

Your Data In The Cloud, From Anything. Anywhere.

SOLUTIONS BRIEF

A Global Namespace for NetApp Cloud Volumes

THE CHALLENGE

On-ramping enterprise data to hybrid multi-cloud is a huge challenge for many organizations, especially if their data estate lives in heterogeneous storage environments comprised of a mix of storage vendors and several generations of technology. Data migrations are slow, disruptive, and take meticulous planning to the point where making data available on the cloud seems can sometimes feel like it's not worth the effort. These problems compound when IT has to align data protection and security across all of these storage endpoints, and then predict the capacity and cost of that data once it's finally available across the hybrid multi-cloud.

THE SOLUTION

Hammerspace takes a data-centric approach to file data in the cloud, serving and managing it independently from the infrastructure. Built for the hybrid multi-cloud, Hammerspace serves data across high-performance infrastructure to any site across clouds, regions and data centers. Abstracting data from the infrastructure makes it easy for users to securely and safely self-service data management, to find and serve data anywhere across the hybrid multi-cloud.

To span data management across the hybrid multi-cloud, Hammerspace separates the control plane (metadata) from the data plane (data) reading, writing, and moving data across sites through a Universal Global Namespace. At file level granularity, data is available nearly instantaneously across any distance. Hammerspace metadata servers (Anvil) are present at each site, replicating metadata so that every site has a complete view of all data, with the assistance of machine learning-driven automation to direct resource optimization. When non-local data is accessed, Hammerspace data services (DSX) moves data live to where it needs to be. Applications experience no disruption when data is moved. DSX data services are architected to scale-out on-demand so that performance is parallelized to meet application SLAs. Hammerspace key management server (KMS) integration enables encryption of all data stored and moved across the cloud; and data is protected by services like snapshots, undelete, and replication defends against the loss of infrastructure. With Hammerspace, file data stored on any on-premises NAS or Object solution can instantly be made available with NetApp Cloud Volumes on AWS, Azure, or

AGILITY, CONTROL & EFFICIENCY

Serve data from any storage with NetApp Cloud Volumes

- Access all of your file data in the cloud, with no data migration
- Enhance collaboration with global file sharing
- Scale-out high-performance data access

