access OSM, Netscape settings must be as follows:

- Font settings
  1. Click **Edit > Preferences > Appearance > Fonts**.
  2. Choose the option **Use document-specified fonts**, but disable **Dynamic fonts**.
  3. Set the variable-width font to Helvetica or Sans-serif font, size 10.
- Proxy settings
  1. Click **Edit > Preferences > Advanced > Proxies**.
  2. Choose the Automatic proxy configuration.
  3. Enter the proxy configuration URL.

## Network Install Support

OSM provides the user with the capability to download SANworks storage management applications from the network to the Management Appliance.

## User-Defined Links

OSM provides the user with the capability to organize user-defined links into sub-folders.

## UNIX Browser Clients

UNIX Browser clients must add the Management Appliance IP Address to the client's Host Table to be able to browse to the Management Appliance.

## Compaq Management Web Agents

The **Standard IDE Controller** selection and **Integrated Smart Array Controller** pages from the **System Board** selections under **Mass Storage** may show a blank page. This occurs when a larger number of page requests are issued in a short period of time. Refer to the Management Appliance event reporting for status reporting on the IDE Controller and Smart Array Controller.

## Changing the OSM Login Password

To change the OSM login password:

1. Enter ADMINISTRATOR in the **Change Account Name** field on the **Change Password** screen.
2. Enter the new password.

## Exiting an Application

When you exit or log off an OSM application using the **Exit** button in the **Session** pane, or if you exit via your browser, the OSM window may remain active for 30 minutes.

## Recommended Security Practices

Compaq strongly recommends that Web-enabled agents and utilities, including the Management Appliance, be deployed only in private networks and not be used on the open Internet or on systems outside a firewall. The implementation of sound security practices, which include disabling access to non-essential ports (such as the Management Appliance port:2301) should help protect your Information Technology infrastructure from external disruption. Compaq also recommends that passwords be set up according to established security policy and be changed regularly. For more information, refer to <http://www.compaq.com/products/servers/management/mgtsw-advisory.html>

## Nonpermissible Characters

On the **User-Defined Link** page, do not use the following characters in the **Link Name** (Step 2) and **Folder Name** (Step 3) fields: backslash (\), slash mark (/), colon (:), asterisk (\*), question mark (?), quotation mark ("), angle brackets (< >), and vertical bar (|).

## Compaq Survey Utility Removed from Compaq Utilities

The Compaq Utilities Agent help defines the Compaq Survey utility as an option available on the Device Home Page. However, the Compaq Survey Utility has been removed from Compaq Utilities.

## **Logging in to OSM from Sun Solaris Without DNS Support**

When logging in to OSM from a Sun Solaris host without DNS support, ensure that the Management Appliance IP address and Hostname are listed in the `/etc/hosts` file. This is required so the login applet will display properly. If the IP address and Hostname are not the `/etc/hosts` file, the login applet will not display.

## **Appliance Manager Version 1.0 Release Notes**

### **Clarifications for Appliance Manager**

This section provides clarification of the following items regarding the behavior of Appliance Manager, Version 1.0:

- Application Changes May Impact Other Applications
- Management Appliance Name Change

#### **Application Changes May Impact Other Applications**

The Appliance Manager Services screen displays storage management applications and status. Modifying an application (for example, start or restart) using Appliance Manager may impact other applications that are running at the same time. This effect is temporary, and the applications will resume normal operation when the change takes effect.

#### **Management Appliance Name Change**

The Appliance Manager provides a Name Change facility for the Management Appliance in order to resolve possible name duplication and name resolution issues. Changing the name of the Management Appliance takes approximately twenty minutes. During the system name change process, the Management Appliance will reboot twice. This is normal system behavior.

Do not change the name of the Management Appliance unless it is absolutely necessary. Any application other than base applications such as OSM and Element Managers must be manually uninstalled from the Management Appliance before attempting to change the system name.

## HSV Element Manager Version 1.01 Release Notes

This section provides information on document updates and clarifications on behavior of the HSV Element Manager.

### Documentation Update

The Management Appliance Update for Enterprise Only November 2001 release replaces the Management Appliance Update for Enterprise Only September 2001 release that other documentation references.

HSV Element Manager Version 1.01 replaces HSV Element Manager Version 1.0 that other documentation references.

### Clarifications for HSV Element Manager

This section provides clarification of the following items regarding the behavior of HSV Element Manager:

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- HSV Element Manager Restart, page 14
- HSV Element Manager Automatic Restart, page 14
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- Creating Large Virtual Disks, page 17
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## Minimum Disk Group Requirements

Although the HSV Element Manager will allow you to create a disk group with 4 disks, Compaq recommends that a disk group contain a minimum of eight disks.

## HSV Element Manager Restart

The HSV Element Manager application can be restarted via the Appliance Manager. Reboots of the Management Appliance may be required to clear HSV Element Manager malfunctions or when loss of communication with VCS occurs.

