

HP StorageWorks 3000/5000 Enterprise Virtual Array connectivity 3.1A for OpenVMS release notes

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Version: 3.110

Description

This document describes OpenVMS operating system connectivity for HP StorageWorks 3000/5000 Enterprise Virtual Array (EVA3000/5000) controller software.

A complete library of EVA3000/5000 documentation is available on the HP support website:

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

Under storage, click **Disk Storage Systems** and then select either **HP StorageWorks 3000 Enterprise Virtual Array** or **HP StorageWorks 5000 Enterprise Virtual Array** under EVA Disk Arrays.

[Update recommendation](#) Recommended

[Supersedes](#) 3.100

Product models

EVA3000/5000

Devices supported

[Table 1](#) lists the supported Fibre Channel Adapters (FCAs) and the required firmware versions.

Table 1 FCA (HBA) Support

FCA (HBA)	Driver	Adapter firmware/EFI version (recommended)	Supported servers
HP StorageWorks DS-KGPSA-CA 1Gb, 64-bit/33MHz PCI	Native	3.93a0	Alpha
HP StorageWorks FCS2354 DS-KGPSA-DA 2Gb, 64-bit/66MHz PCI	Native	3.93a0	Alpha
HP StorageWorks FCA2384 DS-KGPSA-EA 2Gb, 64-bit/133MHz PCI-X	Native	1.91x6	Alpha
HP StorageWorks FCA2684 DS-A5132-AA 2Gb, 64-bit/133MHz PCI-X	Native	1.91x6	Alpha
HP StorageWorks FCA2684DC DS-A5134-AA 2Gb, 64-bit/133MHz PCI-X Dual	Native	1.91x6	Alpha
HP StorageWorks A6826A 2Gb, 64-bit/133MHz PCI-X Dual	Native	Loaded from driver/1.47	Integrity
HP StorageWorks A9782A 64bit/133MHz PCI-X, 2Gb Fibre Channel/1000Base SX	Native	Loaded from driver/1.47	Integrity
HP StorageWorks A9784A 64bit/133Mhz PCI-X, 2Gb Fibre Channel/1000Base T	Native	Loaded from driver/1.47	Integrity
HP StorageWorks AB465A 2Gb, 64-bit/133MHz PCI-X 2port Fibre Channel and 2port 1000Base-T	Native	Loaded from driver/1.47	Integrity
HP StorageWorks AB378A 4Gb, 64-bit/166MHz PCI-X 2.0 Single Channel	Native	Loaded from driver/1.05	Integrity
HP StorageWorks AB379A 4Gb, 64-bit/166MHz PCI-X 2.0 Dual Channel	Native	Loaded from driver/1.05	Integrity
HP StorageWorks AB378B 4Gb, 64-bit/133MHz PCI-X 2.0 Single Channel	Native	Loaded from driver/1.05	Integrity
HP StorageWorks AB379B 4Gb, 64-bit/133MHz PCI-X 2.0 Dual Channel	Native	Loaded from driver/1.05	Integrity
HP StorageWorks AD300A 4Gb PCI-Express Dual Channel	Native	Loaded from driver/1.05	Integrity

Operating systems

Table 2 Operating system specifications

OpenVMS version	Fibre SCSI ECO kit
OpenVMS 7.3-2 Alpha	VMS732_FIBRE_SCSI-V1000
OpenVMS 8.2 Alpha	VMS82A_FIBRE_SCSI-V0300
OpenVMS 8.2 IA64	VMS82I_FIBRE_SCSI-V0200
OpenVMS 8.2-1 IA64	VMS821I_FIBRE_SCSI-V0300
OpenVMS 8.3 Alpha	N/A
OpenVMS 8.3 IA64	VMS83I_FIBRE_SCSI-V0300

You can find the current Fibre SCSI ECO kit for your version of OpenVMS at the HP IT Resource Center website: <http://www.itrc.hp.com>.

