HP StorageWorks EVA 4000 SAN Starter Kit release notes

Release notes contents

This document contains the most recent product information for the HP EVA4000 SAN Starter Kit. Much of the information included here is not documented elsewhere, so it is recommended that you read this information thoroughly before operating the HP EVA4000 SAN Starter Kit.

The information in this document was current at the time of publishing. To ensure you have the most current information, check the following web site for a newer edition:

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

Click **Storage Array Systems** under Storage, and then select **HP StorageWorks 4000/6000/8000 Enterprise Virtual Arrays** under Enterprise Virtual Array Systems.

Subscription service

HP recommends that you register your product at the Subscriber's Choice for Business website:

http://www.hp.com/go/e-updates

After registering, you will receive e-mail notification of product enhancements, new driver versions, firmware updates, and other product resources.

Description

The HP EVA4000 SAN Starter Kit provides a quick and easy method for implementing a SAN. It includes all the necessary hardware and software components to create a SAN.

Finding more information

For additional information related to the HP EVA4000 SAN Starter Kit, refer to the sources in Table 1.

Unless otherwise indicated, the documentation is accessed from the Manuals page of the HP Business Support Center website:

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

Table 1 Information sources

Topic	Information sources
EVA4000	Click **Disk Storage Systems** under Storage, and then select **HP StorageWorks 4000/6000/8000 Enterprise Virtual Arrays** under EVA Disk Arrays. • EVA documentation CD included in the XCS media kit
HP 4/8 Base SAN switch	Click **Storage Networking** under Storage, and then select **HP StorageWorks 4/8 SAN Switch Base-4/8 SAN Switch** under B-series switches.
HP FC2142SR HBAs	Click **Storage Networking** under Storage, and then select **HP StorageWorks FC2142SR and FC2242SR HBA** under Fibre Channel Host Bus Adapters.
HP Command View EVA	Click **Storage software** under Storage, and then select **HP StorageWorks Command View EVA Software** under Storage Device Management Software .
Emulex EZPilot	• Click **Disk Storage Systems** under Storage, and then select **HP StorageWorks 4000/6000/8000 Enterprise Virtual Arrays** under EVA Disk Arrays. Look for the *Emulex EZPilot User Manual*. • The *Emulex EZPilot User Manual* is also on the *Emulex Windows Installation CD* included in the HP EVA4000 SAN Starter Media kit
Emulex Linux drivers and utilities	*Emulex Linux Installation CD* included in the HP EVA4000 SAN Starter Media kit
SAN Infrastructure	The SAN Infrastructure web site includes information about HP Storage Area Networks (SANs), switches, and Host Bus Adapters (HBAs), including information on firmware and software driver versions currently available. http://www.hp.com/go/san The *HP StorageWorks SAN Design Reference Guide* provides useful information on designing and implementing your SAN.
High Availability (HA)	High availability SAN configurations include redundant hardware components to ensure uninterrupted service. The HA web site provides valuable information on this topic. http://www.hp.com/go/ha

EVA4000 management software

Two software management tools are included with the EVA4000 SAN Starter Kit:

• Emulex EZPilot
• HP StorageWorks Command View EVA

Table 2 identifies the tasks you can perform using each tool.

Emulex EZPilot

EZPilot is used during installation of the EVA4000 SAN Starter Kit to simplify SAN configuration. EZPilot can also be used to perform the basic tasks of storage provisioning, such as creating and deleting virtual disks. The *Emulex EZPilot User Manual* is included on the software CD and can also be downloaded from the web site listed in Table 1.

HP StorageWorks Command View EVA

HP Command View EVA is a powerful tool for managing all aspects of storage system operation. In addition to provisioning, Command View provides full capability for monitoring storage system operation and troubleshooting any problems that may occur.

HP Command View is installed on the management server during installation of the EVA4000 SAN Starter Kit. See Table 1 for the link to the HP Command View EVA documentation.

Table 2 Supported management tasks

Task	EZPilot	HP Command View EVA
Manage virtual disks	Yes	Yes
Manage disk groups	No	Yes
Manage host bus adapters	Yes	No
Manage Fibre Channel switch	Yes	No
View storage system status	Yes	Yes
Manage replacement of hardware	No	Yes
Access controller event logs	No	Yes
Upgrade storage system firmware	No	Yes
Shutdown/restart storage system	No	Yes
Manage data replication	No	Yes

Installation instructions

See the following documents for information on installing the EVA4000 SAN Starter Kit:

- *HP StorageWorks EVA4000 SAN Starter Kit Quick Installation*
- *Emulex EZPilot User Manual*

📝 **NOTE:**

When installing the EVA4000 SAN Starter Kit use only the EZPilot installation CD, which installs all the required components. Do not use any of the other installation CDs included with the product. Using the other installation CDs will disrupt the installation process.

Components installed

Table 3 identifies the components installed on the server for each of the EZPilot installation configurations.

