

The evolution of HCI

APEX Cloud Platform for Microsoft Azure

Our speakers



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WW Edge to Cloud Lead
Microsoft – Dell Partnership



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Engineering Technologist
Dell Technologies



It's a hybrid, multcloud world

IT leaders want best-of-breed capabilities to achieve differentiated outcomes. They love the ease and agility of the cloud experience and expect it everywhere.

Public
cloud

Data
center

Edge
locations

Barriers to innovating with Hybrid and Multicloud



**Management
complexity**



**Limited multicloud
Visibility**



**Unpredictable
costs**

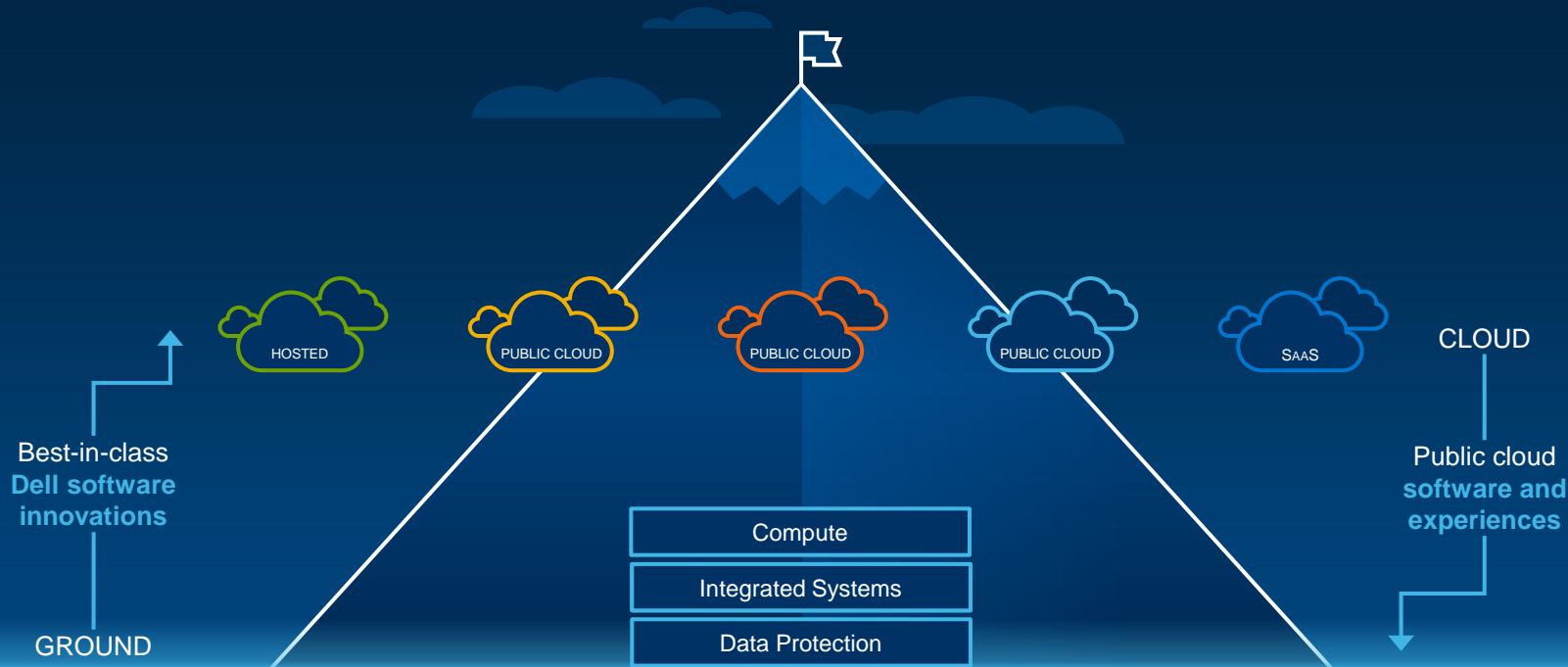


**Skills
gaps**



**Inconsistent
security &
compliance**

Take advantage of multicloud by design.
Get simplified cloud experiences on technology you trust.



