

# Dynamic Data Placement for Unstructured Workloads

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## Tech Essentials

- Support for major file systems, protocols, cloud and object storage
- Proactive automation of file and object storage management using high resolution selectivity
- Policy reporting for outcome prediction and capacity planning
- Critical activity protection using advanced schedule control
- File and object data is stored at the most appropriate location for the lowest possible cost.
- REST API for integration with existing control, workflow, automation and billing systems

## Data mobility for heterogeneous file and object storage from Moonwalk Universal

Unstructured data is growing at the rate of 62 percent per year according to IDC, and by 2022, it is expected that 93 percent of all stored data will be unstructured.

Unstructured data is typically 80 percent of data created, replicated and transmitted and as data continues to grow at record rates, even the most well-funded organizations struggle to manage ever-increasing data growth.

Digital transformation initiatives are adversely impacted by operational costs and complexities depleting much needed resources. Further, an average of 70 percent of unstructured data is inactive or less-valuable than the active dataset supporting current business activities.

Identifying, mobilizing and relocating entire datasets or a single file or object is an essential capability of any enterprise data management strategy.

Moonwalk offers a turn-key, integrated software system to solve the data mobility, insight and management challenges faced by enterprises today.

## Heterogeneous support for unstructured data workflows

Moonwalk delivers a proven, vendor-certified data mobility and management solution for complete interoperability between file system deployments and on-premises, private, public, hybrid and multi-cloud object storage. Moonwalk is metadata-aware, enabling data management by user event, file system or object attribute, or direct API call. Moonwalk empowers organizations to define, allocate and optimize file and object infrastructure using policies, reducing the total cost of ownership while ensuring data remains safe and immediately accessible. Transparent to users and applications, original namespace, security, and file metadata is preserved, enabling autonomous streaming of content on demand.

### Moonwalk Enterprise Edition features:

- Support for leading file storage platforms and protocols including IBM Spectrum Scale, Dell EMC Isilon, NetApp, Windows Server, NFS, and SMB
- Support for leading cloud and object storage platforms including IBM Cloud Object Storage, Dell EMC ECS, NetApp StorageGRID, Caringo Swarm, Hitachi Vantara HCP, Amazon S3, Azure Blob Storage, Google Cloud Platform, RSTOR Space and Alibaba OSS
- Disintermediated, stateless, command & control architecture placing the policy server outside the data path for maximum availability and highest performance
- Heterogeneous data source coverage supporting AI Pipeline readiness
- Ongoing visibility of data demographics with detailed and exportable reports
- No middleware, databases or indexes to manage; no single point of failure
- Policy, event or API activated operations against files and objects
- Detailed system dashboard, responsive UI, reporting and notifications
- Distributed deployment scaling to exabytes of data and billions of files and objects
- REST Management API for custom integration with existing systems
- C Data Connection API for custom integration with storage platforms

## Detailed system dashboard for operational visibility

Moonwalk Enterprise Edition's AdminCenter provides a single pane of glass view of system operations and other important statistics. System notices, operation types, capacity consumption and storage server health can be easily monitored from a single dashboard.

System managers can identify unexpected policy behavior, network and storage consumption and other critical data points at a glance. Intelligent widgets allow managers and system administrators to easily view active and historical operations, task execution and system-wide node health.