Table 3 Components installed

Installation configuration	Components installed
Windows management server	• Emulex Windows Storport driver • EZPilot Manager • Sun Java JRE 1.5 • Brocade WebToolsEZ • HP Command View EVA 6.0 • HP EVA VDS provider • HP MPIO software
Windows non-management server	• Emulex Windows Storport driver (Server 2003) • HBAnyware 3.0 • HP MPIO software
Linux non-management server	• MultiPulse 2.1 - includes Emulex Linux 8.0.16.21 driver, Emulex 2.1.6 MultiPulse driver module, HBAnyware 2.1a35 (multipathing driver for Red Hat Enterprise Linux 4 and SUSE Linux Enterprise Server 9) • Emulex Linux 8.0.16.21 driver with HBAnyware 2.1a35 (standard driver for Red Hat Enterprise Linux 4 and SUSE Linux Enterprise Server 9)

Prerequisites for installing EZPilot

Before installing the EZPilot software, make sure the following conditions are met:

• You must have the switch IP address, gateway, and subnet mask to configure it during installation.
• The storage system must be uninitialized. If it has been initialized, it must be uninitialized before installing EZPilot.
• Make sure the switch configuration has not been changed from the factory default. This includes the default switch password.
• If there is any Emulex or Brocade software installed on the server, it must be removed. If MPIO is installed, it must also be removed.

System configuration recommendations

• The HP EVA4000 SAN Starter Kit provides a specific configuration for implementing a SAN using an EVA4000 storage system. This configuration was selected to provide a simple SAN solution for Windows. The EZPilot management software supports a broader range of configurations. Not all the configuration options discussed in the *Emulex EZPilot User Manual* apply to the HP EVA4000 SAN Starter Kit.

• If you require uninterrupted access to your data, add a second HP StorageWorks 4/8 Base SAN Switch to your SAN to create a high-availability configuration. This creates a dual fabric, ensuring that a switch failure, EVA controller failure, or HBA failure will not stop access to the EVA. Contact HP for information on ordering a second switch.

• Adding a second disk enclosure contributes to the creation of a high availability SAN by providing protection against disk enclosure failure. Contact HP for information on ordering additional disk enclosures.

• To protect against power loss, HP recommends that you use Uninterruptable Power Supplies (UPS) with the EVA4000. For information about UPS products offered by HP, go to the following web site:

http://h18004.www1.hp.com/products/servers/proliantstorage/power-protection/rackups/index.html

• HP Instant Support Enterprise Edition (ISEE) provides a single remote monitoring and support solution for your EVA4000. ISEE uses continuous hardware event monitoring and automated

notification to identify and prevent potential critical problems. ISEE is a no charge feature of the EVA Foundation Service Solution warranty. For more information or to download ISEE, visit the following web site:

http://www.hp.com/go/instantsupport

Server configuration

- In Windows environments, be sure to install all operating system updates and patches.
- There must be one and only one Windows management server connected to the EVA4000. Select one of the Windows servers that will access the EVA4000 to use as the management server. The management server must be running Windows Server 2003 R2. Make sure you enable the Storage Management for SANs component included in the R2 Windows feature pack. This should be done before installing EZPilot.
- In addition to the management server, three non-management servers can be connected to the EVA4000 in a single-switch configuration. In a dual-switch high-availability configuration there can be up to five non-management servers.

Compatibility/Interoperability

Supported components

Table 4 identifies the hardware and software components supported by the EVA4000 SAN Starter Kit.

Table 4 Supported components

Component	Required model/version
HBA	HP StorageWorks FC2142SR 4Gb PCI-e HBA (LPe1150)
HBA driver	• Windows: appropriate version installed automatically by EZPilot • Red Hat Enterprise Linux 4 and SUSE Linux Enterprise Server 9: 8.0.16.21 • Red Hat Enterprise Linux 4 and SUSE Linux Enterprise Server 9: MultiPulse 2.1 - which consists of 8.0.16.21 and MP module 2.1.6
HBA firmware	2.50a2
Fiber channel switch	HP StorageWorks 4/8 Base SAN Switch
EVA4000 controller firmware	XCS v6.000
Management server operating system	Windows Server 2003 R2
Non-management server operating system	• Windows Server 2003 R2 • Red Hat Enterprise Linux 4 (latest update) • SUSE Linux Enterprise Server 9 (latest service pack)
HP Command View EVA[1]	6.0
SMI-S EVA[1]	6.0
EVA VDS Provider[1]	4.01.00

[1]These components are installed automatically by EZPilot.

iSCSI support

The HP EVA4000 SAN Starter Kit is not supported with the EVA4000 iSCSI Connectivity Option at this time.

Important notes and workarounds

This section identifies important notes and workarounds specific to the EVA4000 SAN Starter Kit. Similar information for the EVA4000 is included in the *HP StorageWorks 4000/6000/8000 Enterprise Virtual Array release notes*. Refer to Table 1 for links to the EVA product documentation.

Troubleshooting

If you are having difficulty with the EZPilot installation, see the *Emulex EZPilot User Manual* for troubleshooting information. See Table 1 for the link to the EZPilot documentation.