



Panzura Freedom Virtual Hard Disk (VHD) for Azure

Consolidate unstructured data to Azure 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 Cloud File System (PCFS), enables data center performance with the economics, scalability, and durability of the Microsoft Azure 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 with a simple, automated solution.

Panzura Freedom provides freedom of choice and ease of deployment to run on any combination of physical systems, virtual machines (VMs) in ESXi environments, or as an in-cloud instance running as a Virtual Hard Disk (VHD) in the Microsoft Azure cloud.

For many use cases, there are numerous benefits to using a local appliance to optimize and manage connectivity to centralized cloud storage. However, there are use cases where locating the connectivity and optimization in the cloud itself provides the greatest value to the organization. Panzura meets both needs with Panzura Freedom Filers and Panzura Freedom Virtual Hard Disks (VHD) for Microsoft Azure.

Panzura Freedom Virtual Hard Disk (VHD) for Azure

Bring all the features and capabilities of a local Freedom Filer to the Microsoft cloud with Panzura Freedom VHD, giving in-cloud applications direct access to Microsoft Azure Blob storage via high performance SMB/CIFS or NFS from any location in the global infrastructure. Organizations can leverage the flexibility and scalability of Microsoft Azure and all the benefits it provides, while tying it directly and seamlessly to PCFS. Panzura Freedom VHD provides fast, global access to the enterprise's central data store (subject to permissions), empowering a worldwide, low-cost, responsive IT environment.

The Panzura Freedom VHD also provides advanced disaster recovery (DR) capability for physical locations by enabling organizations to recreate an exact instance of the filer from any physical site that goes down. It seamlessly transitions from a remote, physical appliance to an in-cloud VHD and enables the reconstruction of a lost site directly in Azure, with access to the necessary data. This provides fast recovery

The Panzura Freedom VHD for Azure provides:

- Connection of physical sites to VHD instances
- Consolidation of unstructured data to Microsoft Azure Blob storage
- Seamless access to unlimited compute and storage
- Simplified backup, disaster recovery, and archive processes

and immediate data access without rebuilding the physical site. This also eliminates the need to restore from local disk copies or to retrieve and reload tapes.

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 Azure, Panzura Freedom provides a full hybrid cloud storage solution, regardless of where or how it is deployed. With the Panzura Freedom VHD, IT leaders now can create virtual, cloud-based compute environments that seamlessly tie directly into their global physical and virtual infrastructure and the Panzura Cloud File System. This VHD version of the PCFS makes integrating cloud compute and storage into a simple process and provides a platform for a new era of enterprise computing.

Get the same award-winning capabilities of the Panzura Freedom Family on the Freedom VHD for Azure including:

Unprecedented Performance at Scale

Get unprecedented performance at scale to meet application and user demands. Through a "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, 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

The PCFS 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 SMB/CIFS and NFS 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

The PCFS can be deployed three ways: on a physical system, as a virtual machine on existing infrastructure, or run as a virtual instance in the Microsoft Azure cloud. Customers always have the freedom to use any combination of deployments to best meet their needs.

Automated, Centralized Management

Always stay in control of your storage with an intuitive, easy to use GUI that provides centralized management for 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 in 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 Microsoft Azure Blob storage, this can simplify your entire backup architecture.

| | VHD-SMALL | VHD-MEDIUM | VHD-LARGE |
|--|--|------------------|------------------|
| Azure Instance Family | Standard_DS13_v2 | Standard_DS14_v2 | Standard_DS15_v2 |
| Premium Managed Virtual Machine Disks | P30 | P30 | P30 |
| Max. File System Capacity | Azure Defined | | |
| Max. Snapshots | 2^64 | | |
| Max. Cloud Capacity | Azure Defined | | |
| Encryption | AES 256-CBC , TLS v1.2 | | |
| Network Protocol Support | SMB (v1,v2,v3), NFS (v2, v3; over TCP and UDP) | | |
| Cloud Connection Protocols | HTTPS, SSH | | |
| Monitoring | SNMP v3, Email Alerts and API | | |



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