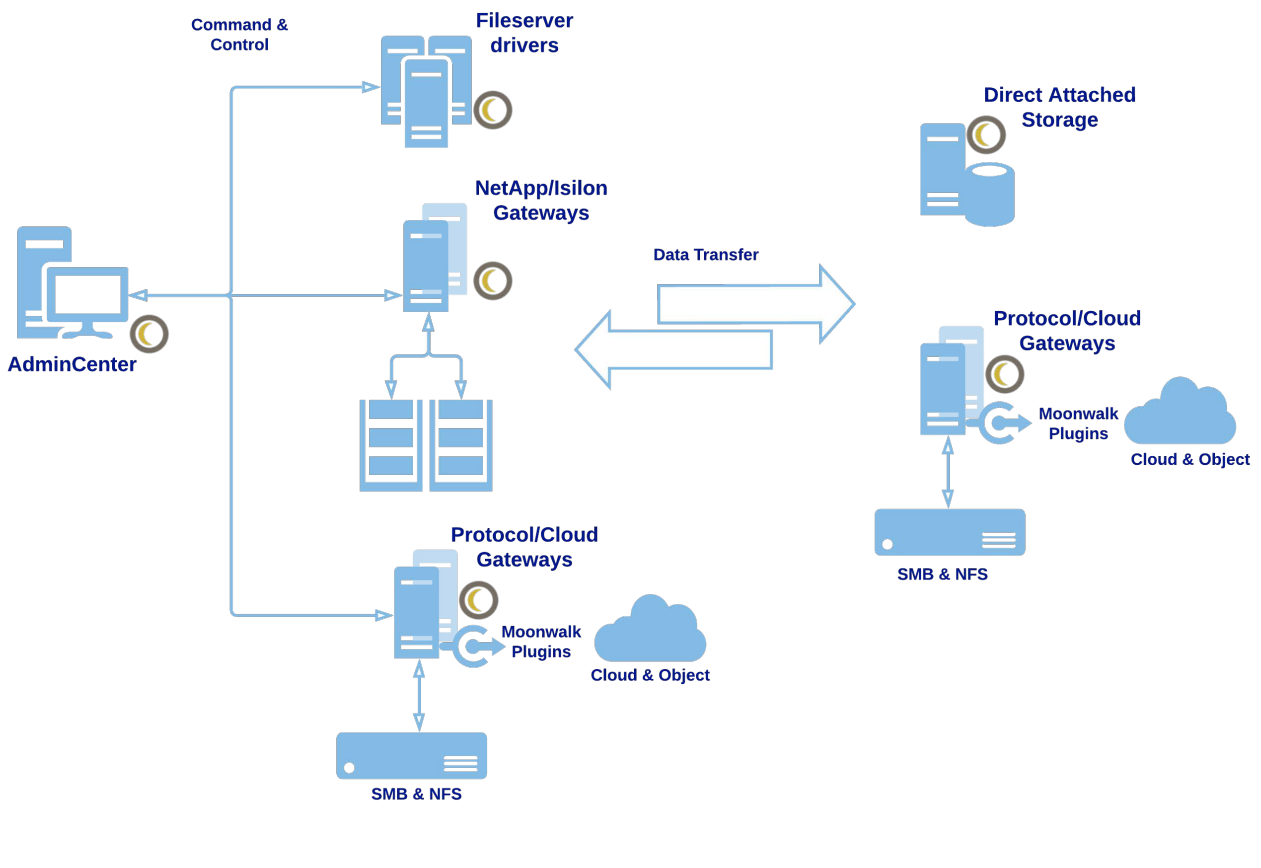


Moonwalk Enterprise Edition: AdminCenter Dashboard

Using a responsive UI design, AdminCenter Dashboard can be accessed by smart phone and tablet users, as well as regular desktop browsers.

## Patented, disintermediated architecture for unparalleled performance and availability

Moonwalk Enterprise Edition features a patented, disintermediated and distributed architecture that places the AdminCenter node outside of the data path. Reserved for command and control, AdminCenter is not required for data reacquisition.

