Journey to Hybrid Cloud with Azure Stack HCI

Enterprise Customers Making the Microsoft Choice

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Microsoft Azure Hybrid Cloud Journey

Top 5 Discussion Topics with Education Customers

3-tiered SAN versus HCI
Scalability, Performance, Resiliency, Cost

Broadcom / VMware Acquisition
Support, Development, Migration, Price

Production Workload Migration
Downtime, Learning Curve, Transition Impact

Business Continuity Disaster Recovery (BCDR)
Azure Site Recovery (ASR), Azure Backup, Ransomware, Regulatory

On-Premises versus Cloud or Hybrid Cloud
Privacy, Latency, Management, Security

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Azure Arc-enabled Hyper-Converged Infrastructure

Legacy "three tier" infrastructure

Ethernet switches

Misc. appliances

Hypervisors

Storage fabric

Storage (SAN)

NETWORK

COMPUTE

STORAGE

Hyper-converged infrastructure (HCI)

Ethernet switches

NETWORK COMPUTE STORAGE
NETWORK COMPUTE STORAGE
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NETWORK COMPUTE STORAGE

Standard x86 servers
+
Local drives
+
The magic of software
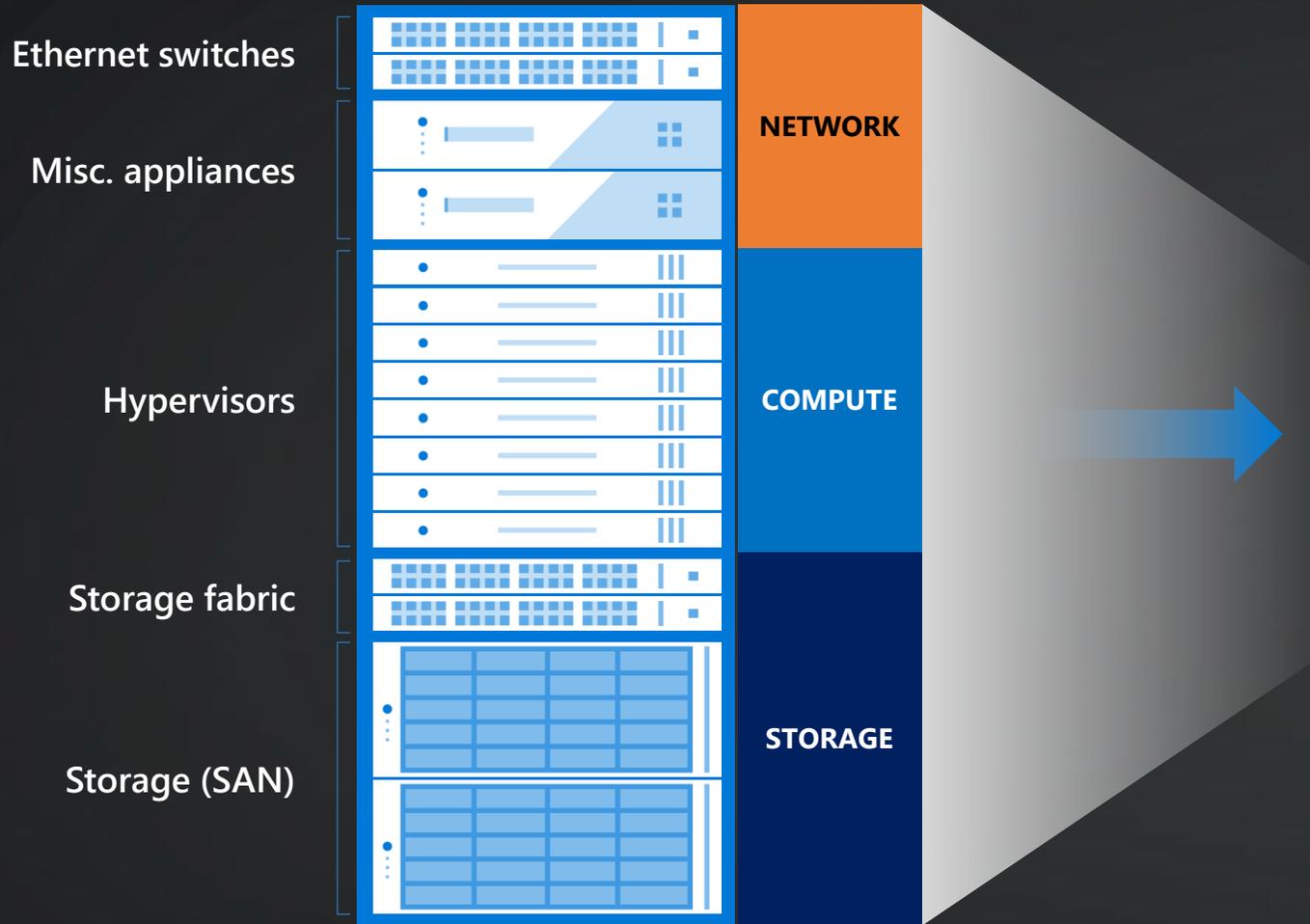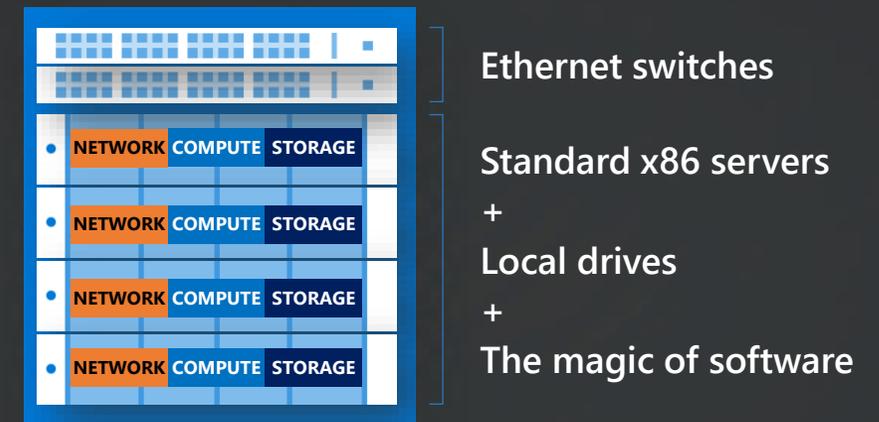
HCI is a software-defined, unified system that combines all the disparate and siloed elements of a traditional data center

