



Top 10 Wall Street Bank Adopts Panzura Freedom Multi-Cloud File Services

Migrates over 30,000 applications to the cloud without rewrite or sacrificing performance

Customer Challenge

A top 10 Wall Street bank, with trillions in assets, needed to modernize its IT infrastructure. As would be expected from such a large, established financial organization, they had a sizable and complex IT environment. Their infrastructure had been built up over time, with a focus on security, reliability, data protection, and availability.

Their infrastructure had served them well, but it was designed around traditional on-premises storage, mostly NetApp. Their infrastructure consisted of a number of different NetApp systems, each with their own management requirements and lifecycle. It was extremely complex, and, with the explosion in unstructured file data, became unmanageable, not scalable and too costly to store and manage.

The bank embarked on a new initiative to modernize and deploy a new cloud infrastructure. The specific goals of the project were to improve availability, control costs, maintain existing processes, streamline management, standardize infrastructure, and natively integrate cloud-based technology. The project required that any solution provide enterprise scalability, absolute security, fast performance and total reliability.

One of the goals of the project was to replace their aging, mixed infrastructure with one that would allow them to consolidate their data into a single source of truth. The solution needed to be consistent for all applications and users as well as highly programmatic, utilizing an (API) for ease of management.

They also knew that they wanted to leverage the scalability and durability of cloud storage. Given the nature of their business, they needed to use a private cloud today, but also wanted to have the option to easily move to a public cloud in the future.

Solution

To meet their goals of data consolidation, security, programmatic, automated management, redundancy, and future cloud migration, the financial institution chose to implement Panzura Freedom NAS multi-cloud file services.

Customer Challenge

- Implement highly scalable and resilient cloud infrastructure including cloud storage without rewrite of 30,000+ NFS and SMB-based applications
- Maintain or exceed current performance SLAs
- Provide pathway to public cloud without re-write of applications or change of workflow
- Support cloud-native applications and big data workloads including Docker and Splunk
- Insure cost-effective scale for explosive data growth
- Meet stringent security, regulatory and high availability requirements
- Support automation initiative with REST API

Solution

- Panzura Freedom NAS VM

Results

- Migrated 30,000+ applications to the cloud without rewrite or sacrificing performance
- Delivered pathway to public cloud for applications without workflow change
- Natively supported Docker and Splunk in global CloudFS infrastructure
- Provided highly resilient, highly available, secure NFS and SMB file services to meet strict regulatory requirements
- Cost-effectively store and manage 10PBs of data
- Automated management with REST API

Vertical

- Financial

Freedom NAS delivers the high performance NFS and SMB primary file services for over 30,000 current applications. These applications were integrated into the new cloud-based infrastructure without re-write or change of workflow. And, the bank will be able to take advantage of public cloud infrastructure in the future again without re-write of applications or change of workflow. Finally, with Freedom NAS support for Docker and Splunk, the bank can support their cloud-native applications and big data initiatives.



Freedom NAS is deployed as a scalable VM in the bank's data center locations and uses all-flash array (AFA) and compute resources from Pure, Dell/EMC, vBlock and Cisco UCS respectively with Dell/EMC ECS as private S3-cloud storage. A second, local VM is also paired in each location for high availability. Each Freedom NAS VM provides primary NFS v4 and SMB v3 file services and advanced cloud data services – global namespace, global file locking, automated backup and archive, unlimited cloud snapshots with file, folder and system restore, military-grade encryption, global dedup and compression. The VM is accessible via a REST API for automated management.

Result

The bank was able to replace their aging NetApp file infrastructure with modern, scalable Freedom NAS multi-cloud file services and cost-effectively consolidate over 10 petabytes of data into a single source of truth in the cloud, eliminating copy data sprawl. All of the data is now immediately available through the global namespace, consistent and protected at each location.

With Panzura Freedom NAS, the bank migrated 30,000+ applications to the new cloud infrastructure without rewrite or sacrificing performance requirements. Freedom NAS natively provides NFS and SMB mount points, so they function in the exact same way that they would with traditional NAS storage. As a result, the Bank met a critical goal of moving to a modern, scalable cloud object store for its storage repository without re-writing the applications or changing the workflow. And, with Freedom NAS, the bank can easily move applications to a public cloud infrastructure, again without re-write or change of workflow. Finally, the Bank can support their new, cloud-native and analytics applications with support in Freedom NAS for Docker and Splunk.

Freedom NAS met strict regulatory requirements for highly resilient, highly available file services. Every Freedom NAS always has read access to data from every other instance connected through the global file system. Data is stored securely in the cloud and each Freedom NAS can read that data. In the event of a disaster in one location, every other location already has access to the data for immediate recovery.



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Locally, each Freedom NAS instance is protected by a second Freedom NAS HA instance for auto-failover. Capable of both local dedicated and global automatic failover, Freedom NAS achieves maximum enterprise availability.

As a major financial institution, the bank is subject to significant regulatory oversight, so security and data protection are paramount. Freedom NAS provides strong, FIPS 140-2 compliant encryption. With Freedom NAS data at rest always uses AES 256-bit encryption, while data in flight is protected with TLS 1.2. Data access is controlled through strong standards-based authentication. In addition, Freedom NAS is configured to provide unlimited cloud snapshots ensuring strong data protection. Finally, the bank is protected from ransomware with fine-grained data recovery – from file to folder to full file system and full scans are performed through ICAP for enterprise virus scanning.

Automated management of the system and file shares, a key goal of the bank, was achieved through the Freedom NAS REST API. This fully programmable API includes a SWAGGER interface for fast integration and automation.

In short, by modernizing its file services with Panzura Freedom NAS, the bank was able to achieve and exceed goals. Now, the bank has a modern, simple, scalable cloud file solution that meets their current and future requirements and provides the only way to cost-effectively manage, protect and store their exponential growth in file data.

