

## EdgeWare ISS Specifications:

**Form Factor:** 1U, 2U, 3U, 4U, 5U, 8U and 12U 19" Rackmount

**Capacities:** Up to 80TB of storage using 1 TB SATA II Drives.

**Processor:** 2 to 8 Cores

**Memory:** DDRII RAM: Up to 2GB at 800 MHz for Single or Twin CPU; Up to 64GB for Quad CPU

**Power:** N+1 Hot Swap Redundant up to 1350W

**Network Connectivity:** multiple Auto-sensing 100/1000/10GbE

**RAID Levels:** 0, 1, 5, 6, 50, Hot Spare, Hot Swap, JBOD

**Temperature:** 32°F - 104°F / 0°C - 40°C

**Humidity:** 10% - 85% Non-Condensing

**Client Support:** Windows, Linux, UNIX, Mac OS and FTP

**Network Support:** TCP/IP, TCP/IP Offload, iSCSI Target, IPsec, UPD/IP, AppleTalk

**Security:** Share/File Level Permissions, Kerberos v5, ADS, NT/W2K ACL's, SSL Support, LDAP, Unix NIS

**Data Integrity:** IP Failover, Remote Replication, Remote Mirroring, Snapshots, Disk-to-Disk Backup, Hot Spare Drives, and Anti-Virus Support

**Management:** Web based: IE, Firefox and Safari. SNMP MIB II, SNMP Trap, Log Review/Download, Web-Based Updates, Flash Boot

**Maintenance:** Audible and E-mail Alerts, Storage Monitoring, Enclosure Monitoring, and Factory Default Reset

### Options:

NIC:  
Dual, Quad, six port 1Gb Ethernet  
Dual 10GB PCIe (Fibre Optic available)

**HBA:** Fibre Channel, SATA or SAS

## ISS Configurations

Chassis Height	# HDD BAYS	CPU CORES	RAM (1GB/core)	Network Gigabit Interface Connectivity	HDD Type/Max. Capacity
1U	4	2	2GB	2 GbE	SATA/4.0 TB
2U	12	2 to 4 Cores	8GB	2 to 6 GbE	SATA/12 TB
3USAS	16	2 to 8 Cores	8GB	4 to 22 GbE	SATA/16 TB SAS/4.8 TB
3UT-SAS-E	16	4 to 8 Cores	8GB	4 to 22 GbE	SATA/16 TB SAS/4.8 TB (maximum capacity 80 TB)
4U	24	4 to 8 Cores	8GB	4 to 22 GbE	SATA/24 TB
8U	48	4 to 8 Cores	8GB	4 to 22 GbE	SATA/48 TB
12U	72	4 to 8 Cores	8GB	4 to 22 GbE	SATA/72 TB

## Commitment to excellence and customer satisfaction

A commitment to excellence and customer satisfaction are key attributes that drive every facet of our culture – from developing superior products to training to service programs. At Cutting Edge, our staff is attuned to your every need to ensure an outstanding customer experience.

## Enterprise-level service

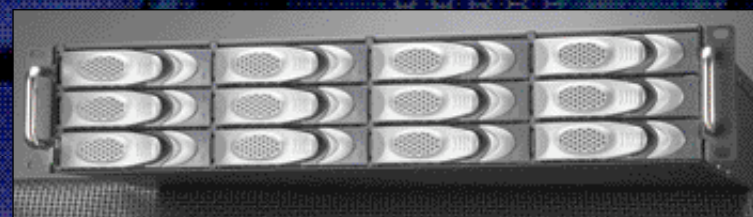


Cutting Edge service programs offer a range of options such as 24x7x365 service for hardware replacement and around-the-clock telephone technical support. To ensure your installation success, Cutting Edge Professional Services offers phone support or optional on-site assistance with storage planning, system installation, data migration, and best-practices implementation. You can select from pre-packaged service and support engagements or design your own to get the exact level of service you require.