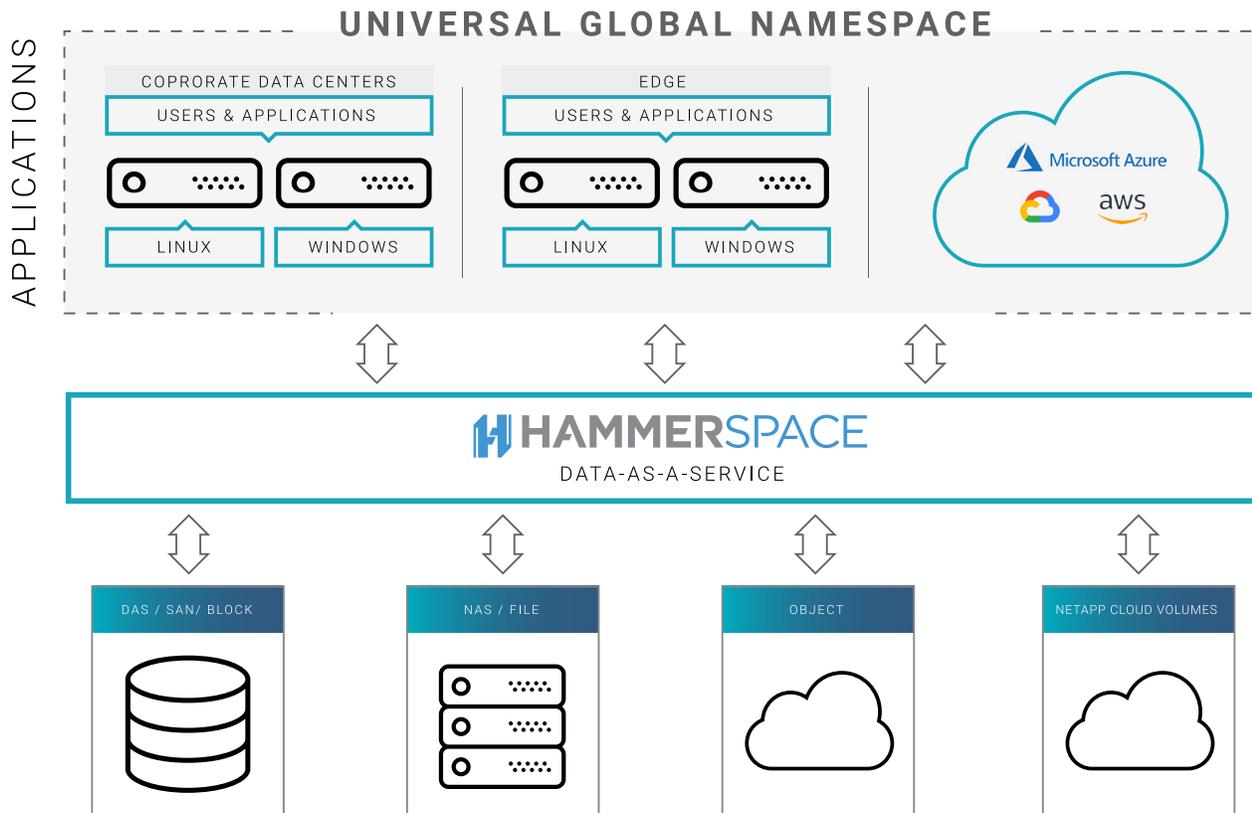
Global data protection and security

- Encryption with customer KMS
- Undelete / Disaster Recovery / Snapshots
- File, application, or site granular
- Automated data classification (MIME types)

Consolidate Infrastructure & Services

- Universal support for NAS, Block, or Object
- Automated data tiering across cloud services
- Dedupe analysis predicts cloud capacity needs

Google cloud without going through any data migration exercise. A user simply connects a cloud volume to the Hammerspace Universal Global Namespace so that applications or Kubernetes workloads can immediately start reading and writing to files in the cloud.



AGILITY: ACCESS DATA FROM ANYWHERE, AS IF IT WERE LOCAL

With Hammerspace, file data stored on any on-premises NAS or Object solution can instantly be made available with NetApp Cloud Volumes on AWS, Azure, or Google cloud without going through a big data migration exercise. A user simply connects a cloud volume to the Hammerspace Universal Global Namespace, applications or Kubernetes workloads can immediately start reading and writing to files in the cloud. The universal global namespace is active-active across all clouds, sites, and availability zones, making data accessibility a simple, secure and performant. Scale-out hybrid cloud data services move and serve data at high-performance to meet application SLAs. Enable unlimited file capacity with object backend-tiering and scaling storage volumes to Petabyte size by clustering multiple NetApp Cloud Volumes.

CONTROL: SECURITY AND DATA PROTECTION

When users access data through the Universal Global Namespace, metadata enables security and data protection services to keep data safe anywhere across the infrastructure. Users can encrypt data using their own on-premises key management solutions, even as data is made available on the cloud. Data protection like undelete, snapshots, and disaster recovery are all available globally across the infrastructure. Hammerspace enterprise data services are infrastructure agnostic and managed at the file, application, or site granularity. Additionally, as data is assimilated into the Hammerspace files are classified based on MIME type information so that management objectives can be applied based on data classifications.

EFFICIENCY: CONSOLIDATE INFRASTRUCTURE AND SERVICES

Hammerspace supports mixed storage infrastructure on-premises and on the cloud for block, file, and object. When the infrastructure is abstracted away with the Universal Global Namespace, it becomes easy to consolidate storage resources, non-disruptively tier files and snapshots to NetApp Cloud Volumes and cloud object services. With Data Profiler and Data Analyzer, global dedupe and compression ratios as well as tiering parameters can accurately show the amount of storage capacity that would be used in the cloud.

ABOUT HAMMERSPACE

Hammerspace, the Data-as-a-Service company, manages and protects data on the hybrid multi-cloud overcoming the challenges of making unstructured data cloud-native, independent of the infrastructure. With non-disruptive, autonomic data management Hammerspace reduces the complexity of embracing hybrid, multi-site, or Kubernetes workflows. To learn more, visit us at www.hammerspace.com