## HSV Element Manager Automatic Restart

The HSV Element Manager will automatically restart if internal anomalies are detected. This is expected behavior.

## SSSU Event Gathering Not Supported

The HSV Element Manager does not support event gathering functions for the Storage System Scripting Utility (SSSU).

## Browser Configuration

When accessing HSV Element Manager with Internet Explorer 5.5 or Netscape 4.77, set system colors to True Colors or 16,000,000 colors.

For HSV Element Manager to function properly, you must disable page caching. Otherwise, if page caching is enabled, you must manually reload pages when changes are made. Please note that disabling page caching will slightly degrade performance.

To disable page caching, follow these steps:

Internet Explorer:

1. Click **Tools > Internet Options** on the Internet Explorer toolbar.
2. Select **Temporary Internet Files>Settings** on the General Tab.
3. Select the **Every visit to the page** option under **Check for newer versions of stored pages**.

Netscape:

1. Click **Edit > Preferences** on the toolbar.
2. Expand the **Advanced** folder in the **Category** window and select **Cache**.
3. Select **Every Time** under **Document in cache is compared to document on network** on the **Cache** page.
4. If your browser is configured to use a proxy, configure it to bypass the proxy for the system that is running HSV Element Manager.

Do not use the browser **Back** button to return to a **Wait** page. The following message appears on the **Wait** page:

Do not use your browser's **Back** button to return to this page. The page initiates the operation that you are now waiting to finish. Using Back to return to this page will cause the action to be performed again.

## **Reboot Management Appliance to Correct HSV Element Manager Malfunction**

Reboot the Management Appliance to correct an HSV Element Manager malfunction that displays a continuous `Command in Progress` message. However, do not take this action for commands that can legitimately take a long time, for example, ungrouping a disk. Wait at least 15 minutes from the start of a `Command in Progress` message before considering a reboot.

## **Command in Progress Message**

When a `Command in Progress` message is displayed, do not attempt to perform any other action until the command is completed (normally within two minutes). Attempts to initiate other actions or restarting HSV Element Manager will cause unpredictable results.

## **Intermittent Timeout Condition During Virtual Disk Creation**

Creating virtual disks while the controller is under heavy load may result in an intermittent timeout condition. This is expected behavior. If the timeout condition occurs, repeat the Create Virtual Disk process.

## Browser Save off of Event Files

Browser save off of event files is for Field Services use only. The storage system event files require translation and a translator is not provided.

## Reboot When Relocating a Management Appliance to Another Fabric

Reboot the Management Appliance when it is relocated to another fabric. Rebooting is necessary for it to see storage controllers on the new fabric.

## Rediscovery May Cause Unexpected Results

Rediscovery automatically runs every 30 minutes. This may cause unexpected results during controller shutdown or failover. If rediscovery runs while a controller is down, the path to the controller will be lost. When a controller path is lost, one of the following messages will display:

- Nsc Manager Index Out of Range, or
- Nsc Manager Invalid Index

When these messages are displayed, navigate to the **HSV Storage System Network Properties** page by clicking on the **HSV Storage Network** icon in the **Navigation** pane. Then click on the **Rediscover** button located on the **HSV Storage System Network Properties** page. If the lost controller has been restarted, rediscovery will occur, which should reestablish the path to the previously lost controller.

## Navigation Pane Misalignment

Navigating and expanding the Navigation Tree can sometimes result in misalignments in the Navigation pane. When this occurs, collapse the view and re-expand the Navigation Tree to clear the condition.

## Restoring Communications with the EVA After a Disk Failure

Although they are rare, when disk failures occur, HSV Element Manager communications to the EVA will fail. Symptoms of failure are as follows:

- A storage system is shown with a red X, or
- When you click a storage cell, a "VIEW NOT SET" error occurs. Lower level information is not obtainable in this state.

To clear the failure condition, remove the defective disk. If the lower level information cannot be accessed, check the cabinet for a disk with a red LED.

## Creating Large Virtual Disks

When you are creating a very large virtual disk (over 100GB), Compaq recommends that you *not* choose the **Present to Host** option on the **Create a Virtual Disk Family** page. Instead, wait until after the virtual disk is created, then go to the **Virtual Disk Active Properties** page and click the **Present** button.

## HSV Element Manager Startup

Startup of HSV Element Manager under heavy loads may take a long time, especially when managing multiple systems.

## Ungrouping a Disk from a Disk Group

When ungrouping disks from a disk group, two confirmation dialog boxes are presented to the user. The first dialog box asks “Are you sure you wish to continue?”. If OK is selected, the second dialog box displays which indicates that the user will be required to wait until the migration process is finished.

OK and Cancel buttons are displayed in the second dialog box. If OK is selected, the user must wait until the ungrouped process is complete before any further HSV Element Manager operations can continue. If Cancel is selected, the process will be asynchronous and will not require waiting until the migration process is complete. This allows a user to continue and perform HSV Element Manager operations while the migration process is completed.

