CacheAssure™ Technology

NV Cache Data Protection Module

The Problem

A system power failure has just occurred and the cached data in the RAID adapter's memory is in danger of being permanently lost. Traditionally, a battery backup unit installed on the adapter provided a means of recovering cached data for up to 72 hours. But, is that the best possible solution? While it's true that the on-board memory is maintained until the power is restored, the battery backup unit is not the *ideal* solution to this problem.

Using battery backup, while oftentimes effective, also has limitations. Batteries are relatively expensive and inconvenient (they must be purchased more frequently and separately from the RAID adapter), they increase costs (inventory, monitoring and replacement), and there is a considerable restriction on how long the cached data is protected. These risks and limitations are enough of a reason to consider alternatives to traditional battery backup processes.
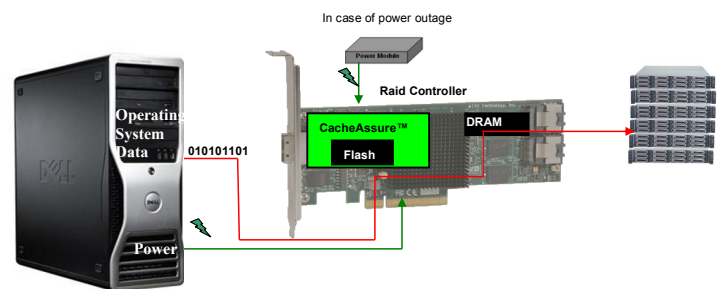
The Solution

CacheAssure™ Technology is a maintenance-free, NV cache data protection module that safeguards against the loss of cached data during a power or system failure. Available on ATTO's ExpressSAS 6Gb/s RAID adapters and FastStream™ RAID Storage Controllers, CacheAssure is a more reliable data-recovery alternative to battery backup units. CacheAssure is NOT a battery, it is based on capacitor technology that does not require lengthy charge times to start protecting cached data.

In the event of a power or system failure, CacheAssure instantly detects the failure and preserves the cached data in nonvolatile memory on the RAID adapter or storage controller, allowing users to maintain their data until power is restored. CacheAssure provides quick and easy access to cached data upon system re-boot by keeping the data in nonvolatile memory until all the drives are ready to accept the transfer and data is verified. Competitive solutions immediately flush the cached data upon system re-boot, risking data loss in the event the drives are offline and not available.

ATTO's ExpressSAS 6Gb/s SAS/SATA RAID adapters and FastStream RAID Storage Controllers provide high-performance connectivity for bandwidth-intensive data transfers. CacheAssure Technology is specifically designed for environments that demand the highest levels of consistent I/O performance with the assurance that their critical data won't be lost during a power or system failure. These environments include financial, healthcare, educational, scientific, and other similar institutions.

ATTO's RAID products with CacheAssure Technology deliver a long-lasting and reliable cached data protection solution for today's data center.

ATTO's CacheAssure Technology

CacheAssure keeps date secure in nonvolatile memory

The Benefits

Lifetime Backup - CacheAssure protects cached data for up to 10 years, offering a more substantial return on investment. Typical battery backup units last approximately 1 or 2 years and only provide upwards of 72 hours of data protection.

Immediate RAID Protection - Maintain productivity levels with immediate response times when there is a power system failure (batteries require up to 8 hours of charging time). This provides ease-of-mind over long holiday weekends or extended periods of facility closure.

Zero Maintenance - Monitoring the charge levels of batteries is an ineffective use of resources and the replacement of batteries, which age and wear out more rapidly, often requires system downtime. CacheAssure eliminates these concerns.

Environmentally-Friendly - CacheAssure is a battery-less technology that is not required to adhere to strict disposal and shipping regulations. This reduces the costs and the negative environmental effects associated with battery use and disposal.