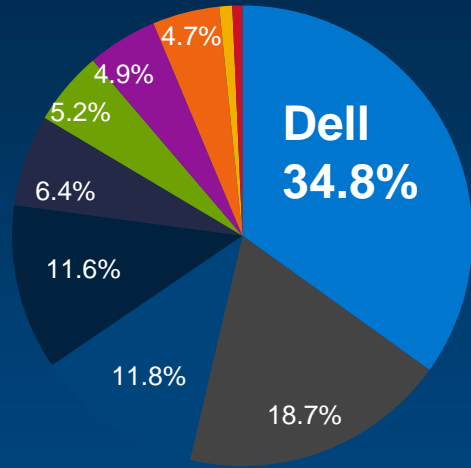
DELL LEADS THE MARKET IN INTEGRATED INFRASTRUCTURE

Dell continues to lead the HCI Share

Dell Technologies has held the #1 position in HCI share for 21 consecutive quarters

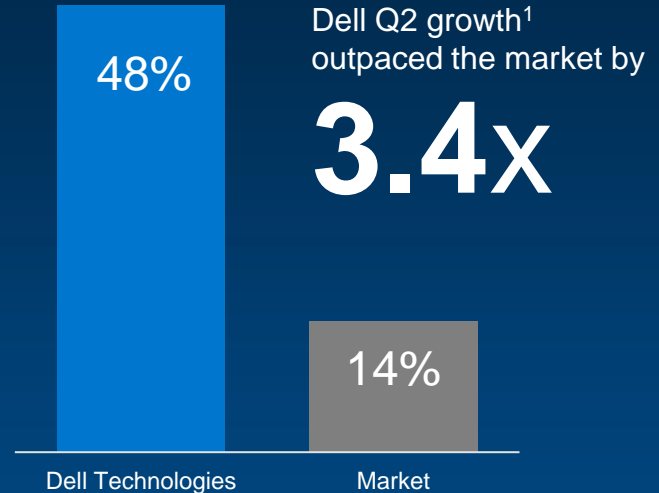
Hyperconverged systems segment

R4Q (3Q21-2Q22)¹



35%

of all HCI Systems are on Dell



Dell Q2 growth¹ outpaced the market by

3.4x

¹ IDC Worldwide Converged Systems Quarterly Tracker Q2 2022

Combining strengths of the two leaders

 **Dell Technologies**

Leader in Infrastructure Platforms and Management

Leading portfolio of HCI, storage, server, networking and data protection

Software-driven innovations in management and orchestration

Broad solutions and services expertise



 **Microsoft**

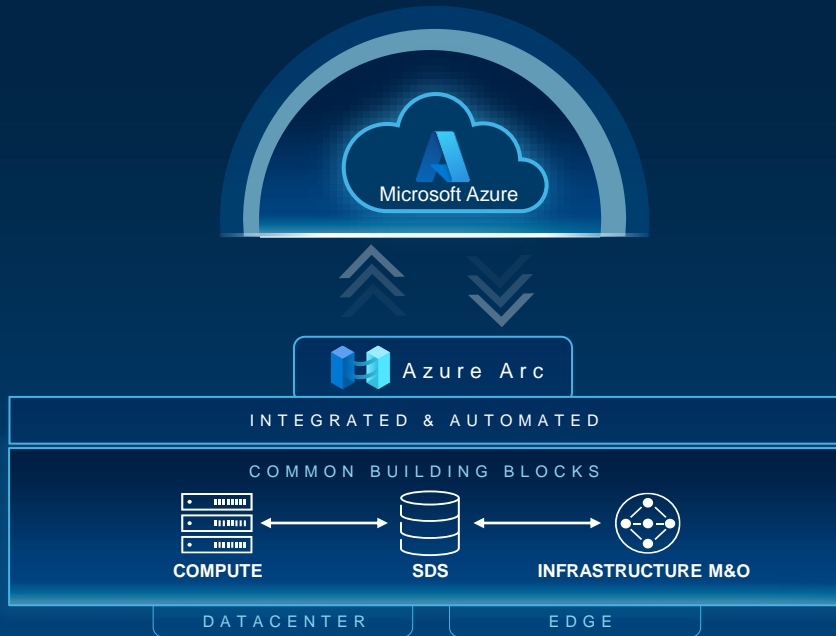
Leader in Cloud Services and Enterprise Software

Leadership in cloud services and IaaS with Azure

Long history in operating platforms, virtualization and container orchestration

Broad enterprise applications and data platforms expertise

APEX Cloud Platform for Microsoft Azure



1st only cloud platform collaboratively built to optimize Azure hybrid cloud experience