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HCI: Proven, Popular Way to Enable Hybrid Cloud

Hyper-converged infrastructure (HCI)
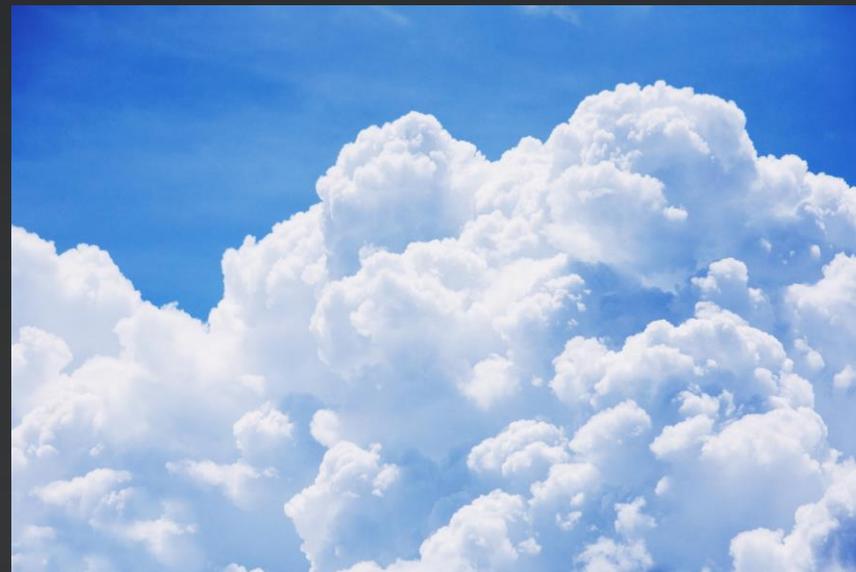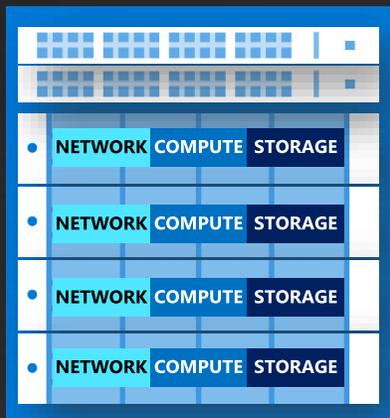
- Eases migration of data, VMs, and workloads
- Offers agility for digital transformation
- Software-defined HCI supports flexible deployment & unified management across on-premises & public cloud sites

