Packetized SCSI Systems
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Desktop, Deskside, File/Compute Server
- Reduce system integration costs by exchanging copper for silicon
- Performance >= SCSI-2 16 Bit FWD
- Connectivity >= SCSI-2 16 Bit FWD
- Subsystem and Attachment Costs = < SCSI-2
- Point of interconnect attachment is at the SCSI device.
- Technologies - Copper, serial or parallel, eg: IBM-SSA, P1394, Packet-carrying SIP, Loop Fiber Channel, DS-Link...

Low/Medium Cost System Configurations
Single Interconnect Technology

Mixed Interconnect Technologies
Packetized SPI <-> P1394
P1394 <-> Fiber Channel

Storage Box
Bridge
Others?

Device 0
Device 1
Device 2
Device 3

High Performance/High Availability
- SCSI required for software compatibility
- Performance/Availability Paramount
- Multi-port interconnect attachment required for some systems
- High Performance LAN Technology Required for some systems
- Point of interconnect is the array or box
- Technologies - All copper plus Fiber Optic
- Products:
  - Storage array or storage box.
  - Shared archiving or backup devices

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High-Performance/High Availability

Example

Array Box

Device

Device

Array Controller

Interconnect

Interconnect

Any copper + FDDI, Fibre Channel, etc.

Assumptions

- Within the scope of SAM:
  - Standard distributed SCSI device model and behavior - independent of interconnect technology
  - Logical entity addresses (IO process, device, Logical Unit...): higher layers need a standard
    way to reference these objects that's interconnect-independent

- Required "commodity" data transport services, including multiprotocol behavior

- Outside the scope of SAM:
  - Interconnect value-added functions (e.g., P1394 isochronous)
  - Common payload format and content for packetized interconnects