ATTO

ATTO Technology, Inc.

Product Release Notes

XstreamCORE FC 7550 Firmware Release v3.50

1. General Release Information

These product release notes define the features, known issues and release details that apply to the XstreamCORE FC 7550 version 3.50 that was released on August 2, 2019.

2. Introduction

- *Version 3.50 (Released 8/2/2019)*
    - **Release details**
        - This release includes a change to the release ZBD name which is longer than the previously standard filename. As such, the XstreamVIEW firmware update GUI page releases prior to 3.50 will not accept the 3.50 release's filename length. The 3.50 release should be uploaded to an XstreamCORE FC 7000 via FTP (which does not have the same filename length restriction).
        - Added "Fibre Channel LUN Naming" capability.
        - Improved SCSI command handling, particularly for overrun/underrun, deferred, and large sense data payloads.
        - Improved streaming device (i.e. tape) handling.
        - Shortened drive discovery time for systems with a large number of drives.
        - Improved error handling in Event Log and CLI Log infrastructure.
        - Reduced exposure to certain DDoS scenarios.
        - Removed "CONTROL MODE PAGE" override by controller for attached target devices.
        - Improved UVDA Core Dump information retrieval.
        - Improved FPGA exception handling.
        - Boot Block updates are now handled via standard ZBD firmware uploads.
        - Fibre Channel firmware has been updated, 11.4.337.0 for G5, and 12.2.302.0 for G6.
        - Improved handling of device loss during discovery.
        - Improved XstreamVIEW Mapping page and CLI RouteDisplay command to distinguish between "Offline" and "Online" devices.
        - Added CLI EthPortList to show Ethernet port status.
        - Added CLI FCCorePresent to show whether an FC FW core exists.
        - General platform UVDA, Fibre Channel, and SAS source code refresh.

- *Version 3.00 (Released 10/18/2018)*

    - **Release details**
        - Synchronized all Fibre Channel XstreamCORE models to version 3.00 firmware
        - This release contains Fibre Channel firmware updates.
            - To apply the updates, follow the following steps:
                - Stop all I/O
                - Load the firmware zip bundle file (7550: X7550300.zbd)

- Restart the controller
- Repeat steps 2 and 3 (one time only)
- Confirm via the CLI Info command that the correct FC firmware has been applied (7550: 11.4.335.1)
- Improved overlapped command and task management handling in tape environments.
- Improved the logging of critical errors.
- Shortened drive discovery time for systems with a large number of drives.
- Improved SNMP behavior in large drive configurations.
- Improved the Transport Layer Retry (TLR) error handling feature.

- ***Version 1.30 (Released 6/7/2018)***

  - **Release details**
    - Added support for SAS tape devices with hardware accelerated performance
    - Added support for connection to SATA optical devices to Fibre Channel
    - Added enhanced diagnostic capabilities
    - Customer incident fixes
    - General code updates & improvements

  - **Release Upgrade Notice**
    - This release contains Fibre Channel firmware updates.
    - To apply the updates, follow the following steps:
      - Stop all I/O
      - Load the firmware zip bundle file (7550: X7550130.zbd)
      - Restart the controller
      - Repeat steps 2 and 3 (one time only)
      - Confirm via the CLI Info command that the correct FC firmware has been applied (7550: 11.4.225.9)

  - **New and updated features**
    - I/O to tape drives is now accelerated, providing saturation of LTO tape devices
    - 10% performance improvement for 128K and 256K disk reads on the XC 7550 (compared to the XC7550 v1.25 release)
    - The SASEnclosures CLI command has been modified to display a full SAS topology map of all enclosure-based devices attached to the XstreamCORE FC
    - The SASTargets display has been reformatted to include drive capacity and more accurate drive identifiers (target and lun IDs)
    - The SASConnectorInfo CLI display has been reformatted for ease of viewing
    - The Host Group Mapping feature GUI display now offers more detailed drive information, and includes a more user-friendly display with better user dialog box interaction for creating host groups
    - A CLI event log was added to track user command execution (to assist with troubleshooting)
    - Event log improvements:
      - The number of event log messages has been reduced.
      - Event log messages have been made more consistent in content presentation.
      - Many event log messages have been reformatted/condensed to assist with troubleshooting.
      - All check conditions in both accelerated and un-accelerated I/O paths are now being logged.

