

VITESSE

Overview of 05-235 SAS 2.0 Allow Zoning Extensions to Leave Expanders

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T10/05-244r0

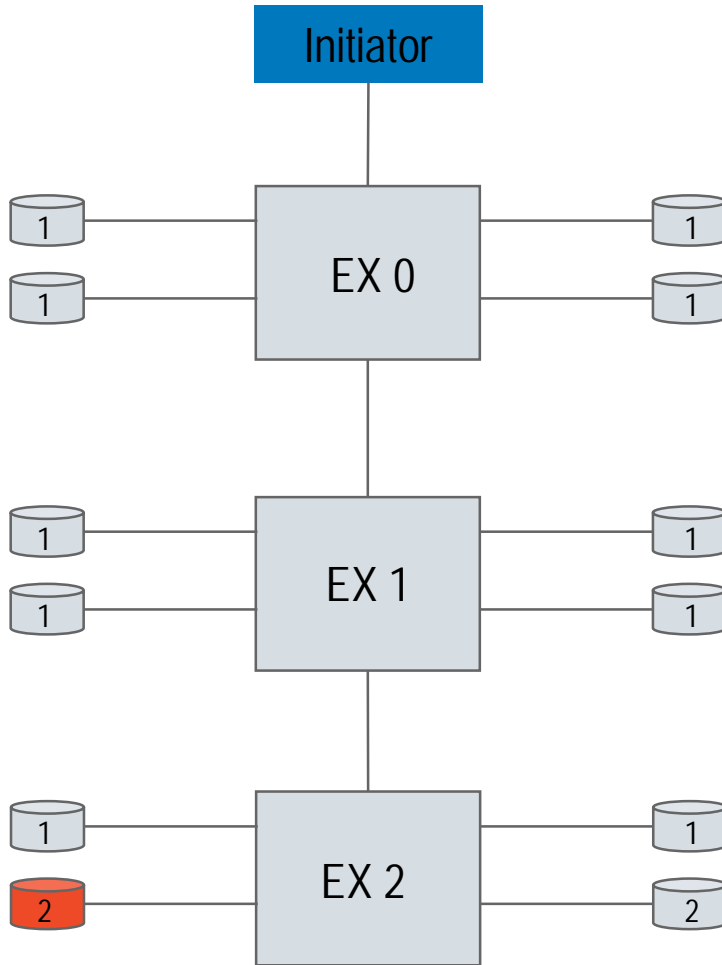
YOUR PARTNER FOR SUCCESS

- ▶ 05-144r3 Restricts Zoning Enhancements to Expanders
 - ▶ BROADCAST Frame, SGID Field of OPEN ADDRESS Frame and Zoning SMP Commands do not leave Expanders

- ▶ Future Initiators may be able to take advantage of this information
 - ▶ For Example, Reduce the Number of SMP Commands Required after a Broadcast is Received

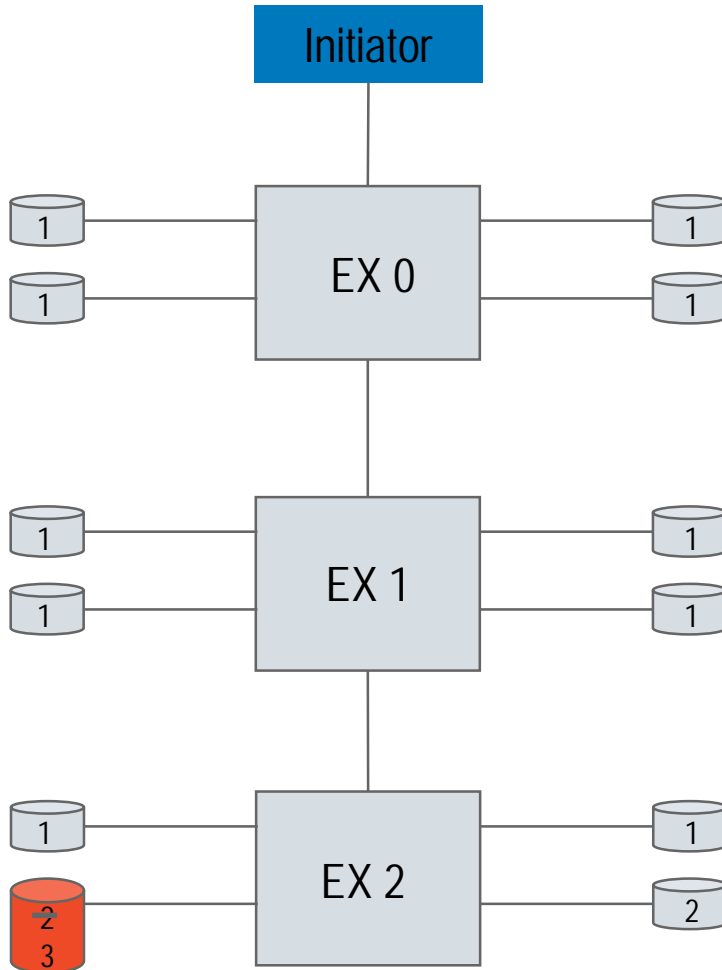
- ▶ Any Device with an SMP Target can be Zone Aware
- ▶ Zone Aware bit Set to 1 in Report General (byte 10 bit 5)
- ▶ Trusted Devices must be Zone Aware but some Zone Aware devices may not be trusted
- ▶ Shall support Configure and Report Zone Permission functions and BROADCAST Frame
 - ▶ New fields of Open Address Frame may be ignored
 - ▶ Other new SMP Commands may be unsupported
- ▶ Supervising Expander Shall Send Configure Zone Permission to ALL Zone Aware devices

- ▶ If a Broadcast or Open Address Frame is Received on an Untrusted Phy
 - ▶ SGID In the Frame is Replaced by SGID Assigned to the Phy
 - ▶ Maintains Trusted/Untrusted Relationship



Numbers in Drives are Group IDs

- ▶ If Drive 2 on Left (red) is Removed – Current Proposal
 - ▶ Broadcast FRAME with SGID 2 Generated
 - ▶ Initiator Receives Broadcast Primitive
 - ▶ Expanders Fully Rediscovered by Initiator
- ▶ If Drive 2 on Left (red) is Removed – 05-235r1 Proposal
 - ▶ Broadcast FRAME with SGID 2 Generated
 - ▶ Initiator Receives Broadcast Frame
 - ▶ Only EX 2 Needs to be Rediscovered
 - ▶ Discovery time reduced
 - ▶ Lower SMP Traffic



Numbers in Drives are Group IDs

- ▶ If Drive 2 on Left (red) is Moved to Group 3 – Current Proposal
 - ▶ Broadcast FRAME with SGID 127 Generated
 - ▶ Initiator Receives Broadcast Primitive
 - ▶ Expanders Fully Rediscovered by Initiator
- ▶ If Drive 2 on Left (red) is Moved to Group 3 – 05-235r1 Proposal
 - ▶ Broadcast FRAME with SGID 127 Generated
 - ▶ Initiator Receives Broadcast Frame
 - ▶ Expanders Fully Rediscovered by Initiator

- ▶ Zone Aware Does Not Change Basic Zoning Function
- ▶ Allows Future Non-Expander Devices to Participate in Zoning
- ▶ Does Not Change Trusted/Untrusted Model