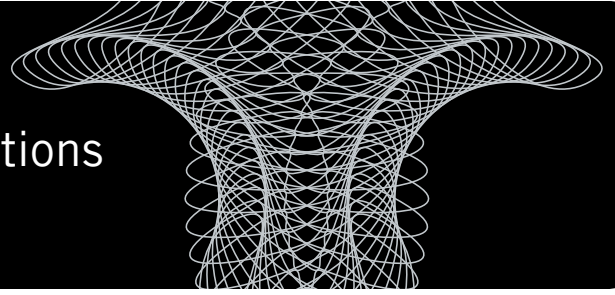


Content Creation & Production Solutions



Challenge

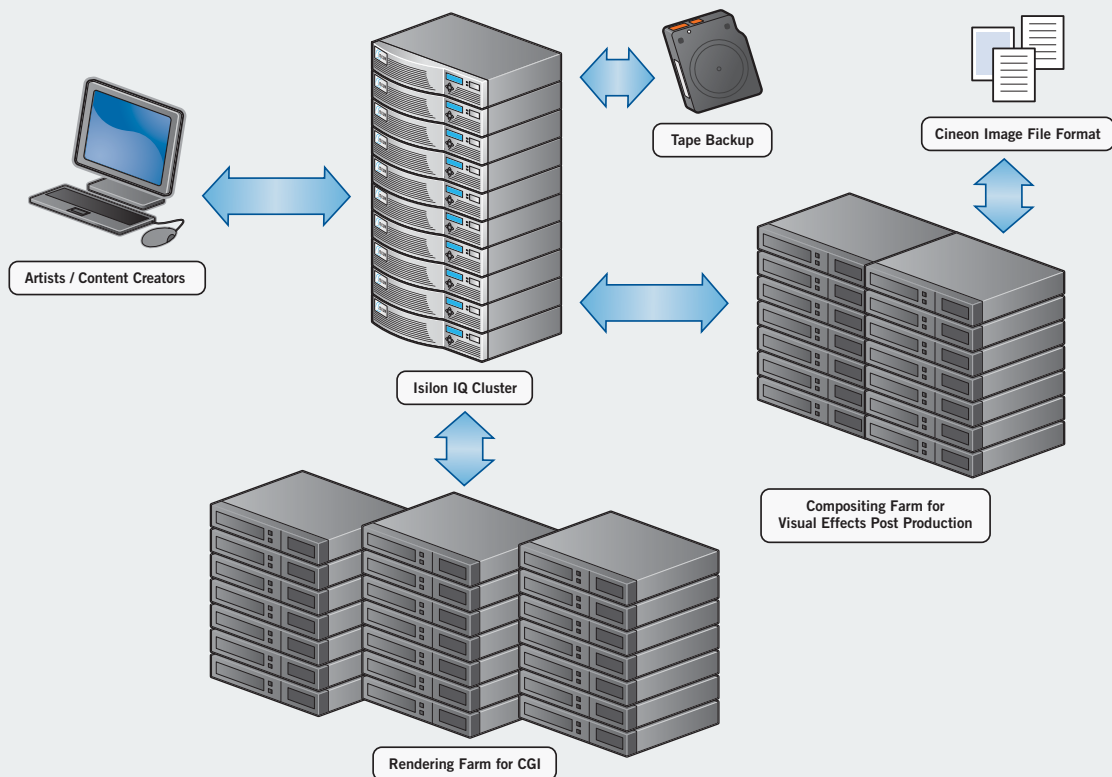
As organizations grapple with the need to create and deliver content faster, the underlying storage architecture has gone from an afterthought to one of the most strategic investments a media company can make. Traditional NAS and SAN storage presents inherent bottlenecks with performance and scalability that is requiring media-rich companies to look for an alternative solution that can meet their performance and scalability requirements—even as they increase exponentially every year.

Furthermore, to increase productivity and time-to-market, organizations are looking to new technologies of virtualization and clustering to increase workflow efficiencies and to simplify the day-to-day management of digital assets. Integration with the applications and management utilities is key to knowing how storage is performing and where the data is at all times throughout the lifecycle of digital content.

Solution

By adapting the Isilon IQ® clustered storage architecture, media and entertainment companies for the first time can combine all of their digital content creation, delivery and management applications into a single storage solution, removing the cumbersome and costly management of separate islands of storage for their editing, rendering, modeling and content delivery goals.

Because Isilon IQ delivers a large, single volume for all data, collaboration and production of new digital assets can be completed faster, improving overall time to market. Capacity demands are dramatically reduced because multiple copies of the same file no longer need to be created. Artists and users can instead focus on their creative visions—from first inspiration to project completion.



Content Creation & Production Solutions

Key Benefits

A Truly Distributed, Single Global Namespace

Unlike simple namespace aggregation, Isilon's OneFS® distributed file system intelligently stripes data across nodes in a cluster to create a single, shared pool of storage that allows thousands of servers to create and modify file-based data to support special effects, post-production work and animation. By providing a single volume for all file-based data, digital media companies can collaborate more efficiently and reduce the amount of multiple copies of the same file because all users can share the same dataset—ultimately reducing the cost of storage.

