



U.S. Department of Veterans Affairs Selects CTERA for a Major Distributed Secure Storage Modernization Project



The VA Infrastructure-as-a-Managed Service (IaaS) Project:

- 5-year initiative to modernize the VA storage infrastructure across over 300 sites
- 100s of petabytes of mission-critical data from business operations data to medical images used in veteran care
- As-a-service delivery model will be operated by Peraton
- Cloud-first approach to eliminate application-specific infrastructure silos
- DoD-certified security standard

The United States Department of Veterans Affairs (VA) is an executive branch department of the Federal government of the United States charged with providing lifelong healthcare services to eligible military veterans. The Veterans Health Administration is the largest integrated health care system in the United States. They provide care at 1,293 health care facilities, including 171 VA Medical Centers and 1,112 outpatient sites of care of varying complexity to over 9 million veterans enrolled in the VA health care program.

Modern healthcare generates around 30% of the world's data volume and will grow to a 36% compound annual growth rate by 2025. To cope with this amount of data growth, healthcare organizations need to modernize their data infrastructure and transition it to using cloud-based technologies that enable a different level of consumption-based scaling compared to traditional storage systems.

Given this data volume and the highly distributed nature of the U.S. VA, there is a constant challenge for enabling fast and secure data access at hundreds of remote sites, without being limited by network bandwidth and connectivity, as well as providing efficient cross-site collaboration as users and workloads move between locations.

The Challenges

They couldn't scale: modern healthcare applications generate massive amounts of data. Given the size of their operation, the VA needed to build a new cloud infrastructure that could effectively scale to 100s of petabytes to support the current and future needs of the organization.

Slow data processing: the VA needed to consolidate the data into the cloud. However, since medical imaging requires large data files, the VA healthcare professionals knew storing that information only in the cloud would slow down access and processing, and that local data access was required.

No centralized control: the VA was lacking centralized control of their data. They needed a way to centralize data management and service delivery as well as migrate their data to the cloud.

Lack of collaboration: with over 300 remote sites, the VA needed a way for people to collaborate. This is difficult when data is only available from one location. To fix this, the VA needed to provide data access across multiple sites.

Security concerns: like most highly regulated industries like healthcare, security is a big concern for the VA. This meant they had to have a way to address these concerns and keep their data located in each location and the cloud safe.



The Solution

Key elements of the solution seen below include:

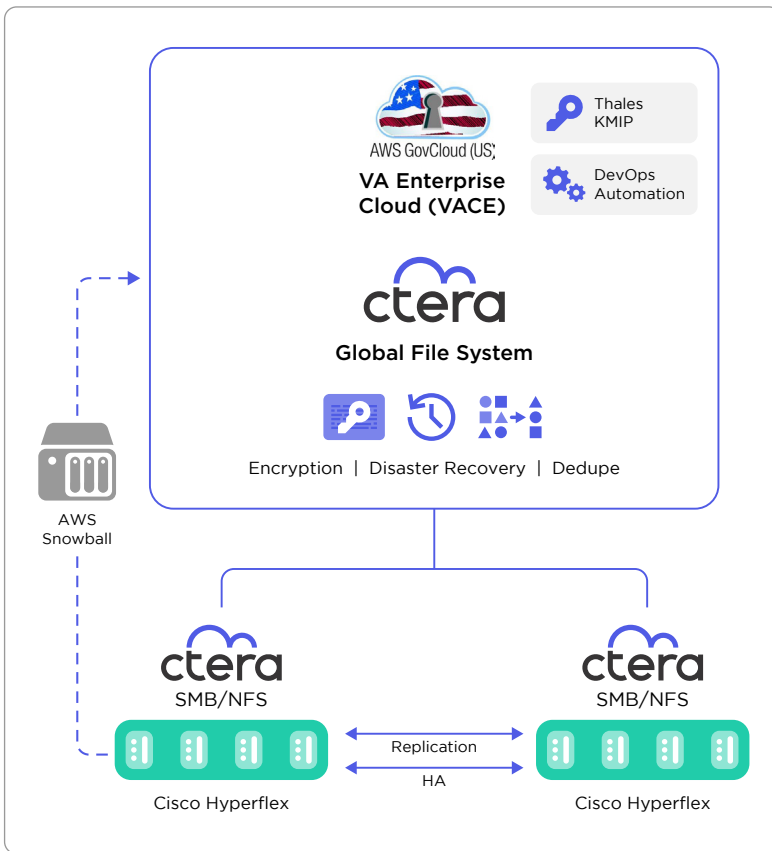
CTERA Virtual Edge Filer: branch-level software-defined storage deployed on Cisco Hyperflex HCI, provides fast local SMB/NFS interface to the global cloud-based file system.

CTERA Portal: deployed in the VA Enterprise Cloud completely within the VA firewall and delivers a global file system over AWS GovCloud object storage, and provides central management and control for the entire deployment.

Data Pipeline Automation: CTERA DevOps SDK enables programmable deployment and enables the orchestration of event-driven data management microservices.

External Key Management: KMIP integration with Thales KMIP server provides secure management of the encryption keys.

Offline seeding: support for massive data ingestion using CTERA's unique integration with Amazon Snowball.



“CTERA offers a proven solution for unstructured data management challenges at the Federal level. By enabling the VA to embark on an edge-to-cloud file services strategy without compromising on highly stringent data security requirements, CTERA represents the ideal modern file storage component of the laAMS contract.”

Eric Watson
Senior Program Manager, Peraton

The Benefits

The VA was able to find the speed, flexibility, and security with CTERA Enterprise File Services. Some of the benefits include:

Better availability: with CTERA's Global File System using Amazon AWS GovCloud, every facility has access to all the data, all the time.

Faster access: 10X speed increase with medical imaging processing. This enhanced speed will allow them to help more veterans in the future.

Faster implementation: to solve the problem of moving petabytes of data into the AWS GovCloud, Amazon Snowballs are being utilized to do the initial seeding.

DoD security: with CTERA's zero-trust architecture combined with Thales key management solution via the Key Management Interoperability Protocol (KMIP), data is securely stored in GovCloud meeting the most stringent requirements defined by the DoD.

DevOps automation: with all of the data being stored in a central repository, the VA DevOps team can now run automation processes with data services provided by CTERA.

Contact us to learn more about how File Storage Modernization can help your business.