Product Release Notes

ATTO Technology, Inc.

ExpressSAS 6Gb SAS/SATA HBA Release v1.70 - VMware®

1. General Release Information

These product release notes define the new features, changes, known issues and release details that apply to the ExpressSAS Host Adapter 6Gb SAS/SATA products v1.70 that was released on August 28, 2015. This information pertains to VMware ESXi 5.5 and 6.0.

2. Changes

- *Version 1.70 (Released 08/28/15)*
    - **Note:** It is recommended that firmware dated 05/11/2015 be used with this driver release.
    - **New Features, Enhancements and Changes**
        - Added support for spinning up SATA drives that have PUIS enabled.
        - Fixed an issues with the virtual SES device so it is displayed by *atinfo*.
        - Resolved an issue with multiple logical SAS ports when the controller is reset, resulting in improper SAS discovery or detection of read-only ports.
        - Increased the discovery command timeout to account for slow SATA SSDs.
        - Added support for *zero_eecc* module parameter.
        - Devices in expander topologies with a link rate not applicable to the NVRAM setting are no longer presented to the system.
        - Fixed several issues with cable hot plugging under I/O load that could cause the system to crash or hang.
        - Corrected an issue where I/O would fail to tape devices that do not support TLR.
        - Added a new feature supporting fast discovery NVRAM setting, accelerating discovery of unpopulated expander PHYs.
        - Corrected an issue where a direct attached 6Gb SATA drive persistently linking up at a rate less than 6Gb would cause the PHY to be disabled.
        - Updated SCSI-to-ATA translation for Inquiry VPD page 89 to support any data length.
        - Fixed SCSI-to-ATA translation for the Inquiry command to have the correct length for VPD page B0.
        - Added support for the Link Down Timeout NVRAM setting.
        - Corrected sequential device detection to disable I/O retries.
        - Updated SCSI-to-ATA translation for the Test Unit Ready command.
        - Corrected an issue with bus resets that would prevent additional bus resets from working properly.
        - Add an NVRAM setting to set individual PHYs as read-only.
        - Corrected several issues with staggered spin-up and hot plugging SAS and SATA drives on the same PHY that could cause unnecessary link resets.
        - Corrected improperly formatted sense data when a successful ATA PASS THROUGH command requests it for an ATA command using the PIO Data In protocol.
        - Modified quick_init settings with that when it is set to 0 for SAS drivers, nvram settings for device_wait_time and device_wait_count are respected.
        - Corrected issues during controller reset recovery where discovery may be suspended until the device wait time expires.

- Now use correct 32-bit core file for kernel versions 3.0 and higher.
- Corrected an issue with SGPIO operation where an incorrect data length was reported to applications performing SMP GPIO commands.
- Corrected several locking issues introduced in the previous release that could cause the driver to hang.
- Added a workaround so SATA hot plugging works when staggered spinup is enabled.
- Resolved issue causing SATA drives with non-512 byte sector sizes not to be recognized.
- Corrected an issue with NCQ error handling in which the command that caused the error was not completed with the correct status.
- Added SCSI-to-ATA translation for the FORMAT UNIT command.
- The default number of supported targets has been increased from 256 to 512.
- Corrected the slot number for end devices in the SAS transport information.

- *Version 1.61 (Released 02/16/12)*
  - **Note:** It is recommended that firmware dated 09/27/11 be utilized with this driver release.
  - Initial release of VMware ESXi 5 driver for the ExpressSAS 6Gb SAS/SATA adapters.
  - **New Features, Enhancements and Changes**
    - Initial driver release.

3. Known Issues/Advisements

- None.

4. Affected Products

Product Name	SKU
ExpressSAS H608 Host Adapter	ESAS-H608-000
ExpressSAS H680 Host Adapter	ESAS-H680-000
ExpressSAS H60F Host Adapter	ESAS-H60F-000
ExpressSAS H6F0 Host Adapter	ESAS-H6F0-000
ExpressSAS H644 Host Adapter	ESAS-H644-000

5. Contacting ATTO Support

ATTO Technology, Inc. is renowned for its technical support services. ATTO's goal is to provide you the quickest response possible for your technical support needs, and is available Monday-Friday, 8:00 AM to 6:00 PM EST (except holidays and plant closings).

ATTO Technical Support can be contacted via phone or email:

- Phone: 716.691.1999 ext. 242
- E-Mail: techsupport@attotech.com