

## **Syne-iSCSI™-IPSAN Series RAID Subsystems**

### **Syne-iSCSI-2U8SA-2E Dual 1GbE Ports IPSAN RAID Subsystem Storage**



### **Hybrid Technology Provides Fast, Reliable and Affordable Solutions**

Synetic Inc. Canada, a leading manufacturer and distributor of data storage technology, is expanding the award-winning SyneRAID™ family of storage systems into the *SAN (Storage Area Network)* markets with the introduction of their new dual 1GbE Syne-iSCSI™-2U8SA-2E product line.

Syne-iSCSI™-2U8SA-2E fully embedded iSCSI RAID storage solutions demonstrates Synetic strong commitment to support the data storage strategy in the mid-size and enterprise IT.

Syne-iSCSI™-2U8SA-2E is one of the most cost-effective disk array controller with completely integrated high-performance and data-protection capabilities which meet or exceed the highest industry standards, and the best data solution for small/medium businesses.

Syne-iSCSI™-2U8SA-2E intelligent iSCSI storage RAID subsystem is the more affordable alternative to Fibre Channel SAN Implementation and provides much faster performance than found in the existing *NAS (Network Attached Storage)* products.

### **Compliance... Disaster Recovery... Mission-Critical... Data Protection...**

Unique to Synetic – all this technology is available in a single rackmount enclosure. The Syne-iSCSI™-2U8SA-2E is a storage area network-in-a-box. A combination server/storage subsystem, the Syne-iSCSI™-2U8SA-2E manages your data and sends it over IP networks, such as an intranet or the Internet. Because it sends information packets at the block level and not the file level, you can use it regardless of the operating systems used by client workstations.

#### **Local or Remote Backup – using IP**

Using hardware-iSCSI technology from Synetic, you can:

- Store and retrieve data over a wide area – even worldwide over IP
- Make the most of your current storage resources, regardless of OS type
- Implement application fail-over and disaster-recovery procedures with no down-time

## ***Syne-iSCSI™-IP SAN Series RAID Subsystems***

Synetic Syne-iSCSI™-IP SAN units are available in 2U Rack 8/12 drives, 3U Rack 16 drives and 4U that can hold up to 24 disks with expansion to additional 80 external drives. With the latest RAID technology, one unit can contain up to 122 terabytes (TB) of data storage, easily managed with a web-based user interface.

### **Enterprise Performance**

Syne-iSCSI™-2U8SA-2E series utilize new, faster SATA-II 3.0Gbp/s disks and is powered by the latest Intel IOPS80341 Micro Processor to deliver up to 220MB/s over dual Gigabit Ethernet network, enough bandwidth to exceed the demanding requirements of many network based applications. With Syne-iSCSI™ IP SAN, Synetic has created a product that supports multiple hosts and runs on multi-platform Windows, Linux, Novell and Mac OS platforms while offering easy configuration and integration into virtually any hardware or software environment.

### **Synetic's Original RAID6 Supports**

With the new Syne-iSCSI™-IP SAN, Synetic has incorporated the latest RAID6 technology and some enterprise features such as Snapshot providing Point-in-Time Recovery. This feature would safeguard accidental deletion and makes the new Syne-iSCSI™-2U8SA-2E an ideal solution for server storage such as Microsoft Exchange & SQL Server. Most importantly offer advance features for professional storage applications such as Disk-to-disk backup, database pools, image acquisition, near-line storage, data centers, media & asset management libraries and shared SAN networks.

### **Full iSCSI Performance**

Syne-iSCSI™-2U8SA-2E system has Dual GbE ports, supporting full iSCSI Off-Load with Load-Balancing, Fail-Over, Trunking and one logic volume shared by as many as 16 hosts. Other new features introduced in the Syne-iSCSI™-IP SAN series include MPIO support for clustering, S.M.A.R.T. disk monitoring, target authorization via IP address, and Jumbo frame support.

