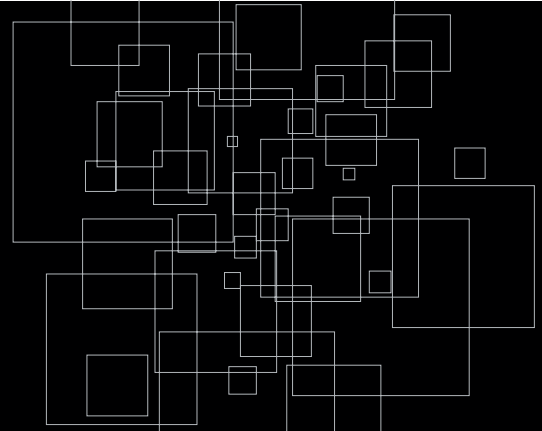


SnapshotIQ™

Simple, Scalable and Flexible Protection
for Scale-out NAS.



Key Features

- **Simplicity** SnapshotIQ spans across all nodes, regardless of the number of storage devices, enabling an IT manager to easily and simply administer from a true single point of view
- **Scalability** SnapshotIQ supports an unlimited number of snapshots throughout the total cluster, or 1,024 per directory, enabling massive scalability and data protection for large storage environments
- **Flexibility** SnapshotIQ enables unique snapshot policies to be set at the cluster, directory, and sub-directory level, delivering unprecedented flexibility and ease of management
- **Performance** Isilon snapshots typically take less than one second to create, incurring little to no performance overhead regardless of the size of the file system or directory being snapshot or the level of production activity on the cluster
- **Storage Utilization** Once a baseline snapshot has been established, only changes to blocks that make up a file are reflected in updates to the current version of snapshots, thereby ensuring highly efficient snapshot storage utilization
- **Space Management** Free space management for snapshots is virtually eliminated. No longer do system administrators need to worry about managing or running out of snapshot capacity and performance

Transcending the Limits of Traditional Snapshot Technology

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.

What is Isilon's SnapshotIQ?

As a licensable software module, SnapshotIQ is a data protection feature of Isilon's OneFS® operating system software.

Isilon's snapshots are locally retained, read-only and incorruptible point-in-time images of data that reliably distribute an unlimited number of snapshots across multiple, highly available Isilon IQ clustered storage nodes.

Isilon snapshots are highly scalable and typically take less than one second to create, incurring little to no performance overhead, regardless of the size of the file system or directory being snapshot or the level of production activity on the cluster. Moreover, only changes to blocks that make up a file are reflected in updates to the current version of snapshots, thereby ensuring highly efficient snapshot storage utilization.

What makes SnapshotIQ such a breakthrough technology?

Traditional volume-based snapshots, fundamentally unchanged since their creation in the mid-1990s, are limited to a single storage device—and to a single volume. Volume-level solutions limit the number of snapshots that can be taken—for example, to 255. This traditional approach significantly limits the ability to schedule frequent snapshots and the ability to scale. If the gap between scheduled snapshots is too great, changes to files or directories will not be captured and data protection suffers.

Through its flexible design, SnapshotIQ effectively closes the gaps between snapshot schedules, thereby giving storage administrators more flexibility in meeting their respective recovery point and recovery time objectives. The secret behind SnapshotIQ is breaking the one-to-one lock between a snapshot and a storage system. By doing so, SnapshotIQ is able 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.

Why is SnapshotIQ so much easier to manage than traditional implementations?

Traditional solutions require you to manage snapshots across different volumes, across multiple storage systems and across multiple file systems. This approach creates complexity and challenges when making changes to resources, moving directory structures, scaling your solution or moving data between file systems and volumes.

With SnapshotIQ, these management challenges are eliminated. Because SnapshotIQ is globally coherent and spans across all nodes, regardless of the cluster size, IT Managers are able to administer snapshots from a true single point of view—making for ultimate flexibility and ease of use. Isilon snapshot technology allows you to snapshot precisely the data you want, when you want. It does not require you to snapshot the entire volume which may contain a great deal of data you don't want or need to snapshot. With SnapshotIQ, administrators can easily move directories, assign resources and change directory names, without the worry of preserving snapshot integrity and logical access to the snapshots.

Another breakthrough element of Isilon's snapshot solution is that it virtually eliminates the challenge of monitoring and ensuring that sufficient storage space is available for snapshots. No longer do system administrators need to worry about managing or running out of snapshot capacity and performance. With the flexibility of Isilon IQ clusters, storage capacity and performance can be added on the fly, quickly and transparently, without having to replicate or delete snapshots to free up space.

SnapshotIQ provides near instantaneous, secure, user-initiated and managed data restores. Users can directly access snapshots to recover from accidental deletions, corruptions or modifications of their data. Since the security of the file is retained in the snapshot, the restoration is both secure and simple.

One of the largest IT costs associated with backup and restore is the sheer number of help desk calls from end-users that accidentally delete a file or directory. Now, through integration with Microsoft's® Shadow Copies for Shared Folders client for Windows®, users can easily find and restore their own accidentally deleted files or folders—without any IT intervention. Users remain productive and IT-operator intervention is virtually eliminated.

ISILON SYSTEMS
Isilon Cluster *sefresno*
User *root* logged in to node ID 1 of 4 nodes.

Snapshot Schedule Wizard: Scheduling Details

Snapshot Frequency

Daily
 Weekly
 Monthly By Day
 Monthly By Relative Day
 Monthly By Date
 Yearly By Day
 Yearly By Date
 Yearly By Ordinal Day

Snapshot Frequency: Daily

Every Days

Frequency

Once
 Multiple Times

At : AM

Expiration/Duration

Never
 By elapsed age of snapshots

Retain snapshot for Days

< Back Next > Cancel

Cornerstone of a Robust and Cost-Effective Data Protection Solution

IT Administrators use SnapshotIQ as a cornerstone of their end-to-end data protection strategy. SnapshotIQ provides the ability to conduct frequent, low-impact, user-recoverable backups of files. Snapshots vastly improve the frequency and reliability of backups, since they incur minimal performance overhead and can be safely created on a production cluster.

Isilon's Systems' SnapshotIQ transcends the limits of traditional approaches by reliably distributing an unlimited number of snapshots across multiple, highly available Isilon IQ clustered storage nodes. The result is remarkable simplicity, scalability and flexibility that enables enterprise-class protection and user-driven data recovery for clustered storage in the most demanding storage environments.

For more information about how SnapshotIQ can enhance your data protection, please contact an Isilon sales representative or Isilon Smart Partner reseller.