

Redefining Data Management for Financial and Payment Card Services

Qumulo for Financial Services

In the modern financial services and card payments industry, data is not simply a byproduct—it is the enterprise's most vital and regulated asset. The velocity, sensitivity, and auditability of transactional, behavioral, and compliance data demand more than incremental improvements—they require a re-architecture of the file system and data layer itself. Qumulo addresses this head-on by offering the world's most advanced, software-defined storage platform, uniquely suited for a sector under constant pressure from regulatory, cybersecurity, and operational demands.

A True Software-Defined Platform, Built for Any Infrastructure

Qumulo's core architecture is a 100% software-defined storage system that operates consistently across on-premises hardware, all major cloud providers, and hybrid deployments. It runs on any modern x86/ARM server or virtualized instance, and presents the same consistent file system, management, and API layer across environments. Unlike legacy storage solutions which anchor financial institutions to proprietary hardware or siloed 'lift and shift' cloud offerings, Qumulo abstracts the control plane from the hardware and infrastructure layer entirely—allowing institutions to deploy in a data center, across clouds, or at the edge with no change in engineering effort or operational practice.

Infrastructure-as-Code for Modern DevSecOps Models

Qumulo natively supports infrastructure-as-code (IaC) workflows and integrates into automation pipelines, enabling card services teams to treat their storage infrastructure as programmable, repeatable, and version-controlled. Whether deploying into an AWS region to support cardholder authentication systems or bursting compute against anonymized datasets in Azure or GCP for risk model training, Qumulo ensures that every deployment is fully declarative, policy-aligned, and repeatable. This is fundamental to aligning financial infrastructure with modern DevSecOps and regulatory compliance standards, such as PCI-DSS and GDPR and integrating with IaC frameworks via Ansible and Terraform.

Cloud-Native Architecture with Predictable TCO

Qumulo's file system was engineered for cloud-native operation—not merely ported into the cloud. It uses elastic object storage as its foundational persistence layer while retaining the strict file semantics necessary for transactional and financial applications. The result is cloud portability with consistent total cost of ownership (TCO) relative to on-premises systems, allowing financial enterprises to avoid lock-in, control spend, and meet sovereignty and residency requirements without maintaining redundant systems.



A Modern File Data Experience

Qumulo Run Anywhere

Unlike legacy storage systems, Qumulo is 100% software-defined, meaning it runs consistently across on-prem, cloud, or hybrid environments—on any x86/ARM server. This lets financial firms avoid vendor lock-in, simplify infrastructure, and deploy anywhere while maintaining a single, unified file system.

Intelligent Performance with NeuralCache

Qumulo NeuralCache uses machine learning to optimize reads and writes, improving performance and drastically reducing cloud I/O costs by up to 99%

Cloud-Native, But Not Cloud-Limited

Qumulo is cloud-native by design, using object storage with real-time file semantics to enable secure, predictable scaling. It eliminates the need for data replication or app rewrites, ensuring cost control and compliance with data sovereignty requirements.

Built for Regulatory and Security

Financial institutions face intense scrutiny around data governance (PCI-DSS, GDPR, etc.). Qumulo zero-trust model, strong cryptographic isolation, and audit-friendly architecture ensure that data is protected, auditable, and compliant—without sacrificing agility.

Multi-Tenant, Share-Nothing Architecture

With Qumulo Stratus, financial institutions managing mergers or divestitures get cryptographic tenant isolation, customizable access controls, and secure onboarding/offboarding of data—without replatforming.

Customer Success

Qumulo zero-latency support enables fast issue resolution through direct access to experienced Customer Success Managers or file system engineers—no tickets required.

Global Namespace with Strict Consistency and Fewer Replicas

At the heart of the platform lies Qumulo's global namespace and data fabric, which provides a strictly consistent, strongly coherent file view across all environments—whether local or remote. This ensures that financial institutions do not need to replicate datasets multiple times for resilience or performance, thereby reducing infrastructure overhead and simplifying compliance and audit tracking. Strict consistency, rare in modern distributed file systems, guarantees that data reads reflect the most recent writes across users, sites, and services—an essential capability in environments where double-spending, rollback, or stale data can lead to security and financial exposure.

NeuralCache: Predictive Performance and Massive Cost Reduction

Qumulo is further differentiated by NeuralCache, its ML-driven caching subsystem. NeuralCache learns from application and user behavior, automatically optimizing read paths through predictive modeling and grouping write operations into bin-packed, performance-efficient batches. In financial sector testing—including workloads such as fraud detection, reconciliation, and settlement processing—NeuralCache has demonstrated read cache hit rates between 92% and 98%. In cloud deployments, it reduces API operations by up to 99%, drastically lowering costs for I/O-bound services that would otherwise trigger expensive cloud provider fees. This makes Qumulo not just performant, but cost-efficient at petabyte to exabyte storage scale and at ten terabit I/O scale.

Stratus: Secure, Multi-Tenant Architecture for M&A-Driven Enterprises

Qumulo Stratus architecture delivers true “shared nothing” multi-tenancy—providing complete cryptographic and operational isolation between tenants while sharing a common infrastructure data core. For institutions engaged in mergers and acquisitions or divestitures, this allows seamless data onboarding and separation without replatforming or violating compliance boundaries. Each tenant environment can define its own access policies, encryption keys, and identity domains. Critically, Qumulo adopts a true zero-trust and least privilege model—even system administrators cannot access tenant data. This is not only compliant with PCI, GDPR, and emerging privacy regulations but aligns with internal security models of large banks and payment networks who face continuous internal and external audit scrutiny.

Why is Qumulo great for Financial Services?

Qumulo empowers financial services firms to modernize infrastructure without compromise—combining performance, compliance, cloud agility, and cost efficiency in a single platform. It's not just great for financial services—it's built for them.



Conclusion: A Platform for the Future of Financial Infrastructure

Qumulo is not simply a storage solution—it is a foundational data platform for regulated data in the modern financial world. By unifying software-defined flexibility, cloud-native agility, strict consistency, and next-generation performance optimization, Qumulo enables financial and card services companies to modernize without compromise. Whether securing PII across jurisdictions, enabling AI-driven fraud analytics, or preparing for the next acquisition, Qumulo is the platform designed for what comes next.

About Qumulo

Qumulo is the leading provider of cloud file data services, providing real-time visibility, massive scale and API control of data across the data center, private, and public clouds. Federal agencies across the U.S. trust Qumulo to solve their most complex and mission-critical data challenges quickly, efficiently and securely. For more information, visit www.qumulo.com