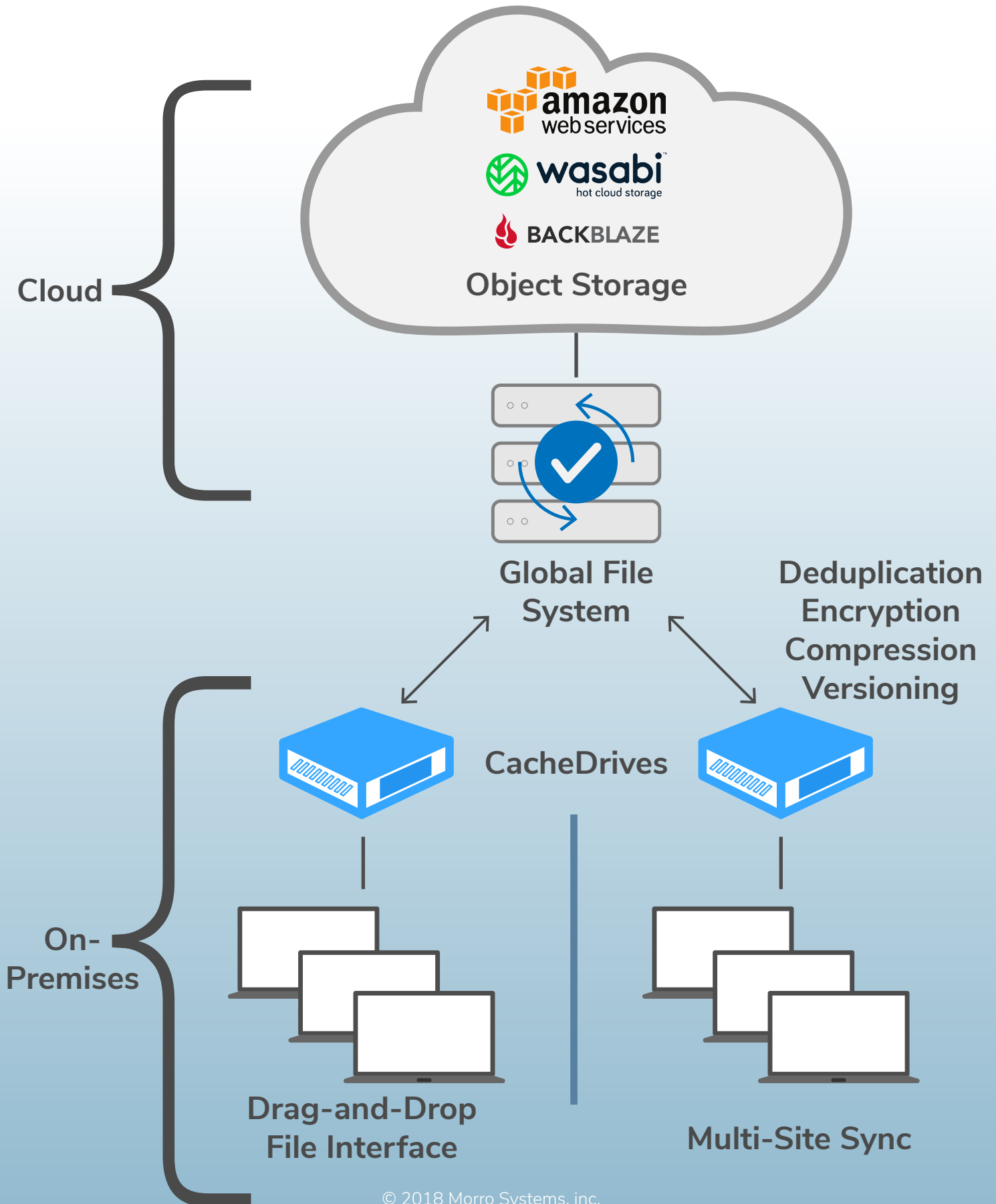


Morroro Global File System

D A T A



Primary Storage / Storage Consolidation

Your company wants to move data to the Cloud, but you want to retain a unified file system and maintain access to the data as if it were on premises. CloudNAS brings the benefits of the cloud to a local drive-letter interface. Gone are scheduling backups and islands of data, and no need for additional hardware or software.

Enjoy local access speeds and your complete file system visible at a glance through the CacheDrive. Your most used files stay on the CacheDrive for fast local access, while all data is backed up and visible on local storage as stub files. It doesn't matter how much data you have in the potentially infinite cloud, the CacheDrive will display the entire file system even if it is multitudes larger than the local storage size.

Multi-Office Sync / Large File Transfer

Your company has accumulated many islands of data across multiple sites. You need a way to consolidate this data into a single system. You need a system that your employees will want to use on a day to day basis so that these islands of data don't happen again. You want storage that is easy to expand, both size and to new locations.

CacheDrives allow for plug-and-play multi-site sync for your entire organization. Additionally, access your files from anywhere through the Morro Cloud Manager web portal or Morro Connect software for PC and Mac. Transfer files with no egress fees with Wasabi Hot Cloud Storage. Send share links and the client will be notified when the upload completes for convenient, babysit-free file transfer.

Plug in your CacheDrive and connect it to your Morro Cloud Manager through any browser, even remotely. Set up your users and shares (or just use integrated support for Azure AD) and you're done! You users will have fast access to the entirety of their files with accelerated access from the CacheDrive.

