



*How breakthroughs begin.™*

Solution Brief

# Isilon Clustered Storage Solutions for Media & Entertainment Companies



# Solutions for Media & Entertainment Companies

## Isilon Clustered Storage: Accelerating Digital Workflows and Other Breakthroughs for Media and Entertainment Companies

***Media and Entertainment companies are undergoing one of the most significant transformations since the advent of broadcast television. Digital distribution, HD, VOD and a range of new formats, outlets and consumption devices have combined to create significant new challenges and opportunities for companies involved in virtually every aspect of the media value chain. And in an industry where content is king, Isilon is producing a fundamental competitive advantage for media, entertainment and broadcast companies by enabling them to maximize the value of their critical digital assets.***

***Isilon's award-winning family of IQ clustered storage systems combines Isilon's unique OneFS® operating system software with the latest advances in industry-standard hardware to deliver modular, pay-as-you-grow, enterprise-class storage systems designed to address the massive storage needs of media and entertainment companies—enabling the transformation of digital media assets into new breakthroughs across media creation, management, delivery and archiving.***

### Industry Leading Scalability—up to 2.3 PB in a Single File System

Many companies have attempted to meet their needs for creating, managing and archiving file-based data by extending traditional storage systems originally designed for structured transactional or text-based data. Even the newest NAS and SAN systems employ architectures with inherent limitations that lead to enormous management complexity due to “islands of storage,” limited scalability, performance bottlenecks, poor availability and high costs.

Isilon IQ® easily scales storage, unifying vital data into one file system, increasing the performance of applications and reducing the time spent managing storage. Isilon IQ delivers industry-leading scalability—up to 96 nodes in a single cluster and up to 2.3 petabytes in a single file system.

### Powerful Performance

Adding Isilon IQ clustered storage as a near-line storage solution enables customers to achieve extremely high levels of performance, with up to 20 GB/second throughput. Isilon IQ accelerates the creation, management and delivery of assets by centralizing and simplifying the movement of digital media throughout the digital workflow process—from the highest performance Tier-1 applications to Tier-2 enterprise archive, disk-to-disk backup and disaster recovery. In addition, Isilon IQ Accelerator-x platform extension nodes enable single stream performance of up to 400 MB/second, concurrent performance of up to 700 MB/second and delivery of over 26,000 transaction I/Ops.

### Unmatched Reliability

Isilon IQ ensures that data is always available, easily withstanding the loss of multiple disks or entire nodes without users losing any content. With Isilon, all files are striped across multiple nodes within a cluster, and no single node stores 100% of any file. If a node fails, all other nodes in the cluster still deliver 100% of the files without interruption.