## **Primary Benefits**

- **Scalability & Expandability**
- **Remote Access & Management**
- **Low Total Cost of Ownership**
- **Interoperability and Flexible Integration**

## **Main Applications**

- **Data Storage Backup over IP**
- **Clustering & Storage Virtualization**
- **Disaster Recovery & Fail-Over**

## **Syne-iSCSI™-IPSAN Series RAID Subsystems**

### **Key Components & Hardware:**

- CPU: Intel Xscale IOP80341 800MHZ
- Cache Memory: 256MB ~ 2GB DDRII 533 DIMM, ECC supported
- UARTs: support for serial console management and UPS
- SATA II controllers: With up to 8 disk SATA-I/II with Marvell 88SX6081
- Front-end: One Silverback iSNAP2110 iSCSI controller with 2xGb Ethernet ports.
- LCM supported
- Battery backup support (Optional)
- NVRAM download for event and IO transaction record

### **Physical, Electrical and Enclosure Monitoring:**

- S.E.S. support for standard enclosure management
- Fan speed monitor x3
- 3.3V, 5V and 12V voltage monitor
- Thermal sensor x 3 on controller board (for CPU, bridge and host channel chip)
- Thermal sensor x 3 (up to 24) in enclosure
- 1+1 550W PFC redundant power supply
- Dual hot-swap intelligent (temperature adjustable) turbo fan modules
- 3 x RJ-45 1Gb compliant Ethernet port (2 for data one for WebGUI access)
- DB9 RS-232 and DB9 Null Modem Port

### **Disk & RAID Features:**

- SATA-II support with SATA-I backward compatible.
- Multiple IO transaction processing
- Support Hot-Swap drives and Auto-Rebuild
- S.M.A.R.T. enabled for individual drive
- RAID level: 0, 1, 0+1, 3, 5, 6, 10, 30, 50, 60 and JBOD
- Up to 256 logical volumes in the system
- Tagged command queuing
- Access control in LUN usage: Read-Write & Read-Only
- Global and dedicated hot spare disks
- Write-through or write-back cache policy for different application usage
- Dedicated or shared cache allocation for volume usage
- Multiple RAID volume support
- Configurable RAID stripe size
- Instant RAID volume availability
- Online volume expansion and RAID level migration.
- N-way Mirroring (multiple copies of same drive)
- Support WORM (write-once and read-multiple)
- Disk & Array Roaming.

## **Syne-iSCSI™-IPSAN Series RAID Subsystems**

### **Advanced Data Protection & Storage Features:**

- Smart faulty sector block relocation
- Cache Battery backup support (optional)
- Global/dedicated cache configuration by volume.
- Support SES.
- Support Clustering and MPIO ready (initiator driver support needed).

### **Management Interface:**

- Management UI via serial console, SSH telnet and Web.
- Online system firmware upgrade mechanism
- Event notification via Email and SNMP trap
- Run-time IO transactions recording
- Stand-alone Discover Application to discover Syne-iSCSI products on the network
- Built-in LCD module to control most enclosure components

### **Network, TCP/IP and Host Connection:**

- 2 x GbE ports support independent access, fail-over or load-balancing
- Support iSCSI header and data digest.
- Support CHAP authentication
- Support for iSNS (Internet Storage Name Services)
- Support LACP Link Aggregation/Trunking (IEEE 802.03ad).
- Up to 32 host connections
- Up to 8 hosts clustered for one volume
- Compatible with Windows, Linux, Novell, Mac, Solaris Operating Systems

### **Special & Optional Features:**

- Qsnap for up to 32 Snapshot **on-the-box** logical volume / Rollback (optional).
- Support for Microsoft VDS (Virtual Disk Service)

**Syne-iSCSI™-IPSAN** is a Target iSCSI Embedded RAID subsystems designed and developed by Synetic and its technological partners abroad. A tremendous amount of time and resources has been invested for the development and commercialization of this program.

**Syne-iSCSI™-IPSAN** is fully compliant with **RFC3720** and follows the recommendations and guidelines provided by the Internet Engineering Task Force (**IETF**).

***Syne-iSCSI™-IPSAN Series are distributed exclusively in Canada by Synetic Inc. and its affiliated business partners.***