## Fibre Channel Switch Firmware Version

Ensure the correct firmware version is installed on the Fibre Channel switch. If Fibre Channel switch firmware version is not supported by the HSV Element Manager, failure to access EVA with the HSV Element Manager can result. Refer to the *Compaq SANworks Release Notes for Enterprise Virtual Array* for Fibre Channel switches and firmware supported.

## HSV Element Manager Configuration Rules and Limitations

This section provides rules and limitations for configuration and operation of the HSV Element Manager. The following items are addressed:

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- Management Zone Configuration, page 18
- Avoiding Slowdowns and Timeouts Caused by Multiple HSV Element Manager Users, page 19
- Install HSV Element Manager Only on Enterprise Specific Management Appliances , page 19
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### OSM Zoning Rules

OSM zoning rules are contained in the *Management Appliance Element Manager for Enterprise Only User Guide*. These rules **require** that you create a hard or soft zone (management zone). This zone must contain **only** the Management Appliance and the Enterprise Virtual Arrays which the Management Appliance will manage.

### Management Zone Configuration

Management Appliances with HSG80 storage systems cannot exist in the same management zone as Management Appliances with Enterprise Virtual Arrays.

## **Avoiding Slowdowns and Timeouts Caused by Multiple HSV Element Manager Users**

Slow response time and timeouts are expected to occur when more than one browser, more than one SSSU session, or a browser and an SSSU session are run at the same time to the same HSV Element Manager. If timeouts occur, retry the commands that time out.

To avoid problems, Compaq recommends the following:

- Only one user at a time on the HSV Element Manager.
- Only one SSSU session at a time on the HSV Element Manager.
- Do not run HSV Element Manager GUI and SSSU scripting sessions concurrently.

## **Install HSV Element Manager Only on Enterprise Specific Management Appliances**

Install HSV Element Manager only on a Management Appliance dedicated to Enterprise Virtual Arrays.

## **One HSV Element Manager Per Management Appliance**

Install only one HSV Element Manager application on a Management Appliance.

## **Only One Fibre Channel Cable Per Management Appliance**

No more than one Fibre Channel cable can be connected to a Management Appliance.

## **Number of Storage Systems Managed from HSV Element Manager**

The maximum number of Enterprise storage systems (dual controller pairs) that can be managed from an HSV Element Manager is 16. To scale a storage system containing more than 16 Enterprise controllers, use soft and hard zoning to isolate islands of no more than 16 Enterprise storage systems

## **Enterprise Storage System Must Be Visible to Only One HSV Element Manager**

An Enterprise storage system must not be visible to more than one HSV Element Manager at a time. This applies to all four ports of the dual controller pair. Each of the four ports, if visible to an HSV element manager, must be visible to the same HSV Element Manager.

## Setting Up Management Appliance Redundancy

Compaq recommends that Management Appliance redundancy be handled by following passive Management Appliance redundancy procedures:

1. Attach a Management Appliance to the fabric and zone it in.
2. Install HSV Element Manager and verify that you can see the correct storage systems.
3. Power down the Management Appliance, remove it, and replace it with a new one.
4. Repeat steps 1 and 2 for the new Management Appliance.
5. Continue to use this appliance until it fails. When the Appliance fails, disconnect it and reconnect the first appliance.

## HSV Element Manager Application Incompatibility

Do not install HSG Element Manager, Storage Allocation Reporter (SAR), or SANworks Resource Monitor on the Management Appliance that is running HSV Element Manager. These applications cannot run on the same appliance.

## Setting Enterprise Controller Time

Compaq strongly recommends that the Enterprise controller time be set the same as the Management Appliance time at storage system initialization. This results in timestamp synchronization across all event types, which enhances troubleshooting capability. Any other setting of controller time will reduce the capability to correlate system events in case of a failure.

## Maximum Configurations for Enterprise Virtual Array

The maximum number of hosts, adapters, and LUNs for an Enterprise Virtual Array are:

- Number of hosts times number of LUNs - 8192
- Hosts - 256
- Adapters - 256
- LUNs - 256

## **Compaq Proactive Remote Services Version 1.0 Release Note**

This section provides clarification on installation of Compaq Proactive Remote Services (CPRS) on the Management Appliance.

### **Web Based Enterprise Services Installation Guidelines**

If CPRS is installed on a Management Appliance dedicated to an Enterprise Virtual Array, do not install Web Based Enterprise Services (WEBES).

If the Management Appliance dedicated to a Enterprise Virtual Array is restored to the Management Appliance Update June 2001, then you must install the WEBES kit.

## **Registering Your SANworks Management Appliance**

Clarification for SANworks Management Appliance Registration

- Registering Your SANworks Management Appliance

### **Clarification**

#### **Registering Your SANworks Management Appliance**

SANworks Management Appliance documentation states “You can register your SANworks Management Appliance from the Compaq website:  
<http://www.compaq.com>.”

The complete URL for product registration is:<http://www.compaq.com/register>.