

Enabling Connectivity Solutions for Bandwidth-Intensive Environments in Media and Entertainment



Technology

ATTO Fibre Channel over Ethernet
Intel® 82599 10 Gigabit Ethernet Controller

Product

ATTO FastFrame™ 10Gb Network Interface Cards
ATTO FastFrame™ Converged Network Adapters

Solution Highlights

- FastFrame™ 10Gb adapters bring together Intel's industry-leading Ethernet technology and ATTO's field-proven Fibre Channel connectivity to offer best-in-class solutions for convergence in data centers.
- Broad operating system support to include Windows*, Linux*, and Mac OS X* ensures ATTO's continued leadership in Media and Entertainment markets.
- Optimized for storage, FastFrame offers seamless integration of existing storage assets and infrastructure without a drop in performance.
- Proprietary ADST™ technology offers consistent high bandwidth for the very applications driving the adoption of 10Gb.

Summary: 10 Gigabit Ethernet and Fibre Channel over Ethernet

Growing adoption of 10 Gigabit (10Gb) Ethernet combined with increased processing power in multi-core server platforms delivers much-needed performance benefits to bandwidth-intensive applications. The greater bandwidth of 10Gb and the low implementation costs and ubiquity of Ethernet are helping it expand its footprint outside of typical data networking and SMB storage environments.

The new Fibre Channel over Ethernet (FCoE) standard, combined with the Data Center Bridging enhancements in 10Gb Ethernet, is now enabling the expansion of Ethernet into high-end storage solutions previously limited to environments requiring high performance and reliable and scalable access to business-critical data. FCoE encapsulates Fibre Channel frames inside Ethernet packets, thus allowing for a unified fabric for both Local Area Network (LAN) connectivity and Storage Area Network (SAN) connectivity. This network convergence results in savings in the number of adapters, switches, cables, reduced power and cooling costs, as well as simplified management allowing for reduced data center TCO.

Background: ATTO and Intel Bring Best-in-Class 10Gb Connectivity for LAN and SAN

With 30 years of experience delivering quality Ethernet products, Intel is uniquely positioned to drive the transition to 10Gb Ethernet and unified networking in the data center. Intel is the volume leader in both Gigabit and 10Gb Ethernet adapters and has shipped more than 600 million Ethernet ports in the last decade. The latest 10 Gigabit Intel® Ethernet controllers are optimized for unified networking with hardware support for FCoE and iSCSI, and include industry-leading virtualization support.

ATTO has been a leader in the data storage market with its extensive portfolio of high-performance data connectivity products for 23 years. ATTO has been providing Fibre Channel connectivity products for over 15 years and since the early adoption of the technology. With its suite of proprietary technologies tailored specifically to business-critical applications' need for consistent high-bandwidth and reliable connectivity, and a broad OS support including Mac OS X – a platform of choice for creative professionals, ATTO leads the Media and Entertainment markets for content creation and capturing, editing, storage and distribution of rich digital media.

Built on ATTO's trusted and proven Fibre Channel technology and Intel's industry-leading 10Gb Ethernet technology, FastFrame 10Gb Network Interface Adapters and Converged Network Adapters are the latest additions to ATTO's portfolio.

The Challenge: Need Guaranteed Delivery; Best Effort is Not Enough

Media and Entertainment (M&E) markets are constantly faced with the challenge of building solutions that allow guaranteed delivery. While best-effort connectivity to data may be sufficient for Fortune 500 datacenters, it is not good enough for video production and distribution systems where ultra-low latency, consistent high-bandwidth and precision in delivery of rich data at wire-speed are of utmost importance. This challenge is further

complicated by the fact that connectivity products are very limited in their support for the Apple Mac* operating system, a platform widely proliferated in M&E markets.

A Converged Network Adapter combines the benefits of high-performance Fibre Channel storage connectivity with widely available and trusted Ethernet. When ATTO began designing an adapter that could meet those requirements, it needed access to a proven Ethernet stack to combine with its FCoE stack built on its industry-leading, field-proven Fibre Channel expertise. Based on ATTO's long partnership with Intel and Intel's leading market position, the Intel® 82599 10 Gigabit Ethernet Controller was the obvious choice.

"Combining Intel's Ethernet expertise with ATTO's 15 years of leadership in Fibre Channel development, we are delivering the best-in-class solution in the 10Gb and FCoE market," says Neelam Dua, product manager for ATTO Technology, Inc.

Explains Darryl Rakestraw, director of customer marketing in Intel's LAN Access Division, "Customers understand that Fibre Channel over Ethernet runs on Ethernet, and Intel has been a leader in this industry for many years by delivering proven, high-quality products. Companies like ATTO choose Intel Ethernet because of our long history of reliable products, leading performance, and robust software drivers."

The Solution

FastFrame 10Gb connectivity products combine the best-in-class technologies from Intel and ATTO to deliver the highest possible bandwidth for business-critical applications in M&E markets, including support for Mac OS X. Operating at 4.7, 5.9 and 15.7W for single, dual and quad-port cards, respectively, ATTO's FastFrame adapters offer the lowest power consumption in their class.

With the addition of FastFrame, ATTO now offers the industry's broadest portfolio of high-bandwidth, high-performance I/O connectivity products that deliver technologies like Fibre Channel, FCoE, 10Gb Ethernet, SAS, SATA, iSCSI and RAID, making it easier for industry partners to do business with ATTO. ATTO's customers and partners in M&E verticals can continue to rely on ATTO to deliver a high-performance solution, no matter what their needs are.

About ATTO Technology

ATTO Technology, Inc. is a global leader of storage connectivity and infrastructure solutions for data-intensive computing environments. ATTO provides a wide range of solutions to help customers store, manage and deliver their data more efficiently. ATTO has been providing high-performance data and storage networking products for over 23 years.

About Intel

Intel, the world leader in silicon innovation, develops technologies, products, and initiatives to continually advance how people work and live. Founded in 1968 to build semiconductor memory products, Intel introduced the world's first microprocessor in 1971. Intel is the industry leader in Ethernet adapters and has delivered quality Ethernet products for over 30 years.

Solution provided by:



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