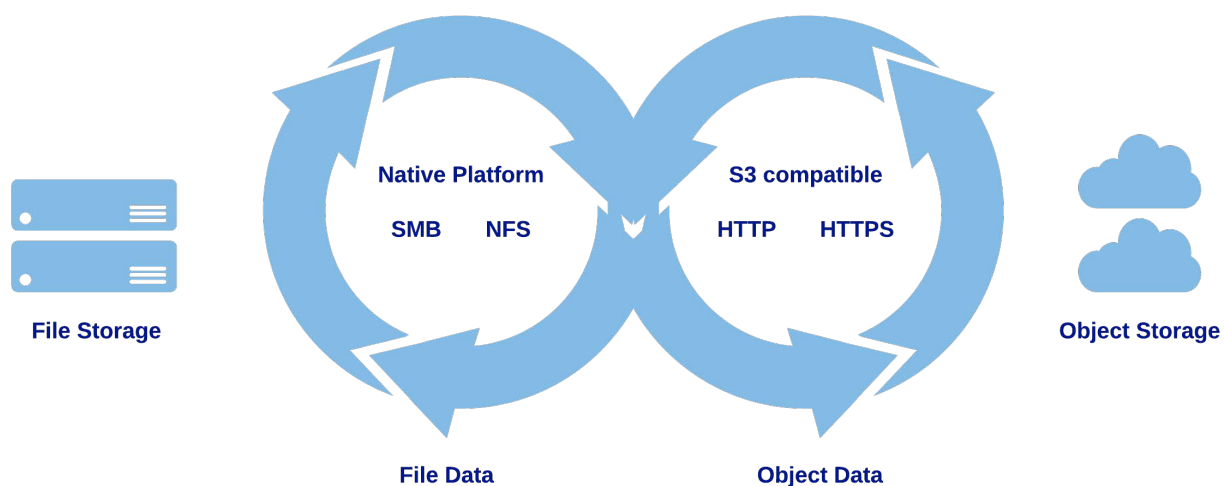


Moonwalk's disintermediated architecture places the AdminCenter in the ideal location to provide high availability and performance, without causing data congestion.

Without databases or indexes to manage, a single AdminCenter can control thousands of data sources and targets. As additional storage platforms are added, AdminCenter will continue to control all relevant operations, without requiring additional compute, storage and network resources.

## Seamless mobility of unstructured data; file to object; object to file

Moonwalk Enterprise Edition's comprehensive support for file systems, protocols and objects stores provides seamless conversion and mobility from source data type and beyond. User-generated file datasets can be ingested into an object or cloud namespace, preserving the structure, naming and metadata of the original dataset. Additionally, custom metadata may be attached during the ingest operation. Object and cloud-born datasets may be moved or copied to other object platforms and service, or they may be converted to files and relocated on file system storage.



Seamless mobility and conversion of file and object datasets using Moonwalk.

File and object data operations may be automated by Moonwalk policies, triggered by REST API integration or accessed directly by users and applications. Using Moonwalk, file and object datasets can be managed from a single policy controller, without the need to develop custom integration or have domain knowledge of cloud and object APIs.

Moonwalk Universal  
Data Sheet

**System Requirements**

<b>Moonwalk AdminCenter</b>	
Memory	12 GB (4 GB minimum)
Storage	2 GB (log files)
Operating Systems	
Microsoft Windows Server	Version 2012 / R2
Microsoft Windows Server	Version 2016
Microsoft Windows Server	Version 2019
Active Clock Sync	NTP

<b>Moonwalk NetApp Gateway</b>	
Memory	4 GB
Storage	2 GB (log files)
Operating Systems	
Microsoft Windows Server	Version 2012 / R2
Microsoft Windows Server	Version 2016
Microsoft Windows Server	Version 2019
Active Clock Sync	NTP

<b>Moonwalk Isilon Gateway (LinkConnect)</b>	
Memory	8 GB base plus 4 GB per TB of LinkConnect cache
Storage	2 GB min for logs (system volume) and min 1TB for LinkConnect cache (single NTFS volume)
Operating Systems	
Microsoft Windows Server	Version 2012 / R2
Microsoft Windows Server	Version 2016
Microsoft Windows Server	Version 2019

<b>Supported Object Platforms</b>
Amazon S3 / S3 compatibles
IBM Cloud Object Storage
Hitachi Vantara HCP
Dell EMC ECS
NetApp StorageGRID
Azure Blob Storage
Google Object Storage

## Why Moonwalk?

Moonwalk Universal is a market leader in large-scale data management solutions, providing patented and award-winning software to automate storage optimization and dynamic data placement on a massive scale - supporting exabytes of data and billions of files and objects.

Moonwalk can be found in Financial Services, Healthcare, Manufacturing, Government, Research and Media.

To learn more, please visit: [moonwalkinc.com](http://moonwalkinc.com)

## References

1. IDC. IDC View: The Digital Universe In 2020. (<https://www.emc.com/collateral/analyst-reports/idc-the-digital-universe-in-2020.pdf>)



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