Packetized SCSI Systems

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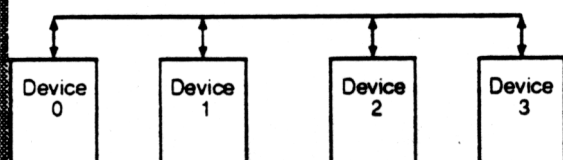May 18, 1992

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 interconect attachment is at the SCSI device.

- Technologies - Copper, serial or parallel, eg: IBM-SSA, P1394, Packet-carrying SIP, Loop Fiber Channel, DS-Link...
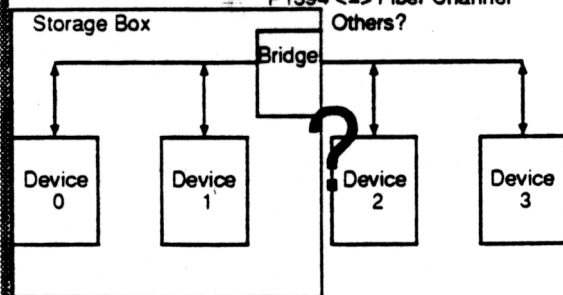
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Low/Medium Cost System Configurations

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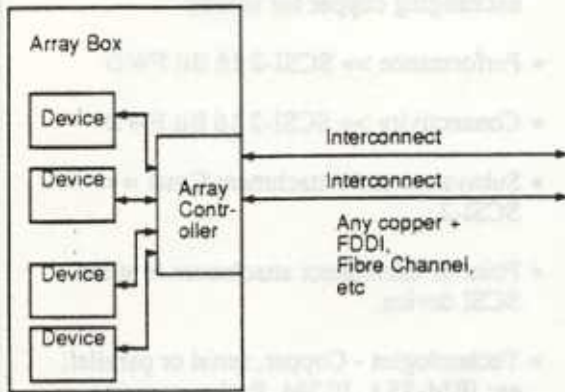# High Performance/High Availability

- 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 Contr-oller → Interconnect
Interconnect

Device

Device

Any copper + FDDI, Fibre Channel, etc

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Assumptions

- Within the scope of SAM:

  -- Standard distributed SCSI device model and behavior - independant of interconnect technology

  -- Logical entity addresses (I/O process, device, Logical Unit...) - higher layers need a standard way to reference these objects that's interconnect.-independant

  -- Required "commodity" data transport services, including multiport behavior.

- Outside the scope of SAM:

  -- Interconnect value-added functions (EG: P1394 isochronous).

  -- Common payload format and content for packetized interconnects.

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