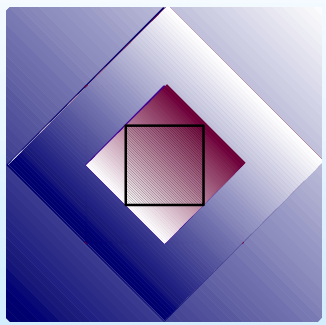
SCSI ordering after exception on non interlocked transports

Orlando-January-2001

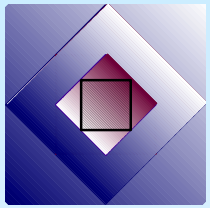
Julian Satran

IBM Research Lab in Haifa



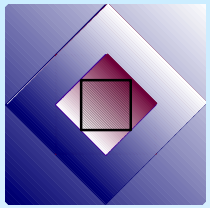
Problem

- Exception at the target do not all cause ACA
  - Task set full
  - Busy
  - reservation conflict
  - ACA active
- The effects that commands get executed out of order and there is no way for the initiator to control this



Solutions

- Create an ACA like behavior (Charles Monia)
  - Close gate
  - Return first command after queue and drop all others
  - Initiator opens gate
  - Initiator resends all commands after
- Create “queue” frozen state at the target and associate it with a syndrome code (the exception cause)
  - Mark all received command after that that have the same syndrome and keep the as long as you can
  - A new “stop point” change syndrome



Solutions (cont.)

- Initiator
  - Thaw the queue for all command with the same syndrome and refreeze if syndrome changes
- Pro – no commands reissued if there is no need
- But - complex

What should be done

- Specify it through SAM for all on interlocked protocols
- Choose one mechanism or both