

ISILON ARCHIVING SOLUTIONS

Don't let your data outgrow you

Stay ahead with the archiving solution from Isilon

Implementing and maintaining an efficient and secure data archive is vital for organizations across all kinds of industries and agencies. Unstructured data is growing fast – and that puts a strain on primary storage resources and IT budgets. At the same time, many organizations also need to make sure they're in compliance with regulatory requirements for long-term data retention, while others are looking to preserve and protect content for historical purposes.

Isilon archive solutions provide organizations with a highly efficient, massively scalable, and secure disk-based archive that protects data for long-term retention while optimizing the use of primary storage resources.

Isilon, the industry's #1 scale-out NAS platform, is an ideal choice for storing, managing and protecting unstructured data. It's simple to manage and delivers unmatched efficiency and flexibility. With Isilon, you get the right blend of performance and capacity for workloads of any size, including file shares, home directories, archiving, and Big Data analytics. Best of all, Isilon offers flexible archiving storage options so you can find just the right fit for your organization.

Flexible hardware options

Dell EMC A200 Archive Storage

The Isilon A200 archive storage platform is ideal for nearline, active archive storage use cases. The Isilon A200 uses Isilon's new generation dense, modular hardware design that provides 4 Isilon nodes in a single 4U chassis and a storage capacity of 120 TB to 480 TB per chassis.

Dell EMC A2000 Archive Storage

The Isilon A2000 is the ultimate in storage density and is ideal for deep archive storage. Each A2000 chassis contains 80 10 TB disk drives providing 800 TB of storage in only 4U of rack space and up to 8 PB of storage in a single rack. This dramatic increase in density and efficiency means lower TCO for on premise online archives than ever before.

Dell EMC H5600 Hybrid Storage

The new Isilon H5600 platform shares the A2000 chassis to provide the ultimate in storage density. However, the H5600 has been specifically designed to meet the needs for high performance of extreme scale workloads including backup and archive. The H5600 features a high performance processing complex, eight times more internal memory and 40GbE networking giving the H5600 a design optimized for throughput while still providing 8PBs of storage in a single rack. The H5600 is a powerful new addition to the Isilon family of products.

Essentials

- **Unmatched efficiency**
80%+ storage utilization and data deduplication option
- **Dense, modular design**
Lowers datacenter space requirements by up to 75%
- **Highly resilient**
Ensure 100% data availability in the event of multiple component failures
- **Robust security options**
Safeguard data and meet compliance requirements
- **Massive scalability**
Expand capacity easily from 10s of TBs to 10s of PBs in a single cluster
- **Linear Scalability**
Scale all storage, compute, memory and networking linearly from as small as 4 nodes to a full complement of 252 nodes
- **Simple to manage**
Single file system, single volume architecture
- **Automated storage tiering**
Reduce costs and optimize resources
- **Integration with the Cloud**
Isilon CloudPools extends archive tiering to the cloud to further lower cost of long term data preservation

These Isilon platforms are powered by the Isilon OneFS operating system and can be used in new Isilon clusters or easily integrated into existing Isilon clusters. These solutions can be easily expanded with new nodes and fully upgraded to all new node types without disruption to users.

Flexible software options

All nodes in an Isilon cluster are powered by the Dell EMC Isilon OneFS operating system. OneFS combines the three layers of traditional storage architectures—file system, volume manager, and data protection—into one unified software layer, creating a single intelligent file system that spans all nodes within the cluster. With its modular, single file system architecture, OneFS enables Isilon storage systems to provide a massively scalable platform that is highly efficient and simple to manage.

Isilon archive solutions are supported by all major archiving software applications. In addition to integrated support with popular archiving applications including Dell EMC SourceOne, Isilon has also been tested and integrated with leading archiving applications from third party ISVs. This means that with Isilon, you have the flexibility to choose the archiving application that your business needs.

Robust data protection and security

Get the industry's highest level of end-to-end data protection. Isilon OneFS provides N+1 through N+4 protection levels, safeguarding data against up to four simultaneous hardware component failures. That quadruple failure protection ensures that even if up to four nodes or drives fail simultaneously, 100% of your data is still available. This goes far beyond the typical RAID 6 double disk failure protection in use today.

Dell EMC Isilon provides smart solutions for data backup, disaster recovery protection, security and compliance:

- **Isilon SnapshotIQ** enables fast and efficient data backup and allows you to take point-in-time copies of data with your choice of snapshot intervals and RPO time options.
- **Isilon SyncIQ** provides multi-site disaster recovery protection, letting you replicate data to your choice of local and remote sites. SyncIQ supports both LAN and WAN networks to replicate over short or long distances, providing protection from both site-specific and regional disasters. SyncIQ can also be throttled to maximize network resources and operational effectiveness.
- **Isilon SmartLock** software provides immutable storage for data. With a write once, read many (WORM) locking capability, SmartLock ensures tamper-proof archiving of critical data sets for compliance purposes.

