



Morro Data Global File Services



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GLOBAL FILE SERVICES

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Introduction

Morro Data provides high-performance global file services for distributed enterprises, small and midsize businesses. Our solution enables team members in multiple locations including those working from home to collaborate with one other as if everyone is in the same office. How to effectively storage, share, and protect your digital asset and empower collaborative, productive business applications remain the top priority for IT managers and CIO's. Morro services feature high-performance, compatibility, and ease of deployment.

File Server and Network-Attached Storage

File Server or NAS (Network-Attached Storage) has been well adapted and widely deployed for various business applications. However, the data storage is designed for local network environment. It is a poor choice for multiple sites access or remote users for unified access and real-time collaboration. For businesses with multiple offices, NAS devices are deployed in each location which created data duplications and data silos among offices. As a result, the data access is inconsistent, and the management overhead is higher.

To address the data growth, NAS storage expansion and upgrading is a painful overhead that often being overlooked. The larger the storage footprint goes, the higher risk of NAS expansion and migration. In addition, for NAS being used as primary storage, a backup deployment is needed to protect data for recovery in case of system failure, ransomware, and disasters. Besides, it's not easy to restore a NAS or file server in the event of data loss.

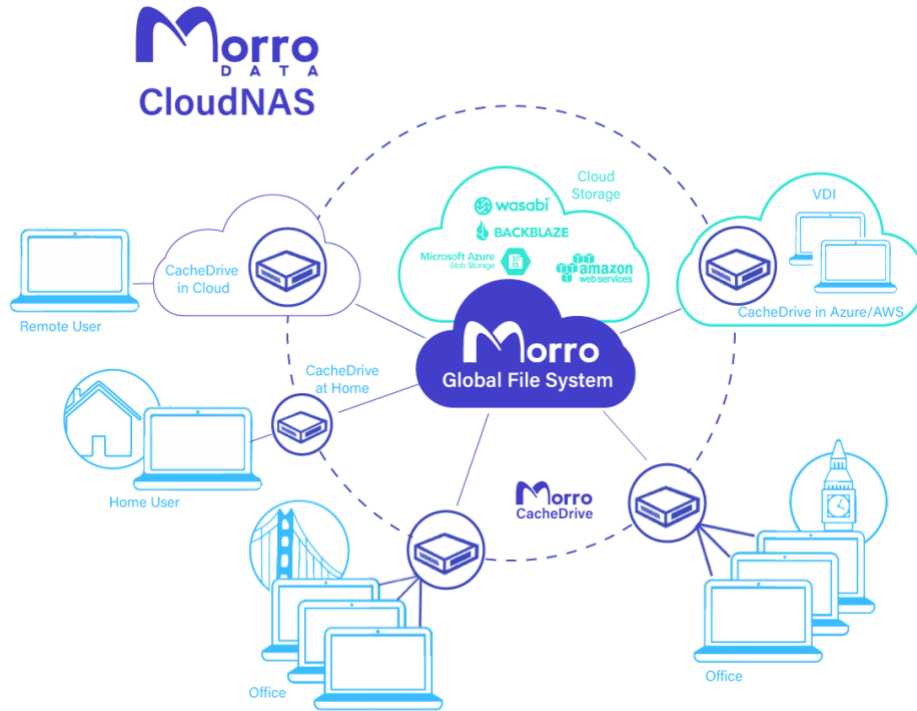
What About Cloud-Based Storage?

Despite the overwhelming advantages of moving all types of computing to the cloud, most businesses are hesitant to use the cloud for storage, due to significant performance issues. The primary problem created by the cloud is *distance*. Of course, it makes sense that the further data has to travel, the longer it will take to get there. Since the cloud, by its very nature, is far away from your physical infrastructure and your personal devices, it stands to reason that both upload and download speeds can suffer tremendously.

Cloud-based file storage services might sound simple, but it poses some serious limitations – not work for certain large number of files, not good for large files, not fully compatible for user authentication and access permissions of existing systems. And it could cost arms and legs when number of user counts increased.

