Addressing Massive Data Growth With as-a-Service Economics

With data growth continuing its ascent, organizations continue to look for new ways to manage its cost and harness its value. Over 60% of data is 'cold', data that is rarely or infrequently accessed. Yet, organizations are unwilling to delete this data as they recognize its potential value. Classically, organizations have had limited choices, to either bear the brunt of large capital expenses for monolithic storage systems and subsequent forklift upgrades, or alternatively, to sacrifice control, easy accessibility, and the security of their data to a public cloud provider.

With Quantum Object Storage Services, you can securely store, manage, and protect active and cold data archives within your own private storage cloud while achieving the same financial flexibility and economics of cloud-based archives.

Simply build a storage cloud wherever your data lives

Quantum Object Storage Services are the industry’s only as-a-Service solution for active and cold data archiving that can be deployed wherever your data lives. Quantum delivers fully managed, S3- and S3 Glacier-compatible Storage-as-a-Service solutions within the security of your own data centers, whether that’s on-premises, collocated, or in a hosted environment.

With Quantum Object Storage Services, you maintain security and control of your data, your workloads, and your applications, while the underlying infrastructure is securely owned and managed by Quantum. Achieve hyperscale storage economics, maintain control of your data assets, and unlock the value of your data without expensive access and storage fees.
Quantum Object Storage Services

Object Storage Services
- Secure, highly durable, S3- and S3 Glacier-compatible private storage cloud services for active and cold data.
- A storage infrastructure in your facility installed, managed, maintained, and owned by Quantum.
- Forever archiving capabilities as a fully managed service with no forklift upgrades, unpredictable fees, or unplanned capital expenditures.

Customer Responsibilities
- Administration of accounts, users, quotas, and storage allocation.

Key End-User-Accessible Features
- Authenticated, networked access to buckets and objects based on standard S3 APIs, Storage Classes, and Lifecycle Policies.
- Object services include GET, PUT, TRANSITION, RESTORE primitives, strong consistency, versioning, object locking, and encryption.

Preserve Your Data While Unlocking Its Inherent and Potential Value

Quantum Object Storage Services are built on a series of breakthrough innovations based on Quantum ActiveScale™ and Scalar® platforms. As the industry’s only object storage platform architected for both active and cold data, Quantum ActiveScale maximizes data access performance, data durability, and storage efficiency across solid-state, disk, and tape media.

Based on the ActiveScale scale-out architecture, Quantum RAIL (Redundant Array of Independent Libraries) tape technologies, and patent-pending two-dimensional erasure coding, Quantum Object Storage Services provides unlimited, independent scaling of both Active and Cold Data Storage Classes to meet a wide variety of use cases and customer environments.

Object Storage Services are delivered efficiently using Quantum expertise and technology, including Quantum’s AIOps software, Cloud-Based Analytics (CBA), and the MyQuantum Service Delivery Platform. Object Storage Services customers access the CBA software and their account dashboard through the MyQuantum portal for summary account activity, system statistics, support requests, case management, and contract renewals in addition to other features.

Quantum Object Storage Services provide scalable private and hybrid cloud storage solutions for active and archived data sets, from petabytes to exabytes. Two classes of service are available – for Active and Cold Data – with simple, all-inclusive pricing.
Quantum Object Storage Services include:

**Installation and Integration:** Quantum installs, configures, and integrates the associated products at the customer’s data center.

**Activation of Cloud-Based Analytics (CBA) Agents:** CBA agents are activated on Quantum products to upload telemetry data and logs to the Quantum Cloud at regular intervals for monitoring and analysis.

**Mission-Critical Premium Gold Support Services:** 24x7 technical assistance and case resolution, access to online and global phone support, priority onsite critical issue response, 24x7 delivery and installation of all replacement parts.

**Proactive Monitoring and Management:** Quantum actively monitors and manages the environment remotely, providing onsite support when required, and in coordination with the customer.

**Capacity and Quality Assessments:** Ongoing review of capacity, performance, and availability statistics and corrective actions. As data requirements grow over time, Quantum works with the customer to identify needs and adjusts configurations and billing rates accordingly.

**Tech Refreshes and Data Migration:** As installed equipment nears end of service life, refreshing the installed service is included. Quantum manages the migration of data from the current service platform to the new service platform with limited or no service disruptions—all included within a simple, predictable pricing model, eliminating the need for forklift upgrades.

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**DATASHEET**

<table>
<thead>
<tr>
<th>OBJECT STORAGE SERVICES</th>
<th>ACTIVE DATA</th>
<th>COLD DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Retrieval Time</td>
<td>Milliseconds</td>
<td>Minutes</td>
</tr>
<tr>
<td>How Is Data Accessed</td>
<td>S3 Standard Class</td>
<td>S3 Glacier Class</td>
</tr>
<tr>
<td>Durability</td>
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</tbody>
</table>

1. Minimum service commitments: Active Data - 1 PB capacity, 3-year term; Cold Data - 4 PB capacity, 3-year term
2. Services are designed with a service level objective of 99.9% availability, based on the characteristics of the underlying platform(s). Actual availability service level objective may vary according to specific customer requirements.
3. Object Storage Service – Cold Data requires a minimum configuration of Active Data service resources for staging cold data being written and/or restored.
4. Up to 19 9s durability depending on system configuration and options chosen.
5. List prices quoted reflect single geo configuration, minimum commitment requirements, and standard service objectives: 15 9s data durability, 1 GB/sec object write performance, 10,000 object restores per 24 hours, 99.9% service availability. In support of a variety of use cases and workload profiles, Quantum Object Storage Services are configurable on a per customer basis to meet extreme data durability and performance requirements. These additional requirements may impact quoted pricing.

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**Data Retrieval Time**

- **Milliseconds**
- **Minutes**

**How Is Data Accessed**

- **S3 Standard Class**
- **S3 Glacier Class**

**Durability**

- **15 9s**
- **15 9s**

**List Price**

- **$0.015 per GB per month**
- **$0.003 per GB per month**

No data access fees
Quantum technology, software, and services provide the solutions that today’s organizations need to make video and other unstructured data smarter – so their data works for them and not the other way around. With over 40 years of innovation, Quantum’s end-to-end platform is uniquely equipped to orchestrate, protect, and enrich data across its lifecycle, providing enhanced intelligence and actionable insights. Leading organizations in cloud services, entertainment, government, research, education, transportation, and enterprise IT trust Quantum to bring their data to life, because data makes life better, safer, and smarter. Quantum is listed on Nasdaq (QMCO) and the Russell 2000® Index. For more information visit www.quantum.com.

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