

HP P6000 Enterprise Virtual Array Disk Drive Firmware Support

Abstract

This document describes disk drive firmware support for all P6000 EVA models (EVA3000/5000, EVA4000/6000/8000, EVA4100/6100/8100, EVA4400, EVA6400/8400, and P6300/P6500).



Description

This document lists the supported Fibre Channel, near-online FATA (Fibre Channel Advanced Technology Attachment), SSD (solid state disk), and SAS (serial-attached SCSI) disk drive models and firmware versions for all currently active VCS and XCS controller software versions. HP recommends that you always maintain your array at active controller software versions.

P6000, used throughout this document, is the new branding for the Enterprise Virtual Array product family.

NOTE:

- The information in this document is current as of the publication date.
- To maintain your storage system at the most current configuration, HP recommends that all disk drives use the recommended version of firmware.

For disk drive guidelines and best practices, see the Enterprise Virtual Array configuration best practices white paper for the appropriate array model. The white papers are available at the following website:

http://h18006.www1.hp.com/storage/arraywhitepapers.html?jumpid=reg_R1002_USEN

Product models

HP EVA3000/5000 Enterprise Virtual Arrays

HP EVA4000/6000/8000 Enterprise Virtual Arrays

HP EVA4100/6100/8100 Enterprise Virtual Arrays

HP EVA4400 Enterprise Virtual Array

HP EVA6400/8400 Enterprise Virtual Arrays

HP P6300/P6500 Enterprise Virtual Arrays

Devices supported

Fibre Channel disk drives

Table 1 10K RPM Fibre Channel drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
36 GB, 10K RPM	BD03654499	3BE9	3BE9	3.110, ¹ 4.100, ¹ 6.2x0
	BD03655B28	HP05	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BD03656ABA	HP09	HPOA	3.110, ¹ 4.100, ¹ 6.2x0
	BD03659532	HP02	HP05	3.110, ¹ 4.100, ¹ 6.2x0
72 GB, 10K RPM	BD07254498	3BE9	3BE9	3.110, ¹ 4.100, ¹ 6.2x0
	BD07255B29	HP05	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BD07256ABB	HP09	HPOA	3.110, ¹ 4.100, ¹ 6.2x0
	BD07258224	HP01	HP04	3.110, ¹ 4.100, ¹ 6.2x0
	BD0725822B	HP01	HP05	3.110, ¹ 4.100, ¹ 6.2x0
146 GB, 10K RPM	BD14656ABC	HP09 ²	HPOA	3.110, ¹ 4.100, ¹ 6.2x0
	BD14658225	HP01	HP04	3.110, ¹ 4.100, ¹ 6.2x0

Table 1 10K RPM Fibre Channel drives *(continued)*

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
	BD14655B2A	HP05	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BD1465822C	HP01	HP05	3.110, ¹ 4.100, ¹ 6.2x0
	BD1465B778	HP01	HP01	3.110, ¹ 4.100, ¹ 6.2x0
300 GB, 10K RPM	BD300DAJZF	HP00	HP01	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
	BD30058226	HP00	HP04	3.110, ¹ 4.100, ¹ 6.2x0
	BD30058232	HP00	HP05	3.110, ¹ 4.100, ¹ 6.2x0
	BD3005B779	HP01	HP01	3.110, ¹ 4.100, ¹ 6.2x0
	BD300DADFP	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0
400 GB, 10K RPM	BD400DADFG	HP01	HP03	0952x000, 0953x000, 10xxxxxx
450 GB, 10K RPM	BD450DAJZH	HP00	HP01	6.2x0, 0952x000, 0953x000, 10xxxxxx
600 GB, 10K RPM	BD600DAJZK	HP00	HP01	6.2x0, 0952x000, 0953x000, 10xxxxxx

¹ VCS 3.110 and 4.100 are inactive software versions but remain the latest and only recommended versions for use with EVA3000/5000 arrays.

² On VCS 3.110, the minimum supported version is HPOA.

