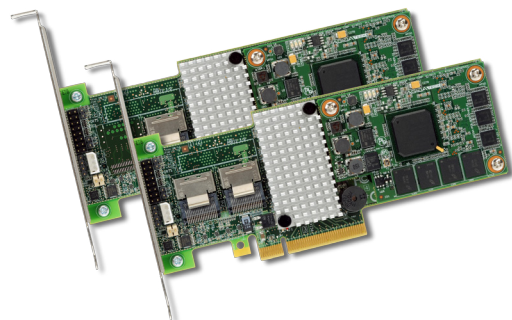




MegaRAID SAS 9260CV-4i
MegaRAID SAS 9260CV-8i

Frequently Asked Questions



LSI MegaRAID SAS 9260CV-4i
LSI MegaRAID SAS 9260CV-8i

MegaRAID® SAS 9260CV-4i MegaRAID SAS 9260CV-8i

What is CacheVault™ Flash Cache Protection?

LSI MegaRAID CacheVault flash cache protection uses NAND flash memory powered by a supercapacitor to protect data stored in the MegaRAID controller cache. This module eliminates the need for a lithium ion battery traditionally used to protect DRAM cache memory on PCI RAID controllers.

How does CacheVault technology work?

In write-back mode, data written to cache is vulnerable until it is made permanent on disk. To avoid the possibility of data loss or corruption during a power or server failure, CacheVault technology transfers the contents of the DRAM cache to NAND flash using power from the CacheVault power module (CVPM). Once the power is restored to the MegaRAID controller, CacheVault technology transfers the contents of the NAND flash back to the DRAM, which will eventually be flushed to disk.

Why do I need to protect my RAID controller cache?

RAID caching is a cost-effective way to improve I/O performance by writing data to a controller's cache before it is written to disk. During normal write-back operation, data is written to cache (DRAM), the I/O is acknowledged as "complete" to the server that issued the write and later the cached write is flushed to disk. However, in the event that there is a power or server failure, the writes in cache may be lost. And since the controller has already acknowledged the I/Os as complete, the application is unaware of the data loss. To prevent this loss, LSI offers multiple cache protection options, including CacheVault cache protection module and battery backup units (BBUs).

How is the CacheVault solution an improvement over traditional Lithium Ion Battery Backup Units?

Battery backup units have traditionally been used to protect cached data in the event of a power or server failure. However, they require close battery health monitoring, yearly maintenance and replacement and only protect data for up to 72 hours after a failure. LSI 6Gb/s MegaRAID SATA+SAS controller cards together with CacheVault flash cache protection module, virtually eliminate the hardware maintenance associated with Lithium Ion batteries and lower the total cost of ownership over the life of the controller card. Also, unlike batteries, the supercapacitors used on CacheVault flash cache modules have a very long life cycle and do not require special recycling or disposal considerations. CacheVault technology provides all the benefits of battery-backed write cache without the many drawbacks or lithium-ion batteries.

How is the 9260CV series different than the existing 9260 product line?

The 9260CV series is built on the same industry-leading 6Gb/s MegaRAID SAS technology as the 9260 series, but designed specifically to accommodate the CacheVault flash and power modules. To take advantage of CacheVault functionality, you need to purchase the 9260CV series which ships with the MegaRAID controller card and CacheVault solution (flash module + power module + remote cable) in the box.

What RAID controller configurations are offered with CacheVault technology?

The newest 6Gb/s MegaRAID® SAS controller cards from LSI, employing CacheVault™ cache protection technology, are the four-port internal MegaRAID SAS 9260CV-4i and eight-port internal MegaRAID SAS 9260CV-8i.

What is included in the MegaRAID SAS 9260CV-4i and 9260CV-8i kit and single boxes?

Included in the box are the LSI MegaRAID controller card with full size vented bracket installed, CacheVault Flash Module (CVFM01), CacheVault Power Module (CVPM01), Remote Cable to connect the CVPM01 to the MegaRAID controller, a low-profile vented bracket, and a quick install guide. The kits also include one or two (based on port count) 1-meter Mini-SAS SFF-8087 to x4 SATA cables

How does the CacheVault Power Module (CVPM) connect to the MegaRAID controllers?

The CVPM connects remotely to the MegaRAID controller card via a remote cable that is included in the 9260CV-4i/8i kit and single-pack boxes.

What is the warranty period for the CacheVault flash cache protection module?

LSI provides a 3 year warranty on CacheVault flash cache protection modules to match that of the LSI RAID controller cards.

For more information and sales office locations, please visit the LSI web sites at:

lsi.com lsi.com/channel

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