

SUCCESS STORY

ACCELERATE: MEDIA/VIDEO PRODUCTION

Kollins Communications Speeds High-End Video Production to Help Customers Like Samsung Blaze a New Trail in Retail Marketing



CHALLENGES

- Extremely tight deadline to produce 20+ 4K videos in four weeks
- Need to reduce time required to transfer files between editing stations
- Demand to stream three, uncompressed 4K video files simultaneously for a video display

SOLUTION

A single, powerful storage solution for end-to-end media workflows, scaling seamlessly in capacity and performance to meet the most stringent video production demands

RESULTS

Reinforced leadership in video and digital media production featuring the most advanced capabilities and cutting-edge technology solutions

Kollins

KOLLINS COMMUNICATIONS PROVIDES ALL-IN-ONE RETAIL MARKETING SOLUTIONS, INCLUDING

point-of-sale (POS) display videos, in-store commercials, 3D product modeling and animation, along with complete video production finishing and encoding services. For the past decade, consumer electronics leaders have relied on the special expertise of the Ramsey, NJ-based company for help in promoting their products using high-definition digital messaging and imagery. For instance, Samsung Electronics USA works with Kollins to produce dozens of videos that highlight the latest features of their TV, audio and white goods products being sold at Sears, Best Buy, Fry's, club stores and elsewhere.

To meet the quality demands of its consumer products customers, Kollins works with the most advanced video technology formats available, including 4K ultra-high definition (UHD) with high dynamic range (HDR) features. According to Richard Martin, president of Kollins Communications, the company consistently pushes the envelope in producing the highest levels of image quality possible. "Outside of Hollywood, there aren't many companies in the U.S. blazing new trails in displaying the ultimate in consumer video technology," he explains. "We're pathfinders, like the large motion picture companies, but on a much smaller scale. But we have to meet or exceed very exacting quality standards."

In addition to being among the first to support the latest digital video formats, Kollins embraces a responsive, customer-centric business model. "It's not unusual for us to get a call in the morning for something that needs to be done by the next day, or even that day," Martin continues. "Customer service is a top priority, which is one of the reasons we maintain an 80 percent customer return rate."

To meet ongoing demands for fast project turnarounds, Kollins employs leading-edge technologies to expedite content creation workflows while keeping pace with an explosion of digital content. "Since time is of the essence, we typically edit using actual camera footage in high-res 4K or higher resolutions in real-time rather than proxies," says Dave Barter, IT Manager at Kollins Communications. "An older workflow would involve transcoding files to smaller, low-res files that are easier to move around. Our focus is on speed, which puts pressure on the underlying IT and storage infrastructure."

THE CHALLENGE

This need for speed was recently put to the test when Kollins received a video promotion request from Samsung, which entailed the development of 20+ separate UHD videos in four weeks to coincide with the release of new SUHD and UHD TV models. To meet the project's requirements, Kollins needed to acquire and ingest digital data files from outside contributors working on the project, then assemble and assimilate them quickly into its video editing and finishing operations. "Faced with such a tight deadline, we had to find a faster way to access, distribute and share large digital data files," Barter adds. "Not only did we need to reduce the time wasted importing and exporting media files, we also wanted to accelerate the transfer of files between editing stations."

BUSINESS BENEFITS

- Ability to reduce video file movement between editing stations from one hour to 10 minutes proved pivotal in meeting tight deadline
- Industry leadership reinforced by ability to expedite end-to-end media content workflows
- Scalable, high-performance storage supports desire to push the envelope in UHD, 4K and HDR video production capabilities

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Richard Martin
President, Kollins Communications

To accomplish this, Kollins sought a high-performance storage hub that could expedite the flow of content among a mix of OS X, Windows and Linux workstations. In particular, extremely fast performance was needed to support Autodesk Flame, a high-end 3D visual effects software running on Linux. Additionally, fast and scalable storage was necessary to support Autodesk 3ds Max as well as Adobe After Effects and Premiere Pro software that runs on OS X and Windows.

The ability to scale storage up or out was equally important because Kollins expected this Samsung project to exceed the capacity of its current central file system. Moreover, all the digital video files needed to be retained online to meet requests to make changes and updates for up to nine months. This required storage with massive capacity to grow in place. “The amount of storage needed in the long run just to keep all the raw video footage and constant video refresh files is just amazing,” notes Martin. “At some point, it becomes exponential.”

Another challenge was network bandwidth as Kollins' existing 1GbE connections had to be upgraded to 10GbE to meet high-speed file transfer requirements. On the back end, the company wanted InfiniBand connectivity to ensure the highest performance throughput with the lowest latency. “As part of the Samsung project, we needed to create an in-store demo video configuration, which required streaming three 4K images simultaneously because we needed to stitch them together to make it a 12K image,” Barter says. “That alone pushed the envelope on the storage front.”