Simple IT with Morro Data

Morro Data’s award-winning CloudNAS Global File Service transforms complex storage and data management systems into a simple and unified solution that combines the advantages of high-performance, simple interface of the on-prem data storage with the global scale and single namespace together. IT offers the best of both sides.



Distributed enterprises and businesses with multiple offices can now work on a single set of digital assets. The master copy of files is on cloud and protected with the highest standard of reliability and availability; the most-recently-accessed files are cached locally for fast access. The global filesystem is efficient with de-dupe, compression, and encryption, and fully integrated with the unified access permission and user authentication for security and integrity.

CloudNAS is easy to scale and simple to manage. The system leverages the industrial best public object cloud storage, such as AWS S3 and Azure Blob, or Wasabi Hot Cloud Storage, to support the most demanding applications.

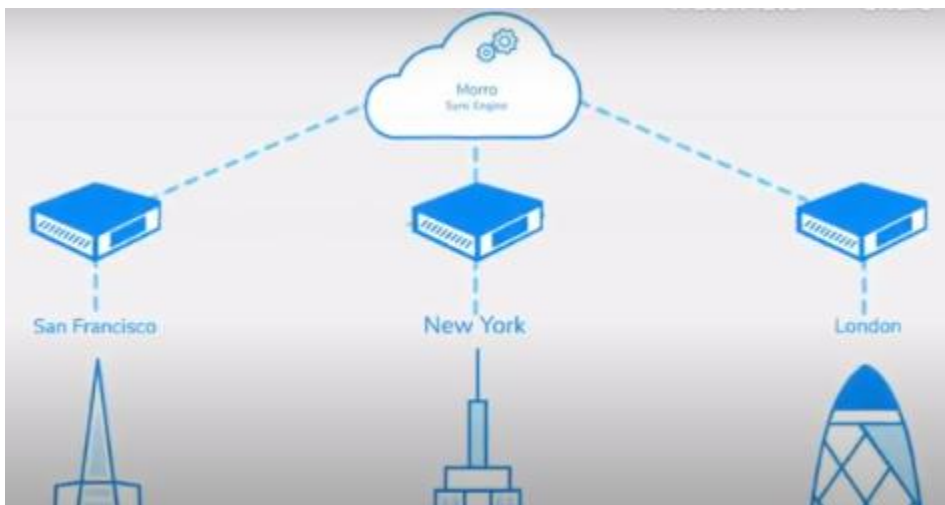
The Morro Data CloudNAS not only replaces on-prem file servers with the “file server on cloud” but also is a DR-ready solution for data backup and offsite protection.

	MORRO DATA	NAS
Hardware	Non-critical Appliance or VM	Critical Redundant Hardware
Storage	Pay Per Use	Over Provisioned Hard Drives
Off-site Backup	Cloud Backup and File Versioning Integrated	Cloud Storage and Backup Management Required
Multi-Site Replication	Add CacheDrives	Expensive and Slow Replication Software
Disaster Recovery	Replace CacheDrive (No Critical Hardware)	Unreliable Backup Recovery
Management	Simple IT	Capacity Upgrade and Hard Drive Maintenance

It's time to move away from hardware-centric architectures and into the cloud era. Morro Data's CloudNAS Series combines the fast file access and NAS SMB interface of the CacheDrive with global file services and cloud object storage – delivering the most efficient and affordable file services solution in the market. CloudNAS benefits include unlimited Primary and Archive Storage Consolidation, Multi-site File Share and Sync, and Cloud Backup with Instant disaster recovery.

CacheDrive Gateway

Morro's CacheDrive gateway plugs easily into any network and in minutes allows users to access files up to 100 times faster than traditional cloud services. Thanks to Cache & Sync and cloud computing technology, users can say goodbye to lengthy upload/download times. All files and metadata are fully visible with the most recently used active files cached locally. Users can see and access files instantly with a Network Share drive letter interface, with the CacheDrive behaving like a traditional NAS File Server.



A variety of CacheDrive models are available; businesses can choose a device that fits each office's unique file and user demands.

