



ATTO Technology, Inc.

Product Release Notes

XstreamCORE FC 7500 Firmware Release v2.00

1. General Release Information

These product release notes define the features, known issues and release details that apply to the XstreamCORE FC 7500 Storage Controller version 2.00 firmware that was released on 7/26/2016.

2. Introduction

- **Version 2.00 (Released 7/26/16)**
 - **Release details**
 - *ATTO has been actively investing in our Storage Controller product line to add value and feature sets to increase the viability and usability of the ATTO Storage Controller in today's competitive and demanding storage environments. Storage is currently moving toward a more open and modular architecture requiring those that build products within this market to adapt and address customer needs. Our latest feature set continues the path forward of a feature-rich hardware accelerated, open XstreamCORE Storage Controller.*
 - **New Features**
 - *XstreamVIEW Storage Manager GUI for configuration, management & monitoring*
 - *Update SasTargets to display SAS/SATA device firmware revision*
 - *Improved network traffic handling*
 - *Added "all" option to SASEnclosures output.*
 - *Improved Watchdog Timer functionality*
 - *Added additional diagnostic logging capabilities*
 - *Improved mode sense handling*
 - **Features**
 - **Hardware Data Mover support** - *we implemented technology required for the storage controller to offload data movement between storage devices from host servers and networks using industry standard EXTENDED COPY (XCOPY) commands. This also enables the ability for the ATTO Storage Controller to move data between any storage.*
 - *Added support for WRITE SAME (10), WRITE SAME (16)*
 - *Added support for BLOCK COPY*
 - *Added support for SCSI COMPARE AND WRITE (attached storage must support SCSI COMPARE & WRITE)*
 - *ATTO's storage controller uses ATTO patented technology (US Patents #US7836225B2, US8291132B2, US7788324B2, US8504770B2).*
 - **Data Mover Performance Metrics** – *ATTO Storage Controllers feature the DataMoverStats CLI command to allow SysAdmins to monitor performance levels of the data mover component to verify functionality and plan storage bandwidth usage.*
 - **VMware VAAI support** - *Support Block Copy using SCSI EXTENDED COPY with support for Block Zeroing and Atomic Test and Set (ATS). The ATTO Storage Controller will automatically use VAAI when enabled in VMware environments.*

- **TargetAliasing** feature to support VAAI clone copies between storage from different vendors
- **Host Group Mapping** - the ability to assign specific groups of hosts to access attached storage, this zoning feature provides access control security for storage. This feature has a graphical user interface to map host groups/initiators to storage LUNs by WWN. This feature is useful for many applications and also is required for booting multiple VMware ESXi hosts.
- **Identify Storage LUNs** – ATTO Storage Controllers now give SysAdmins the ability to flash LEDs on all devices located in a specific LUN. This ability is available through IdentifyLUN and can be turned off via StopIdentifyLUN in CLI.
- **VMware Ready certification**
 - The ATTO XstreamCORE FC 7500 Storage Controller is VMware Ready certified with support for VAAI. This controller is listed on the VMware HCL located here: <http://www.vmware.com/resources/compatibility/search.php?deviceCategory=san>
- **Version 1.30**
 - **Release details**
 - This release adds support for multiple LUNs behind a target
 - The 7500 now supports connection to SAS/SATA RAID Arrays and SAS Target processor devices with multiple disk LUNs (SASMapByTopology disabled)
 - Enhanced performance monitoring capabilities
 - Added support for Supermicro 12Gb JBOD storage
 - Improved Fibre Channel support
 - Improved SAS/SATA device support
 - Added support for spinning up SATA drives with PUIS enabled
 - Improved SAS cable management error handling
 - Improved SAS device discovery
 - Several fixes for Customer IRs
- **Version 1.20**
 - **Release details**
 - This release supports new diagnostic features for the 7500 platform
 - Improved Debug Tools
 - Added Ethernet Trace Logging capability
 - Added Internal logging of SNMP requests
 - Added IPv6 support for SNMP
 - Extended Controller Name to allow 32 characters, hyphens and underscores
 - Added ability to disable the Storage Controller LUN to allow discovery to complete without mapping the Storage Controller LUN
 - Updated the maximum temperature threshold to 90C and default warning at 80C
- **Version 1.10**
 - **Release details**
 - This release supports new diagnostic features for the 7500 platform
 - Added Fibre Channel and SAS Dynamic Trace Logging
 - Ethernet Trace Logging
 - xCORE Acceleration Engine Trace Logging
- **Version 1.01**
 - **Release details**
 - Added support for a full 240-drive configuration, 10 shelves of 24 drives each.

- **Version 1.00**
 - **Initial Release Features**
 - **xCORE™ Data Acceleration** - features multiple parallel I/O acceleration engines, end to end I/O processing, hardware buffer allocation management and real-time performance and latency analytics
 - **eCORE™ Control Engine** - adds common, open storage services, industry standard APIs, handles reservations, storage routing and host and LUN mapping functions
 - - 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
 - ExpressNAV™ 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

Issues with an IR at the beginning are logged and tracked in the ATTO IR reporting process. These items are in review for a resolution in a future product release.

Issues

- IR15619 – On the XstreamVIEW controller configuration page, the Identify Controller button temporarily saves page settings similar to using the Submit button
- IR16309 – Host Group rename command (HGRename) allows names that contain illegal characters (non-alpha numeric) and does not enforce the maximum string length (32) for Host Group names.
- IR16310 – Duplicate maps appear in RouteDisplay when SasMapByTopology is enabled, two drives are pulled from an SES-based JBOD enclosure, and one is re-inserted into the other pulled drive's slot.
- IR16311 – Drives are not visible in RouteDisplay when connected to NetApp JBOD DS2246 12Gb IOM shelves and SasMapByTopology is enabled.
- IR16346 – Extended copy commands will complete with busy status if one or more of the affected drives are removed from the system and then reinserted.
- IR16410 - 7500 disappears when OSX 10.11 goes to sleep or hibernates until cable pull or FirmwareRestart.
- IR16537 – Data issues may occur under intense IO loading when using 40+ SSD drives.

Advisements

- 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 7500, 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.

4. Affected Products

Product Name	SKU
XstreamCORE FC 7500	XCFC-7500-002

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