Table 2 15K RPM Fibre Channel drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
36 GB, 15K RPM	BF03653005	HP01	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF03654564	3BE9	3BE9	3.110, ¹ 4.100, ¹ 6.2x0
	BF03655B2B	HP05	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BF03658242	HP00 ²	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF036D8617	HP04	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BF036DAJZL	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0
72 GB, 15K RPM	BF07255B2C	HP05	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BF0725754B	HP05	HP06	3.110, ¹ 4.100, ¹ 6.2x0
	BF07258243	HP00	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF07258222	HP04	HP06	3.110, ¹ 4.100, ¹ 6.2x0
	BF0725A692	HP01	HP04	3.110, ¹ 4.100, ¹ 6.2x0
	BF0725A476	HP00	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF072D6186	HP04	HP07	3.110, ¹ 4.100, ¹ 6.2x0
	BF072DAJZN	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0
146 GB, 15K RPM	BF14658244	HP00	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF14658227	HP04	HP06	3.110, ¹ 4.100, ¹ 6.2x0

Table 2 15K RPM Fibre Channel drives (continued)

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
	BF1465A693	HP01	HP04	3.110, ¹ 4.100, ¹ 6.2x0
	BF1465A477	HP00	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF146DA47A	HP00	HP02	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF146DA47C	HP04	HP07	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF146DAJZP	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
300 GB, 15K RPM	BF300DASTH	HP00	HP01	3.100, ¹ 4.100, ¹ 6.2x0, 0953x000, 10xxxxxx
	BF3005A478	HP00	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	BF300DA47B	HP00	HP02	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF300DA482	HP04	HP07	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF300D6188	HP02	HP02	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF300DAJZQ	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0, 0952x000, 0953x000, 10xxxxxx
450 GB, 15K RPM	BF450DASTK	HP00	HP01	6.2x0, 0953x000, 10xxxxxx
	BF450DA483	HP04	HP07	6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF450D6189	HP02	HP02	6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF450DAJZR	HP02	HP03	6.2x0, 0952x000, 0953x000, 10xxxxxx
600 GB, 15K RPM	BF600DASTL	HP00	HP01	6.2x0, 0952x000, 0953x000, 10xxxxxx
	BF600DAJZT	HP02	HP03	6.2x0, 0952x000, 0953x000, 10xxxxxx

¹ VCS 3.110 and 4.100 are inactive software versions but remain the latest and only recommended versions for use with EVA3000/5000 arrays.

² On VCS 3.110, the minimum supported version is HP01.

Table 3 Near-online (FATA) disk drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
250 GB, 10K RPM	ND2505823A	HP00	HP04	3.110, ¹ 4.100, ¹ 6.2x0
	ND25058238	HP00	HP05	3.110, ¹ 4.100, ¹ 6.2x0
	ND2505AGXU	HP00	HP00	3.110, ¹ 4.100, ¹ 6.2x0
400 GB, 7.2K RPM	NB40059392	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0
500 GB, 7.2K RPM	NB50058855	HP02	HP03	3.110, ¹ 4.100, ¹ 6.2x0
	NB500DA48A	HPO3 ²	HP07	3.110, ¹ 4.100, ¹ 6.2x0
1 TB, 7.2K RPM	NB1000D4450	HPO3 ²	HP07	6.2x0, 0952x000, 0953x000, 10xxxxxx
	NB1000DCLAL	HP00	HP00	6.2x0, 0952x000, 0953x000, 10xxxxxx
	NB1000DBZPL	HPO3 ²	HP07	6.2x0, 0952x000, 0953x000, 10xxxxxx
2 TB, 7.2K RPM ³	NB2000DAMYV	HP02	HP02	10xxxxxx
	NB2000DBZPN	HP00	HP00	10xxxxxx

¹ VCS 3.110 and 4.100 are inactive software versions but remain the latest and only recommended versions for use with EVA3000/5000 arrays.

² HP strongly recommends that you use the recommended version of HP07. If you add a disk drive that is running firmware version HPO3 to an array, ensure that you first power off the array.

