CLOUDIAN®

CASE STUDY

US medical research agency turns to Cloudian, saves 70% vs NetApp

he National Institutes of Health (NIH), a part of the U.S. Department of Health and Human Services, is the nation's medical research agency — making important discoveries that improve health and save lives. The organization is made up of 27 different components called Institutes and Centers. Each has its own specific research agenda, often focusing on diseases or body systems. The research produces an immense amount of medical data that needs to be stored securely yet made searchable and sharable across the research community.

Storage cost challenges drove change

In 2018, when Cloudian first engaged with NIH, the organization had 60PB of data on a NetApp filer environment. The NetApp devices were employed as both primary and backup storage, with Commvault providing the data protection management software.

The storage environment was proving to be costly, so a program was initiated to find an alternative, lower-cost solution. The IT managers at NIH had heard about S3-compatible object storage, and believed the technology had potential to help. A pilot program was launched for what would be a small deployment of S3-compatible storage, on-premises.

After evaluating their options, they selected Cloudian HyperStore for the pilot. The initial 1.5PB system included Cloudian HyperStore appliances, Cloudian 24x7 support, and Cloudian professional services to assist with the install.

70% savings vs NetApp filers

The initial deployment gave the NIH team an opportunity to evaluate Cloudian as a backup target. What they quickly found was that Cloudian was easy to use and saved them significant cost vs the existing NetApp systems. Their projections indicated that over five years, factoring in support costs and expansion costs, Cloudian would be 70% less costly than NetApp.

Expanded deployment expands the savings

When the NIH team saw the savings and the ease-of-use, they saw the potential to do more and expanded the Cloudian role as a backup target. The next step was to reconfigure their applications to use Cloudian as a primary data repository. Through use of the AWS S3 SDK, they refactored their applications to allow Cloudian usage across their environment. This cleared the way for wider deployment.

Significant expansion took project to next level

After the 2018 initial deployment, NIH expanded their Cloudian environment with data that was migrated from the NetApp devices as those systems reached the end of their support contracts. Today, the Cloudian system encompasses 60PB that was originally on NetApp. The system now spans two physical data centers and multiple virtual data centers, with cross region replication across sites for data protection. Beyond that, they are planning to further expand the Cloudian system to accommodate growth.

Helping to improve health outcomes

NIH seeks to enhance health, lengthen life, and reduce illness and disability, and their research has had a major positive impact on nearly all our lives. Data provides the underpinning for their research, and Cloudian now plays a role in assisting with this research by helping to make research data quickly searchable, easily accessible, yet securely stored.

National Institutes of Health

Industry

- Medical research

Challenges

- Needs secure, searchable, cost-effective storage for 60PB of medical research data.

Solution

- 60 PB of Cloudian HyperStore object storage.
- Cross-region replication across two data centers for data protection.

Solution Benefits

- 70% less cost than NetApp filers
- Full S3 API compatibility with the AWS S3 SDK
- Integrated data management for cross-region-replication
- On-premises storage
- Seamless integration

NIH National Institutes of Health

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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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