High-Performance File Data Management and Distributed Storages

Qumulo for the Public Sector

Qumulo powered by Supermicro delivers a high performance, distributed file system to meet the performance and capacity demands that public sector organizations need to store, manage and access sensitive file data on prem and in the cloud.

Qumulo's file data platform provides many built-in efficiencies to help organizations ease scaling complexities across data center and cloud environments, enable migration to the cloud, reduce capital and operational costs, and proactively monitor and plan for future capacity and performance requirements. Qumulo supports public sector organizations across multiple use cases including, but not limited to:

- Video surveillance and security
- High-performance computing (HPC)
- Research computing
- Video editing and production
- Life Sciences

Qumulo, powered by Supermicro, easily integrates into existing environments supporting multiple protocols including SMB, NFS, S3, FTP, and REST. The file data software is designed for maximum performance running on Supermicro's All-NVMe platform or optimized performance efficiency running on Supermicro's Hybrid-NVMe platform. Qumulo's unified architecture makes it simple for organizations to scale across on-prem, hybrid, and multi-cloud environments at petabyte scale.

Qumulo File Data Platform

Qumulo's file data platform is designed with flexibility in mind, supporting Supermicros high performant, economical platform.
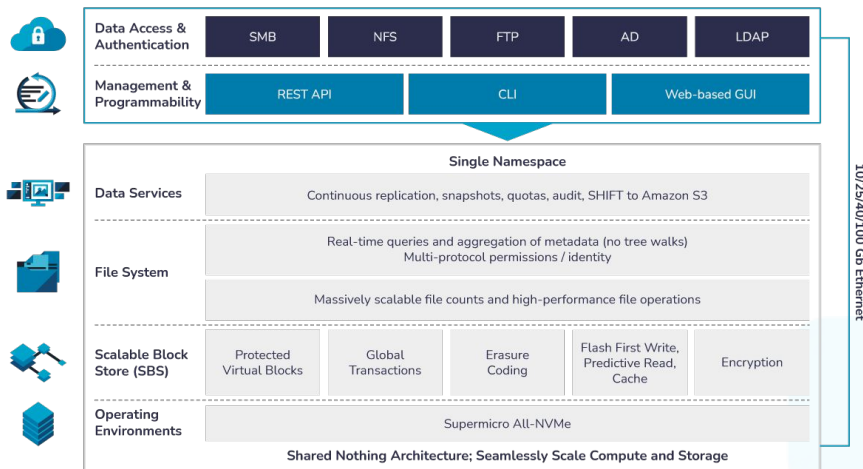
Massive Scalability

Qumulo's distributed file system is designed to scale to billions of files and store all file sizes efficiently. The scalable block store offers unprecedented scalability, optimized performance, and data protection. Qumulo's file data platform serves petabytes of data, millions of operations, and thousands of users.

Qumulo's file data system scales in performance to meet the demands of the most challenging workloads. One file data lake in the cloud supports different workflows and applications without compromising manageability, flexibility, or performance. Users can scale capacity and performance up and down on the cloud to match workflows.

Key Benefits

Simple Management
- One single, easy-to-use file data management and storage system with a modern user interface that provides real visibility with integrated analytics.

Efficiency
- 100% of user-provisioned capacity is available for file storage, in contrast to the 70% to 80% usable capacity of legacy NAS.

Freedom of Choice
- One architecture supporting all-NVMe for highest performance workloads and hybrid-NVMe for performance and cost efficiency.

Enhanced performance with All-NVMe
- Tuned to optimize performance and capacity on Supermicro's All-NVMe platform

Real Visibility with Real-Time Analytics
- Monitor performance, capacity, and usage of the entire file system with a real-time view at the directory/file level to simplify resource management and reduce costs.

Qumulo on AWS GovCloud (US)
- Organizations can run sensitive workloads on AWS GovCloud and address data compliance related to FedRAMP, ITAR, or CJIS regulations with Qumulo on AWS GovCloud (US).

All Inclusive and Transferable License
- Qumulo's file software is a single subscription license with all functionality, future updates, and enhancements included. It is completely transferable to the cloud or to new hardware.

Customer Success
- Qumulo's customers are in direct contact with Qumulo Customer Success Managers who are experienced enterprise storage professionals or Qumulo file system engineers.

Organizations can scale across their data center and the cloud without impacting performance. Qumulo linearly scales and automatically rebalances when additional nodes are added. The rebuild times get faster the larger the cluster. A single Supermicro 100 node cluster provides 15+PB of all-NVMe storage.

Scales Across On-Prem, Hybrid, and Multi-Cloud Environments

Qumulo's file data platform delivers a single file solution using the same software, whether your data is in the cloud, on prem, or scaling across both. Users can burst compute in AWS, Microsoft Azure or Google Cloud and shift primary workloads to the cloud without needing to rewrite the application.

With continuous replication organizations can easily transfer data from an on-prem cluster to a cloud cluster to perform computations, and then transfer the results back to the on-prem storage. Qumulo Shift for Amazon S3 is a feature that enables users to copy data to the Amazon S3 native format for easy access to AWS services.

Real-Time Analytics for Visibility and Control

Qumulo's file data platform is designed for data intelligence, allowing users to predict usage trends and better manage capacity. With Qumulo's integrated, real-time analytics, storage administrators can easily monitor performance including throughput, IOPS, and latency. Real-time analytics provide administrators with the insights they need to manage issues proactively, optimize workflows, and to make well-informed planning decisions for the future.

Qumulo on AWS GovCloud (US)

Organizations that run sensitive workloads in the cloud, can use Qumulo's file data platform in AWS GovCloud (US) to comply with FedRAMP, ITAR, or CJIS requirements. With Qumulo's single file data platform organizations can not only address compliance mandates, they can accelerate digital transformation for many types of data-driven workloads by enabling the integration of file data with both legacy applications in private cloud, and cloud-native applications in AWS GovCloud (US).

Data Security and Protection

Qumulo's file data platform provides encryption for data in flight with SMBv3 and TCP secured by TLS and provides software-based encryption at-rest via an AES-256 bit implementation. Qumulo provides FIPS 140-2 Level 1 encryption for data at-rest. Integrated data protection is included via snapshot replication for simple, cost-effective backups. Qumulo provides the same file system and individual namespaces for both active and backed-up data, no additional applications are required.

About Qumulo

Qumulo is the radically simple way to manage petabyte-scale data anywhere – edge, core or cloud – on the platform of your choice. In a world with trillions of files and objects comprising 100+ Zettabytes worldwide, companies need a solution that combines the ability to run anywhere with simplicity. This is precisely what Qumulo was founded to accomplish. www.qumulo.com

About Supermicro

Supermicro (Nasdaq: SMCI), a leading innovator in high-performance, high-efficiency server and storage technology is a premier provider of advanced server Building Block Solutions for Enterprise Data Center, Cloud Computing, Artificial Intelligence, and Edge Computing Systems worldwide. Supermicro is committed to protecting the environment through its "We Keep IT Green" initiative and provides customers with the most energy-efficient, environmentally-friendly solutions available on the market. www.supermicro.com