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Azure Arc-enabled Hybrid Cloud Azure Stack HCI

Delivering integrated Azure hybrid services for IT workloads

Data Services on Azure Stack HCI

Run Azure Arc for Data Services on a resilient platform

Azure Site Recovery, Backup, File Sync on Azure Stack HCI

Deliver Business Continuity with Hybrid Cloud BCDR

Azure Virtual Desktop (AVD) on Azure Stack HCI

Enable remote workforce with enterprise app and GPU

AKS applications on Azure Stack HCI

Develop in AKS but deploy unmodified to the edge, AI/ML workloads

Comprehensive security and compliance, built in
$1B USD annual investment + 3,500 security experts + CJIS and more compliance certification

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DataON Background & Overview

Modernizing IT for over 1000 enterprise customers

35 Since 1987 CELEBRATING YEARS OF EXCELLENCE

Microsoft Azure

Exclusive
Microsoft Partner

intel | Technology Provider

Exclusive Server Hardware and
Technology OEM

MUST™
Visibility / Monitoring / Management

Management software for
hybrid cloud computing

Azure Stack HCI Solution — Verified
Windows Server 2022 — Certified

Azure Stack HCI Solutions

Azure Stack HCI Catalog >

On-premises, hybrid cloud
and Azure Cloud Services

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Exclusively Focused on Microsoft Solutions

DataON made the Microsoft choice

Windows Server 2012	Windows Server 2016	Windows Server 2019	Microsoft Azure Azure Stack HCI
Made the "Microsoft choice" with the first certified platform on Microsoft Storage Spaces	Deployed more than 150PB on Microsoft S2D hyper-converged Infrastructure	Over 1000+ customer, 1500+ Windows Server clusters and 50+ Azure Stack HCI solutions	First Integrated System with MUST Pro and Azure services like AI / ML, GPU, AVD, Kubernetes

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Azure Stack HCI Momentum

Enterprise customers making the Microsoft choice

Azure Stack HCI Portfolio

Consistently build & run hybrid apps across on-premises, cloud, & edge

Azure Stack HCI

Modernize subscription for flexible, familiar hyper-converged infrastructure

Azure hybrid by design

Enterprise scale and price performance

Familiar management and operations

Choice of deployment options

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Azure Stack HCI Awards

EDITOR'S CHOICE
2019
StorageReview

"Microsoft's Azure Stack HCI solution proved to be both simple to deploy, easy to manage and exceptionally performant, all things you want"

"the fastest we've seen in a mid-market 4-node HCI cluster"

THE**CHANNEL**CO.
CRN
TECH INNOVATORS
WINNER
2020

crn.com/techinnovators

EDITOR'S CHOICE
2021
StorageReview

https://www.storagereview.com/review/dataon-azs-6224-azure-stack-hci-review

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Azure Stack HCI Usage Models

Run virtual machines on-premises and easily connect to Azure hybrid services

Modernize and secure your data center

Affordably run intelligent edge and remote branch solutions

Industry-best performance for SQL Server databases

Deploy cloud native apps & Azure Arc enabled services through tight integration with AKS and AVD on HCI

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Azure Stack HCI Hybrid Big Picture