Expanding the **35-year** Dell partnership



Accelerate app modernization with Arc-enabled services on-prem

Bridge the Cloud Divide

Deliver consistent Azure operations - everywhere

Unleash Application Value

Accelerate productivity with familiar developer experiences

Harden Security and Governance

Enforce consistent Azure management and governance from cloud to edge

Bridge the cloud divide

Azure Stack HCI

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



Infrastructure to bridge on-premises and cloud

At-scale management of clusters through Azure portal

Run traditional and cloud-native apps with Arc-delivered VMs, AKS

Unified lifecycle management with Azure services

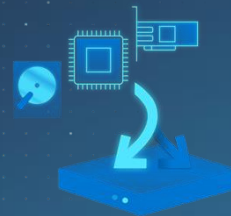


Delivered as an Azure Service

As-a-Service billing to an Azure subscription

Arc-enabled by default

Single support for both cloud and on-prem



Flexible Deployment Options

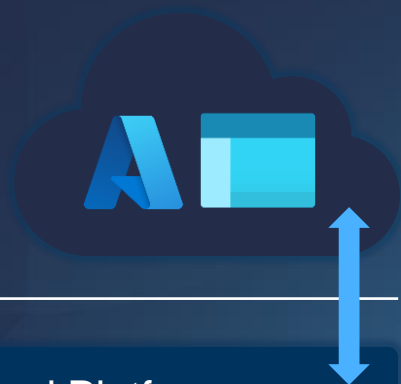
Scales from 1 to 16 nodes, with broad choice of hardware options

Designed for intermittent or limited connectivity

Ideal for retail & manufacturing with distributed locations

INTRODUCING

Dell APEX Cloud Platform Foundation Software



Dell APEX Cloud Platform Foundation Software



Microsoft
Windows
Admin Center



From 1 to 16
nodes per cluster



Automate
initial deployment



Streamline ongoing
operations



Deliver operational
consistency

Enhance Azure experience from cloud to ground

Deliver operational consistency and accelerate time-to-value



Accelerate your Azure deployment

Innovative guided deployment wizard accelerates your Azure deployments

Simplify initial deployment with wizard-based automated deployment process

Accelerate Time-to-Value with fast and predictable deployment experience



Streamline ongoing operations

Extensive full-stack Lifecycle Management automations

Ensure continuous compliance and easy remediation

Efficiently operate infrastructure with familiar toolset



Deliver operational consistency

Centralize operations with Azure Arc control plane

Govern efficiently and centrally from cloud to ground

Ensure consistent application environments and workload execution

Demo

Lifecycle management
experience with
Windows Admin Center*

The screenshot displays the Windows Admin Center interface for a Dell APEX Cloud Platform. The top navigation bar includes 'apex-cluster1.corp.whygobuy.com' and the Microsoft logo. A left-hand navigation pane lists various tools and categories such as Dashboard, Settings, Compute, Storage, Networking, and Tools. The main content area is titled 'Dell APEX Cloud Platform' and features a 'Dashboard' tab. The dashboard provides a comprehensive overview of the system's health and performance, including sections for Alerts, Appliances, Authentication, Security, Storage usage, Azure connection, Compliance, Updates, CPU usage, and Memory usage. Each section uses visual indicators like green checkmarks and progress bars to convey status.

Alerts (0 Total)
No alerts.

Appliances (Total 4)
All appliances are healthy.

Authentication
Certificates OK | Credentials OK

Security
Infrastructure lock OK | Secured core

Storage usage

Used	Available	Total
21 TB	33 TB	54 TB

Azure connection
Status: OK
The cluster is connected to Azure.

Compliance
OK

Updates
Available: 1

CPU usage

Used	Available	Total
81 Ghz	230 Ghz	311 Ghz

Memory usage

Used	Available	Total
24 GB	40 GB	64 GB

Tools <

Search Tools 🔍

- Dashboard
- Settings
- Compute**
- Virtual Machines
- Servers
- Azure Kubernetes Service
- Storage**
- Volumes
- Drives
- Storage Replica
- Networking**
- Virtual Switches
- Tools**
- Azure Monitor
- Updates
- Diagnostics
- Performance Monitor
- Extensions
- Dell APEX Cloud Platform

Dell APEX Cloud Platform

- Dashboard**
- Physical View
- Compliance
- Alerts
- Servers
- Updates
- Security
- Settings
- Support