- ***Version 1.25 (Released 12/21/2017)***

    o **New or updated features in this release**
        - *Host group mapping improvements when using the 7550 in VMware*
        - *New logic to improve troubleshooting and debug capabilities*
        - *Improvements to XCOPY support to support destination drive failure conditions*

- ***Version 1.00 (Released 02/09/2017)***

    o **XstreamCORE FC 7550 Specifics**
        - *More efficient platform that increases performance 2x over previous generation*
        - *7550 Storage Controller bridges 4x 16Gb Fibre Channel to 4x (4 lane) 12Gb SAS*
        - *Support for up to 960 SSD or HDD disk drives*
        - *Fully data protected architecture eliminates silent data corruption*
        - *Adds less than 4 microseconds of latency to attached storage*
        - *Dual hot-swap power supplies*
        - *Flash ROM supports dual boot images for greater reliability during firmware updates*
        - *Large flash event log stored in NAND memory for field diagnostics*
        - *Fibre Channel SFP+ modules included with product*
        - *Dual 100/1000 Ethernet management ports*
        - *Battery-free design*

    o **Initial Release Features**
        - *Supports SAS 3Gb, 6Gb and 12Gb disk storage devices*
        - *Supports SATA 3Gb and 6Gb disk storage devices*
        - *Supports connection to 4Gb, 8Gb and 16Gb Fibre Channel*
        - *Drive Map Director™ feature provides predictive enclosure-aware mapping scheme*
        - *XstreamVIEW™ System Manager GUI, CLI, FTP and Telnet access*
        - *Available FC and SAS port statistics*
        - *Available in-band access*
        - *SNMP Support*
        - *SMTP Support*

3. Known Issues/Advisements

- The XstreamCORE FC 7000 3.50 release includes a change to the release ZBD name which is longer than the previously standard filename. As such, the XstreamVIEW firmware update GUI page releases prior to 3.50 will not accept the 3.50 release's filename length. The 3.50 release should be uploaded to an XstreamCORE FC 7000 via FTP (which does not have the same filename length restriction).
- IR16911 – The SNMP MIB for the FibreBridge/XstreamCORE line has not been updated yet, in part because not all bridges have been rebranded, and the NetApp line may or may not be rebranded.
- IR16941 – QuickNav reboot time expires before the XC7550 finishes rebooting. QuickNav allows you to discover an XC7550 and assign it an IP address, but after QuickNav performs a "saveconfiguration restart", the QuickNav reboot timer expires prematurely.
- IR18684 – Pulling the SAS cables from the XstreamCORE or connected storage during operation may result in a controller crash requiring reboot.
- In VMware environments, at least one drive must be present in the storage between the lun range of 0 – 7 (this can be confirmed by using RouteDisplay, visual confirmation of storage, or by using the IdentifyLun command). Otherwise, VMware will not continue its discovery scan to luns that are mapped above lun 7 and will not detect any drives. (This is a VMware issue and not an ATTO controller issue).
- Note that when you plug in a power cable to one of the power supplies on the 7550, power is immediately enabled on the controller, there is no power switch.
- The Drive Map Director™ feature requires that SAS enclosures support the SMP protocol, for specific information contact ATTO tech support, if enclosures do not support the SMP protocol then mapping occurs via the Automap feature.
- Controller crashes may occur when SNMP is enabled, when 256 or more connected drives or state device maps are connected/created (Maps for devices no longer connected to system) or when performing SAS cable pulls.

4. Affected Products

Product Name	SKU
XstreamCORE FC 7550	XCFC-7550-004

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 8:00 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