Hybrid Services

- Site Recovery
- Backup
- Update Management
- File Sync
- Monitor
- Security Center
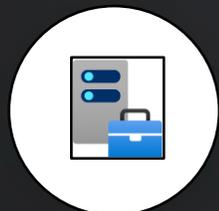
Windows Admin Center
Edge-local management
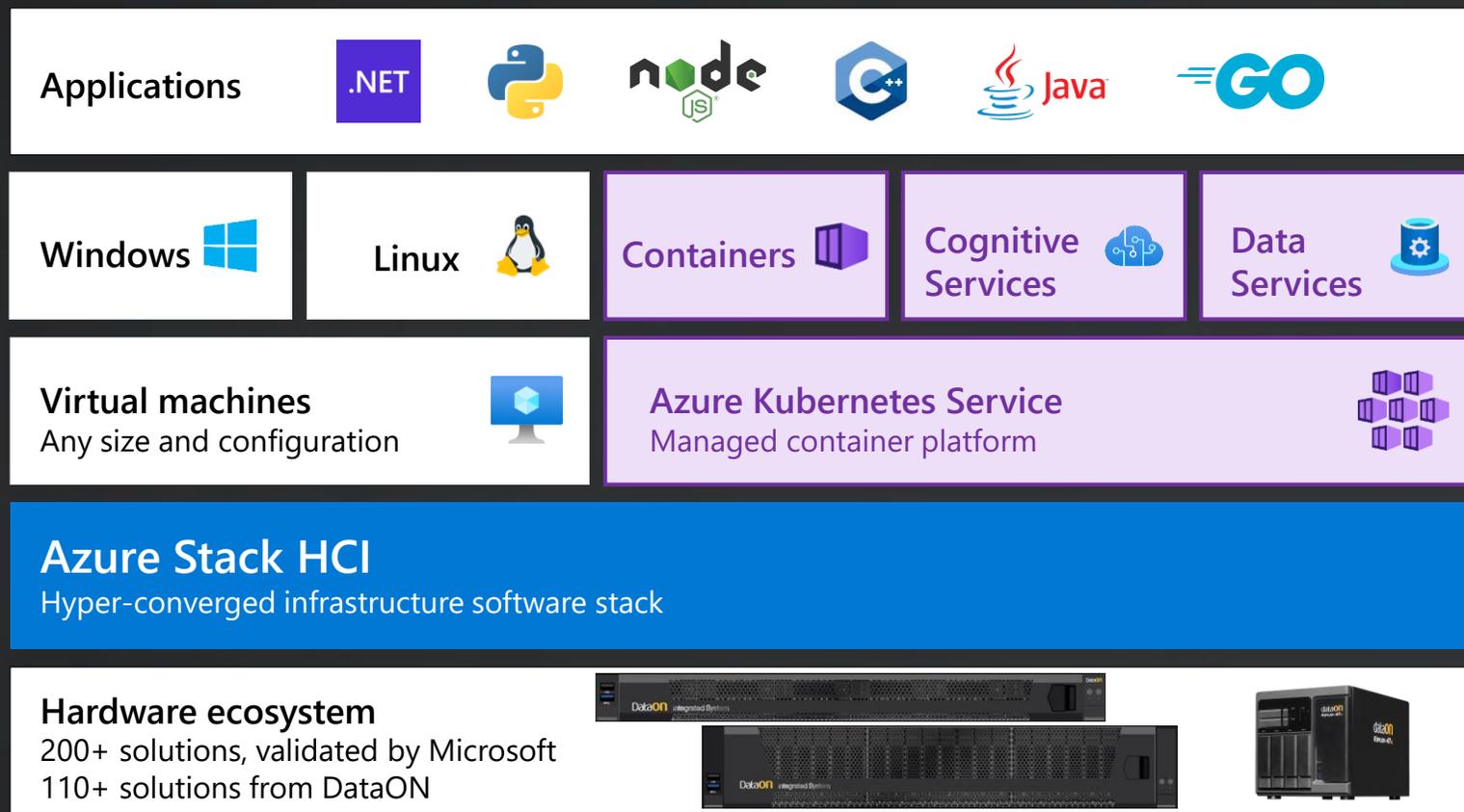
Azure Arc
For cloud management

Azure Portal

Azure Arc

Applications — .NET, Python, node.js, C++, Java, GO

| Windows | Linux | Containers | Cognitive Services | Data Services |

| **Virtual machines** Any size and configuration | **Azure Kubernetes Service** Managed container platform |

Azure Stack HCI
Hyper-converged infrastructure software stack

Hardware ecosystem
200+ solutions, validated by Microsoft
110+ solutions from DataON

Hybrid Cloud Services / Azure Arc

ASR/Azure backup	Azure Monitor
Log Analytics	Azure File / Sync
Policy / Insights	Multi-Cloud