Dashboard

Alerts (0 Total)

No alerts

✓

Appliances (Total 4)

All appliances are healthy

✓

Authentication

Certificate OK

✓

Credentials OK

✓

Security

Infrastructure lock OK

✓

Secured core

✓

Storage usage



Azure connection

Status

✓ The cluster is connected to Azure

Compliance

OK

✓

Updates

Available

1

CPU usage



Memory usage



Unleash application value



Azure Arc

Single product mindset rather than fragmented services

Simple onboarding and lifecycle experiences

Easy to add new services with modular, yet integrated experience



Cloud-native anywhere

Azure Unified Blueprint



Control plane

Consistent security, governance, and development practices | Git Ops | Dev Experience

Modern apps and data

Azure Arc-enabled services:
Data Services | PaaS/Serverless | AI/ML

Kubernetes

Containers | Microservices | OSS Ecosystem
AKS | Arc-enabled Kubernetes

Any environment

Azure Arc-enabled infrastructure:
Windows | Linux | Kubernetes | [Azure Stack HCI](#)

Unleash application value



Flexible cloud operational model

Empower self-service provisioning

Support both VMs and Containers

Easily utilize Arc-enabled services



Agile application environment

Detailed blueprints utilizing Arc-enabled services

Predictably deploy complex application stacks

Remain responsive with agile service delivery



