ReleaseOrder ID:	*SCGCQ00940032*
Headline:	*Point Release: SAS3FW_Phase10.0 - 10.00.03.00 IT/*
Release Version:	*10.00.03.00*
UCM Project:	*SAS3FW_MASTER_DEV*
Sub UCM Project:	*SAS3FW_Phase10.0*
UCM Stream:	*SAS3FW_Phase10.0_Rel*
Release Type:	*Point*
State:	*Deployed*
Release Baseline:	*SAS3FW_Phase10.0-2015-10-27-10.00.03.00_REL_1445937849@ \SAS_CTRL_FW*
Release Date:	*29-OCT-15*
Date Generated:	*Dec 15, 2015*

Defects Fixed (3):

ID: SCGCQ00915308

Headline: PL: Initiator/target moved can result in Initiator missing event but no corresponding Target missing event

Description Of Change: There was a check in sending the target missing event that was failing because the location of the initiator/target changed. This check was nuanced to only care about that if the device is only a target.

Issue Description: There is a timing window where an initator/target on the topology can be moved, and the controller sends a SAS Initiator Device Change for Initiator Missing event, and then a SAS Topology Change for PHY Changed. This is a mismatch in the behavior since both the initiator and target have the same device handle. Both an Initiator Misssing and a Target Missing event should be sent.

Steps To Reproduce: Connect the controller in target mode to an initiator/target with a long chain of enclosures between them with dual path between the controller and first enclosure. Also put the initiator/target in dual path to its immediate enclosure. Put many drives in the enclosures.

Run IOs to the drives and initiator/target and from the initiator/target.

Remove one path of the controller to the first enclosure and connect it directly to the initiator/target. The Initiator missing event was sent, but not the Target missing event.

ID: SCGCQ00934325

Headline: IOP: Faulting for correctable L2 parity errors

Description Of Change: Change the code to count up to 100 correctable L2 errors, and only after meeting that condition fault.

Issue Description: The controller is unnecessarily faulting for correctable L2 parity errors. The controller shouldn't fault on the first correctable error, but should fault after a relatively large number. Faulting after 100 correctable errors was the recommended number as so few occur in even a year of a large set of controllers, but 100 will clearly catch a problem on a specific controller.

Steps To Reproduce: Generate a correctable L2 parity error. The controller faults on the first correctable L2 parity fault.

ID: SCGCQ00934337

Headline: PL: Initiator/Target moved can generate two Target Add Events

Description Of Change: There is a check missing when sending Target Add events up to the host. It does not check if the device had a target remove previously sent. Since the device was no longer missing, the standard checks to prevent this situation were passed.

Issue Description: There is a timing window where an initator/target on the topology can be moved, and the controller sends a SAS Initiator Device Change for Initiator Missing event, and then a SAS Topology Change for Target Missing. Right before this the device comes back so the target is no longer missing, but the missing events must be sent to properly clean up the initiator side. A SAS Topology Target Add is incorrectly sent before the host sends a SAS IO Unit Control Remove Device operation. Then upon processing the remove another Target Add is sent back up.

Steps To Reproduce: Connect the controller in target mode to an initiator/target with a long chain of enclosures between them with dual path between the controller and first enclosure. Also put the initiator/target in dual path to its immediate enclosure. Put many drives in the enclosures.

Run IOs to the drives and initiator/target and from the initiator/target.

Remove one path of the controller to the first enclosure and connect it directly to the initiator/target. The Initiator missing event was sent, but not the Target missing event.