Azure Benefits

Free ESU for WS/SQL	WS22 Azure Edition
Policy Guest Config	Azure Arc-enabled
Policy / Insights	Multi-cluster

Enterprise Hybrid Workloads

General purpose	SQL
AVD/VDI	Edge AI / ML
Container / AKS	Arc Managed

DataON
Azure Stack HCI

In-box HCI capabilities

Nested Resiliency	Stretched Cluster
Dedup / Compress	Network ATC
HA for GPU	SDS/SDN/VMs

Hardware innovation & performance

Intel 3rd Gen Xeon	PCIe Gen 4 / DDR4
NVMe SSD (QLC)	RDMA 25/100GbE
GPU Acceleration	Secured-Core

Management, Support and Services

MUST/MUST Pro	DataON / Intel DCM
24x7x365 Support	MSFT case exchange
Deployment services	WAC

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Integrated Systems for Azure Stack HCI

Two Tiers of Azure Stack HCI

Integrated Systems

"Fully integrated"
Appliance-like
experience

**Azure
Stack HCI
Integrated Systems**

Azure Stack HCI Validated
Nodes or Certified
Components

DIY
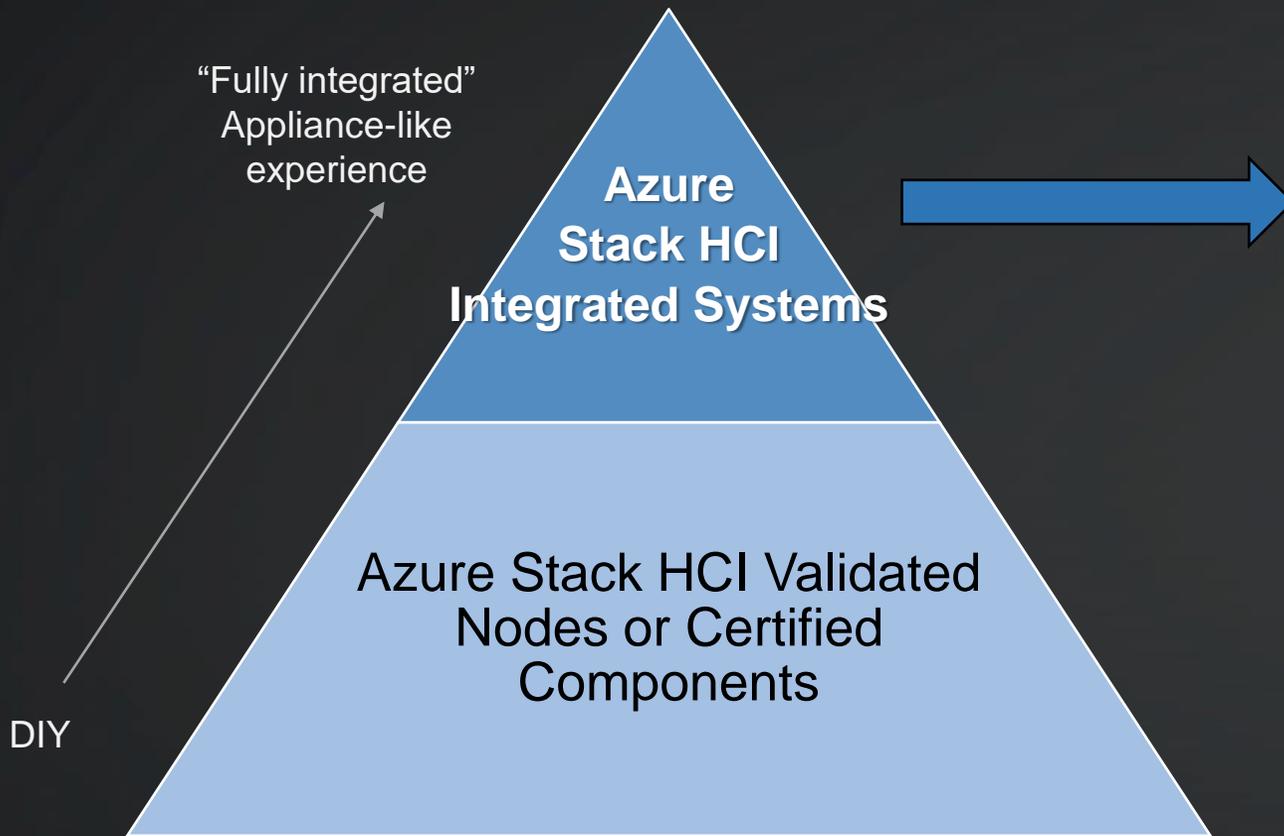
Easy Procurement
Distinctly orderable multi-node solution
AZS-6112, AZS-6212, AZS-6224