### Easy To Use, Easy To Manage

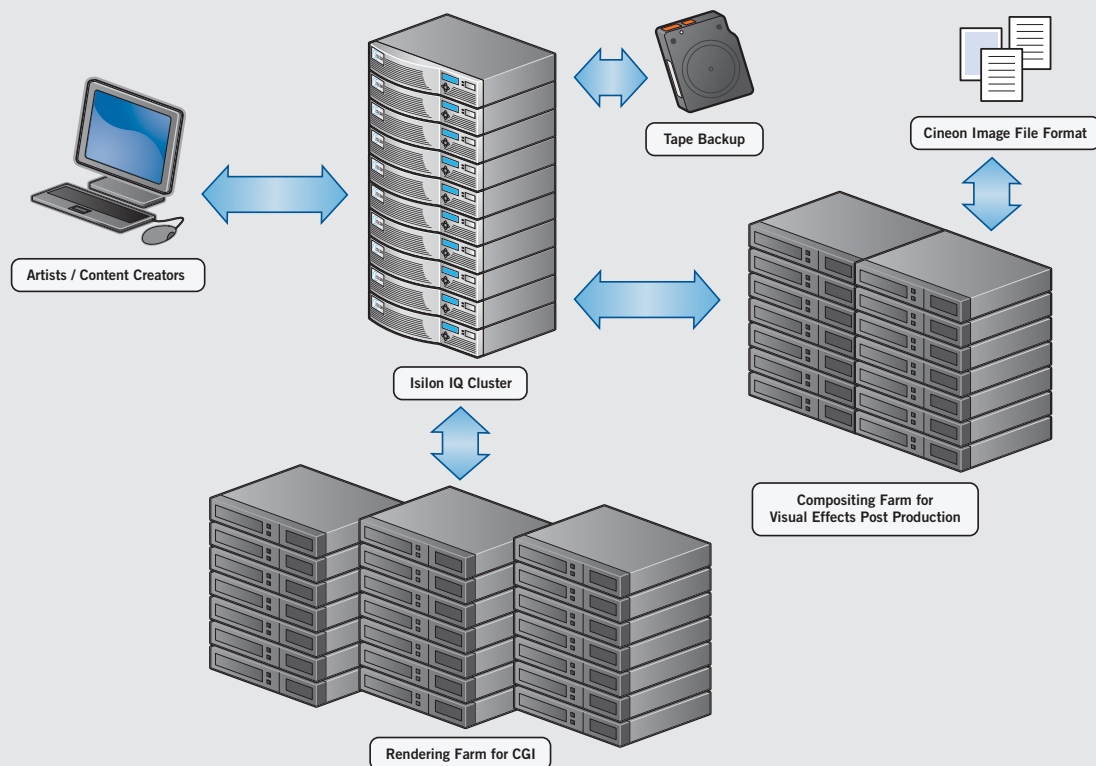
Isilon IQ represents a flexible solution that meets the unique storage requirements for the production, content delivery and archiving of vast libraries of digital assets. No other network storage solution meets these requirements and is as simple to set up and administer. What's more, as the cluster begins to fill up, administrators can simply add another node to increase capacity. Often, the new node can be brought online in as little as 60 seconds. With Isilon IQ, one person can now manage petabytes of data.

### Easy To Grow, Easy To Own

The Isilon IQ clustered storage product line addresses a full spectrum of storage needs—from the highest performance Tier-1 applications to Tier-2 enterprise archive. Powered by the fifth generation of OneFS, the Isilon IQ family of products creates a single pool of expandable storage that is easy to install and grow—once racked, a 10, 50 or 100+ terabyte cluster takes less than 10 minutes to configure and set up, and capacity can be added on the fly in seconds with no downtime. Isilon IQ enables customers to maximize their budgets by easily expanding storage on a modular pay-as-you-grow basis.

### Breakthroughs Begin With Isilon

The Isilon product line is comprised of the Isilon IQ 1920, 3000, 6000, 9000 and 12000 platform nodes; the Isilon EX 6000, EX 9000, EX 12000 and Isilon IQ Accelerator-x extension nodes; and licensable software applications such as SyncIQ™, SnapshotIQ™, SmartConnect™, SmartQuotas™ and Aspera for Isilon IQ. This set of flexible and innovative products define new industry standards by delivering a single file system that scales to 2.3 petabytes of capacity, up to 20 GB/second of throughput and supports high-performance InfiniBand® for low-latency, high-bandwidth intracluster communication—providing companies in the media and entertainment industry with the power to transform their critical digital assets into business breakthroughs.



## Customer Success



Following NBC's successful use of Isilon IQ for the 2004 Olympic Games in Athens and the 2006 Olympic Winter Games in Torino, NBC is storing the majority of the 2008 Beijing Games proxy and broadband content on Isilon clustered storage, providing NBC producers with unprecedented, highly reliable access to critical content for rapid review, identification and selection operations necessary to quickly produce and deliver groundbreaking coverage of the Beijing Olympics in the United States.

*"In order to deliver the unprecedented coverage of the Beijing Olympics, we need a storage solution that can reliably deliver unparalleled access to content for our broadcast team, both onsite in Beijing and at our multiple broadcast centers in the United States. Having used Isilon IQ for each of the past two Olympic Games, we know it will once again provide all we need to successfully execute our broadcast in Beijing."*

—Craig Lau, VP of Technology, NBC Olympics



Discovery Communications, Inc. is using Isilon IQ clustered storage as a central repository for media content, which is delivered to more than 100 networks, reaching 1.5 billion cumulative subscribers in more than 170 countries and territories. With Isilon IQ, Discovery is able consolidate its video-on-demand (VOD) and DVD content, as well as content restored from its tape archive, into one, easily expandable pool of always-online content storage, enabling

instant, 24x7, configuration and delivery of media through its multiple distribution channels including broadcast, video-on-demand and the Internet.

