



ATTO Technology, Inc.

Product Release Notes

FibreBridge 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 FibreBridge 7500 Storage Controller version 2.00 firmware that was released on 4/29/2016.

2. Introduction

- **Version 2.00 (Released 4/29/16)**

- **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 Storage Controller.*

- **New 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.

- **Updated Features**
 - **Updated ExpressNAV** - we updated the user interface with a more attractive, user friendly version of the GUI
 - This release also adds several fixes for open IRs.
- **VMware Ready certification**
 - The ATTO 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 (Released 1/12/16)**
 - **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 (Released 5/13/15)**
 - **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 (Released 10/30/14)**
 - **Release details**
 - This release supports new diagnostic features for the 7500 platform
 - Added Fibre Channel and SAS Dynamic Trace Logging
 - Ethernet Trace Logging
 - BAU Acceleration Engine Trace Logging
- **Version 1.01 (Released 9/23/14)**
 - **Release details**
 - Added support for a full 240-drive configuration, 10 shelves of 24 drives each.
- **Version 1.00 (Initial release 9/3/14)**
 - **FibreBridge 7500 Specifics**
 - New Acceleration platform increases performance x10 over previous generation
 - 7500 Storage Controller bridges 2x 16Gb Fibre Channel to 4x (4 lane) 12Gb SAS
 - 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*
- **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*
 - *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

- IR15320 - Drive errors may not be logged in the SNMP errorTable and error traps may not be received.
- IR15614 – With Windows 10, an incorrect, yet benign, 530 Access Denied message is delivered to the FTP client
- IR15617 – With SNTP disabled, manual setting of time and date are required (fields are not independent).
- IR15619 – On the ExpressNAV Controller status page, the Identify Bridge button temporarily saves page settings similar to using the Submit button
- IR15879 – Controller does not always respond as expected during a drive removal
- IR16276 – Controller may return invalid data to an FC host when Inquiry and Read Capacity commands are returned from a drive with a check condition.
- IR16286 – ExpressNAV GUI HTML hyperlink image maps are off center on the port faceplate image.
- 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 some 12Gb JBOD 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.

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 a 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
FibreBridge 7500D	FCBR-7500-DPS

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