## INTEGRATED STORAGE SOLUTIONS

### ISS SERIES

SCALABLE NAS AND ISCSI SAN PRODUCT FAMILY



CUTTING  
EDGE  
NETWORKED STORAGE SOLUTIONS

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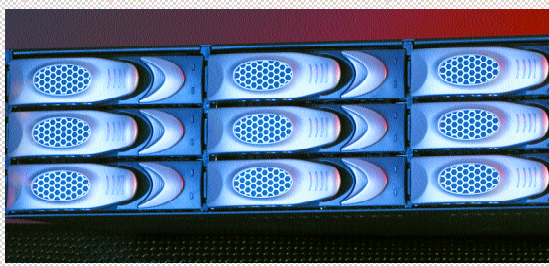
**Affordable**  
**High Performance**  
**Enterprise Features**  
**Utmost Reliability and Flexibility**  
**NAS & iSCSI Functionality**

The Integrated Storage Solution (ISS) Series from Cutting Edge Networked Storage Solutions is ideal for small to medium size businesses that require affordable, dedicated network attached storage (NAS), IP SAN (IP storage area network), block level iSCSI storage solutions or support for DAS exchange consolidation that offer extremely easy setup, flexible file management, effortless in-chassis capacity expansion, sustained high-speed operation and utmost reliability.



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### EdgeWare 64-Bit NAS/iSCSI OS

The ISS Series is powered by Cutting Edge's 3rd generation field proven EdgeWare™, a fully integrated IP 64-bit storage operating system that provides a storage centric, easy-to-use and easy-to-support, heterogeneous network file system. EdgeWare offers complete NAS and iSCSI functionality and same time use in a single operating system, coupled with best-in-class performance, versatility and security for SAN, LAN and WAN applications. EdgeWare's rich feature set includes built-in remote replication for disk-to-disk backup, mirroring, IP Failover, multiple snapshot capability, iSCSI target, web-based management, RAID 6 support and built-in security features that make it a strong alternative to expensive Fibre Channel connectivity, with comparable features and performance. EdgeWare affords almost limitless volume sizes, extremely high performance, increased data reliability, greater security and increased scalability. iSCSI target efficiency is also improved by supporting multiple iSCSI initiators on different volumes, without sacrificing NAS, CIFS and NFS performance.

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### ISS Applications

ISS with EdgeWare NAS and iSCSI functionality provides a cost-effective storage system for deployment in the following applications:

- Data Protection – Disk to disk backup and virtual tape.
- Server and Storage Consolidation - Link multiple storage systems to servers to achieve better storage utilization.
- Data Center Storage Networks - Compatible with applications such as Exchange, SQL, Oracle, web serving and e-mail.
- Expansion into Metro and WANs - Centralize corporate data resources in one location for remote backup.
- Transactional SAS/SATA model - Allows mixing of SATA and SAS drives for maximum system performance and scalability.

### ISS Series with EdgeWare

The Cutting Edge Integrated Storage Solution (ISS) delivers optimal performance based on a true 64-bit hardware and software architecture. The ISS with the EdgeWare OS provides cost reliable hardware or software RAID protected network storage, with capacities ranging from 1TB up to 80TB (with 1 TB SATA drives) that accommodates users with minimal or ever growing storage requirements.

## ISS Series Features and Benefits

### Easy Installation and Operation

- File sharing across a variety of servers & clients
- Multiple network & interface support, including UPnP/WSDL
- Easy system management with EdgeWare OS
- Exceptional system monitoring and alerts

### Guaranteed Performance

- Enterprise level performance with 64-bit OS
- NAS/iSCSI combo for increased functionality
- Single, Dual or Quad CPUs with dedicated memory for high speed access
- Multiple auto-sensing 100/1000/10GbE interface

### Reliability and Availability

- RAID 0, 1, 5, 6 and 50 with hot spare and hot swap
- Automated system integrity checks
- Network IP address and service failover (Active-Passive)
- Dual redundant power supplies, hot spare drives with anti-virus support

### Absolute Security

- Error recovery levels 1 & 2
- IPsec for increased internet security, LDAP Client and Access Control List
- Block level storage for increased security and transfer rate
- Multiple Root Control Services for conditional access
- Extensive monitoring and alerts with email notification

### Easy Backup & Recovery

- Multiple snapshots for fast backup and data retrieval
- Remote replication directly to disk for improved business continuity
- Remote mirroring for improved network failover and redundancy
- Disk-to-disk, disk-to-tape and disk-to-USB backup modes

### Easy Installation and Operation

ISS with EdgeWare is easy-to-install, easy-to-manage and easy-to-support. Custom ISS hardware and EdgeWare's powerful 64-bit OS integrates NAS and iSCSI functionality that affords file sharing across a variety of servers and clients, multi-network interface and protocol support, and outstanding system management - consolidating storage easily and securely has never been easier.

