Panzura Freedom Amazon Machine Instance (AMI)

Consolidate unstructured data to AWS and eliminate islands of storage, simplify management, and enable your distributed workforce to collaborate on the most complex projects

The Panzura Freedom Family™, powered by the Panzura CloudFS™, enables data center performance with the economics, scalability, and durability of the cloud. Enterprises can consolidate their unstructured data from legacy NAS systems to the cloud to eliminate islands of storage and replace complex backup, archive, and disaster recovery processes while delivering the business continuity of local storage.

Panzura offers customers freedom of choice and ease of deployment to run on any combination of physical systems, virtual machines in ESXi environments, or as a virtual instance for Amazon Web services (AWS) as an Amazon Machine Instance (AMI).

There are a multitude of benefits to having a local hardware appliance to manage and optimize connectivity to centralized cloud storage. There are other use cases, though, where locating the connectivity and optimization in the cloud itself provides the greatest value. Panzura meets both needs with Panzura Freedom Filers and Panzura Freedom Amazon Machine Instance (AMI) for Amazon's Elastic Compute Cloud (EC2).

Panzura Freedom Amazon Machine Instance (AMI)

The Panzura Freedom AMI brings all of the features and capabilities of a local Freedom Filer to AWS, giving in-cloud applications direct access to Amazon Simple Storage Service (S3) via high performance NFS or SMB/CIFS from any location in the global infrastructure. Enterprises can leverage the flexibility and scalability of EC2 and all the benefits it provides while tying it directly and seamlessly to the S3 connected Panzura CloudFS. The Freedom AMI provides fast, global access for any of these EC2 instances to the enterprise central data store in S3 (subject to permissions) empowering a worldwide, low-cost, responsive IT environment.

Freedom AMI also provides advanced disaster recovery (DR) capabilities for any physical location by enabling organizations to recreate an exact instance of the filer from any physical site that goes down. It seamlessly transitions from a remote appliance to an in-cloud AMI and enables the reconstruction of the lost site directly in EC2, with access to the necessary data in S3. This enables fast recovery for immediate access without rebuilding the physical site. This also eliminates restoration from local disk copies or trying to retrieve and reload the right tape deck.

Panzura Freedom AMI provides:

- Connect physical sites to the virtual AMI instance
- Consolidation of unstructured data to the Amazon S3
- Seamless access to unlimited compute and storage
- Simplified backup, disaster recovery, and archive processes

Complete Cloud-Integrated Storage

Whether it is an enterprise with few sites but lots of data, lots of sites and a moderate amount of data, or some mixture that includes the need for virtual compute capabilities in EC2, Panzura Freedom™ provides a full hybrid cloud storage solution, regardless of where or how it is deployed. With the Panzura Freedom AMI, IT leaders now can create virtual, cloud-based compute environments that tie directly into the Panzura CloudFS. This AMI makes integrating cloud compute and storage into a simple process.

Freedom AMI offers the same award-winning capabilities of the entire Freedom Family, including:

Unprecedented Performance at Scale

Panzura Freedom delivers unprecedented performance at scale to meet application and user demands. Through "workload QoS," administrators can monitor and manage each workload to ensure that every application gets the performance it needs. As the number of users and workloads change over time, Panzura Freedom can dynamically scale to meet the needs of the organization. Plus, patented global deduplication and compression dramatically reduces the traffic on the wire to make network connections seem larger than they are.

Expanded Data Center Workloads

Panzura CloudFS is a scale-out, distributed file system purpose-built for the cloud that incorporates intelligent file services that are backed by numerous patents. With full support for the latest versions of both NFS and SMB/CIFS protocols, the Freedom Family delivers maximum performance for every application. In addition to traditional file sharing with SMB v3, full support for high performance NFS v4 expands coverage for engineering and design, simulation, imaging, and software development applications.

Any Platform

Panzura Freedom™ can be deployed three ways: on a physical system, as a virtual machine on existing infrastructure, or run as a virtual instance in AWS. Customers always have the freedom to use any combination of deployments to best meets the needs of their organization.

Automated, Centralized Management

Always stay in control of your storage with an intuitive, easy-to-use GUI that provides centralized management of every Freedom instance in your global namespace. A highly customizable dashboard provides detailed reporting for every aspect of your storage. Automated health checks and email alerts ensure that you are always up to date on the status of your unstructured data storage. Programmable APIs enable administrators to automate tasks and always be in control.

Cloud Data Protection

Consolidate unstructured data to the cloud and simplify or eliminate backup, disaster recovery, replication, and archive processes. The Panzura Freedom Family uses space efficient redirect-on-write snapshots to provide data protection with a near zero RPO. The Freedom Family enables fast, granular restoration ranging from an entire file system down to an individual file. Combined with the high durability of AWS storage, this can simplify your entire backup architecture.

Use Case Options

Freedom Archive replaces expensive single site NAS systems with a hybrid cloud storage platform. It simplifies the entire backup and archive infrastructure with a more resilient, automated solution and provides business continuity because it appears to users like a local network drive, while storing all unstructured data in the cloud.

Freedom NAS consolidates expensive data center NAS systems and eliminates islands of storage. With Panzura Freedom NAS, every location is part of the same Global Namespace, which gives every location read and write access to 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.

Freedom Collaboration allows globally distributed users to work together as if they were in the same room. 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.

	AMI-SMALL	AMI-MEDIUM	AMI-LARGE
Network	500 Mpb	1 Gbps	4 Gbps
Amazon EC2 Instance Family	General Purpose	Compute Optimized	Memory Optimized
Amazon EC2 Instance Type	m4.large	m4.2xlarge	m4.10xlarge
RAM	Minimum 64GB	Minimum 64GB	Minimum 64GB
Usable Local Cache	Up to 15 TB		
Max. File System Capacity	Unlimited		
Max. Number of Files	2^48 x Number of Filers		
Max. Snapshots	2^64		
Max. Cloud Capacity	Amazon Defined		
Encryption	Military-Grade AES-256-CBC, TLS v1.2		
Network Protocol Support	SMB (V1,v2, V3), NFS (v3, v4)		
Cloud Connection Protocols	HTTPS, SSH		
Monitoring	SNMP v3 , Email Alerts, API		

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