

## Panzura Freedom NAS™

### Consolidate unstructured data to the cloud, eliminate islands of storage across the enterprise, and simplify backup and archive processes.

Panzura Freedom NAS consolidates unstructured data to the cloud, eliminates islands of storage, dramatically simplifies backup, replication, disaster recovery, and archive processes, while significantly reducing costs. Freedom NAS allows organizations to take advantage of the economics, scalability, and durability of the cloud, while enabling data center performance.

As businesses have struggled to manage the uncontrolled growth of unstructured data, the standard solution has been to continually add expensive NAS storage. While this solved the short term problem, it resulted in islands of storage, each of which requires complex backup, archive, networking, and replication solutions to remain operational. Given the cost and complexity of data center NAS solutions, and the staggering growth rates of unstructured data, this is no longer a sustainable option.

The fact that unstructured data growth is now crippling CAPEX and OPEX budgets has many companies considering a cloud-first initiative. The cloud can solve many of these challenges, but it also has its drawbacks. Cloud architecture simply cannot match the performance of a local file system. Combined with the latency inherent in connecting to a remote cloud data center, the cloud cannot offer the performance needed for end users that are already asking for faster storage.

#### Consolidate Data Center NAS and Eliminate Islands of Storage

Panzura Freedom NAS solves these challenges by enabling data center performance with the economics, scalability, and durability of the cloud.

With Panzura Freedom NAS every location is part of the same Global Namespace. This gives every location read and write access to all of their local files, and read only access to the data from the other locations. The result is the same as having a NetApp NAS at each location with SnapMirror replicating to another location, but without the need for redundant storage arrays, replication software, and expensive private networks to connect them.

#### Unprecedented Performance and Scale

Freedom NAS delivers breakthrough performance for managing the explosive growth in unstructured data. For decades, enterprise applications have been written to use either the SMB/CIFS or

#### Highlights

- **Consolidate unstructured data to the cloud**
- **Eliminate islands of storage**
- **Simplify backup, disaster recovery, and archive across sites**
- **Improve performance for distributed users**

NFS protocols. Converting applications to connect to cloud object storage will cause significant changes to workflows, causing an unacceptable disruption to business continuity.

Other solutions claim to support both protocols, but focus only on one. Freedom NAS delivers game changing performance for the latest versions of both protocols. SMB v3 provides coverage for traditional file sharing. NFS v4 provides high performance coverage for engineering and design, simulation, imaging, and software developer applications. With support for both protocols, all of your applications should be covered.

Panzura “QoS for workloads” enables administrators to actively monitor and manage workflows to ensure that every application gets the performance it needs. As workloads change over time, physical and virtual instances of Freedom NAS can dynamically scale as required. Patented, intelligent deduplication and compression reduces the amount of traffic on the wire to make network connections seem larger than they are.

## Expanded Data Center Workloads

Get rid of data center NAS and Windows file servers in every office and consolidate unstructured data in the cloud. Freedom NAS makes affordable, scalable cloud storage look and feel like a local file share. By using intelligent caching to store the most active files locally on flash, users get the same or better performance than local NAS systems can offer. With full support for the latest versions of SMB/CIFS for traditional file sharing and high performance NFS for engineering and design, simulation, imaging, and software development applications, there are never any changes to user workflows.

## Any Platform, Any Cloud

Panzura offers total flexibility to deploy your cloud storage. Deploy Freedom NAS on the public or private cloud provider of your choice. Panzura lets you choose your provider, so you are always in control of your data.

Each Freedom NAS system can be deployed on a Panzura Freedom Filer, as a virtual machine on your existing infrastructure, or run as a virtual instance in the cloud. Choose the option that best meets the needs of your business, on a per location basis, in any combination.

## Automated, Centralized Management

The Freedom GUI provides a single, intuitive interface to easily manage every Freedom Filer in your organization. A powerful wizard guides you through a quick and easy setup process to complete installation in minutes. An easily customizable dashboard provides reporting on your entire global namespace. Automated health checks and email alerts ensure that you are always up to date on the state of your unstructured data storage. Programmable APIs enable administrators to automate tasks and always be in control.

## Cloud Data Protection

Cloud data centers are architected to provide up to 13 9s of availability, which is far beyond what private data centers can practically offer. Providers such as Amazon Web Services and Microsoft Azure designed their data centers to be able to survive the loss of at least two full data centers without interrupting access to data.

When there is a data problem, advanced, granular snapshot technology from Panzura enables recovery to a known good point in time. Whether done for a full file system or down to the level of a single file, restoration is always fast and simple. Snapshots are always done using the redirect-on-write method, so performance is never impacted. Since snapshots are highly space efficient and stored on economical, scalable cloud storage, there is never a concern about how many snapshots can be taken. Panzura patented technology ensures that data is always immediately consistent across sites, so recovery point objectives (RPOs) can be reduced to near zero.

By combining the durability of the cloud with Panzura advanced snapshots your data is always protected. Legacy backup processes and all of the associated costs and management headaches can be completely eliminated.

## Pay For What You Use

Don't buy storage today when you won't need it for three years. On-premise storage requires that administrators plan for and purchase all of the capacity they will need for the life of the array. Cloud storage frees you to only pay for what you use, when you use it. With cloud storage, you can take advantage of the cost of capacity declining over time and simply scale up to suit the needs of the business. With Freedom NAS, enterprises can acquire, install, and use unlimited unstructured cloud data capacity in only minutes instead of months.

# Panzura Freedom NAS

Feature	Benefit
<b>Data Center NAS</b>	Make cloud storage appear as local file storage. Every site can have real-time, read access to every other site without the need for expensive replication and networking technologies.
<b>Cloud Backed Storage</b>	Connect to the public or private cloud provider of your choice and use it as the authoritative copy for all files with up to 13 9s of availability.
<b>Intelligent Caching</b>	With 100% of data in the cloud, data is intelligently cached using advanced algorithms based on recency of creation and use. Pin data to cache for maximum control.
<b>Flexibility of Deployment</b>	Deploy on the public or private cloud provider of your choice on any combination of Panzura Freedom Filer, virtual machine, or in cloud instance.
<b>Global Namespace</b>	Every Panzura instance is part of the same global distributed Cloud File System. This provides visibility to all users at all times with no changes to user workflows.
<b>Global Deduplication and Compression</b>	All data is deduplicated and compressed before being sent over the wire, reducing both network traffic and the amount of cloud storage consumed, further reducing costs.
<b>Military Grade Security</b>	The Freedom platform uses FIPS 140-2 compliant security with AES-256 bit encryption for protection of data at rest and TLS 1.2 for data in-flight.
<b>Global Snapshots</b>	Panzura Global Snapshots provide recovery of data by restoring to a known good point in time, on a per file basis. Panzura uses modern redirect-on-write snapshot technology which never affects performance, unlike legacy copy-on-write snapshots which are always impacted.
<b>SmartSync™</b>	Patented technology that combines the efficient transfer model of rsync with the strong checksum of ZFS. This provides all the benefits of rsync file synchronization, but without any of the associated overhead.
<b>Extended Access Control Lists (ACLs)</b>	Enable granular permissions based file access.



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