



The Power Behind the Storage



PARTNER BRIEF

Modernize Digital Media and Entertainment with Gen 6 Fibre Channel

HIGHLIGHTS

- Guarantees the transmission of data in order, on time, without corruption and with zero downtime
- Supports the demanding requirements of new 8K and 4K video, VR and AR workflows
- Ensures industry-leading bandwidth and low latency for rapid proliferation of CGI and special effects in TV shows, movies and gaming
- Delivers Gen 6 32 Gbps performance in a purpose-built network for real-time compositing with no dropped frames
- Connects seamlessly to next-generation storage with built-in NVMe over Fibre Channel for the highest throughput for future applications

An Ecosystem for Best-in-Breed Media and Post-Production Workflows

In a post-production environment, project deadlines are tight and every second counts. The number of post-production projects and the increasing complexity of the tasks raise the importance of the technology and infrastructure for workflows. The move to new formats, along with the proliferation of CGI and special effects in everything from TV shows to movies to gaming, drives the demand for an infrastructure capable of supporting multiple ultra-high-definition video streams. New 8K and 4K video, Virtual Reality (VR) and Augmented Reality (AR) formats are on the leading edge and new media technologies come with demanding new delivery requirements to support these workflows. With 16 times the resolution of 1080p HD, 8K video in particular creates one of the toughest technical challenges for studios. This is where Gen 6 Fibre Channel delivers the most robust solution in the industry with 32 Gbps performance, low latency and the flexible scalability to handle complex workflows and the growing storage requirements for future media and entertainment projects.

Why do Technology Leaders in Media and Entertainment Invest in Fibre Channel?

Ensuring creators have secure and dedicated bandwidth is critical to a media project's success. In post-production, visual effects and animation, there's nothing faster and more reliable than Fibre Channel. With 48 percent less overhead per frame compared with Ethernet and the ability to handle a 40 percent bigger workload without requiring re-transmission or error checking, Fibre Channel is a lossless

protocol built specifically for low-latency flash storage. It is built on the foundational technology with the guarantee that data will transmit in order, on time and without corruption.

With Fibre Channel, a Storage Area Network (SAN) administrator can also dedicate ports to ensure adequate bandwidth is available to easily zone a SAN and efficiently divide workloads. Brocade Fabric Vision technology delivers unprecedented insight and visibility across the storage network with powerful, integrated monitoring, management and

diagnostics tools. Fibre Channel ensures better security because permissions can be allocated and cross traffic is eliminated. With the risk of a data breach significantly reduced, entertainment organizations can obtain the peace of mind that their latest release will not leak early and jeopardize their business.

ATTO and Brocade Deliver Performance and Always-on Reliability with Gen 6

ATTO Technology, Inc. and Brocade® offer a powerful Gen 6 Fibre Channel SAN solution for the most demanding workgroup workflows from ingest to post-production to distribution. With a total of over 40 years of combined Fibre Channel experience, ATTO's Celerity™ Gen 6 host bus adapters (HBAs) and Brocade Gen 6 switches and directors deliver leading-edge storage connectivity solutions that are designed to maximize throughput and minimize latency.

With a robust ecosystem of leading partnerships throughout the media and entertainment industry, ATTO and Brocade® solutions are highly interoperable and built to leverage the best-in-class technology to enable the newest innovations in media and entertainment. (see Figure 1).

The breadth of the Brocade Gen 6

portfolio spans from affordable entry-level G610 switches all the way up to Brocade X6 Directors. The Brocade Gen 6 portfolio was purpose-built to perform with 99.9999% availability and lossless connectivity for deterministic networking with no dropped frames. Brocade Gen 6 Fibre Channel is the purpose-built network infrastructure for mission-critical storage, delivering operational stability, breakthrough performance, and increased business agility to accelerate data access, adapt to evolving requirements, and drive always-on business operations. Brocade Fibre Channel is ideal for the most demanding creative and streaming workload environments.

ATTO's Celerity™ Fibre Channel Gen 6 HBAs and Thunderbolt™ ThunderLink® devices enable Brocade Gen 6 Fibre Channel switches and directors to deliver industry-leading bandwidth and low latency. Available in single-, dual-channel (32 Gbps) and quad-channel (16 Gbps) configurations, Celerity Fibre Channel HBAs support up to 6,000 MB/s data transfer rates, making them an ideal solution for advanced streaming media applications, including 8K editing. Designed for fast, redundant and highly available connectivity, they offer driver support for Linux®, macOS®, Windows®

GEN 6 FIBRE CHANNEL TECHNOLOGY FOR MEDIA AND ENTERTAINMENT

In digital media and entertainment, complex tasks must be accomplished faster than ever before. In the post-production workflow, multiple steps take place in the processing of content to support the various editing workflow from distribution to production to data protection. The workflow demands of creating, transferring, duplicating, storing, securing, and archiving data require a reliable network that guarantees no dropped frames. This is why Fibre Channel is the storage enabler that the world's leading media and film companies have relied on for decades. Gen 6 is the most advanced storage networking technology purpose-built to address the most challenging media and entertainment workloads.

