



Intelligent Storage for Digital Content



#### Applications

Primary storage for the digitization and real-time viewing of all critical NBC Olympic content captured for the 2004 Summer Olympic Games in Athens, and storage for slow motion video clips stored on EVS Broadcast servers at the Track & Field and Gymnastics events.

#### Challenge

NBC wanted to deliver an unprecedented around-the-clock broadcast of the 2004 Summer Olympics in Athens that spanned 6 networks and included more programming than the previous 5 summer Olympics combined. To accomplish this, NBC needed to greatly expand access to its content, simplify the editing process, reduce time to air, and deliver the most comprehensive slow motion video ever.

#### Isilon IQ Benefits

NBC evaluated Isilon IQ, along with numerous traditional storage systems, and ultimately selected Isilon IQ for the following reasons:

- Its ability to allow NBC to digitize all critical Olympic content and permit the broadcast staff to easily view the content and make their edit decisions using a standard laptop and web browser.
- Its high-availability clustered architecture that affords no disruption to broadcast operations- even when increasing the cluster size, or in the unlikely event of replacing failed components.
- Simplified management that does not require NBC's technical team to focus on their storage infrastructure.

## ISILON IQ CASE STUDY

### **NBC TRANSFORMS COVERAGE OF LIVE EVENTS WITH UNPRECEDENTED BROADCAST OF OLYMPIC GAMES**

#### **More than 40 Terabytes of Isilon IQ Clustered Storage Enables NBC to Deliver Most Ambitious Live Event Coverage in History**

Having invested nearly \$800 million for the U.S. broadcast rights to this summer's Games, NBC wanted to deliver the most comprehensive and compelling broadcast of an Olympic Games ever.

NBC's unprecedented around-the-clock programming for the 2004 Summer Games in Athens spanned 6 networks, included 70 hours of daily material, 399 hours of High Definition Television (HDTV) content, and more than 1,200 total hours of broadcast and cable programming. Coverage of the 2004 Summer Olympic Games, the most ambitious and extensive ever, exceeded the total broadcast hours from the five previous Summer Olympics (Sydney, Atlanta, Barcelona, Seoul and Los Angeles) combined.

To bring this Herculean effort to air, which for the first time included at least some coverage of all 28 Summer Olympic sports, NBC assembled the most advanced digitization, asset management, slow motion capture, and clustered storage systems ever to be used for a television event.

### **NBC ELIMINATED BARRIERS TO CONTENT BY ACCELERATING THE DIGITAL WORKFLOW**

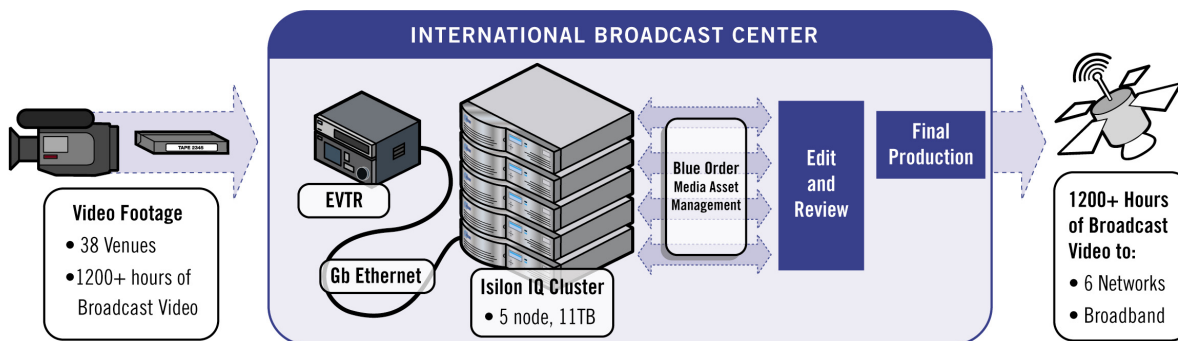
Leading up to the Olympics NBC believed the more online content storage they could make available to their production staff the more creative and nimble they could be. With more than 40 terabytes of Isilon IQ storage on-site, NBC was determined to dramatically expand access to their content, and make all slow motion video clips shot at the Track & Field and Gymnastics events available for the duration of the Games.

By pairing Isilon IQ clustered storage with BlueOrder's asset management system, NBC empowered their broadcast staff to comb through troves of content efficiently, and make all Olympic content available online and easily searchable via a standard web browser. No longer forced to reserve editing suites, or order and wait for the duplication of tapes, the NBC production team could search through content and make editing decisions at the click of a mouse.