THE SOLUTION



In its search for a massively scalable, high-performance storage solution, Kollins assessed the competitive landscape for systems with impressive throughput levels. The list of contenders was quickly whittled down to DDN and Quantum, then Kollins realized DDN delivered the best performance-price ratio with its ability to scale to 100 GB/s of performance using a proven building-block approach. “We wanted to get as much speed as we could afford,” adds Barter. “DDN's architecture would enable us to start small and grow non-disruptively.”

While evaluating DDN's MEDIAScaler™, Kollins was most impressed with the ability to manage end-to-end media workflows within a single platform—across ingesting, editing, transcoding, distributing, collaborating and archiving. Also attractive was the opportunity to deploy an all-in-one turnkey solution that would overcome scale, performance and cost hurdles.

As the decision was finalized, DDN connected Kollins with Nice Shoes, another DDN customer in the media space and a frequent Kollins collaborator. NYC-based Nice Shoes had implemented DDN storage to better meet demanding 24/7 video production schedules while permitting users to work in real time.

By replacing a number of separate storage silos with DDN, Nice Shoes took advantage of DDN's industry-leading performance and density while also shrinking its storage footprint. “We go back a long way with Nice Shoes, so we really appreciated hearing directly about how well their DDN system worked,” comments Martin. “Also, hearing firsthand how fast DDN's tech support team responds was frosting on the cake.”

After completing its due diligence, Kollins moved forward with DDN's MEDIAScaler with 400 TBs of storage capacity, which offers the ability to scale to petabytes as needed. Kollins also employed DDN's professional services to ensure an expedited installation and flawless operation. “Everyone jumped through hoops to ensure we could use our new storage straight away,” Martin adds. “Fortunately, we benefited from the speed right from the get go.”

TECHNICAL BENEFITS

- Single solution for end-to-end media workflows
- Ability to scale non-disruptively to 100 GB/s of bandwidth performance and PBs of capacity

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THE BENEFITS

DDN’s MEDIAScaler leverages the power of the company’s Storage Fusion Architecture® (SFA), as well as InfiniBand connectivity and NFS and SMB protocol support for simple and straightforward access. Initially, Kollins planned to use NFS for cross-platform file sharing but ran into some permission issues achieving the desired file exchange with its Mac systems. “One of DDN’s tech support experts came by late one evening to help us sort things out,” recalls Barter. “We ended up deploying Open Source Samba to provide seamless file and print services to SMB/CIFS clients, which gave us the required interoperability between platforms.”

Kollins immediately ramped its use of DDN’s MEDIAScaler to achieve a major bandwidth improvement. For example, Kollins achieved a maximum of 5GB/s performance in ingesting raw footage and rendering final files on its crucial Flame editing systems. “The ability to pull 3D model renderings into the Flame edit system very quickly pays dividends,” explains Steve Volante, Flame editor at Kollins Communications. “We really benefit from having high throughput to pull in different 4K files from different systems and move these high-quality images around in real time as we finish videos.”



Previously, Kollins would require up to an hour to move around a three-minute 4K video file. Thanks to DDN’s fast media storage, a three-minute 4K video clip now moves in approximately 10 minutes. As a result, a major productivity boost is realized along with substantial operational efficiencies.

DDN’s high-throughput bandwidth disseminates video clips straight from storage to both edit stations simultaneously. “Our goal is to take a live feed directly from storage and feed it to two different edit stations without impacting performance on either end,” continues Volante. “This really helps with the 3-screen video wall display, as we now have ample bandwidth to stream three 4K images at the same time.”

The ability to scale storage on demand will prove invaluable as Kollins continues to tackle more demanding projects. “Reducing the time to move 4K video clips from an hour to 10 minutes is the order of magnitude in speed improvement we needed to meet an incredibly tight deadline,” adds Martin. “Without DDN, we couldn’t have pulled off this project.”

With continued business growth on the horizon, Kollins will leverage DDN’s industry-leading storage density to reduce data center requirements while scaling as needed. Kollins also gives DDN’s MEDIAScaler high marks for reliability. While opting for DDN’s mission-critical service support, Kollins has had no need for it to date.

Moreover, the company is prepared to add building blocks to scale to hundreds of GB/s of performance. In fact, Kollins recently installed Mellanox ConnectX-4 adapter cards to support 100 GB/s InfiniBand connectivity. “In our business, it really does come down to speed and reliability,” concludes Martin. “With DDN, we became ‘speed racer’ blazing to the finish line with a great pit crew as DDN’s team delivered as promised.”

ABOUT DDN®

DataDirect Networks (DDN) is the world's leading big data storage supplier to data-intensive, global organizations. For more than 15 years, DDN has designed, developed, deployed and optimized systems, software and solutions that enable enterprises, service providers, universities and government agencies to generate more value and to accelerate time to insight from their data and information, on premise and in the cloud. Organizations leverage the power of DDN technology and the deep technical expertise of its team to capture, store, process, analyze, collaborate and distribute data, information and content at largest scale in the most efficient, reliable and cost effective manner. DDN customers include many of the world's leading financial services firms and banks, healthcare and life science organizations, manufacturing and energy companies, government and research facilities, and web and cloud service providers. For more information, visit our website www.ddn.com or call 1-800-837-2298.