Simple to Deploy
Pre-installed bits from factory
DataON turnkey deployment services

Hassle-free Maintenance
Full-stack, integrated setup & upgrade with integrated WAC plugins
DataON MUST, DataON MUST Pro

Highest Reliability
Curated components continuously tested by both Microsoft & Partner
DataON and Microsoft Validation Lab

Highest Security
Secure-core technology protecting against kernel firmware and other attacks
First with secured-core on Xeon 3rd Gen PCIe4

World-Class Support
Joint support agreements with Microsoft and DataON
Single point of engagement

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DataON Integrated Systems for Azure Stack HCI

Easy Procurement and Highest Reliability

SPECIFICATIONS	DataON AZS-6112	DataON AZS-6212	DataON AZS-6224
Profile / Optimization	All-NVMe Flash / Size & Performance	Hybrid / IOPS & Capacity	All-NVMe Flash / IOPS & Performance
Form Factor	1U / 1-Node Rack	2U / 1-Node rack	2U / 1-Node rack
Drive Bay Config	12x 2.5" NVMe U.2	2x 2.5"/3.5" NVMe U.2 + 10x 3.5"SAS/SATA	24x 2.5" NVMe U.2
PCIe Slot Config	2x PCIe 4.0 x16; 1x PCIe 4.0 x8	2x PCIe 4.0 x8 (electrical/mechanical); 2x PCIe 4.0 x8 (electrical and 16x mechanical); 2x PCIe 4.0 x16 (electrical/mechanical)	
GPU	N/A	Available	
Max. TDP / Power Supply	270W / Dual 1300W @ 100-240V; optional 1600W or 2100W		
Scalability	2 to 16 Nodes per cluster		
CONFIGURATION			
Processor	3rd Generation Intel® Xeon® Scalable processors		
Number of Cores	Dual socket, up to 80 cores (per node)		
Memory	Up to 12TB DDR4 3200 MT/s DIMMs / 32 slots (per node)		
Cache Tier	N/A	NVMe SSDs	N/A
Capacity Tier	NVMe SSDs	HDDs	NVMe SSDs
Resiliency	2-way mirror, nested 2-way mirror, nested mirror-accelerated parity, 3-way mirror, mirror-accelerated parity		
Onboard Network Ports	2x 10GbE RJ45 OCP mezzanine (per node)		
Add-On Networking Card	2x 25GbE SFP28 or 2x 40/50/100GbE QSFP28/56 2-port RDMA (per node)		
Networking Switch	2x 18/32-Port SFP28 25GbE; 2x 32-port QSFP 100GbE; or switchless		

DataON Integrated Systems include:

Premium Deployment & Training
- Pre-deployment baseline testing, benchmarking, and stress testing
- Pre-installed Azure Stack HCI OS with the latest verified drivers and firmware
- **Sixteen hours of customer deployment services***
  - Pre-deployment site readiness review and implementation planning
  - Setup Microsoft Azure subscription with DataON's cloud service provider (CSP)
  - Remote deployment and training
  - Project documentation and knowledge transfer

Included

DataON MUST & MUST Pro for Windows Admin Center
- **MUST Pro*** keeps your system updated via cluster aware updating so you always have the latest Microsoft-validated OS, drivers, firmware, BIOS, and BMC versions, with minimum disruptions to your system
- MUST provides hardware disk mapping, alert services, real-time inventory scans, plus available call home service for drive replacements and predictive drive failures

Included

Premium Warranty & Support
- Three years standard, optional extension to five years
- Next-business-day parts replacement
- 24x7 technical support for hardware and software
- **24x7 integrated joint support from DataON and Microsoft using case exchange***

Included