"We needed a solution that provided ample storage, and offered unsurpassed performance and reliability for our 24/7 production of the world's most watched events," said Matt Adams, technology director for NBC Olympics. "Isilon IQ allowed us to eliminate barriers to our content, and to retain the slow motion video clips from Track & Field and Gymnastics in an on-line system for the first time. This new storage process freed our production staff from having to order and wait for tapes, and shaved hours off the time it takes to deliver programming to our viewers."

*"We believe this is the most ambitious live-event digitization effort ever. Without Isilon IQ it would not have been possible to digitize all critical video for the 2004 Summer Olympics. Isilon IQ delivers the combination of performance, reliability, ease of use and economics that enabled us to deliver the best Olympics broadcast to date."*

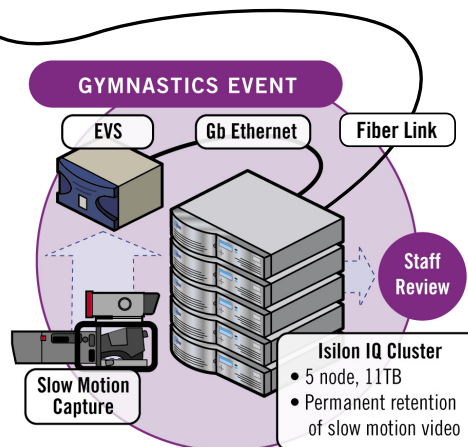
—Matt Adams, Director of Technology, NBC Olympics



As this was the first time NBC digitized all critical content, and permanently stored slow motion video clips for Track & Field and Gymnastics, the NBC technical team required a flexible solution that could be non-disruptively expanded. Isilon IQ, with its award-winning and patented OneFS™ distributed file system technology, allowed NBC the flexibility to meet their demands, with the ability to seamlessly and non-disruptively expand cluster storage, capacity and performance.

### IMMEDIATE, FAST ACCESS TO SLOW MOTION VIDEO AT PREMIER EVENTS

Two Isilon IQ clusters, each integrated with slow motion video capture servers from EVS Broadcast, were used to store all slow motion video clips from the highly anticipated and fast action Track & Field and Gymnastics events. For the 2004 Summer Olympics this content—which traditionally would be stored on a system for a limited time before being purged or transferred to tape—was instantaneously available for on air playback and could be accessed via standard file sharing protocols. With Isilon IQ, producers, directors and commentators easily accessed any sequence of slow motion content from the Track & Field and Gymnastics events, thus allowing them to deliver the most in-depth and timely coverage ever.

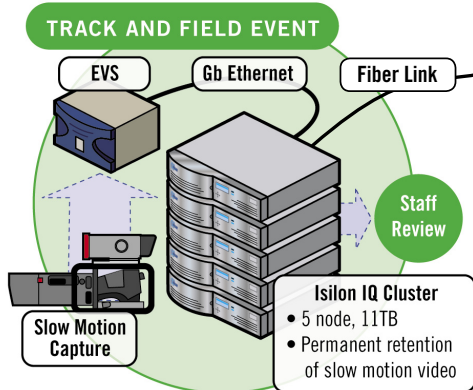


“Our coverage of this year’s Gymnastics and Track & Field events was very timely and well done,” said Adams. “From the International Broadcast Center, NBC producers had immediate access to all Gymnastics and Track & Field slow-motion video clips via standard file sharing. This was a huge benefit for us, and in the past clips were often delayed until the next day’s show while we waited for the daily reels to be done overnight”

### PUSHING THE ENVELOPE TO DELIVER HUGE RATINGS AND PROFITS

NBC’s coverage of the 2004 Summer Olympics Games was highly-rated, received broad critical acclaim, and generated significant profits. To produce the most extensive Olympics broadcast ever, NBC relied on advanced digitization, asset management and clustered storage systems. Because Isilon IQ is based on open protocols and industry standard hardware, NBC Olympics seamlessly integrated their Isilon IQ clusters into their broadcast environment, and greatly reduced the barriers and time to deliver final content.

“Isilon IQ offered us the reliability, scalability and economics necessary to deliver a tremendously successful Olympics,” said Adams. “Our Isilon IQ clusters helped us deliver the best Olympics coverage in the history of NBC.”



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