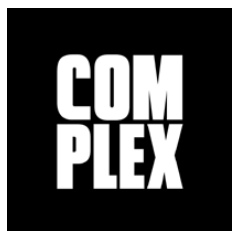




CASE STUDY

Complex Networks Makes the Leap From All-Print to All-Digital Media With Help From StorNext

When Complex Networks, a leader in providing content geared to millennials, shifted from all-print to all-online digital operations, it needed an overhaul of its storage systems to keep up with rapidly increasing demand, higher-resolution formats, and tighter production schedules. A key to making it all work was adding Quantum's StorNext platform and disk storage.



FEATURED PRODUCTS



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Jermaine Harrell

Manager of Video IT Operations, Complex Networks



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Jermaine Harrell - Manager of Video IT Operations, Complex Networks

SOLUTION OVERVIEW

- Xcellis® Workflow Director powered by StorNext®
- StorNext 300 Series Gateway appliances
- QXSTM-5000 Series Hybrid RAID arrays

KEY BENEFITS

- High-performance file system and storage saves time by allowing full-resolution editing of highest-resolution content in native format.
- Shared storage pool allows editors to share data quickly and easily, and eliminates the need to move drives between workstations.
- Compatibility with Mac platform and a wide range of commercial and proprietary Media Asset Management software gives the editorial team fast access to content—and works well with existing applications.
- Combination of Fibre Channel and LAN access optimizes both economy and performance.
- High-reliability operation improves editors' productivity and eliminates delays.
- Hybrid storage disk provides support for combining SSD and traditional spinning disk to improve performance and keep costs contained.
- Support for automated migration to the cloud and LTO tape archives provides an optimal balance of cost, convenience, and fast access to content.

Complex Networks is a success story through its adaptation, innovation, and a relentless focus on a specific, well-defined market. The company was founded in 2002 as a print magazine dedicated to presenting news and trends about popular street culture for young adults. Then called Complex, the company became successful as a print-based business, covering music, fashion, food, personalities, and sports—and a wide range of topics associated with youth, especially hip-hop culture.

In 2007, Complex started investing heavily in its online presence, launching new websites and creating digital media versions of the content that had begun in the magazine. By 2011, the digital side of the business had grown to include more than 50 websites with more than 25 million unique visitors each month. In 2014, the company was rated as the third most-visited online destination across the United States for adults between 18 and 34 years of age—and Business Insider named Complex Networks as one of the Most Valuable Private Companies in the World. In 2016, the company was acquired by a Verizon-Hearst joint venture.

Today, the company has become a digital media giant—with more than 100 websites, news feeds, and online channels broadcasting an array of award-winning original content.

REINVENTING THE COMPANY FOR ONLINE OPERATIONS

Throughout its transition, Complex Networks has continually reinvented itself both on the human and the technical sides. “We successfully transitioned from being a print publication to an all-digital media company, keeping and expanding our core audience in the process,” explains Jermaine Harrell, Manager of Video IT Operations at Complex Networks, “and that has meant navigating a lot of changes in our content production and distribution strategies.”

The writers and editors for the publication side of the house knew their audience and the topics that resonated, but they needed to learn about producing content for digital platforms. “The writers made the transition exceptionally well,” recalls Harrell, “and a lot of the magazine’s editorial team and writers are still with us today, producing content for our digital platforms.”

EXISTING STORAGE AND WORKFLOW SYSTEMS FALL SHORT

The technical changes that were needed to move from all print to completely online created new hiccups. “Producing digital content presents different challenges than print, and as we produced more content with higher-resolution formats and over a larger variety of platforms, we encountered much greater demands on the workflow side,” says Harrell. That was true both for content created in-house and for material produced by outside creative teams that sent completed projects to the Complex team for editing, transcoding, hosting, and distributing.

The production team was working with early-generation storage and networks, which were barely up to the task. “We installed an earlier-generation NAS system designed for media production to provide our editors with higher throughput and efficient shared storage capabilities; however, this became less effective as production demands increased.” The performance was too poor to support work on multiple projects and higher-resolution formats, especially as the content became overwhelmingly video.

“Our shared storage system restricted our teams to working at only one-quarter to one-half of the ideal resolution needed. As a result, editors were using external hard drives to increase throughput and get higher performance on their workstations—this interrupted workflows and impacted overall efficiency.”

