# Hybrid Cloud Deployments with Azure Stack HCI and Cloudian HyperStore

## S3-compatible cloud storage to extend Azure Stack solution

### Challenges:

Moving to the hybrid cloud is a journey, and many organizations face the challenge of finding an infrastructure solution that both meets their specific hosting needs and provides an optional on-ramp to cloud services—all while offering excellent performance at an affordable price.

Hyper Converged Infrastructure (HCI) is rapidly becoming the predominant architecture for hybrid cloud deployments. Companies today are faced with inherent complexity, inefficient silos, forklift scaling, and painful management of legacy infrastructure. IT administrators need a new comprehensive set of software-defined platform services to enable greater efficiency of hybrid cloud assets and HCI has helped in meeting these challenges.

### Solution:

Azure Stack HCI is a host platform built on an Azure Arc enabled infrastructure. It is based on a hyperconverged architecture from Microsoft delivered as an Azure service that provides the latest security, performance, and feature updates through an Azure subscription. Customers can consolidate all primary workloads on Azure Stack HCI and manage them centrally. Cloudian's HyperStore provides a cost-effective, on-premises object storage solution that integrates seamlessly with Azure Stack HCI, allowing customers to extend the Azure HCI solution seamlessly for hybrid cloud deployment. Available to run directly on the Azure Stack platform or in a standalone setting, HyperStore is designed to meet the need for large, secure, highly resilient and flexible storage environments.

| Azure Portal |
| :---: |
| Windows Admin Center |

| Windows Server VMs | Linux VMs |
| :---: | :---: |

| Hyper-V | + | **CLOUDIAN** SDS | + | SDN |
| :---: | :---: | :---: | :---: | :---: |

**Azure Stack HCI**

| Validated Partner Hardware |
| :---: |

## Solution Benefits

- Turnkey hyperconverged solution: Compute, storage, networking, and virtualization

- Unified view of data: A single namespace across locations eliminates management workload and complexity

- Disaster Recovery: Ensure uptime with fully managed DR within HyperStore

- Industry-leading security, including encryption for data at rest and in motion

- Seamless integration: HyperStore deployed as one or more VMs and as an external cluster

- Multi / Hybrid Cloud: Tier seamlessly to public or private cloud

Gartner
Peer Insights
Customers'
Choice 2022™
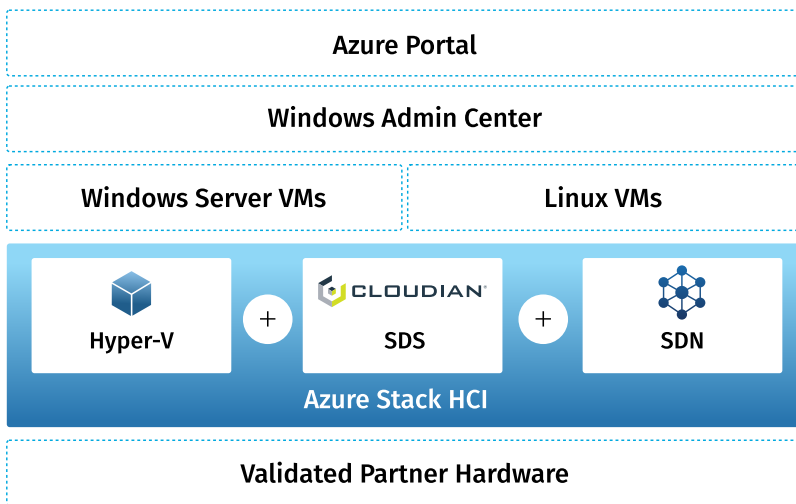
### Award-Winning

Proven at over 700 enterprise customers worldwide with nearly two exabytes of capacity under management, Cloudian Scored Highest for All Use Cases in the Gartner 2020 Critical Capabilities for Object Storage Report and was named a Gartner Peer Insights Customers' Choice in 2020, 2021, and 2022.

**Microsoft**

# Solution Advantages:

### Exabyte-Scalability

Azure Stack HCI is purpose-built to simplify and streamline the Azure Hybrid Cloud ecosystem with an integrated, fully engineered infrastructure foundation. Cloudian HyperStore, a massively scale-out object storage platform, complements this with a fast, cost-effective object storage solution ideal for data lakes of structured or unstructured data in hybrid deployments. HyperStore lets customers start small and expand seamlessly from terabytes to exabytes with no down time.

### Data Resiliency

The solution provides flexible data protection at the object storage layer based on configurable storage policies. Administrators can configure the number of replicas or type of erasure code scheme required to meet SLA and cost objectives. Storage policies also provide fine grain control of data placement across data centers, taking into consideration factors such as cost efficiency, security levels, and proximity.

### Secure Solution

The solution provides extensive, military grade security features that make it possible to deploy and operate a cost-effective data lake that keeps customers' data extremely secure. These security features include: data encryption and transparent key management, AES-256 server-side encryption for data stored at rest, SSL for data in transit (HTTPS), role-based access controls (RBAC) with specified levels of access, audit trail logging, and WORM (Write Once Read Multiple) for storage immutability.

### Hybrid Cloud Deployment Ready

This solution provides the capability to build an on-prem S3 private cloud storage that integrates directly with public cloud storage services. Employ policy-based tools to replicate or tier data to Azure, or other public cloud storages. Cloudian HyperStore clusters for geo-distributed disaster recovery, capacity expansion, or data analysis in the cloud.

### Multi-Tenancy

Allows multiple users to analyze data sitting on single or multiple shared data lake infrastructures without compromising security. HyperStore gives role-based access to system and group administrators as well as to end users. Tenants can select and provision storage services on-demand from a service product catalog. Billing, Metering, and QoS are built into the HyperStore platform to enable a full multi-tenant deployment.

### Up to 70% Less Cost Than Conventional Storage

Ability to deploy as VMs on AzureStack HCI or run on any standard x86 hardware, Cloudian drives down the cost of on-prem, disk-based storage to ½¢/GB/month or less, including technical support.