



Making Server Redundancy Affordable for Remote and Branch Offices

LSI Syncro™ CS High-availability Solution Built on MegaRAID® Technology to Deliver Affordable Localization of Mission-critical Applications

Executive Summary

Whether you deliver IT services for a retail, insurance or financial services organization with multiple remote offices and/or branch offices (ROBO), the need to establish high availability (HA) for your data-intensive applications is critical to maintaining revenue streams, ensuring uninterrupted productivity and preserving ongoing customer satisfaction. Until now, however, setting up locally redundant servers with full data protection has been too expensive, complex and impractical for many organizations.

LSI Syncro CS solutions change this dynamic by enabling ROBO environments to have a fully redundant server/storage configuration without requiring costly or complicated failover provisions and storage area networks (SAN). In addition, ROBO sites can house their data locally without having to rely on centralized storage accessed via WAN connections that can increase response times and be cut off by network outages. With Syncro CS solutions, ROBO sites can quickly, more easily and cost-effectively support redundant servers running external “JBOD” storage or create a server “cluster-in-a-box” (CiB) with internal storage protected by a stout RAID controller to deliver a robust server failover solution at a fraction of the cost of SANs.

With Syncro CS solutions, ROBO sites can enjoy HA direct attached storage (DAS) protection for critical data and applications, such as transaction processing, inventory management, claims processing and more - all without the need for onsite technical expertise at the remote or branch offices. Syncro solutions are designed to ensure that if there's a server failure, availability is maintained via automatic and seamless failover to the backup server.

ROBO sites deploying Syncro solutions can cost effectively get the best of both worlds: business continuity with robust data protection.

Syncro CS Solution

The Syncro CS solution utilizes Microsoft's experience in managing clustered server environments via the Windows operating system with LSI expertise delivering highly scalable and sharable storage and RAID interconnect technology.

Providing fully redundant application and shared storage failover for two-node server CiB systems or two rack-mounted servers running external JBOD storage, the Syncro CS solution features a number of HA, RAID data protection and SSD optimization features:

- Dual active HA with shared storage across two server nodes
- Server storage cluster HA topology support
- RAID levels 0, 1, 5 and 6
- RAID spans 10, 50 and 60
- Auto resume after loss of system power during array rebuild
- Single controller multipathing and load balancing
- MegaRAID CacheCade® software uses SSDs in front of HDD volumes designed to create high-capacity, high-performance controller read cache pools
- Write back HA cache mirroring
- MegaRAID Fast Path software designed to provide high-performance I/O acceleration for SSD arrays connected to 6Gb/s MegaRAID SAS controllers

Summary

Syncro CS solutions provide ROBO sites with a highly affordable, HA solution that makes server redundancy easier to deploy and operate. Organizations can now utilize the resiliency and shared storage capabilities of SANs for the cost of DAS. In addition, Syncro CS solutions can help increase application uptime and reduce latency in distributed compute environments. Moreover, this high-availability solution greatly reduces the need for additional IT expertise while delivering robust server redundancy and data protection for a small premium over the cost of traditional ROBO configurations.

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Key Benefits

- HA for servers at a fraction of the cost and complexity of some existing HA solutions
- SAN-like shared storage and failover capabilities at DAS price points
- Combines server redundancy with RAID data protection to run mission-critical applications locally
- Reduced complexity without the need for additional IT expertise