DUE DILIGENCE IN FINDING THE RIGHT STORAGE PLATFORM INCLUDES INTEGRATOR

The IT team decided that it needed to find a shared storage system designed for high-performance video work that could grow with the company and support 4K and higher-resolution content in a shared work environment. “I’d been doing a lot of research into storage system alternatives and I travelled to Las Vegas for the NAB Show to meet with some of the key vendors,” says Harrell. “I had previously read a lot about Quantum StorNext’s interoperability with Xsan (Mac OS X), in addition to working with other platforms, and the system’s high performance and effective file sharing capabilities stood out as one of the

most useful options for Complex Media. The technologies were optimal for our large Mac-based environment and I was impressed with the roster of companies that were already using these systems—some of the biggest names in the media world.”

But to be certain that StorNext could work for a medium-sized, fast-growing company, the IT team at Complex Networks engaged the services of Chesapeake Systems, an integrator that specializes in helping customers design and implement workflow solutions for rich-media environments. The Chesapeake team looked at Complex’s requirements and its history of growth and plans for expansion, and immediately recommended StorNext. “When it came to creating workflow systems for video, Chesapeake Systems really knew what they were talking about,” Harrell explains. “They were fully aligned with our decision to integrate StorNext.”

STORNEXT AND QUANTUM DISK PROVIDE THE RIGHT ANSWER

The team installed a StorNext-based Xcellis workflow storage system along with 500 TB of Quantum QXS-5000 Series RAID arrays. StorNext provides a high-performance shared storage environment designed for rich media and other data-intensive workloads. It combines the industry’s fastest streaming file system with policy-driven data management to give users shared access to common content, which can span multiple storage tiers and locations—including disk, tape, and the cloud. The Quantum QXS hybrid storage arrays maximize performance and keep costs low by supporting a combination of storage types in a single array. QXS arrays can consist of all HDD, all SSD, or a combination of the two. Software in the array monitors access patterns and automatically moves the most active files to the fastest medium.

With Complex Networks’ new system, 16 editors have direct Fibre Channel access to the shared storage for high-performance processing, and roughly 40 more have access to the same storage shares over Ethernet using StorNext gateway appliances. The LAN access, used for lower-performance tasks such as playback and ingest, provides higher

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Manager of Video IT
Operations, Complex
Networks



performance than the old system, in part because the new network was specifically designed just for media work and is separated from the corporate Ethernet.

“We used to have five different teams working in isolation to produce primary content. Now, each of our editors has direct access to the same files through StorNext,” says Harrell. “Working in a single, shared storage environment has allowed for greatly improved efficiency—and StorNext’s performance allows our editors to directly work on the highest-resolution content in full native 4K. Best of all, it’s opened the door to integrating a multitude of other services, allowing us to manage, edit, produce, and distribute our content in ways we’d previously only dreamt of. StorNext has provided us with a reliable foundation to build out the appropriate technological infrastructure needed to support the growth of a global brand and media empire.”

The system has worked so well that the team is planning another installation in the company’s Los Angeles offices and also looking for ways it can use StorNext to expand its archiving capabilities.

“Today, we move content to a commercial cloud location for both protection and file retrieval for reuse,” Harrell explains, “but we need to be able to handle more data and get to it faster, so we’re looking at adding a Quantum LTO tape archive and integrating that tier through StorNext. It’s great to have that option.”

ABOUT COMPLEX MEDIA

Complex is the premier multi-media platform for the most influential young male consumers. This discerning audience is driven by style, music, sneakers, sports, games, gear, and girls. Complex initially reaches these ahead-of-trend influencers through its uniquely credible, authentic viewpoint and is further amplified by its unparalleled social influence.

At the center of the Complex platform, their flagship site, Complex.com, thrives as the online incarnation of the influential *Complex Magazine*. Proven the voice of the people that matter—Complex has become the go-to resource for the people that matter in an ever-evolving lifestyle. Complex.com is a consumer portal into the Complex lifestyle, and gives users access to the most definitive and unique content by allowing them to deep dive into their passion points and obsessions.

Other Complex sites are carefully selected and curated to maintain the perfect balance of innovative content and editorial integrity, allowing them to initiate highly engaging and deeply sustained conversations with their target audience—the product- and style-oriented, influential male.

ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive and data protection. The company’s StorNext® platform powers modern high-performance workflows, enabling seamless, real-time collaboration and keeping content readily accessible for future use and re-monetization. More than 100,000 customers have trusted Quantum to address their most demanding content workflow needs, including top studios, major broadcasters and cutting-edge content creators. With Quantum, customers have the end-to-end storage platform they need to manage assets from ingest through finishing and into delivery and long-term preservation. See how at www.quantum.com/customerstories.

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