Enhancements

This release contains the following enhancements:

- Support for EVA3000/5000 controller software 3.110
- The same host bus adapter (HBA) can attach to any combination of the following storage systems:
 - EVA4000/6000/8000
 - EVA3000/5000
 - XP series
 - MSA series
 - HSG80

Prerequisites

Multiple-path support

Multiple-path capability is integrated into the OpenVMS operating system. No additional software is required to achieve high-availability, multipath capability.

Single-path support

OpenVMS servers require a single Fibre Channel Adapter (FCA) to support single-path mode.



NOTE:

Do not use single-path mode in mission-critical environments.

Compatibility/Interoperability

Switch support

This release supports the Fibre Channel switches and firmware versions listed in the *HP StorageWorks SAN design reference guide*, which can be downloaded from the HP support website:

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

Under storage, click **Storage Networking**, and then select **HP StorageWorks SAN** under HP StorageWorks SAN Solutions.



NOTE:

HP recommends that you do not mix switch firmware versions in your SAN. It is considered a best practice to uniformly upgrade all switches in the SAN.

Alpha servers support

Table 3 lists the EVA-compatible Alpha servers.

Table 3 EVA-compatible Alpha servers

Alpha Server	DS-KGPSA-CA support	DS-KGPSA-DA support	DS-KGPSA-EA support	DS-A5132-AA support	DS-A5134-AA support
AS800	Yes	No	No	No	No
AS1200	Yes	No	No	No	No
AS4000	Yes	No	No	No	No
AS4100	Yes	No	No	No	No
AS8200	Yes	No	No	No	No
AS8400	Yes	No	No	No	No
DS10	Yes	Yes	Yes	No	No
DS10L	Yes	Yes	Yes	No	No
DS15	No	Yes	Yes	Yes	Yes
DS20	Yes	Yes	Yes	No	No
DS20E	Yes	Yes	Yes	Yes	No
DS25	Yes	Yes	Yes	Yes	Yes
ES40	Yes	Yes	Yes	Yes	No
ES45	Yes	Yes	Yes	Yes	Yes
ES47	No	Yes	Yes	Yes	Yes
ES80	No	Yes	Yes	Yes	Yes
GS60	Yes	No	No	No	No
GS60E	Yes	No	No	No	No
GS80	Yes	Yes	Yes	Yes	No
GS140	Yes	No	No	No	No
GS160	Yes	Yes	Yes	Yes	No
GS320	Yes	Yes	Yes	Yes	No
GS1280	No	Yes	Yes	Yes	Yes

Integrity servers support

Table 4 lists the Integrity servers that are compatible with EVA3000/5000 and the supported FCAs.

Table 4 EVA compatible Integrity servers

In- tegrity server	A6826A	A9782A	A9784A	AB465A	AB378A	AB379A	AB378B	AB379B	AD300A
rx1600	Yes	Yes	Yes	Yes	No	No	No	No	No
rx1620	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No
rx2600	Yes	Yes	Yes	Yes	No	No	No	No	No
rx2620	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No
rx2660	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
rx3600	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
rx4640	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No
rx6600	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
rx7620	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
rx7640	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
rx8620	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
rx8640	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Super- dome/ sx1000	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Super- dome/ sx2000	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No

HP StorageWorks Storage System Scripting Utility

The latest version of the HP Storage System Scripting Utility (SSSU) is available on the software downloads website:

<http://www.hp.com/support/downloads>

Under storage, click **Storage software**, and then select **HP StorageWorks Command View EVA Software** under Storage Device Management Software. Select the version of the HP StorageWorks Command View EVA Media Kit you want to download.

Important notes

EVA best practices

Although the EVA3000/5000 is designed to work in a wide range of configurations, some of the configuration options can influence performance, usable capacity, or availability. If you have the necessary information, you can manage the configuration to optimize its attributes for a specific application. These configuration choices include:

- Number of disk groups
- Type of disk group
- Type and number of disks in a disk group
- Vraid levels (0, 1, and 5)
- Disk failure protection level (none, single, and double)
- Cache settings

For more information on any of the configuration choices, see the *HP StorageWorks Enterprise Virtual Array configuration best practices white paper* at:

http://h71028.www7.hp.com/ERC/downloads/5982-9140EN.pdf?jumpid=reg_R1002_USEN