Global File System

Morro Data's cloud-based Global File System (GFS) provides users with a centralized file view via real-time file sync in the cloud, allowing users to access files in any location through a single file namespace. Plus, Morro Data's web-based management console provides a single pane of glass to manage devices, user permissions, and analytics from a central location.

This is exceptionally beneficial when managing data across multiple locations. No need for VPN or third-party sync software, CloudNAS provides access to files from anywhere at any time. CloudNAS delivers enterprise-level features such as versioning, file locking, and permissions to ensure the ultimate file security and protection from Ransomware.

Cloud Storage Services- Reliability, Accessibility, and Scalability

Morro Cloud is designed to be an unlimited, cloud-first storage consolidation solution. In minutes, businesses have a full view of their entire cloud ecosystem, with a simple pay for what you use storage as a utility model. Cache & Sync works across your multiple offices or locations. Morro CacheDrive makes sharing files between offices Quick, Easy, and Safe. Now sharing files or data across multi-site is just a click away.

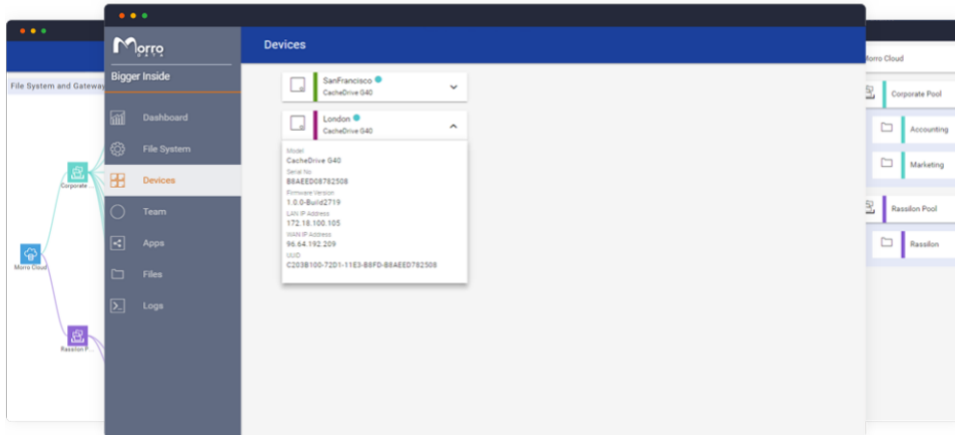
Storage Providers

Morro's CloudNAS Series Business service plans offer either Amazon S3 or the more cost-effective Wasabi cloud object storage as default. Morro's partnerships enable users to "Bring Your Own Storage" (BYOS) from many trusted cloud providers such as additional AWS S3 regions, Wasabi, Azure Blob, and Backblaze B2. With variety choices of cloud storage options, CloudNAS makes it easy to centralize your storage in the cloud and bring it closer to you. Also, with compression and deduplication, you can be assured your files and folders are secure and data is stored in the cloud.



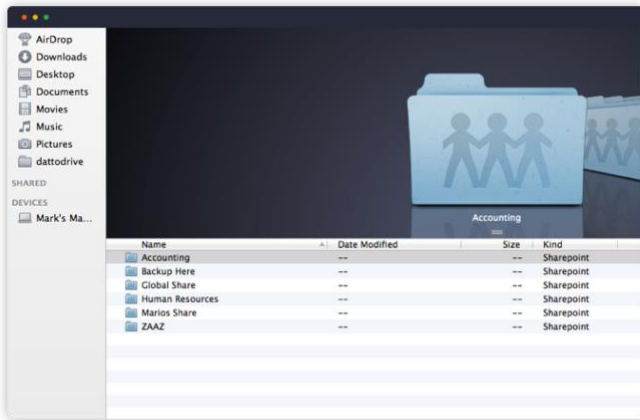
Centralize Device Management with Morro Cloud Manager

Manage your devices and users globally, including setup, reboot, and shutdown. Integrates seamlessly with Active Directory and Azure AD. Setting up Morro devices in both local and remote offices is a breeze. Use Azure AD for single sign on cloud-based identity management, included with Office 365 for Business.



