

Inter-Switch Link (ISL) Trunking

ISL Trunking (optional)

262872-B21

The ISL Trunking license enables the trunking features resident in the firmware and hardware for the following HP StorageWorks SAN switches:

HP StorageWorks SAN Switch 2/16

287055-B21

HP StorageWorks SAN Switch 2/16-EL

283056-B21

HP StorageWorks SAN Switch 2/8-EL

258707-B21

ISL Trunking enhances fabric performance, simplifies large fabric design, and reduces provisioning time. It also simplifies ongoing administration (managing one link versus four links) while also providing increased high availability in case of link failures.

HIGHLIGHTS

- Combines up to four ISLs into a single logical ISL for up to 8 Gbit/sec transfers
- Evenly distributes heavy SAN frame traffic across all ISLs in a trunk
- Maintains in-order delivery
- Avoids rerouting if one link of the trunk fails
- Simplifies management by implementing fewer ISLs

FUNCTIONS AND BENEFITS

Function	Benefit
Automatically performs load balancing and frame striping across the trunk while preserving in-order delivery	Improves performance and reduces congestion
Aggregates up to four ISLs into one full, 8 Gbit/sec link	Simplifies provisioning and capacity planning of large complex networks
Provides resiliency to link failures within the trunk. Aggregate bandwidth is degraded but no rerouting is required	Increases high availability and reduces downtime

Primary Applications: ISL Trunking

High-performance applications: Large databases (OLTP, OLAP), customer relationship management, enterprise resource planning, supply chain management

Mission-critical applications: Clustering or high-availability configurations

Large Fabrics: Core/edge topologies

Storage infrastructure: Storage consolidation (e-mail, databases), backup

Example: Deploying New 2 Gbit/sec Switches Into Existing 1 Gbit/Sec Fabrics

Four new HP StorageWorks SAN Switch 2/16s are set up as the core of a meshed switched fabric topology. The existing 1 gbit/sec switches (SAN Switch 8s and 16s) are moved to the edge of the fabric. All of the ISLs in the core between the SAN Switch 2/16s are trunked into 8 Gbit/sec logical links. The use of trunking maximizes performance, increases high availability, and reduces the complexity of designing the multitiered fabric and provisioning the new switches.

HARDWARE SUPPORT

Fibre Channel Switches	Part Numbers
HP StorageWorks SAN Switch 2/16	287055-B21
HP StorageWorks SAN Switch 2/16-EL	283056-B21
HP StorageWorks SAN Switch 2/8-EL	258707-B21

STORAGE ARRAY SYSTEMS

Enables consolidation of physical disk storage that is logically combined to create a single large pool of disk space from which virtual disks can be created and tailored to the user/application requirements

- HP StorageWorks RAID Array 4100
- HP StorageWorks Modular SAN Array 1000
- HP StorageWorks Enterprise Virtual Array
- HP StorageWorks Modular Array 6000
- HP StorageWorks RAID Array 8000, Enterprise Modular Array 12000
- HP StorageWorks Enterprise Modular Array 16000

Refer to the SAN Design Guide for HBA and Configuration Details

<ftp://ftp.compaq.com/pub/products/storageworks/techdoc/director64/AA-RMPND-TE.pdf>

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