#### UPnP/WSDL Server

ISS uses Simple Object Access Control (SOAP) to leverage standard management formats (XML) and protocols (HTTP) to configure multiple servers.

#### LDAP Client

ISS permits user and group authentication to an LDAP server for all network services and even the web-based administration. This allows other EdgeWare enabled ISS servers to co-exist in an existing LDAP management scheme.

#### Network Access Gateway

With remote management, the EdgeWare OS can manage multiple NAS systems - providing accessibility to manage large terabyte volumes of data stored in Enterprise networks.

### Guaranteed Performance

Each ISS system integrates true 64-bit OS capability with the highest performing hardware and disk components available, guaranteeing extreme performance even under heavy load conditions.

#### iSCSI Target

Each ISS with EdgeWare solution has the ability to transport data across networks using the iSCSI protocol. The EdgeWare enhanced ISS can act as iSCSI target using the same hardware platform - ISS systems can act as a target and allow clients to mirror data between servers and remotely replicate mission critical information for backup procedures.

#### NIC Bonding

With NIC bonding, the bandwidth of two NIC cards can be aggregated and converted into one, increasing the data transfer capacity and speed. (Engineering services may be required)

### Reliability and Availability

ISS systems are built to last. Robust and field proven chassis, hardware or software RAID, dual redundant power supplies (except 1U), fans and hot spare drives with anti-virus support coupled with network IP address and service failover (active-passive when using two storage pools) and automated system integrity checks are fully integrated and tested in each system before shipment - guaranteeing the utmost in reliability and uptime.

#### Hardware & Software RAID Support

The EdgeWare based ISS offers integrated support for SATA and SAS RAID controllers. EdgeWare ISS OS provides Software RAID 1, 10, 5, 6.

NVRAM in each hardware controller is backed up by battery - ensuring the correct data is protected even during power failures.

### Absolute Security

#### System Monitoring & Alerts

The advanced monitoring system notifies network administrators on health disk status, system temperature, RAID status, and spare drives on their systems. EdgeWare OS also generates logs that record monitoring activity on a timely basis.

#### Access Control List

The Access Control List (ACL) allows administrators to restrict user rights and access policies through the network. The ACL feature is convenient for file share administration and remote network management.

#### Error Recovery Levels 1 & 2

EdgeWare Error Recovery Level 1 (ER1) monitors information packets that are sent over the network from the iSCSI initiator to the iSCSI target. Error Level Recovery 1 also supervises network communication and recovers lost data during transmissions.

EdgeWare Error Recovery Level 2 (ER2) is used when there are multiple network connections. Error Recovery Level 2 inspects the vitality of the network connection and if a connection goes offline, then the EdgeWare OS searches for an operational connection and redirects all network traffic.

#### Journaling System

EdgeWare enabled ISS storage systems give users the choice of 3 journaling systems that are optimized for customer applications and provide data reliability and redundancy.

#### Log and System Function

The log functionality of the EdgeWare enabled ISS tracks user activity by groups, individual users, and by level of



administration and it can also track module activities. EdgeWare ISS systems offer tracking logs by time line which includes events generated for one day and between specified times. System logs can be viewed and configured through the user interface or by remote log setup. Logs can be assigned to multiple volumes and can be copied immediately, hourly or daily. These logs provide a wealth of information for intruder detection, security audits and technical support.

### Easy Backup and Recovery

#### Snapshots

The EdgeWare snapshot feature captures data from a single point-in-time with the capability to aggregate multiple snapshots in sequence which can be used for backup or data retrieval purposes.

#### Snapshot Scheduling

The EdgeWare OS scheduling snapshot feature, gives users the ability to capture data from a point-in-time and has the functionality to aggregate multiple snapshots sequentially which can be used for backup or data retrieval purposes.

#### Remote Mirroring

With Remote Mirroring, each EdgeWare enabled ISS allows real time block device replication of logical volumes. This allows network failover between two systems, where two volumes are mirrored to provide some of the best redundancy possible.

#### Remote Replication

With the EdgeWare enabled ISS Remote Replication feature, organizations can improve their business continuation model by backing up directly to disk. This shortens their backup window while vastly improving TCO. This allows both public and private organizations that comply with federal regulations to eliminate the traditional form of backup; transferring data into tape, which is time consuming, generates multiple tape copies, and often leaves sensitive information exposed.