- *Video Ingest*
 - *Capture, transfer or importing different types of video, audio or image media into an editing program*
- *Post production and editing*
 - *4K/UHD and 6K/8K video editing workflows*
- *Mastering and finishing*
 - *Color correction, checking for gaps, bad transitions, visual errors, broadcast legalization or finessing of graphics*
- *Playout and distribution*
 - *Servers for broadcasting*
 - *No-fail commercial requirements for no dropped frames*
- *Digital asset management (DAM) is an integral part of today's push in the media and entertainment industry to provide better protection and utilization of media assets.*
- *Accessing digital assets stored on tape, HDD, or SSDs that are transitioning to advanced storage array technology*
- *Data center applications such as content analytics deliver visibility into the amount of content being created, the nature of that content and how it is used to optimize workloads and time to market.*
- *High power server connectivity to all flash arrays (AFAs) supports enterprise applications to combine business intelligence (BI) and business analytics (BA) practices and apply them to digital content*

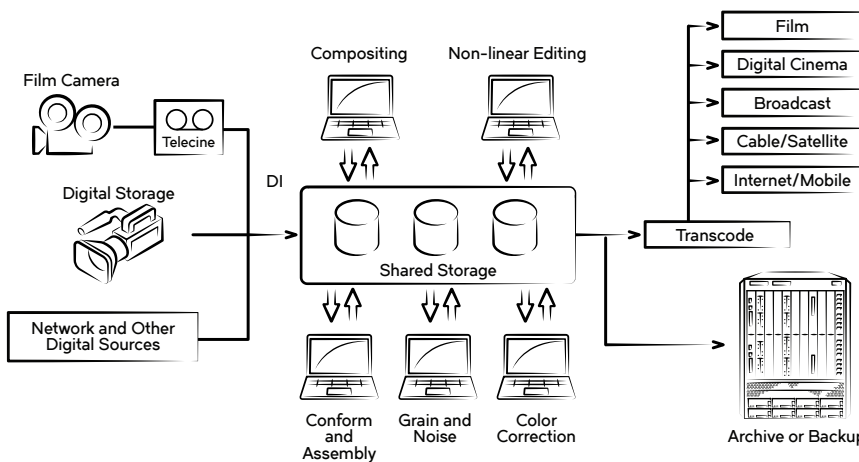


Figure 1: Digital Media and Entertainment Content Workflow.

and more, providing a single solution for users in heterogeneous OS environments. ATTO ThunderLink storage adapters provide Thunderbolt enabled workstation and workbook users with a flexible, portable connectivity solution from Thunderbolt 3 to 32 Gbps Fibre Channel (see Figure 2).

The newest, most demanding workloads in media and entertainment have the most to gain from advanced Gen 6 Fibre

Channel technology. Every aspect of the media processes of creation, archiving and analytics requires the highest network performance available. The increase of high resolution and multi-camera images and various forms of digital content distribution create a growing demand for high-capacity storage and faster access to data. Unmatched Gen 6 performance powers critical applications and flash architectures. With NVMe-ready capability, the Gen 6 network is future-

proofed with built-in investment protection to seamlessly connect to advanced flash storage.

Brocade and ATTO deliver best-of-breed, fully interoperable solutions together with a wide ecosystem of leading brands for media and post-production environments.

About Brocade

Brocade networking solutions help organizations transition smoothly to a world where applications and information reside anywhere. Innovative Ethernet and storage networking solutions for data center, campus, and service provider networks help reduce complexity and cost while enabling virtualization and cloud computing to increase business agility. Learn more at www.brocade.com.

About ATTO

ATTO Technology is a global leader of storage connectivity and infrastructure solutions for data-intensive computing environments. ATTO provides solutions that help customers store, manage and deliver data more efficiently. Learn more at www.attotech.com.

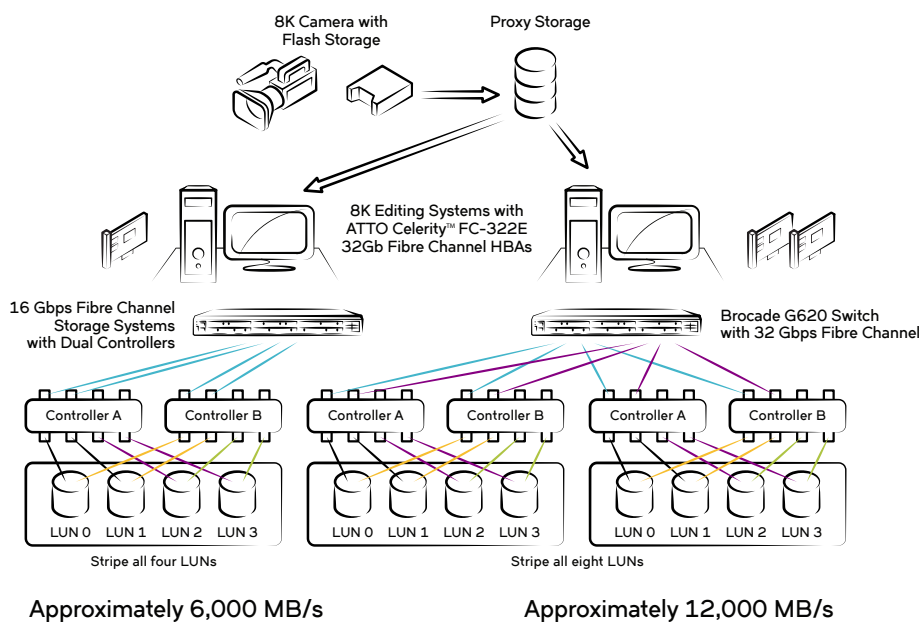


Figure 2: Deliver up to 12,000 MB/s for 4K/8K Video Workflows.

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