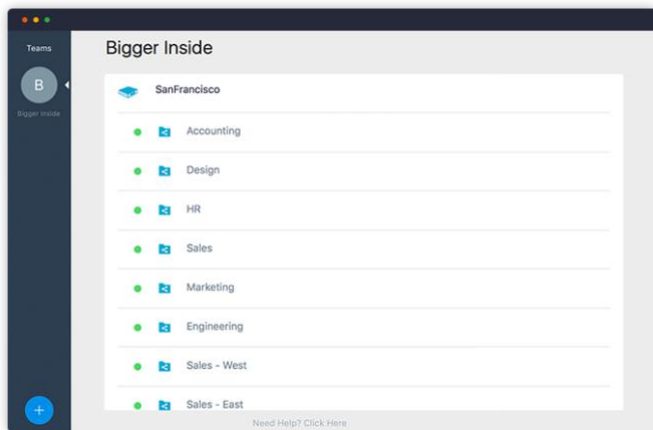
Three Ways to Connect to Your Files

1. Simple Network File Interface



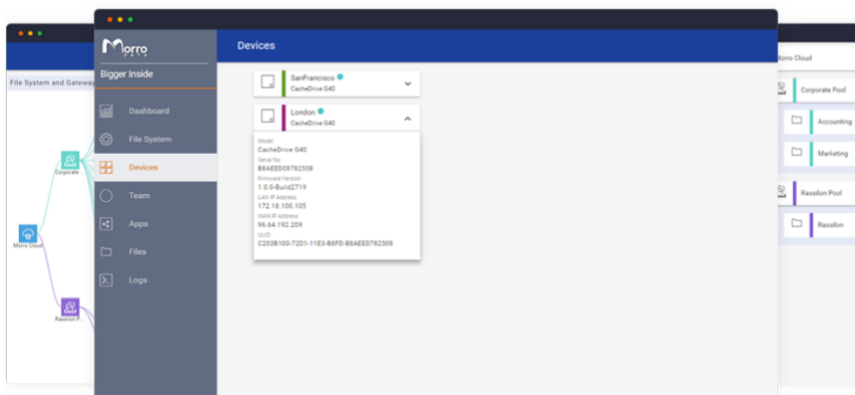
Users on the same network of the local CacheDrive can simply access Morro Data Global Filesystem from a native file system interface just like accessing a NAS. Access via File Manager for Windows users and via Finder for macOS users.

2. Morro Connect



Morro Connect is a desktop app (Windows version and macOS version) that provides a unified interface for file access regardless of the user is locally accessing via a CacheDrive or from remote.

3. Team Portal



Team portal is a web based remote access interface for users to access files and folders.

Summary

With Morro Data, replacing legacy file server is simple and affordable. The Morro Data CloudNAS solution offers a global filesystem with local network performance. All files are stored on the cloud and the most recently accessed are cached locally. Users can access a single set of data with security, performance, and global file locking regardless of physical location.

CloudNAS benefits include:

- ***Cloud-First***

The cloud is the primary storage location for your files, providing you with reliable storage and backups – even when workers are disconnected from the network.

- ***No VPN or Replication Software***

CloudNAS is an all-in-one solution for sharing files amongst locations, so there's no need for third-party software or additional tools. All files are immediately visible and available to every location, but with application-level file locking across sites to avoid version conflicts.

- ***Unparalleled Scalability***

The cloud provides infinite scalability, and you only pay for what you use, thereby eliminating overprovisioning.

- ***No Maintenance or Management Issues***

The only hardware required with Morro CloudNAS is a lightweight CacheDrive that's completely non-critical and quiet operation, so it won't be in the way, even at the smallest sales office. All backups are performed in the background using Cache & Sync technology, so there's no need for anybody in the local office to manage, maintain, or even touch the device.

- ***Centralized Management and Control***

IT maintains centralized control over the storage environment and never has to worry about a missed backup. Every office can be centrally managed from the Morro Cloud Manager, a web-based console that enables setup, reboot, shut down, and user management.