

Error recovery Model *of “SHPT” Proposal*

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For Error Recovery...

Initiator shall keep...

- *the contents of data buffers associated with ORBs in the linked list*
- *the correspondence of Data buffers to “Sequence Identifier”*

Target shall guarantee...

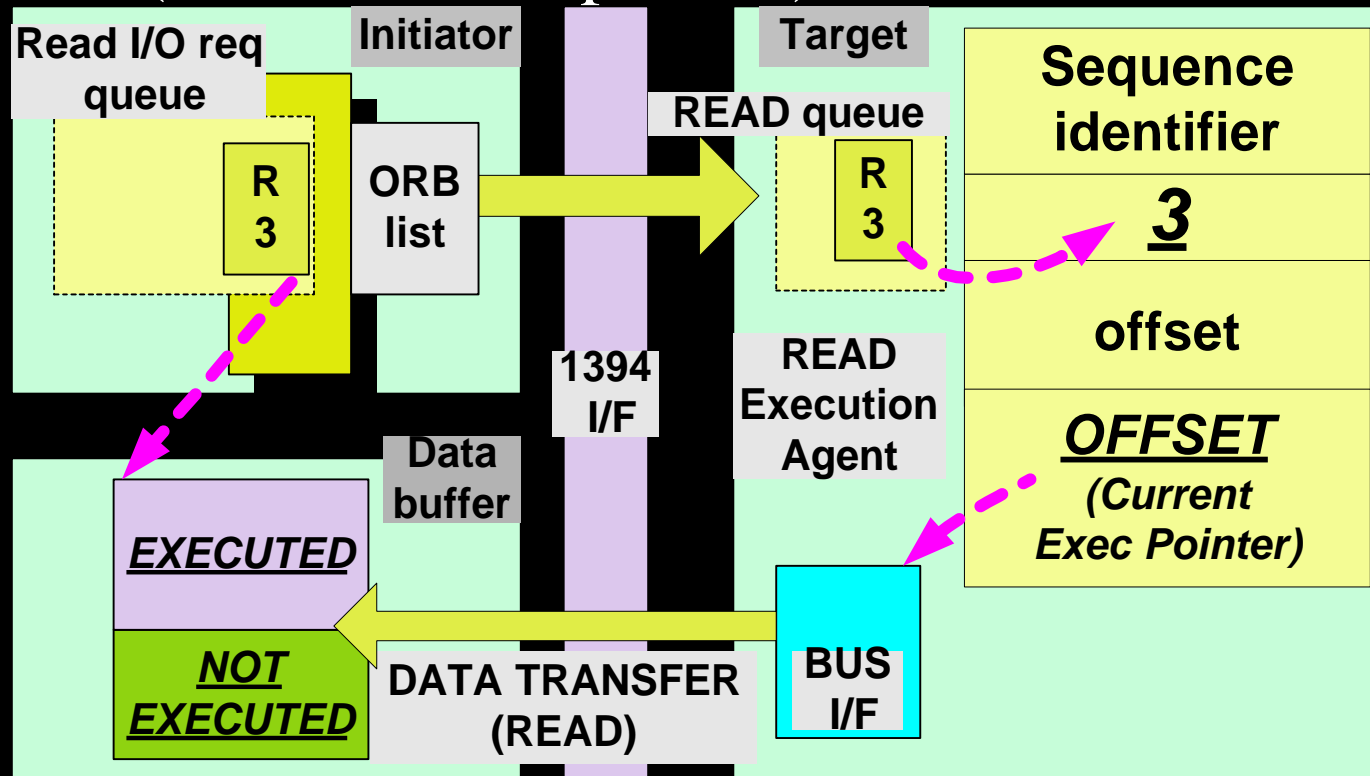
Not execute any data and command twice.

Error Recovery mechanism

No necessity of another temp buffer for error recovery(re-send)

Resume from the command(ORB) and pointer specified by

- Sequence identifier
- Offset(Current Exec pointer)



The Relationship

between complete notification and SeqID

- *Not* necessary for Initiator to be notified completion of EVERY ORBs command.

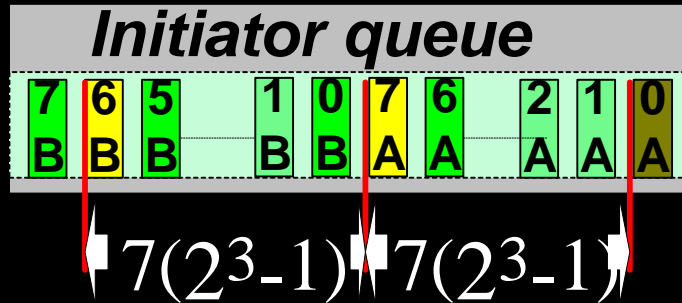
The requirement for error recovery is....

- Within consecutive $(2^n - 1)$ ORBs, at least one complete notification to Initiator is required.

(“n” means “Bit width” of SeqID...)

The case of MEETING the Requirement

(the bit width is 3)



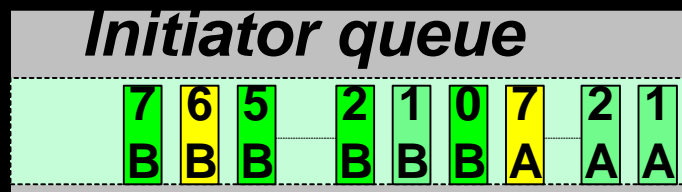
Target has consumed 7(A)ORB
and sent out status block for 7(A)ORB

 **Notify Bit ON**
 **Notify Bit OFF**

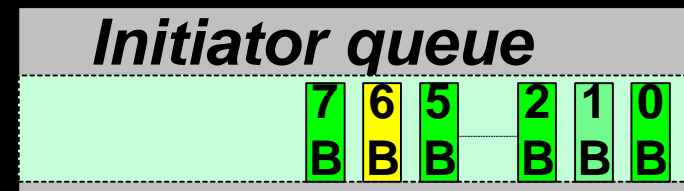


BusReset occurs

Case1 Initiator NOT receive
status block for 7(A)ORB



Case2 Initiator received status
block for 7(A)ORB



Target can recognize which case occurs
by referring SeqID of ORB at the head.

Benefit Points

- *Any temp buffer for transport is NOT necessarily required.*

This model does not assume the existence of temporary transport buffer for error recovery

- *Makes Initiator free from processing notification on “every” command (ORB)*

Target can notify Initiator of the completions of several commands(ORB) by one status block.