



ATTO Technology, Inc.

# Product Release Notes

## Celerity 8Gb Fibre Channel Release v2.19 - Linux

### 1. General Release Information

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These product release notes define the new features, changes, known issues and release details that apply to the Celerity 8Gb Fibre Channel adapter product v2.19 that was released on July 2<sup>nd</sup>, 2019. This information pertains to the following operating systems: Red Hat Enterprise Linux 6, 7, 8; CentOS 6, 7; SUSE Linux Enterprise Server 12.4, 15; OpenSUSE Linux 42.4, 15 ; Ubuntu 16.04, 18.04 LTS.

### 2. Changes

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- **Version 2.19MP (Released 7/2/2019)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
    - Add support for Linux kernel 5.0.
    - Add support for LTS Kernel 4.4.168
    - Fix response to commands received when TPATMD is not connected
  
- **Version 2.18 (Released 02/28/2019)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
    - Added support for SLES 15.
    - Added support for FC target mode API version 4. Contact ATTO for a new target mode development kit that demonstrates API usage.
    - When target mode is enabled, initiator mode is disabled by default. This allows additional resources to be used for target mode.
    - The multimode\_ports module parameter may be used to restore simultaneous initiator and target mode
    - By default, ports operating only in target mode will not enable the FC link until a target mode application has connected to the driver.
  
- **Version 2.17 (Released 11/05/2018)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
    - Driver modules now install with DKMS (Dynamic Kernel Module Support). This allows the kernel module to be automatically rebuilt on kernel updates.
    - The 'io\_time\_out' module parameter has now been obsoleted in favor of the OS's IO timeout value. If manually setting the command timeout is desired, the following command can be used, where `#{value}` is the timeout in seconds. `echo #{value} > /sys/block/#{device-name}/device/timeout``
    - Added support for device protocol info display in CLI tools
  
- **Version 2.16 (Released 4/16/2018)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
    - Added support for a new flash bundle format that supports smaller download portions compatible with the maximum transfer size for the driver
    - Addressed timer API compatibility in kernel 4.15 and later
    - Improved interoperability with SLES 11.4 and SLES 12.3

- Fixed support for atfcvnr to change the node WWN
  - Improved support with SCST target mode
  - Updated default module parameters for improved performance
- **Version 2.15.0 (Released 12/18/2017)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added ability to uninstall included CLI Tools and added additional CLI tools: atdevinfo, atfcinfo, and atlocate to the release package.
    - Enabled atto\_log\_mask based logging
    - Resolved compilation error on 4.12 and later kernels
    - Removed driver module parameters that have NVRAM equivalents
- **Version 2.10 (Released 05/03/2017)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added support for Ubuntu 16.04 LTS
    - Updated builds for kernel 4.9, and later
- **Version 2.05 (Released 12/20/2016)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Modified driver to automatically unload the *attocfg* driver when switching between the MP and standard drivers
    - Reworked *ioctl* code to directly access user memory instead of double-buffering
    - Resolved issue with 32-bit driver builds for 4.x kernels
- **Version 2.01 (Released 09/01/2016)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - General improvements
- **Version 1.96 (Released 05/09/2016)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Corrected an issue with Reinstall Recovery Qualifier not being properly rejected when sent by a target to the adapter.
- **Version 1.95 (Released 01/21/2016)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Updates to CLI tools and readme
- **Version 1.90 (Released 8/06/2015)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Implemented T10-PI management improvements
- **Version 1.85 (Released 3/19/2015)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**