³ For EVA4400 and EVA6400/8400 models only. The capacity limit per disk group is 400 TB. This capacity limit is any combination of drives in a disk group that results in a total physical capacity of up to 400 TB, for example, 200 2 TB drives or 400 1 TB drives. See the QuickSpecs on these array models for their maximum addressability limits and maximum array sizes. This drive is ONLY supported at XCS 10xxxxxx and later versions.

Fibre Channel SSD drives

NOTE: Fibre Channel SSD drives are not supported on the P6300/P6500 Enterprise Virtual Array.

Table 4 0 RPM Fibre Channel SSD drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
72 GB, 0 RPM	JL0072DAKXK	HP01	HP02	0952x000, 0953x000, 10xxxxxx
200 GB, 0 RPM	JL0200DBCQQ	HP02	HP02	09534000, 10xxxxxx
400 GB, 0 RPM	JL0400DBCQR	HP02	HP02	09534000, 10xxxxxx

SAS disk drives

NOTE: SAS disk drives are supported only on the P6300/P6500 Enterprise Virtual Array.

Table 5 10K Small Form Factor SAS drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
300 GB, 10K RPM	EG0300FBDBR	HPD5	HPD6	10xxxxxx
	EG0300FBLSF	HPD5	HPD5	10xxxxxx
450 GB, 10K RPM	EG0450FBDBT	HPD5	HPD6	10xxxxxx
	EG0450FBLSF	HPD5	HPD5	10xxxxxx
600 GB, 10K RPM	EG0600FBDBU	HPD5	HPD6	10xxxxxx
	EG0600FBLSH	HPD5	HPD5	10xxxxxx

Table 6 15K Small Form Factor SAS drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
146 GB, 15K RPM	EH0146FAWJB	HPDF	HPDG	10xxxxxx
	EH0146FBQDC	HPD1	HPD1	10xxxxxx

Table 7 15K Large Form Factor SAS drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
300 GB, 15K RPM	EF0300FARMU	HPD3	HPD5	10xxxxxx
	EF0300FATFD	HPD7	HPD7	10xxxxxx
450 GB, 15K RPM	EF0450FARMV	HPD3	HPD5	10xxxxxx
	EF0450FATFE	HPD7	HPD7	10xxxxxx
600 GB, 15K RPM	EF0600FARNA	HPD3	HPD5	10xxxxxx
	EF0600FATFF	HPD7	HPD7	10xxxxxx

Table 8 7.2K Small Form Factor Midline SAS drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
500 GB, 7.2K RPM	MM0500FAMYT	HPD4	HPD5	10xxxxxx
	MM0500FBFVQ	HPD4	HPD4	10xxxxxx

Table 9 7.2K Large Form Factor Midline SAS drives

Type	HP model displayed in HP P6000 Command View	Minimum supported firmware version	Recommended firmware version	Supported controller software version
2 TB, 7.2K RPM	MB2000FAMYV	HPD3	HPD5	10xxxxxx
	MB2000FBZPN	HPD1	HPD1	10xxxxxx

Downloading disk drive firmware

You can download the disk drive firmware bundled image and installation instructions from:

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

1. Choose **Drivers and Software**.
2. Enter your product name in the product box, for example, **EVA P6500**.
3. Click **Search**.
4. Choose your array, for example, **HP P6500 EVA Dual Controller Fibre Channel Array**.

NOTE: For the EVA 4400, in the left panel, click **Download Drivers and Software** and select **HP 4400 Dual Controller Enterprise Virtual Array**.

5. Click **Cross operating system (BIOS, Firmware, Diagnostics, etc.)**.
6. Click the link to the firmware bundled image. For example, click **EVA SAS Disk Firmware for HP P6300/P6500** or, for the EVA 4400, click **HP StorageWorks EVA Hard Disk Drive Bundle** and do one of the following:
 - To download the bundled image, click **Download**.
 - To view documentation, under Description, click the image name **HP P6000 EVA SAS Storage Drive Firmware Bundle**.
Click the **Installation Instructions** tab.