*"As the number-one nonfiction media company in the world, Discovery Communications faces the ever-present challenge of managing and storing its vast library of digital media assets. The nature of our workflow necessitates storage that cannot only scale capacity and performance quickly and without any network interruption, but is also easy to manage. Isilon IQ delivered on all fronts."*

Tony Cole, Vice President, Engineering,  
—Discovery Communications



Paramount Digital Entertainment uses Isilon IQ as their primary networked storage to develop and bring to market new digital media products and services from Paramount Television's library of over 55,000 hours of programming, including hit shows like *Cheers*, *Frasier*, *I Love Lucy*, and the *Star Trek* franchise.

*"Isilon IQ gives us a flexible solution that meets our unique storage requirements for the production, content delivery and archiving of our vast library of digital assets. No other network storage solution meets these requirements and is as simple to set up and administer."*

—Ted Tiaga, Executive Director of Technology,  
Paramount Digital Entertainment

## Isilon IQ Clustered Storage

The Isilon IQ family of clustered storage systems was designed from the ground up to meet the needs of data-intensive enterprises and high-performance computing environments. By combining Isilon's OneFS® operating system software with the latest advances in industry-standard hardware, Isilon delivers modular, pay-as-you-grow, enterprise-class clustered storage systems.

- Isilon's OneFS distributed file system creates a single, shared global namespace
- First and only truly symmetrical clustered storage architecture
- System can scale from 4TB–2.3PB in a single file system
- Unmatched aggregate throughput from a single file system with up to 20 GB/second
- Single stream performance of more than 400 MB/second, concurrent performance of 700 MB/second and over 26,000 transaction I/Ops
- Industry leading, high availability for clustered storage systems
- Powerful, easy-to-use Web-based management
- 60-second scaling of both capacity and performance
- Built-in, automatic application/client connection load balancing
- Industry-standard protocol support (NFS, CIFS, HTTP, FTP, NDMP, SNMP, LDAP, ADS, NIS)

Isilon also offers a robust suite of clustered storage software applications that optimize data protection and management:

### SyncIQ™

Enterprises increasingly need to distribute large, mission-critical data sets to multiple shared storage systems and teams in multiple locations. SyncIQ replication software is the industry's only policy-based file replication system designed exclusively for clustered storage, combining a rich set of policies for creating and scheduling storage replication jobs with innovative bandwidth throttling and cluster utilization capabilities.

### SnapshotIQ™

Isilon Systems introduces a true breakthrough in snapshot technology that provides a uniquely simple, scalable and flexible way to enable enterprise-class protection and user-driven data recovery for clustered storage. With the ability to support an unlimited number of snapshots within a highly scalable single pool of clustered storage and up to 1,024 snapshots within any single directory, SnapshotIQ represents a significant advancement over traditional snapshot technology.

### SmartQuotas™

SmartQuotas quota management software delivers quotas and thin provisioning technology for clustered storage and provides data-intensive enterprises with an unparalleled solution for optimizing the value of their storage resources. SmartQuotas enables businesses to simply and flexibly manage storage resources across their entire organization—with both hard quotas and thin provisioning capability—to support growing storage demands with minimal resources.

### SmartConnect™

Isilon Systems' exclusive SmartConnect software application allows IT Managers to meet the demands of an always-on, 24x7x365 world by ensuring the highest levels of performance and industry leading high availability. With intelligent client connection load balancing and failover support, SmartConnect represents a breakthrough in optimizing clustered storage performance and availability.

### Aspera for Isilon IQ

Aspera and Isilon have partnered to provide a solution for quickly transferring the largest files across wide area networks or directly to end-users, independent of network conditions or distance. Files of any type—video, audio, images or other large, rich media files or file-based data—can be rapidly transferred without impacting other network traffic, while scaling to speeds that meet growing business demands.

### About Isilon Systems

Isilon Systems is the worldwide leader in clustered storage systems and software for file-based data, enabling enterprises to transform data into information—and information into breakthroughs. Isilon's award-winning family of IQ clustered storage systems combines Isilon's OneFS operating system software with the latest advances in industry-standard hardware to deliver modular, pay-as-you-grow, enterprise-class storage systems. Isilon's clustered storage solutions speed access to critical business information while dramatically reducing the cost and complexity of storing it.



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