

application notes

hp OpenView storage management appliance software

using system management software

Product Version: 2.1

First Edition (October 2003)

Part Number: AA-RU6JA-TE

These Application Notes describe how to install and configure system management software with HP OpenView Storage Management Appliance software v2.1.

Additional information and documentation are available from the HP storage software website at:
<http://h18006.www1.hp.com/products/sanworks/managementappliance>.



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Storage Management Appliance Software
Using System Management Software Application Notes
First Edition (October 2003)
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About This Document

This document covers the following major topics:

- [Introduction](#), page 4
- [Common Operations for Installing System Management Software](#), page 5
- [Microsoft Operations Manager 2000](#), page 6
- [NetIQ AppManager](#), page 7
- [HP Insight Manager v7](#), page 7
- [How to Contact Us](#), page 9

Topics may contain the following sub-topics:

- Configuring the Storage Management Appliance for use
- Installing the system management agent software on the Storage Management Appliance
- Installing additional support software for the Storage Management Appliance
- Monitoring the Storage Management Appliance
- Monitoring Storage Management Appliance specific features
- Uninstalling the system management agent software

Intended Audience

This document is intended for storage and system administrators who are experienced with:

- Managing storage area networks (SANs)
- Operating a Storage Management Appliance
- Using Microsoft Operations Manager, NetIQ AppManager, or HP Insight Manager

Other Storage Management Appliance Documentation

The following list includes documentation related to the Storage Management Appliance software:

- *HP OpenView Storage Management Appliance Update Installation Card*
- *HP OpenView Storage Management Appliance Software User Guide*
- *HP OpenView Storage Management Appliance Software Release Notes*
- *HP OpenView Storage Management Appliance Software Online Help*

Additional documentation, including white papers and best-practices documents, is available from the HP website at:

<http://h18006.www1.hp.com/products/sanworks/managementappliance/documentation.html>.

Introduction

After installing the HP OpenView Storage Management Appliance software v2.1, you can optionally monitor the hardware components of the Storage Management Appliance using system management applications. This document provides instructions for installing and configuring the system management applications supported by the Storage Management Appliance software v2.1.

Monitoring a Storage Management Appliance using a supported system management application such as one listed below improves operations and maximizes availability:

- Microsoft Operation Manager 2000 Service Pack 1
- NetIQ Application Manager v5.0.1
- HP Insight Manager v7 SP2

Note: HP does not support the installation of any software, other than the qualified system management agent software described in this document or software described in any other Application Notes, on the Storage Management Appliance.

Getting Started

The application described in this document is either installed directly on the Storage Management Appliance using Microsoft Terminal Services, or by directly connecting a keyboard, video monitor, and mouse. The use of Terminal Services requires the Microsoft Terminal Services client installed on your workstation before beginning the installation. The Storage Management Appliance has Terminal Services enabled by default.

Note: See the Microsoft website at <http://www.microsoft.com/windows2000/technologies/terminal/default.asp> for more information on installing and using the Terminal Services client.

To run the application's setup program directly on the Storage Management Appliance, either insert the CD-ROM that contains the setup program into the CD-ROM drive of the Storage Management Appliance, or supply a path to the setup program. If you are using a mapped network drive, you must use the complete Uniform Naming Convention (UNC) path for the setup program, or you may experience the error noted below during the installation.

Note: If you attempt to run setup from a mapped network drive, you may receive the error `Internal Error 2755.3, path\filename.msi`. Microsoft documents this as a known bug in Knowledge Base article Q255582. See <http://support.microsoft.com/default.aspx?scid=kb;en-us;Q255582> for more details.

For further instructions on direct or remote installations, see the separate product sections elsewhere in this document. Refer to product documentation for additional guidance and restrictions.

Common Operations for Installing System Management Software

Some system management software agents may require the Storage Management Appliance be configured differently from its factory-installed state. Each system management application specifies which of the following tasks needs to be performed.

Enabling File and Printer Sharing

Occasionally, it is necessary to enable file and printer sharing for Microsoft networks on the Storage Management Appliance. The primary reason for enabling file and printer sharing is to install supported third-party antivirus or backup software applications on the SMA. You must have Administrator privileges to perform this task.

