



**DDN** | Case Study



Accelerate >

## **HD Broadcast**

Racing to transition to HD, SPEED needed a high velocity file-based workflow for flawless ingest, edit & play-out.

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## The Solution

Fox and SPEED chose DDN and Dalet™ as the technology providers for the Broadcast workflow, leveraging approximately 100TB of scalable, broadcast-quality storage.

The DDN xSTREAMScaler system supports nearly 200 clients in this environment, including a large number of Windows clients and gateways for Dalet clients and processes along with more than a dozen Final Cut Pro Editing Bays.

## Storage Challenge

SPEED™ is a member of the Fox Cable Networks family and the nation's first and foremost cable television network dedicated to motor sports and the passion for everything automotive. From racing to restoration, motorcycles to movies, SPEED delivers quality programming from the track to the garage. Now available in more than 78 million homes in North America, SPEED is among the fastest-growing sports cable networks in the country, home to NASCAR® on SPEED and an industry leader in interactive TV, video on demand, mobile initiatives and broadband services.

Fox Network's Engineering & Operations team was tasked with designing a file-based workflow solution for SPEED, specifically addressing the requirements to move from SD to HD content throughout the process, ingesting content directly into the Storage Area Network (SAN), creating low-res copies for easy editing, production and advanced editing, supporting Dalet transfers to and from video servers – while enabling 75 concurrent Dalet users to go about their everyday tasks, from logging content to rundown preparation. The team quickly began to leverage their experience from other, similar, projects and turned to DDN for its high performance storage and Dalet for the key workflow components. The biggest challenge was timing – only a few weeks after signing the PO the entire system had to be on air in a brand new, purpose-built, 55,000 square foot facility.

## Benefits

The easy to manage DDN xSTREAMScaler File Storage system enables SPEED's production and broadcasting professionals to have real-time access to digitized content, bringing productivity and workflow efficiencies, and accelerated return on assets (ROA). With the highest storage density and lowest power consumption, the DDN solution dramatically lowers operating cost and use of datacenter real-estate while providing a flexible and scalable content repository that is already enabled for future storage capacity and performance demands.

The guaranteed, predictable high performance characteristics of the solution enables SPEED to use all applications and devices in a real-time broadcasting workflow, without worrying that one application may cause disruptions such as dropped frames or delays

## All-in-One Media Storage

For broadcasting companies of all sizes moving from tape to a digital, file-based production and broadcasting workflow poses a number of challenges:

- How to integrate both open as well as closed systems into a consolidated storage environment
- How to eliminate unnecessary transcoding and loss of content as well as manual workflow steps
- How to deliver the performance needed to eliminate dropped frames or workflow delays
- How to scale the storage environment without additional engineering resources and rack space
- How to reduce operating costs, including IT operations, maintenance, power and cooling
- How to ensure maximum availability for a play-to-air broadcasting infrastructure
- How to ingest existing content and store it cost effectively

SPEED's broadcasting infrastructure is a perfect example of a highly-efficient, file-based broadcasting workflow. The complete workflow incorporates a number of diverse, heterogeneous applications and devices, fully leveraging the performance of DataDirect Networks' xSTREAMScaler storage system to perform tasks concurrently and in real-time

Fox selected DDN as the central storage for the Dalet-driven workflow because it was robust and DDN could deliver the sustained performance needed to run the workflow efficiently, especially the ability to ingest, clip, edit, transcode and play-out in parallel.



## DDN xSTREAMScaler

The DDN xSTREAMScaler file storage and HSM system, combined with the industry leading throughput of the S2A Storage, is an ideal choice for heterogeneous environments requiring the very lowest latency data streaming.

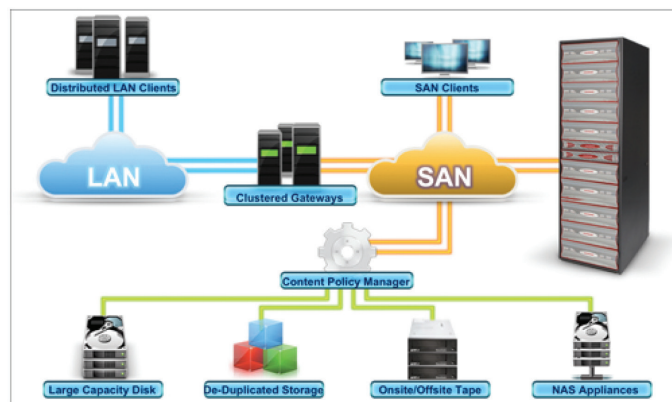
xSTREAMScaler supports a broad range of server platforms and operating systems, enabling organizations to eliminate islands of storage and centralize data in a single, cost-optimized SAN storage system.

Windows, UNIX, Linux and Mac client operating systems are all supported within the SAN storage environment, tying together disparate systems and providing greater bandwidth via SAN file sharing as compared to network attached storage approaches. Coupled with an optional, automated tiered data management engine, the xSTREAMScaler manages data across performance storage tiers, archive storage tiers and tape systems to reduce data management overhead and reduce capital expense.

Visit [ddn.com/xstream-scaler](http://ddn.com/xstream-scaler).

When Fox decided to build a completely new facility, they also decided to use this opportunity to transition SPEED from a conventional, SD tape-based workflow to an all-HD digital, file-based workflow, very similar to a newsroom environment. With DDN's xSTREAMScaler, SPEED is able to ingest new content, digitize analog content and perform any transcoding that needs to be done concurrently. Now, the only things delivered on tape to the facility are from suppliers or tapes that come out of the archive. Editors are able to quickly access content, share and collaborate on content and move content through the facility without ever going to tape, thus giving the producers the power to make decisions at their desktops, which was a key deciding factor.

DDN's xSTREAMScaler file storage system enables SPEED to connect all of their broadcast workflow elements to a single, consolidated storage system, virtually eliminating the need to copy or transcode content only to get it from one system into another. Having all the content digitally and in one place dramatically improves efficiencies for editors and creative workers as all content is available immediately, all in one single namespace. Additionally, since the content is now in a file-based format, it makes it easier to repurpose and distribute through multiple platforms for additional revenue streams such as Video-On-Demand and mobile phone applications.



DDN xSTREAMScaler Technology:  
Scalable Storage Infrastructure Media Environments & Data ILM



## **DDN** | About Us

DataDirect Networks (DDN) is the world's largest privately held information storage company.

We are the leading provider of data storage and processing solutions and services, that enable content-rich and high growth IT environments to achieve the highest levels of systems scalability, efficiency and simplicity. DDN enables enterprises to extract value and deliver results from their information. Our customers include the world's leading online content and social networking providers, high performance cloud and grid computing, life sciences, media production organizations and security & intelligence organizations. Deployed in thousands of mission critical environments worldwide, DDN's solutions have been designed, engineered and proven in the world's most scalable data centers, to ensure competitive business advantage for today's information powered enterprise.

For more information, go to [www.ddn.com](http://www.ddn.com) or call +1-800-TERABYTE.

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