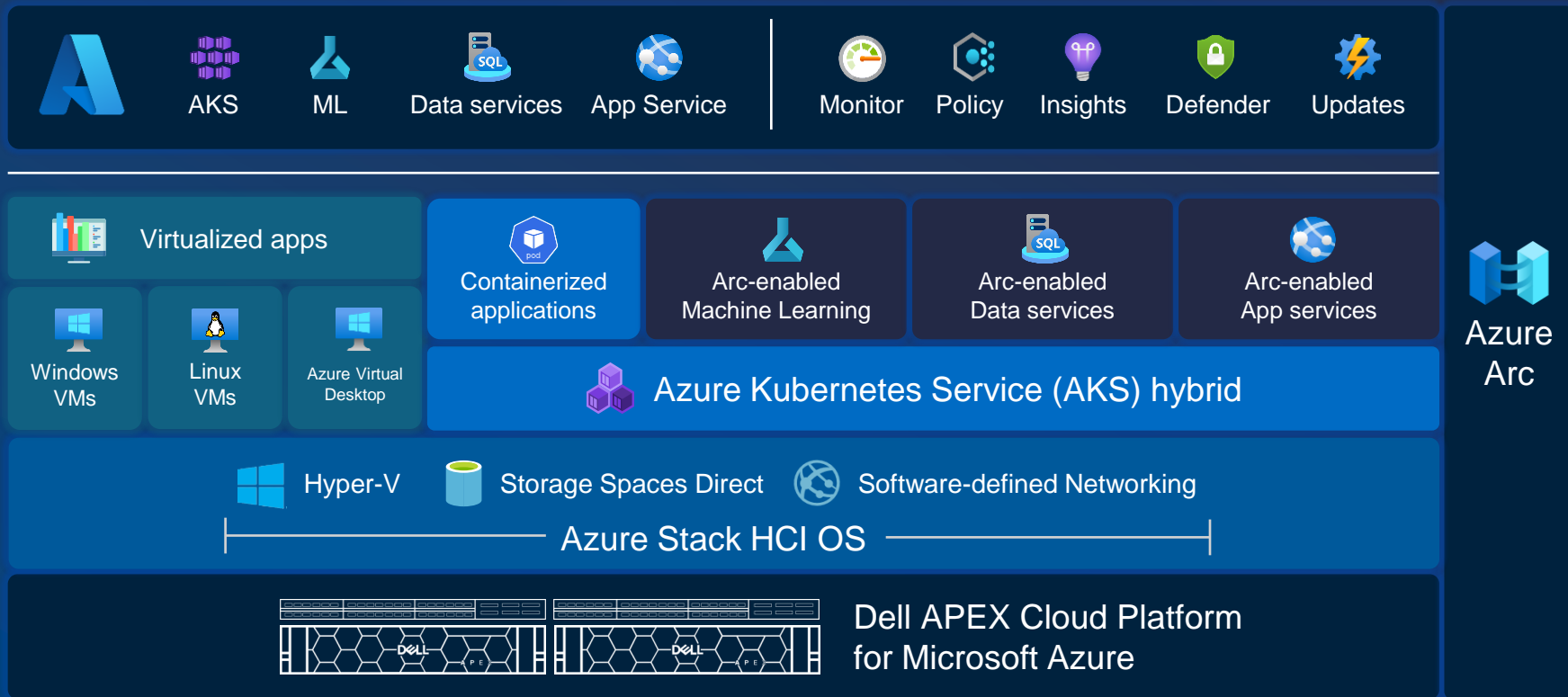
Optimized app deployments

Optimized for workloads across Edge and Core

Right-size to meet your diverse requirements

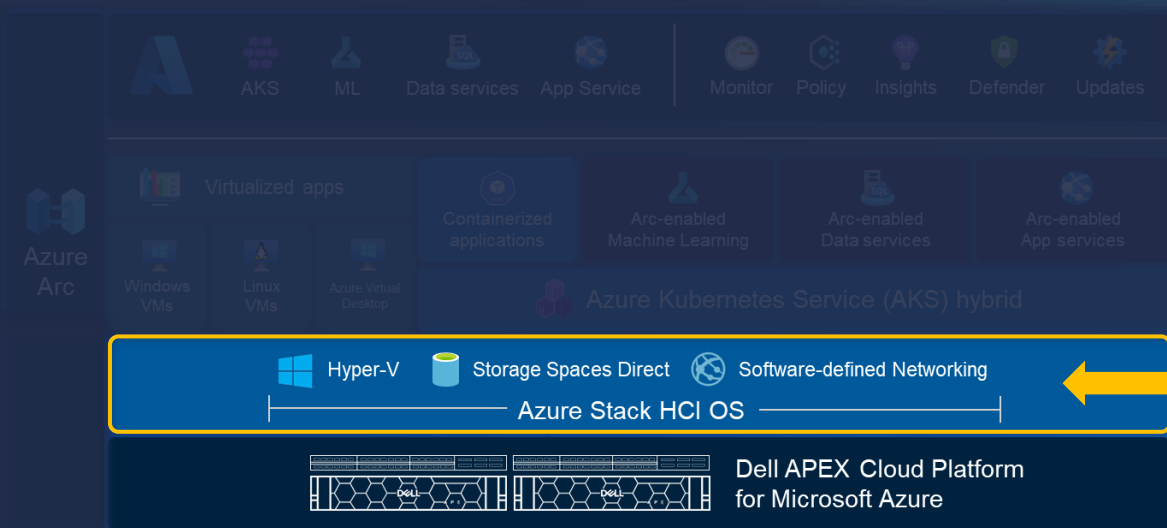
Designed to address a wide range of use cases

Agile hybrid infrastructure with Azure Arc



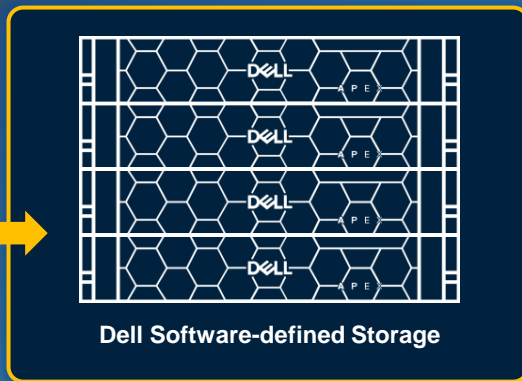
Flexible architecture with extended storage access

Meet demanding workload needs, predictably



Address extreme workloads with Dell Software-defined Storage

- Diverse workload performance profiles
- Linear scalability to massive scales
- Self-healing resilience
- Flexible storage scaling



Simplify application modernization

Optimized app deployments across your operational footprint

- Right-size for workloads
- Optimize for diverse use cases

Optimized for core data center



Optimized for Edge & ROBO



Infrastructure and
datacenter
modernization



Transactional
databases



AI/ML
analytics



Virtual
desktops



Containerized
cloud-native apps



Edge and ROBO
computing

APEX Cloud Platform for Microsoft Azure

Flexible, factory-ready configurations for datacenter, edge and ROBO



CPU-dense nodes
in a small 1U footprint

MC-660

1U rackmount

Compute-dense edge, ROBO and core use cases with moderate storage capacity

Intel 4th Gen - up to 112

Up to 8TB

NVMe
SSD

Yes (2 SW)