1. On the primary navigation bar, click **Settings**.
2. Click **Network**, then click **File and Printer Sharing**.

The **File and Printer Sharing** page opens.

3. Click the box to enable file and printer sharing.
4. Click **OK**.



Caution: When file and printer sharing is enabled, the SMA could be vulnerable to improper copying or deleting of files. Therefore, after enabling file and printer sharing on the Storage Management Appliance, maintain security by:

- Setting appropriate security policies on files or printers being shared
 - Turning file and printer sharing off when the supported tasks are complete
-

Windows Domain Membership

Communication between a system management software server and the agent installed on a Storage Management Appliance may require that the Storage Management Appliance be a member of a domain trusted by the domain that server is a member of.

Use this procedure to become a member of a Windows domain.

1. Connect to the Storage Management Appliance through the browser by using the following URL: <https://applianceName/>.
2. Choose **Settings** on the primary navigation bar.
3. Click **Network**, then click **Domain Membership**.
4. Click **Domain** and type the name of the domain to join.
5. Type the user name and password of a domain administrator for the domain you want to join. Be sure to include the domain name in the format `domain\username` when you enter the user name. By default, a domain user must enter `domain\username` when logging onto a Management Appliance.
6. Click **OK** if prompted to reboot the Storage Management Appliance.

The Storage Management Appliance is a member of the specified domain once the system reboots.

Microsoft Operations Manager 2000

Microsoft Operations Manager 2000 provides monitoring and inventory capabilities for servers, including the Storage Management Appliance.

HP developed extensions to Microsoft Operations Manager 2000 specific to ProLiant hardware, which is the basis of the Storage Management Appliance. Support for Microsoft Operations Manager is documented in detail in the Compaq Management Pack (CMP) for Microsoft Operations Manager (MOM) available at the following URL:

<http://h18013.www1.hp.com/products/servers/management/mom/index.html>

Microsoft Operations Manager 2000 Service Pack 1 is supported by the HP OpenView Storage Management Appliance software v2.1.

Configuring the Storage Management Appliance for Use with Microsoft Operations Manager

Before installing the Microsoft Operations Manager agent on the Storage Management Appliance, the Storage Management Appliance must be configured as a domain member and have file and printer sharing enabled.

Refer to “[Common Operations for Installing System Management Software](#)” on page 5 for instructions on performing these tasks.

Installing the Insight Management Pack for Microsoft Operations Manager

The Insight Management Pack (formerly known as Compaq Management Pack) for Microsoft Operations Manager (MOM) integrates monitoring and alert processing for Compaq ProLiant servers and Storage Management Appliances into MOM. This software is installed on the MOM server.

This integration includes an extensive collection of pre-defined rules and scripts that identify ProLiant servers and Storage Management Appliances. It also provides alert notifications to potential problems through the MOM console interface. The integration also includes pre-failure and threshold alerts for critical hardware subsystems and performance monitors to measure Insight Management Agents resource usage and availability. In addition, each hardware alert contains an embedded browser link to the Storage Management Appliance that generated the event.

The Storage Management Appliance appears in Microsoft Operations Manager as a ProLiant server running Windows NT (Windows 2000).

Follow the *Compaq Management Pack for Microsoft Operations Manager User Guide* to install the associated software on a Microsoft Operations Manager server. This document is found at <ftp://ftp.compaq.com/pub/products/servers/management/cpqmom.pdf>.

Monitoring Storage Management Appliances Using Microsoft Operations Manager

Follow the user documentation for Microsoft Operations Manager to monitor the Storage Management Appliance as a Windows 2000 system.

Monitoring Storage Management Appliance Specific Features

Follow the procedure in the *Compaq Management Pack for Microsoft Operations Manager User Guide* to monitor the Storage Management Appliance as a ProLiant system.

Uninstalling the Microsoft Operations Manager agent

Follow the procedure in the user documentation for Microsoft Operations Manager to uninstall the agent from the Storage Management Appliance.

NetIQ AppManager

NetIQ AppManager provides monitoring and inventory capabilities for servers, including the Storage Management Appliance.

NetIQ AppManager v5.0.1 is supported by the HP OpenView Storage Management Appliance software v2.1.

