

Migrate and Upgrade Your File Data Platform with Qumulo and Atempo

To support today's rapid digital transformation initiatives and expanding data capacities, organizations are turning to modern, highly scalable file data platforms that speed data access and workflows both on-prem and in cloud environments.

As organizations grow out of their old scale-out NAS systems due to complex and costly scalability, lack of performance, and increasing costs to maintain and support, to speed their adoption of new file data platforms, they require cost effective migration solutions that can quickly and reliably move hundreds of millions or billions of files from existing storage to these new platforms.



Qumulo's File Data Platform

Organizations today are moving from scale-out NAS storage to Qumulo's file data platform which helps them more rapidly accomplish their strategic roadmap goals. Qumulo's flexible, software-defined file system is designed to run in the data center and natively in the public cloud, providing robust management, storage, and protection for petabyte-levels of data.

Qumulo's file data platform delivers reliable, high-performance data access to help speed workflows and enable collaboration, with easy scalability to accommodate rapid data growth and expansion. Qumulo helps organizations easily store and manage their file data at scale with unrivaled freedom, control and real-time visibility.

Atempo's Miria - Migration for hybrid NAS and file storage

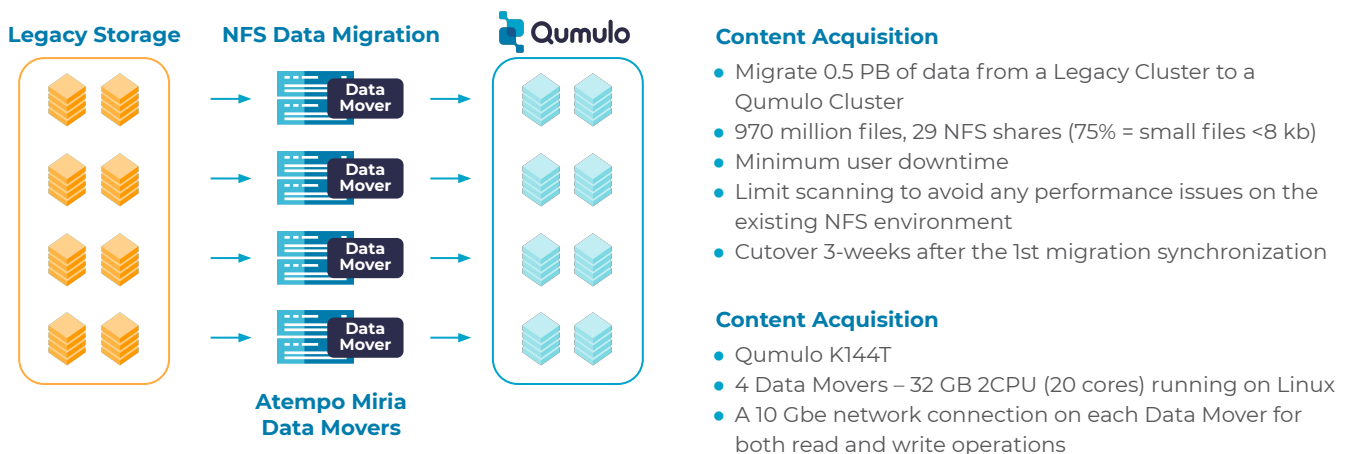
Atempo's Miria software delivers high performance, secure, reliable migration for large file systems and between cross-vendor platforms, providing a single solution to backup, synchronize, migrate and move unstructured data and files in large heterogeneous storage environments.

Atempo Miria intelligently and reliability moves data to Qumulo

Leading enterprise organizations have successfully employed Atempo to intelligently migrate petabytes of data to Qumulo's file data platform, quickly and easily.

How it works

The following diagram illustrates a workflow for migration to Qumulo's file data platform. In this case, the customer had almost 1 billion files to move for 500 TB of data.



Scalability

Just as Qumulo's file data platform enables clusters to scale to hundreds of nodes, Atempo's data migration software also scales through the addition of more Data Mover engines to increase the speed of overall data transfer by parallelizing data flows. Each Data Mover can move several GB/s in a highly parallelized and multi-threaded environment. In fact, a pool of Data Movers easily delivers more throughput than most networks can handle.

Performance

Each physical Atempo Data Mover works to ensure there are no bottlenecks on the source cluster nodes and no slowdown in actual data migration to the destination nodes. Efficient load balancing orchestrates the entire process from source to target. Any single bottleneck in a petabyte-sized data migration can add weeks to a job. Naturally, legacy storage production downtime is not an option when migrations can run for several weeks. Balancing data flows, maximizing available network bandwidth, and even restricting migration IOs during office hours are part of a typical Atempo migration workflow.

The Miria server controls all IOs and manages tasks, processes and components for the complete Miria infrastructure. Once a scheduled migration task is triggered, the following occurs:

- The Miria server maps the request with the Miria Data Mover infrastructure and defines the required workload.
- Each Data Mover creates multiple threads with the storage to migrate. They begin collecting and moving files and associated metadata and ACLs plus file encoding details, user rights, groups, advanced shared file system rights, and symlinks. The Data Mover reliably loads data onto the target storage.
- The Miria database stores metadata and details on migration jobs. Miria performs constant checks within the data collection and storage layers to ensure full and reliable data integrity.

Confidence

Atempo's FastScan rapidly collects and processes the list of new, changed or deleted files minimizing the load on the source storage and avoiding a full scan. This file list check is important in the case of a migration which stops during a synchronization execution after already migrating some files which do not need migrating again. FastScan improves the incremental migration process and ensures any restarts are never from scratch.

Find out more about Qumulo - www.qumulo.com

Find our more about Atempo - www.atempo.com