Panzura Freedom Collaboration™

Consolidate global primary file storage to enable distributed users to work together as if they were in the same room.

The success of global organizations is increasingly reliant on the ability of a widely distributed workforce to collaborate effectively. Because of that, a new generation of collaborative applications have been developed, driving the need for multiple users to be able to open and edit different parts of large, complex files at the same time. To support these modern applications across globally dispersed sites requires an immediately consistent, distributed cloud file system.

Highlights

- **Enable globally distributed users to work together like never before**
- **Accelerate projects and reduce time to market**
- **Consolidate primary file storage to the cloud**
- **Eliminate islands of storage**

Panzura Freedom Collaboration allows globally distributed users to work together as if they were in the same room. Our patented Panzura Distributed File Locking™ supports locking down to the byte-range level to enable users from different offices to be working in the same file, at the same time, without data corruption or file versioning. Updates are made in real time, so every user always has access to the current version. Users will no longer have to reconcile different versions of the same file.

Inherent in Freedom Collaboration is our patented Panzura Cloud File System (PCFS). The PCFS is an immediately consistent distributed file system that was designed specifically for the cloud. It enables our hybrid cloud storage solution to fully support complex applications and overcome the effect of latency between offices, eliminating delays in opening or synchronizing files. Users in Singapore get the same fast, consistent access to files as users in New York or London. When users make updates in one location, users in every other global location immediately see the changes.

Unprecedented Performance and Scale for the Distributed Workforce

The PCFS looks and behaves just like a local, locking NAS or Windows filer to users, but is backed by a central cloud data repository that can span hundreds of sites. Intelligent caching keeps the most important data close to users on high performance flash storage. This gives users LAN-like performance at every office, even though users are all accessing the same centralized files — no matter where they are based.

As the leading scale-out, distributed file system specifically designed for the cloud, the PCFS is able to deliver exceptional performance across a range of workloads. With full support for the latest versions of both NFS and SMB/CIFS protocols, Freedom Collaboration delivers maximum performance for every application. In addition to file sharing with CIFS v3, high performance NFS v4 expands coverage for engineering and design, simulation, imaging, and software development applications.

Every Freedom solution natively incorporates performance enhancements that are only available from Panzura. Our unique Quality of Service (QoS) for workloads, guarantees that every application gets the right level of performance, consistently over time. Patent pending SmartSync™ further accelerates real-time cross-site collaboration by transferring the least amount of data possible when users in different locations are working together on the same file. Our global deduplication only sends unique blocks of data over the wire to maximize bandwidth usage. All of this combines to deliver unprecedented performance.

Freedom Collaboration saves hundreds of thousands of dollars in lost billing hours and eliminates the need to permanently or temporarily relocate users to different offices. It's also simpler, faster, and less expensive than deploying primary, backup, and archive storage at each site, and running WAN optimization over private networks.

Cloud Data Protection to Simplify Backup, DR, and Archive with Near Zero RPO

Producing multiple copies of data for backup and disaster recovery (DR) has been complex, expensive, and wasteful, but a very necessary process — until now. Freedom Collaboration uses advanced snapshot technology to enable users to recover from problems, ranging from an accidentally deleted file to a ransomware attack, by restoring to a known good instance of the data. With Panzura, users can quickly recover their data set to a point in time before the error occurred. Granular control to restore from an entire volume down all the way down to the file level gives maximum flexibility. This snapshot functionality can provide a near zero recovery point objective (RPO).

By combining the ability to restore to the level of an individual file for near zero RPO with the high resiliency of the cloud, which can offer up to 13 9s of durability, the need to perform regular backups can be reduced or even completely eliminated.

Implement Now and Scale On Demand

Traditional on-premise NAS systems are expected to last 3 to 5 years. This means users have to plan for and buy storage today, that they did not currently need. If they buy too much, it is wasted money. If they buy too little, they run out of capacity. Purchasing new storage arrays can take weeks or months to get budget approval, followed by more time to select, purchase, and install.

Panzura offers a more affordable solution that can be deployed in minutes. By using cloud storage, you only have to pay for the capacity you use, when you use it, reducing costs and simplifying the buying process. Plus, as you only buy storage when you consume it, you can take advantage of the declining cost of capacity over time. When more storage is needed, simply scale up capacity to meet the needs of the organization and never over provision again.

Any Platform, Any Cloud

Panzura offers total flexibility when deploying Freedom Collaboration. Users can choose to use the public or private cloud provider of their choice. Since Panzura customers select their own cloud provider, data is always in their cloud account, under their control.

Freedom Collaboration can be deployed three ways: on a Panzura Freedom Filer, as a virtual machine on existing infrastructure, or run as a virtual instance in the cloud. Customers always have the freedom to choose the option that best meets the needs of their 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. Programmable REST APIs enable administrators to automate tasks and always be in control. 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.

Security to Sleep at Night

Every Panzura Freedom solution fully supports FIPS 140-2 compliant security to keep customer data protected. Data at rest is protected with AES-256 bit encryption and data in flight is protected by TLS 1.2 encryption. Further, all Panzura Freedom systems deduplicate and encrypt data before it is sent to the cloud, providing an additional layer of obfuscation. Strong, standards based authentication methods further restrict access. All public cloud providers also include significant physical security beyond what most private data centers can practically provide, further ensuring the safety and security of user data.

Panzura Freedom Collaboration

Feature	Benefit
Global Namespace	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.
Panzura Cloud File System	Immediately consistent file system that allows distributed users to share files in real time.
Distributed File Locking	Ensures data integrity while enabling globally distributed teams to work as if they are in the same room.
Byte-Range Locking	Lets extended work teams edit different parts of large, complex files without collisions or data corruption.
Global Metadata	Every Freedom instance has an immediately consistent copy of the metadata for the entire global file system.
Local NAS	Makes 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.
Cloud Backed Storage	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 durability.
Intelligent Caching	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.
Flexibility of Deployment	Deploy on the public or private cloud provider of your choice on any combination of Panzura Freedom Filer, virtual machine, or in cloud instance.
SmartSync™	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.
Global Deduplication and Compression	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.
Military Grade Security	The Freedom platform uses FIPS 140-2 compliant security with AES-256 bit encryption for protection of data at rest and TLS encryption for data in flight.
Global Snapshots	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.
Extended Access Control Lists (ACLs)	Enable granular permissions based file access.
Single Console Update	Easily assure every filer is always up to date with simplified version control from a single point, for all filers in the ecosystem.
Wizard Based Installation	Quickly and simply setup, configure, and customize filers to meet your specific needs with an easy to follow wizard.
Health Check	Validate system integrity at any time to be sure your entire system is always performing at optimum levels.
User IOPS Protection	"QoS for IOPS" provides predictable and consistent performance to meet the needs of users.
POSIX protocol support	Enjoy complete support for the latest protocol feature sets (SMB v3, NFS v4).
Hybrid data store support	Total flexibility in media selection to match the needs of the organization.
API Based GUI	Flexible automation for programmatic configuration and analytics.
VMware support	Full control of VMware tools (VM HA, VMotion) to best utilize resources with highest resiliency.
Secure Erase	Guarantee the security of your data with the strongest data erasure protection possible when you delete data in the cloud, short of physically destroying the drive the data was written on.

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