Isilon storage platforms also offer data at rest encryption options that include self-encrypting drives to prevent data theft, role-based access control (RBAC), and secure access zones to limit data access. File system auditing helps to identify unauthorized data access attempts. Isilon also offers Security and Technical Implementation Guide (STIG) hardening, CAC/PIV Smartcard authentication, and FIPS OpenSSL support. In addition, OneFS provides multi-factor authentication, SyncIQ encryption of replicated data traffic and SMB encryption for data in-flight protection, coupled with role based access per access zone resulting in comprehensive security for your data.

Simple to manage

The Isilon OneFS operating system is designed to simplify administration activities – and keep them that way as you scale your Isilon storage system to keep up with your growing data environment. OneFS is a single file system, single volume architecture with a single namespace, making it easy to manage, regardless of the number of nodes in your Isilon storage cluster. Unlike traditional storage platforms, you don't have to manage multiple LUNs and volumes that must be tracked and moved manually. Isilon also includes features that help to automate management such as Isilon SmartConnect software which provides client connection load balancing and optimizes system performance. In addition, InsightIQ helps with storage management, health monitoring and alerting while ClarityNow provides data management capabilities which include fast indexing, search, data movement and file analytics for unstructured data.

Scale capacity quickly without disruption

With Isilon's modular architecture, your archive solution can easily scale capacity from 10s of TBs to 10s of PBs. Adding new nodes to your Isilon cluster only takes a minute, and won't cause any disruption. This can help you plan and meet capacity requirements efficiently while limiting datacenter sprawl. And with Isilon AutoBalance software, there is no need to move data manually – it's done automatically and transparently to your business users.

Spend less, store more

With Isilon scale-out NAS storage, you can achieve over 80% storage utilization compared to only 50% to 60% utilization with traditional storage platforms, so you can store more for less. Isilon SmartDedupe software makes storage even more efficient with a data deduplication option, reducing storage requirements by up to 35% in environments with redundant data across multiple sources. Combined with the simple and easy-to-manage OneFS operating system, you can reduce capital expenditures as well as ongoing operating costs. OneFS also has improved small file efficiency to increase storage utilization even more.

Optimize with automated storage tiering

Isilon SmartPools software can help you simplify management and lower storage costs even more. Policy-based, automated tiering approach lets you to optimize storage resources and automatically move older, unused data to economical archive storage. SmartPools is integrated with the Isilon OneFS operating system to allow a single point of management, with a single scalable file system that offer multiple tiers of performance—depending on the data. This automated, policy-based data movement is transparent to the users.

With SmartPools, you can automatically match storage resources with your data and application requirements. SmartPools also simplifies management by eliminating the need for manual data migrations.

Extending archive storage tiering to the cloud

In addition to on-premise archiving storage solutions, Isilon also enables you to easily integrate your Isilon cluster with a choice of public or private cloud storage options.

With Isilon CloudPools software, you can use the cloud, in effect, as another storage tier in your Isilon cluster. With a policy-based, automated tiering approach, you can automatically tier “cold” or “frozen” data to the cloud. In this way, you can gain web-scale capacity while increasing efficiency. This also allows you to optimize your on-premise storage resources. Your choice of public cloud storage options include: Amazon AWS, Microsoft Azure, and others. . For private cloud storage, you may choose Elastic Cloud Storage (ECS) or Isilon. Regardless of which option you choose, your data stored in the cloud remains available for access by users or applications, all transparently

Summary

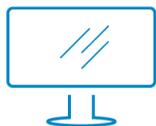
Isilon archive solutions allow you to deploy a highly efficient, massively scalable, and secure disk-based archive that protects your data for long-term retention while optimizing the use of your organization’s primary storage resources. You can easily expand your Isilon archive solution in a matter of minutes. And with Isilon, your solution will remain simple to manage no matter how large your archive solution grows.

The Isilon A200 and A2000 platforms take archiving on Isilon to the next level by providing industry leading footprint density with a complete 4 node cluster in a single 4U chassis. And the new H5600 hybrid platform combines high performance, eight times more internal memory and 40GbE networking giving the H5600 a design optimized for throughput with 8PBs of storage in a single rack. These platform choices combined with unprecedented storage efficiency and enterprise class features available to meet the strictest regulatory needs make Isilon an ideal choice for active archiving and for long term data preservation.

Take the next step

Contact your Dell EMC sales representative or authorized reseller to learn more about how Isilon scale-out NAS archive solutions can benefit your organization.

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