Disaster Recovery / Remote Management

Deploy new hardware in minutes. The system has been designed with a Cloud-first architecture, ensuring your files are always safe from disaster.

Complete Remote Maintenance and Management (RMM) suite with Morro Cloud Manager. Perform hardware maintenance, manage users and groups, audit, and more from anywhere with an internet connection.

Morro Data CloudNAS Overview

3-in-1 File Services

Access cloud storage with NAS user experience via CacheDrive, Infinite cloud storage capacity for simple scale out

Store files on the cloud and cache files locally for high performance access and WAN optimization

A global filesystem on top of Cloud object storage with permissions and access control

Multiple-site file sync and share, support of file locking and versioning

Cloud first storage for offsite progressive backup and zero-time instant recovery

Global File System

Cloud File System	Master data in cloud and copies or metadata in gateways. Gateway cache enables high performance single namespace access to unlimited file system.
Unlimited Storage	For both primary and secondary storage.
Cloud First	Store all files and metadata in cloud. Eliminate dependencies on local hardware. Choice of Cloud Storage providers.
Storage Pool	A pool specifies where and how data is stored and synced. A pool may contain multiple shares.
Shares	A network share can have specific user access permissions as well as gateway permissions
Global Sync	Automatically sync files across gateways, no need for VPN or replication.
Replicate	Unidirectional File Transfer and cloud backup
Global File Lock	Lock Office and other files across gateways, enabling file collaboration across multiple locations.
Disaster Recovery	File System metadata sync in minutes for replacement or new gateway for full file access.
File Versioning	Version control of 1, 30, 300, or unlimited versions. Restore prior versions for ransomware recovery.
Prefetch	Automatic download to destination gateway vs. on-demand download.
Deduplication	Redundant files are de-duplicated to save cloud storage and upload bandwidth
Compression	Files are compressed to save cloud storage and upload bandwidth
Bandwidth Limiting	Control sync window and sync bandwidth on share basis
Share Mapping	Shares can be optionally mapped to gateways
Advanced SMB Share Controls	Options to enable oplocks and to use Extended Attributes to save streams

Security



Morro DATA Solution Overview

Encryption	Files are encrypted both in transit and at rest in cloud
Location Based Access	File access based on location and on/off premises
Web Access Security	File access permission replicated from Samba access
User Management	
Users and Groups	User and Group access permissions
Active Directory	Supports local Microsoft Active Directory and Azure AD. Office 365 for business can use the same login credentials.
User Permissions	Define default guest access and the permission per user/group (read only / read write / no access)
Location Based Permissions	File access based on Gateway (location) and on/off premises (read only / read write / no access)
Share Folder Security	Manage shared folder's ownership and access control list
System Interface	
NAS Experience	Present shares the same as NAS, with unlimited capacity.
Local Network Interface	Support SMB protocol version 2.0/2.1/3.0/3.1 working with Windows, Mac, and Linux clients
Client OS Support	Windows, Mac OSX, Linux, Major Browser
Web Interface	Team Portal for permission-based file access and management Upload files and create folders to shares Manage file versions, download, rename, copy, move, delete, purge files, create share link for files
Morro Cloud Manager	
Gateway Management	Globally manage all gateways on MCM
File System Management	Globally manage all shares in a Single Namespace
Dashboard	Usage analytics and system diagram
Analytics	Storage usage, User activities, and Data transfer activities
Role Based Management	Business Admin, Global Admin, Regular User
Users and Groups	Users, Primary Group, Secondary Groups
Account management	User profile Morro Account information Payment info and real time cloud usage (Admin only)
Logs	Event logs by category – team/device/file system/etc. Event logs by severity – information/warning/error
Apps	
ECHO	Morro ECHO Dropbox Morro ECHO OneDrive
Slack	Slack integration for Management Alerts
Gateway	
CacheDrive Models	Desktop - G40, G80 Tower – T600 Rackmount – R1100



Morro DATA Solution Overview

	Virtual Machine – V100, V101
Device Information	CacheDrive Model number, serial number, firmware version, IP address, UUID and Cache Size
Cloud Caching	Files are uploaded to cloud through cache, presenting access window to unlimited file system size
Backup Caching	Unlimited backup target through cache
NAS Interface	Samba network share interface same as NAS
Deduplication	Files are de-duplicated on gateway to save upload bandwidth
Compression	Files are compressed on gateway to save upload bandwidth
Encryption	Files are encrypted on gateway before upload
Upload Status	Monitor upload status, speed, remaining upload and files
Prefetch Status	Monitoring prefetch files, status, speed etc.
Advanced Device Option	Hostname and SMB version selection
Device Clock	Global time zone based Device clock for Time Shift Sync
Device Management	Shutdown, reboot, and firmware update from centralized cloud management UI
Green Computing	Low power consumption cache design replacing fixed storage NAS or file server
Cloud Storage	
Amazon S3 Regions	US (Oregon), UK (London), Germany (Frankfurt), Australia, Japan (Tokyo), Singapore
Backblaze B2	US
Wasabi Hot Cloud Storage	US (Virginia)
Morro Connect Desktop App	
Desktop OS	Windows File Explore MAC OSX Finder
Simple Connect	Auto start and login for Windows Persistent network share connection
Unified Access	Access files via Team Portal or Gateway from unified interface