

Morro Data CloudNAS Overview

| 3-in-1 File Services | |
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| | 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 | |

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| 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 |

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| | 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 |