

Domain Definitions and Linked Command Issues

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Slide 1

Domain Assumptions

- A domain is one initiator's "view" of an SCSI I/O subsystem.
- Defining domain boundaries is the responsibility of the system designer.
- The 3-level address hierarchy in SCSI-2 (device, LUN/TRN, I/O process) will be preserved in SCSI-3.
- If "third Party" commands are not supported in SCSI-3:
 - SCSI addresses and identifiers will never appear in an SCSI command descriptor.
 - The format for device addresses need not be defined by the architecture.
 - Each initiator's "world view" can be different

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Slide 2

Assumptions (cont)

- The device address within a domain will be implementation-specific.
- The LUN, TRN and I/O process address will be defined by the architecture.

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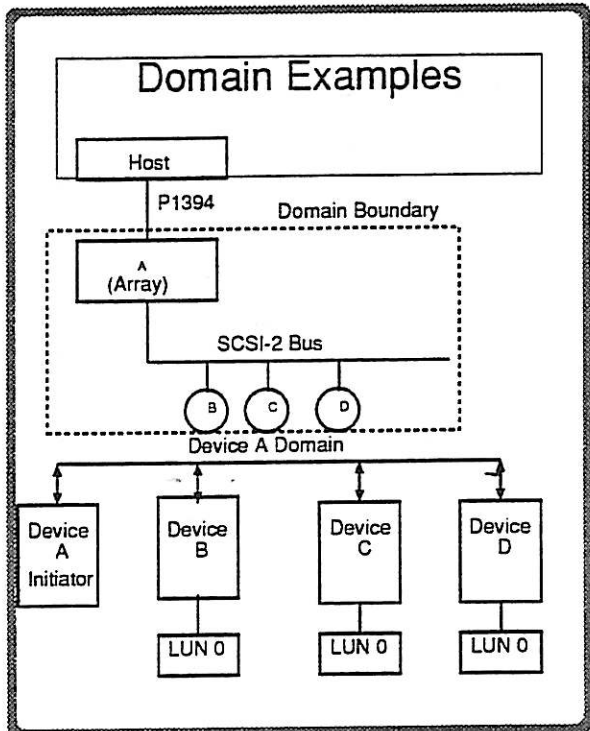
Slide 3

Constraints

- Architectural Constraints
 - No two devices may have the same device address
- Non-constraints
 - Configuration of devices in the domain, mapping of identifiers to physical devices and LUN/TRNs may appear differently to each initiator in a domain
- Designers or bus standards may impose more constraints

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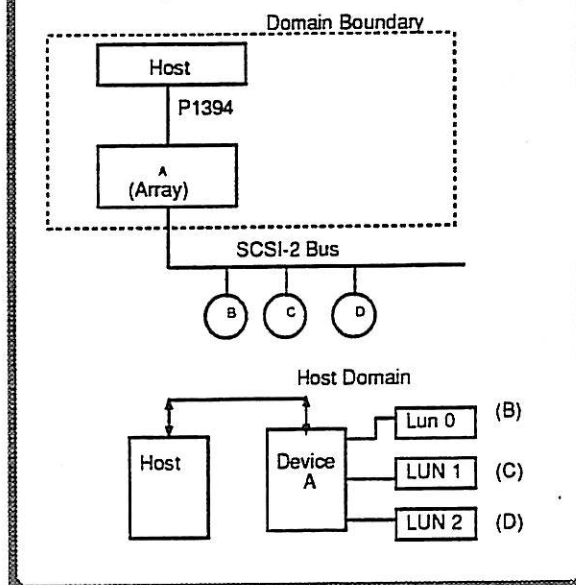
Slide 4



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Slide 5

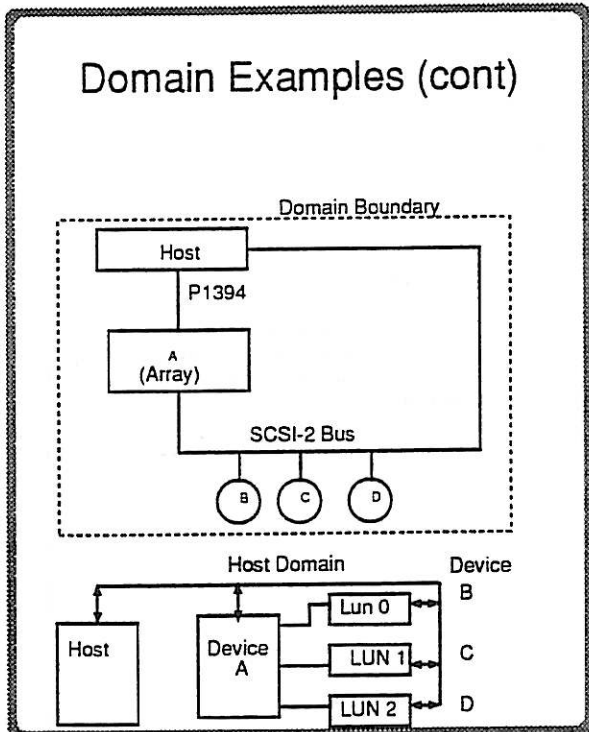
Domain Examples (cont)



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Slide 6

Domain Examples (cont)



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Slide 7

Linked Command Model

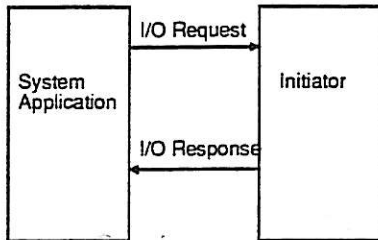
• Requirements:

- Must be compatible with SCSI-2
- Must allow an implementation to make use of memory-mapped command queuing mechanisms as specified in SBP and DCU.

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Slide 8

Linked Command Overview



I/O_Command = [I/O_Request | 1{Linked_I/O_Request}]

I/O_Request = CDB

Linked_I/O_Request = 2{Linked_CDB}

I/O_Response = [CDB_Status | 1{Linked_CDB_Status}]

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Slide 9

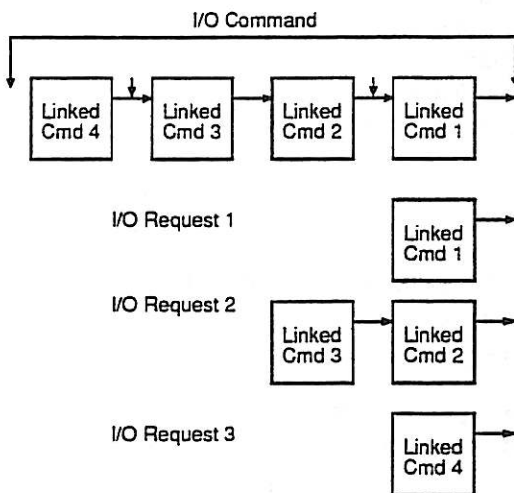
Linked Commands (cont)

- An I/O Command, consisting of two or more linked CDBs, can span several I/O requests.
- The ability to include more than one linked CDB in a single I/O request is an implementation option.
- The I/O response to a linked I/O request includes the status associated with each linked CDB comprising the request.

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Slide 10

Linked Command Example



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Slide 11