Breakthrough Performance For Content Creation & Delivery

Today, Isilon IQ clustered storage is being used to create special effects and animation in hundreds of films from industry-leading post-production houses and studios, easily supporting high-performance compute farms based upon thousands of UNIX®, Linux® or Windows® nodes. These data intensive organizations can independently scale the total throughput and performance of Isilon IQ storage clusters by adding Isilon IQ platform or Accelerator-x nodes—achieving up to 20 GB/second of total throughput from a single file system. Isilon IQ supports high-performance InfiniBand® for intracluster communication and is ideal for high throughput and highly concurrent environments where clients require fast read and write access to a large, shared pool of data.

Furthermore, by utilizing Isilon's SmartCache feature, Isilon IQ clusters utilize massive amounts of memory (4 GB per node, e.g. a 10 node cluster delivers 40 GB of globally coherent cache) to ensure that the most popular datasets always live in cache, thus improving the access time to file-based data assets.

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.

Management Simplicity and Massive Scalability—up to 2.3 PB

Isilon IQ clustered storage is the ideal platform for large scale archiving of digital assets. The ease of scalability, instant access and the pay-as-you-grow architecture enables customers to move away from cumbersome tape archiving and move to an always-on, nearline environment. Furthermore, utilizing Isilon's enterprise software applications, data can be quickly moved from nearline to online storage in a matter of seconds, allowing the content creation process or content delivery process to begin immediately.

Because Isilon IQ delivers a large, single volume for all data to be shared, the collaboration and production of new digital assets can be completed faster, thus increasing time to market. Since all artists and users can now share the same data, storage capacity requirements are reduced because it's no longer necessary to create multiple copies of the same file.

High Reliability, Advanced Data Protection For Mission Critical Digital Content Assets

Storage failures can cause artists to sit idle while they wait for the system to come back up—resulting in lost revenue and missed deadlines. Isilon IQ clustered storage architecture provides no single point of failure. Using the state-of-the-art FlexProtect-AP, administrators can set data protection policies on the fly at the cluster, directory or file levels. With Isilon IQ, data is automatically protected across the entire cluster using all available resources. In the event of multiple drive or node failures, N+3 and N+4 protections ensure all data remains 100% available and is rebuilt to any free space throughout the cluster.

Isilon Clustered Storage

- Reduces storage costs
- Increases IT operating leverage
- Speeds workflows
- Unlocks new revenues
- Complementary

Related Products

Isilon IQ Platform Nodes

The Isilon IQ 1920, 3000, 6000, 9000 and 12000 platform node systems use standard Gigabit Ethernet for front-end connections and offer the option of Gigabit Ethernet or high-performance, low-latency InfiniBand® for intracluster communication at no additional charge.

Operating System—OneFS®

OneFS, now in its fifth generation, is Isilon's operating system software, which provides the intelligence behind all Isilon clustered storage systems. It combines the three layers of traditional storage architectures—file system, volume manager and RAID—into one unified software layer, creating a single intelligent file system that spans all nodes within a cluster.

Isilon IQ Accelerator-x

The Isilon® IQ Accelerator-x extension node was designed to enable Isilon clustered storage customers with high-performance requirements to meet their specific workflow needs by modularly and cost-effectively scaling throughput. Powered by Isilon's OneFS operating system software Accelerator-x nodes can be seamlessly added to any Isilon IQ 1920, 3000, 6000, 9000 or 12000 storage cluster using InfiniBand networking to independently scale aggregate throughput up to 20 GB/second.

Customer Success



ABC uses Isilon IQ for the storage and management of thousands of digital dailies and graphics for television programs and news operations.

“We are impressed with Isilon IQ’s ability to scale quickly as our projects increase while maintaining constant availability. The end result of the Isilon IQ implementation is a marked improvement in the time it takes to produce content and deliver breaking news.”

—Preston Davis, President of ABC Broadcast Operations and Engineering

sony pictures

imageworks

Sony Pictures Imageworks, an Academy Award®-winning, state-of-the-art visual

effects and character animation company, uses Isilon IQ clustered storage for their work on major motion pictures and computer-animated films.

“At Sony Pictures Imageworks, we need all files to be available 24x7 from a single pool of storage. We’re using one Isilon IQ cluster in production and are also testing a 20-node, 45 terabyte Isilon IQ cluster with Isilon’s latest OneFS distributed file system. We have been very impressed with the simplicity and performance of the system.”

—Dean Miya, Director of Systems Research & Development for Sony Pictures Imageworks



NBC Universal, one of the world's leading media and entertainment companies, has chosen Isilon IQ to archive and access growing stores of media programming

including entertainment TV and production, movies, news and sports. Under a multi-year agreement with Isilon, NBC Universal plans to deploy multiple petabytes of Isilon IQ clustered storage in its main production and broadcast operations to maximize the value of their media assets across NBC Universal's media properties.

“With the rapid move to digital media and broadband connections, the broadcast industry has forever changed. This shift in the broadcast paradigm—multiple distribution channels, formats and consumption models—has resulted in massive increases in the amount and importance of archived media. It is not enough to simply store this content; it must also be always online and instantly accessible. Isilon IQ is uniquely architected to address the business needs of NBC Universal, enabling us to transform our digital media assets into new breakthroughs in the creation, management and delivery of high-quality programming.”

—David Evans, Director, Storage Solutions, Global Operations NBC Universal

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.

- Powered by OneFS operating system software, 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)



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.

The evolution of storage is clustered storage built on a powerful, open operating system with unique software that lets you pay-as-you-grow. Visit www.isilon.com/contact to get started—and see why clustered storage is paying off for some of the biggest and most respected names in the world.

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