Configuring the Storage Management Appliance for Use with NetIQ AppManager

Before installing the NetIQ AppManager agent on the Storage Management Appliance, the Storage Management Appliance must be configured as a domain member.

Please refer to “[Common Operations for Installing System Management Software](#)” on page 5 for instructions on performing this task.

Installing the NetIQ AppManager Agent

NetIQ AppManager supports local installation of agent software. Local installation is done either by accessing Microsoft Terminal Services or directly by connecting a keyboard, video monitor, and mouse.

Follow the user documentation for NetIQ AppManager to install the agent on the Storage Management Appliance.

Monitoring Storage Management Appliances Using NetIQ AppManager

Follow the user documentation that you received for NetIQ AppManager to monitor the Storage Management Appliance as a Windows 2000 system.

Uninstalling NetIQ AppManager Agent

Follow the user documentation that you received for NetIQ AppManager to uninstall the agent from the Storage Management Appliance.

HP Insight Manager v7

HP Insight Manager v7 provides monitoring and inventory capabilities for servers, including the Storage Management Appliance. HP Insight Manager v7 SP2 or later can decode traps from HP OpenView Storage Management Appliance software v2.1.

Configuring the Storage Management Appliance for Use with HP Insight Manager

The Storage Management Appliance does not require File and Print Sharing Services to be enabled, or Windows domain membership, prior to use with HP Insight Manager v7.

For information about receiving StorageWorks HSG and HSV traps, and configuring a Storage Management Appliance when monitored by HP Insight Manager, see the technical white paper *Fault Management of StorageWorks Devices in ProLiant Server Environments* at <http://h18006.www1.hp.com/storage/softwhitepapers.html>.

Installing the SMA MIB in HP Insight Manager v7

In order for HP Insight Manager v7 to decode appliance traps and receive understandable errors in the Insight Management Pack, the SMA Management Information Base (MIB) must be loaded. Loading the SMA MIB requires that you first retrieve the MIB, then register it.

1. Retrieve the SMA MIB in one of two ways:
 - Browse to the SMA <http://appliance/osm/mibs/cpqsanevent.mib> (where *appliance* is the appliance name). Because the MIB is a text file, you may not receive a “save file as...” dialog box. Cut and paste the text that shows up in the browser and save it to a file named `CpqSanEvent.mib`.
 - Connect to the SMA directly by attaching a monitor, keyboard, and mouse; then locate the MIB at
`C:\WINNT\system32\ServerAppliance\Web\OSM\mibs\CpqSanEvent.mib`.
2. Register the SMA MIB in the Insight Manager 7. For instructions on registering the MIB, see Section 10-15 of *Insight Manager 7 Technical Reference Guide* at <ftp://ftp.compaq.com/pub/products/servers/management/cim7/CIM7TRG.pdf>.

Installing the HP Insight Manager Agent

The Storage Management Appliance contains all of the agent software necessary to be used with HP Insight Manager.

Monitoring Storage Management Appliances Using HP Insight Manager

See the technical white paper *Fault Management of StorageWorks Devices in ProLiant Server Environments* for specifics regarding the monitoring of a Storage Management Appliance using HP Insight Manager at <http://h18006.www1.hp.com/storage/softwhitepapers.html>.

Uninstalling the HP Insight Manager Agent

The agent software is integral to the Storage Management Appliance and cannot be uninstalled.

How to Contact Us

Refer to [Table 1](#) if you need assistance or information.

Table 1: Where To Get Assistance In the United States and Canada

Questions Relating To:	Website or Phone Number
Comprehensive online support	http://www.hp.com
International information	http://www.hp.com/country/us/eng/contact_us.html
List of storage products	http://www.hp.com/country/us/eng/prodserv/storage.html
Consumer Direct	1-800-888-0220
DirectPlus	1-800-888-5858 (U.S.)
Partner Direct	1-800-888-5874
Reseller locator	1-800-345-1518 (Option 3)
Canadian reseller locator and product literature	1-800-567-1616
Diskette fulfillment (backup diskettes for pre-installed software)	1-800-952-7689 (U.S.) 1-800-567-1616 (Canada)
Product information	1-800-282-6672 (U.S.) 1-800-567-1616 (Canada)
Technical support	1--800-652-6672 (U.S. and Canada)