CLOUDIAN®

CASE STUDY

US Department of Defense deploys Cloudian for scalable storage services

When the Department of Defense sought to update its cloud storage program, Cloudian HyperStore S3-compatible storage was a logical choice. The Department's previous cloud solution, MilCloud 2, had employed Cloudian HyperStore software since 2019, so the solution benefits were well known.

The new program would be contracted under the auspices of Enterprise Storage Solution (ESS) III, a $639M contract that encompasses a managed storage service for the Department of Defense. ESS III is intended to support all application workloads with a solution that includes all storage, network, and operating system hardware and software. According to the Department, the updated platform would lead to faster speeds, more reliability & reduced costs.

Cloudian HyperStore was selected for the object storage platform software based on these factors:

- **Security certifications:** Cloudian has the most security certifications in object storage, including Common Criteria Certification with EAL2 designation, and FIPS 140-2 Data Encryption Validation. Cloudian is also certified to meet the requirements of SEC Rule 17a-4(f), CFTC 17 C.F.R. § 1.31, and FINRA 4511c.
- **S3 API compatibility:** Cloudian's native S3 API ensures compatibility with any COTS or custom application
- **Multi-tenancy:** Allows various mission partners and multiple use cases to securely share a single Cloudian system
- **Ease of use:** Simple management and easy scalability via the single-software-image architecture.

Use case examples: Collaboration, data protection, shared archive

Multiple mission partners, configured as secure tenants, leverage the Cloudian-based storage service. One mission partner employs the system for their CTERA deployment, a collaboration software solution that acts as a NAS frontend appliance with Cloudian storage providing the shared data repository.

Another mission partner employs the system as a backup data repository, leveraging Cloudian's proven interoperability with Commvault data protection software.

A third partner has built a shared data archive, accessing information via an open-source browser.

These and other use cases continue to expand, leading DISA to forecast significant growth in Cloudian usage over the next several years.

Robust architecture for high data durability

To ensure data durability, the Cloudian system was deployed at two sites, with data continuously replicated between them using Cloudian HyperStore's data replication feature. At each site, data was striped across multiple servers using erasure coding. This combination protected the data from both device failure and overall site failure. Usable capacity deployed at each site was initially 500TB and then expanded to 1PB at each as requirements grew. Cloudian's non-disruptive expansion capability enabled growth with zero impact on current production activities.

HPE GreenLake delivers the complete solution

The overall solution, including the Cloudian software and support, was sourced via HPE GreenLake, HPE's edge-to-cloud platform. HPE servers were procured as the platform for all workloads.

U.S. Department of Defense

Industry

Service provider

Challenges

Needs scalable, S3-compatible storage software for storage services platform.

Solution

- Cloudian HyperStore object storage software.
- Cross-region replication across two data centers for data protection.

Solution Benefits

- Highly secure with extensive security certifications
- Full S3 API compatibility with AWS S3 SDK
- Multi-tenancy to accommodate multiple mission partners
- Proven ease-of-use in earlier MilCloud 2 deployment
- Integrated data management for cross-region-replication

U.S. Department *of* Defense

Gartner Peer Insights Customers' Choice 2022

Gartner peerinsights customers' choice 2021

Gartner peerinsights customers' choice 2020

Award-Winning

Proven at over 800 enterprise and service provider customers worldwide, with nearly two exabytes of capacity under management, Cloudian is ranked #1 overall on the Gartner Critical Capabilities 2020 report for Object Storage and is the only object storage solution to be named a Gartner Peer Insights Customers' Choice for 3 years in a row in 2020, 2021, and 2022.

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