



### KEY FEATURES

#### FC Switching Gateway

##### Interoperability with major FC vendors

The S-8100E appears as an E\_port within a local FC fabric, and is fully compliant with E\_port FC standards. The S-8100E provides basic services for native modes of major FC switch vendors, and can support a joined FC fabric of Brocade and McData switches operating in their native modes. The S-8100E implements a full set of services required by FC-SW2 and FC-SW3 standards.

##### Multi-Service Connectivity

Because the S-8100E provides tunneling of ULP (Upper Layer Protocol) independent Layer 2 Ethernet traffic as well as Fibre Channel through the same WAN infrastructure, the gateway can easily be customized to meet particular application needs. Multiple configurations of Fibre Channel, GbE L2 and SONET/SDH ports are possible in a single box.

##### Engineered for Long-Distance

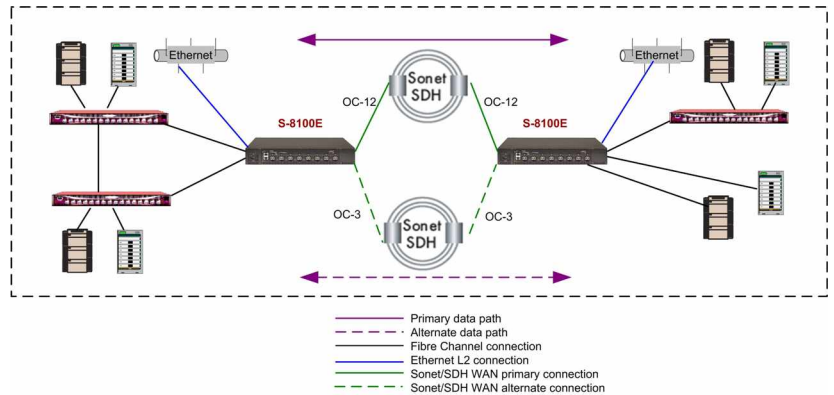
The S-8100E is connected to the WAN over industry standard SONET/SDH interfaces with software configurable speed of OC-3/STM-1 or OC-12/STM-4. The Data Compression mechanism implemented on the SONET/SDH extension interfaces allows a higher data transfer rate over the extension media and more effective utilization of low bandwidth or provisioned bandwidth connections with high line delay. This means that more data can be transferred while keeping the cost of the extension circuit low. Although less effective with high speed, low delay connections, this compression significantly improves performance for OC-3 and OC-12 deployments.

On the SONET/SDH side, the S-8100E implements a connection-oriented, frame-based protocol that moves FC and L2 Ethernet over PoS for distances of thousands of kilometers without performance degradation, and with data and order delivery guaranteed. Any frame loss or corruption is completely recovered by the S-8100E rather than by FC end devices.

### OVERVIEW

With the ever-increasing need to safeguard data, many companies are looking for a reliable method of connecting their geographically distributed storage area networks (SANs) across the WAN. For applications that are well suited to SONET/SDH interconnection, LightSand's S-8100E enables SAN extension with an all-in-one fabric switch, gateway and Layer 2 Ethernet tunneling device. This sophisticated 8-port gateway supports local switching, direct attachment of storage devices and up to four SONET/SDH extension tunnels for connection between remote sites.

The S-8100E is a cost effective solution for SMB when a relatively low number of Fibre Channel devices participate in the fabric. Easily configurable, yet powerful, the S-8100E is the best choice for small and midsized deployments requiring end device connectivity.



### APPLICATIONS

The S-8100E SAN extension gateway over MAN and WAN is designed for a wide variety of applications, with an emphasis on storage consolidation, business continuity and disaster recovery.

#### Data Protection

- Synchronous and asynchronous mirroring
- Remote tape vaulting and backup

#### SAN Integration:

- Interconnection or consolidation
- Integration of remote fabrics

## SPECIFICATIONS

### SYSTEM ARCHITECTURE

Gateway Architecture.....	8 ports, wire-speed, unblocked, aggregate bandwidth - 16 Gbit/sec
SAN Ports.....	4 to 7 ports
SAN Port Media.....	Fibre Channel, 1.0625 Gb/s, SFP, multi-mode (850nm), as a standard
FC Standards.....	FC-PH-2, FC-SW-2, FC-GS-3, FC-MI, FC-PH, FC-GS2, FC-FS, FC-PH-2
FC Port Types.....	E_port, F_port
FC CoS.....	Class 2, Class 3, Class F
B2B Credits.....	Up to 16
L2 Tunneling Ports.....	1 to 3 ports (pre-configured)
L2 Port Media.....	Gigabit Ethernet, 1.25 Gb/s, SFP, multi-mode (850nm), as a standard
WAN Ports.....	1 to 4 ports (pre-configured)
WAN Port Media.....	STS-3/12c, STM-1/4c (configurable), SFP, IR-2, as a standard
SONET/SDH Standards.....	Bellcore GR-253; ITU-T G.707, ANSI T1.105 –1995, RFC 1619,1661,2615
Encapsulation.....	FC over PoS
Extension Distance.....	STS-12/STM-4: 10,000km (Up to 20,000km with additional memory card) STS-3 / STM-1: 40,000km (Up to 80,000km with additional memory card) Dark-fiber: 80km

### SPECIAL FEATURES SET

Redundancy.....	Box level redundancy
Compression.....	Over SONET/SDH, maximum ratio 1:21
Load Balancing.....	Optimized balance on per-device basis

### MANAGEMENT

Supported Software.....	SANman™ (GUI); Telnet, SNMP; MIB-II, Fiber Alliance MIB, RMON MIB, RFC 2837, configurable traps
Management Access.....	10/100BaseT Ethernet (RJ-45); Serial port;
Diagnostics.....	BIST (built-in self test); Local Spin Test; Remote Spin Test;

### MECHANICAL SPECIFICATIONS

Dimensions.....	Width: 17.4" x Depth: 17.9" x Height: 2.6" - 1.5u
Weight.....	22.9 pounds (10.4 kg)
Rack Mounting.....	19"rack
Cooling.....	Front to back (fans FRU, hot swap)

### POWER SPECIFICATIONS

Dual Power Supply (optional).....	FRU (hot swap)
Supported Power.....	Nominal: 320mA at 220-240V; Nominal: 640mA at 110-115V (auto-select)
Frequency.....	50/60 Hz
Power Consumption.....	75 Watts (maximum)

### ENVIRONMENT AND REGULATIONS

Temperature.....	0°C to 40°C (32°F to 104°F)
Humidity.....	5% to 85% non-condensing
Regulatory.....	UL Listed, FCC Class A product, complies with Canadian ICES-003



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