- Added support for Fedora 21
  - Added support for SUSE Linux Enterprise Server 12
  - Resolved an RSCN discovery issue.
- **Version 1.80 (Released 10/30/2014)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added support for RHEL 7
    - Addressed a model description error
- **Version 1.70 (Released 8/28/2014)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added new display information for atmpinfo
    - Added support for atreset
    - Added support for device display in atinfo
- **Version 1.65 (Released 3/27/2014)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Corrected issue with Execution Throttle that could prevent I/O from being started
- **Version 1.60 (Released 2/06/2014)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Adjusted DMA mask setting for improved performance.
- **Version 1.55 (Released 6/27/2013)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added support for SCST – contact ATTO for SCST kit.
- **Version 1.50 (Released 4/17/2013)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added support for Fedora 17 & 18
    - Added support for openSUSE 12.3
    - Sleep Mode Improvements
    - Fixed compile issue with kernel 3.7 and 3.8
- **Version 1.45 (Released 3/7/2013)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Added support for Execution Throttle.
- **Version 1.34 (Released 5/4/2012)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Addressed an incompatibility with certain Promise devices running in Point-to-Point.

- **Version 1.33 (Released 2/2/2012)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Made adjustment regarding bus reset handling.
  
- **Version 1.32 (Released 7/29/2011)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Resolved instances of kernel panics occurring when removing the ATTO driver while drives are being spun up.
    - New system logging macros are being used.
    - Contains fix for dropped PLOGIs or PRLIs.
  
- **Version 1.30 (Released 3/31/2011)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Feature Improvement related to command out operation
    - Various improvements related to Target Mode operation
  
- **Version 1.24 (Released 12/7/2010)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Feature improvement related to task management.
    - Improved the adapter recovery after a reset with a pending interrupt.
    - Added support for Red Hat Enterprise Linux 6.
  
- **Version 1.23 (Released 7/30/2010)**
  - **Note:** It is recommended that latest firmware available on ATTO website be used with this driver release.
  - **New Features/Enhancements**
    - Support added for T10-DIF
      - The command line switch T10Dif has the default setting as 0 (disabled). To enable, change setting to one (1).
      - When enabled, the driver will detect if a disk drive is formatted for T10-DIF. Upon detection of T10-DIF, the driver will automatically generate the DIF field on the writes, and check it on the reads.
      - This feature does not provide a mechanism to format the drive.
  
- **Version 1.12 (Released 8/31/2009)**
  - **Note:** It is recommended that firmware dated 091119 be used with this driver release.
  - **New Features/Enhancements**
    - Expanded support for the Linux transport layer (IR 6558)
    - Enhancements to abort and reset handling
    - Removed the num\_ioreq and low\_memory\_mode driver parameters
  
- **Version 1.10 (Released 5/20/2009)**
  - **Note:** It is recommended that firmware dated 090501 be used with this driver release.
  - **New Features/Enhancements**
    - Added support for the Linux SCSI transport layer
    - Incorporated TSDK 6.10
    - Resolved multiple compilation errors
  
- **Version 1.0 (Released 8/26/2008)**

- **Note:** It is recommended that firmware dated 8/26/08 be used with this driver release.
- **New Features/Enhancements**
  - Initial release of Linux drivers for the Celerity 8Gb FC adapters

### 3. Known Advisements

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- *Fibre Channel performance can be reduced significantly if the 8Gb Celerity HBA is placed in a Supermicro main board that uses the Intel 5520 (Tylersburg) chipset. The workaround is to disable Active State Power Management (ASPM) within the Linux Operating System (not the bios as Linux does not honor ASPM bios settings). Contact ATTO Tech Support for more information.*
- *Controller path discovery doesn't occur after a controller reset of a directly attached NetApp storage. Contact ATTO Tech Support for more information*

### 4. Affected Products

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Product Name	SKU
Celerity FC 81EN	CTFC-81EN-000
Celerity FC 82EN	CTFC-82EN-000
Celerity FC 84EN	CTFC-84EN-000

### 5. Contacting ATTO Support

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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. Please visit <https://www.atto.com/support/> for hours of operation.

ATTO Technical Support can be contacted via phone or email:

- Phone: 716.691.1999 ext. 242
- E-Mail: [techsupport@atto.com](mailto:techsupport@atto.com)