Balanced CPU/Storage for
demanding workloads

MC-760

2U rackmount

High performance app consolidation with balance of performance and capacity

Intel 4th Gen - up to 112

Up to 8TB

NVMe
SSD
Hybrid

Yes (6 SW / 2 DW)



Flexible, ruggedized
multi-node edge solution

MC-4000x/45x0x*

2U rack or flex mount, ruggedized multi-node chassis

Compute optimized for space-constrained, challenging edge and ROBO locations

Intel 3rd Gen - up to 20

Up to 512GB

NVMe

Yes (2 SW / 1 DW)

Form factor:

Use cases:

CPU cores:

Memory:

Storage options:

GPU:

*MC-4000x/45x0x available post initial launch with APEX Cloud Platform for Microsoft Azure

Harden security and governance

Harden security and governance



Centralized governance policies

Integrated with Azure management and governance

Centralized compliance across locations

Simple drift management and remediation



Intrinsic security across the stack

Effective protection with multi-layer security approach

Security embedded down to processor level

Advanced security enabled through integrations



Proactive monitoring and protection

Simple multi-cluster monitoring with Dell CloudIQ

Proactive diagnosis with Phone-Home

Simple protection with Dell data protection solutions

Demo

Infrastructure security*

The screenshot displays the Windows Admin Center interface for a Dell APEX Cloud Platform. The browser address bar shows 'apex-cluster1.corp.whygobuy.com'. The left-hand navigation pane includes sections for Tools, Compute, Storage, Networking, and Extensions, with 'Dell APEX Cloud Platform' selected at the bottom. The main content area is titled 'Dell APEX Cloud Platform' and features a navigation menu with options like Dashboard, Physical View, Compliance, Alerts, Servers, Updates, Security, Settings, and Support. The dashboard provides a comprehensive overview of the cluster's health and resource usage. Key metrics include 2 alerts, 4 healthy appliances, and successful authentication for certificates and credentials. Security checks for infrastructure lock and secured core are also visible. Resource usage is detailed with CPU usage (81 GHz used, 230 GHz available, 311 GHz total) and memory usage (21 TB used, 33 TB available, 54 TB total for CPU; 24 GB used, 40 GB available, 64 GB total for memory). The Dell Technologies logo is present in the top right corner of the dashboard.

Windows Admin Center | Cluster Manager

apex-cluster1.corp.whygobuy.com

Dell Technologies

Tools

Search Tools

Dashboard

Settings

Compute

Virtual Machines

Servers

Azure Kubernetes Service

Storage

Volumes

Drives

Storage Replica

Networking

Virtual Switches

Tools

Azure Monitor

Updates

Diagnostics

Performance Monitor

Extensions

Dell APEX Cloud Platform

Dell APEX Cloud Platform

Dashboard Physical View Compliance Alerts Servers Updates Security Settings Support

Dashboard

Alerts (2 Total)

2

Appliances (Total 4)

All appliances are healthy

Authentication

Certificate OK Credentials OK

Security

Infrastructure lock Secured core

Storage usage

Used	Available	Total
21 TB	33 TB	54 TB

Azure connection

Status

The cluster is connected to Azure

Compliance

OK

Updates

Available

2

CPU usage

Used	Available	Total
81 GHz	230 GHz	311 GHz

Memory usage

Used	Available	Total
24 GB	40 GB	64 GB

Tools <

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- Volumes
- Drives
- Storage Replica

Networking

- Virtual Switches

Tools

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Extensions

- Dell APEX Cloud Platform

Dell APEX Cloud Platform

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Dashboard

Alerts (2 Total)



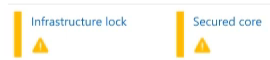
Appliances (Total 4)



Authentication



Security



Storage usage



Azure connection



Compliance



Updates



CPU usage



Memory usage



Dell APEX Cloud Platform for Microsoft Azure

The result of extensive engineering collaboration between Dell and Microsoft

Empower
unrestrained innovation



Bridge the cloud
divide



Unleash application
value



Harden security and
governance

Next steps

1

Visit www.dell.com/apex-cloud-platforms to learn more

2

Learn more about Azure Stack HCI at aka.ms/azurestackhci

3

Learn more about Azure Arc at aka.ms/arc

 **DELL**Technologies

 **Microsoft**