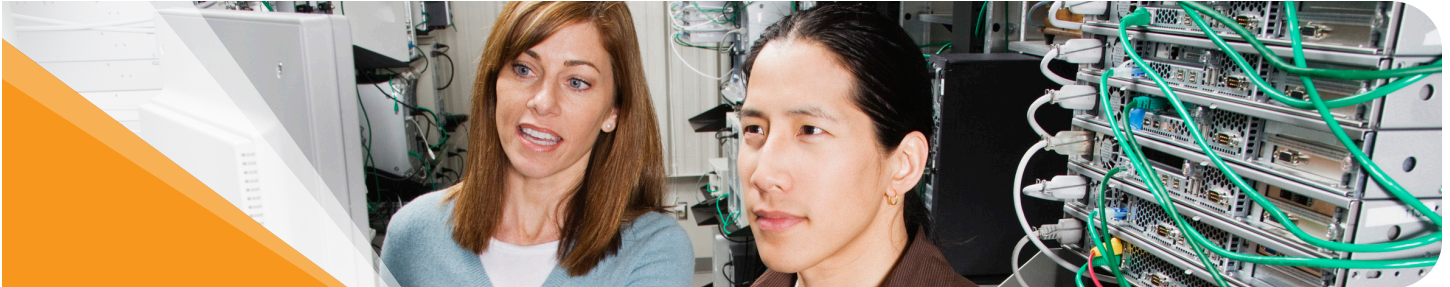


StorSave™ with BBU



RELIABILITY FEATURES

- **Battery Backup Unit (BBU)**
Maximum reliability with cached write data protection
- **Secondary Power Loss Support**
Safeguards data against powerinterruptions during system resumption
- **Missing Array Detection**
Eliminates silent data loss by retaining unwritten data until user intervention
- **Write Journaling**
Uses and protects drive write cache for unmatched data protection and maximum performance
- **Dynamic Sector Repair**
Increased drive reliability with on-the-fly correction of drive media errors
- **Drive Power-On Reset Detection**
Enhances data protection by degrading a drive that may have lost data during transient power reset
- **Extensive Drive Timeout Recovery**
Maximizes drive error recovery with intelligent timeout algorithm
- **Out of Band Signaling Retry**
Ensures drive health during power-up with enhanced drive detection

LSI 3ware’s revolutionary combination of powerful reliability enhancements and a BBU maximizes data protection without sacrificing performance

System Reliability

The StorSave platform enhances controller performance and increases SATA storage system reliability by offering a unique set of data protection and data recovery features, combined with a BBU.

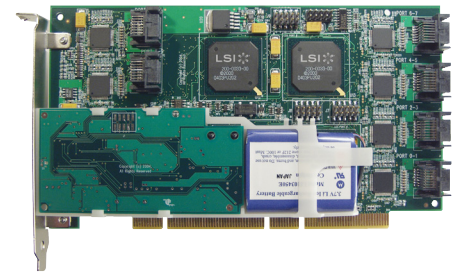
3ware uses both controller cache and disk cache during SATA RAID operations, which strengthens array performance during optimal usage as well as degraded RAID operations including faster rebuild times.

Disk Based Features

Dynamic sector repair increases drive reliability with on-the-fly correction of drive media errors in redundant arrays. Drives are never degraded because of soft media errors.

Drive power-on reset detection reliably detects unplanned drive power cycles through ATA security commands and automatically degrades a drive that may have potentially lost data.

Extensive drive timeout recovery is an intelligent timeout algorithm that maximizes drive error recovery within server operating system constraints thereby reducing transient errors in drives and the controller. StorSave



enhances the reliability of drive detection during controller boot up with out-of-band (OOB) signaling retry, a low-level controller/drive handshake.

BBU for Data Protection

The StorSave Platform supplies on-board memory protection and sends power to the cache memory module in the event of a system power loss. It enables the use of controller and drive write caching for best performance while preventing data loss during critical events.

Secondary power loss support safeguards data against on-site power interrupts and during routine system power up. Missing array detection eliminates silent data loss by retaining unwritten data from an unusable array until the user intervenes. Cached write data is not

discarded if, for some reason, a drive is inoperable when power is restored.

The battery preserves data in the controller cache memory for up to 72 hours, when fully charged. Cached data is seamlessly written to the disk array when power is restored for uninterrupted data reliability.

Write Journaling with BBU

StorSave's innovative write journaling algorithm tracks the writing of data to disk in order to achieve unmatched data protection while maximizing performance in critical RAID modes when data availability, accessibility, and data protection are most needed.

The firmware routinely determines if in-process disk writes have been committed to disk media. Following a power failure, all pending writes sitting in controller cache are replayed after power is restored.

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

lsi.com lsichannelgateway.com 3ware.com

LSI, the LSI logo design, and StorSave are trademarks or registered trademarks of LSI Corporation. All other brand and product names may be trademarks of their respective companies.

LSI Corporation reserves the right to make changes to any products and services herein at any time without notice. LSI does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by LSI; nor does the purchase, lease, or use of a product or service from LSI convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual property rights of LSI or of third parties.

Copyright ©2009 by LSI Corporation. All rights reserved. 0709

