ATTO 32Gb and 16Gb Gen 6 Fibre Channel HBAs

Overview
The ATTO Gen 6 Celerity™ host bus adapter (HBA) portfolio will enable companies to capitalize on their existing storage area network (SAN) infrastructure and address the growing need for high-performing, scalable and secure storage to support exponential data growth from high resolution video editing, high-performance computing and data warehousing, along with the proliferation of virtualized servers and flash arrays.

Q&A
Q: What are the new features in Gen 6?
A: Gen 6 Fibre Channel complements and enhances performance of hyper-scale virtualization, SSD storage technology and new data center architectures. The new Gen 6 HBAs are available in 32Gb and 16Gb throughput speeds. The 32Gb HBA doubles 16Gb Fibre Channel data throughput to 3,200 MBPS per channel. Both the 32Gb and 16Gb HBAs take advantage of the new Gen 6 standard feature for forward error correction (FEC).

Q: What is the ATTO Gen 6 portfolio of products?
A: The new Gen 6 line includes Celerity 32Gb HBAs in low-profile single- and dual-port versions and 16Gb HBAs in low-profile single-, dual- and quad-port versions.

Q: When will the products be available?
A: ATTO Gen 6 cards are available in initiator and target modes as of August 2016.

Q: How do the ATTO HBAs fit into the overall ATTO product portfolio?
A: Complementing the new Gen 6 HBAs are ATTO XstreamCORE™ accelerated storage controllers, FibreBridge® controllers and ThunderLink® Thunderbolt™ storage adapters. With the addition of Gen 6 Fibre Channel products, ATTO further extends the industry’s broadest range of storage and network connectivity products, all optimized to work together.

Q: Is there a complete ecosystem in place for a 32Gb Fibre Channel Storage-Area-Network (SAN) solution?
A: The 32Gb storage market continues to grow. However, the majority of storage will likely start hitting the market in 2017. Even without 32Gb storage, there are ways to benefit from upgrading HBAs to 32Gb today, such as driving greater performance from existing 16Gb storage, increasing the client load, reducing the number of switch ports and maximizing the value and performance of SSDs. Brocade and Cisco offer 32Gb Gen 6 switches today.

Q: How will users benefit from using ATTO Celerity 32Gb and 16Gb Gen 6 HBAs?
A: Key benefits include:
- Celerity HBAs have the best latency management capabilities on the market. The Celerity Fibre Channel stack delivers high-performance connectivity for the most demanding environments utilizing Advanced Data Streaming (ADS™) Technology, which provides guaranteed, consistent latency. Benchmarks show up to 30% greater throughput on 16Gb cards for large block transfer sizes when compared to a leading competitor.
- Celerity HBAs are the only Fibre Channel card on the market with its own customized driver, MultiPath Director™, providing path failover protection for servers, workstations and workbooks ensuring data delivery for mission-critical applications. MultiPath Director also enables workstations and servers using different operating systems to share the same pool of storage improving efficiency and workgroup productivity. Third-party software for multipathing exists, but it is for servers only and also doesn’t support macOS®.
- The Celerity fabric advantage supports up to 2X the number of commands in flight compared to competitive products. This is ideal for high-caching environments such as flash-based arrays and virtual environments.
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- Celerity™ HBAs are optimized for VMware® environments. In addition to the VMware driver, Celerity HBAs have the vConfigTool™, which centralizes management and monitoring of HBAs in VMware virtual environments. The vConfigTool features Latency Scout™, which is an exclusive storage I/O latency diagnostic tool that enables IT administrators to quickly isolate datacenter bottlenecks with real-time latency histograms ensuring maximum infrastructure uptime and optimal performance.

- Celerity HBAs have 5X more buffer credits than the competition. This allows users to move data very quickly, which is ideal for SSDs and long distance environments. More buffer credits also means more data in flight which minimizes latency and provides uninterrupted access to your data.

- Celerity HBAs are the only adapters on the market that support Mac® environments. ATTO macOS® drivers have been supporting the most demanding high resolution real-time, video editing workflows in the media & entertainment industry for over 20 years.

Q. What storage, software and hardware are supported by ATTO Gen 6 HBAs?

A: ATTO tests its products with third-party hardware and software to ensure a wide range of compatibility. For your convenience and easy navigation, we offer an online interoperability search tool, https://www.atto.com/support/interoperability/.

Q. What software utilities are available?

A: ATTO GUI management tools include ConfigTool™ and vConfigTool. These tools will minimize downtime with centralized driver and firmware updates and accelerate troubleshooting efforts with real-time data analytics.

Q. What driver support does ATTO offer for Celerity Gen 6 HBAs?

A: ATTO Celerity HBAs will support Linux®, macOS®, Windows®, Windows Server®, Hyper-V®, VMware (16Gb only), FreeBSD® and MultiPath Director™.

Q. Where can ATTO HBA documentation, drivers and management tools be obtained?

A: All HBA drivers, documentation and management tools are available for download at https://www.atto.com/support/.

Q. Where do I go for support on ATTO HBAs?

A: You can e-mail the ATTO support team day or night with any questions or concerns. We're here to provide you with the information you need to get the job done right. Our strength lies in the experience and expertise of our personnel and our team approach to timely technical support and problem solving. Contact the ATTO support team https://www.atto.com/support/.

Q. How is ATTO positioned to succeed in the HBA market?

A: The 32Gb and 16Gb Fibre Channel ecosystem continues to grow. In addition to certifying with traditional storage manufacturers, ATTO is also certifying with flash storage manufacturers. Flash is transforming the datacenter and IDC predicts that these flash-based arrays will dominate primary storage environments within the next five to seven years. The best way to unleash the power of flash storage is by leveraging a 32Gb or 16Gb Fibre Channel SAN. As datacenters continue to virtualize, the new Gen 6 portfolio promotes better virtualization by offering 2X more on-chip resources and bandwidth to support more virtual machines (VMs). ATTO HBAs also feature N-Port ID Virtualization (NPIV), which enables each Fibre Channel HBA to define multiple “virtual ports,” identified by Worldwide Ports Names (WWPN), and be assigned a virtual machine.

Q. What future plans future plans does ATTO have for the HBA market?

A: ATTO is committed to a long-term investment in Fibre Channel with plans for a growing product line that enables connectivity of servers and workstations to high end storage. In all segments where ATTO competes, the goal is to lead and to remain at the forefront of the marketplace.