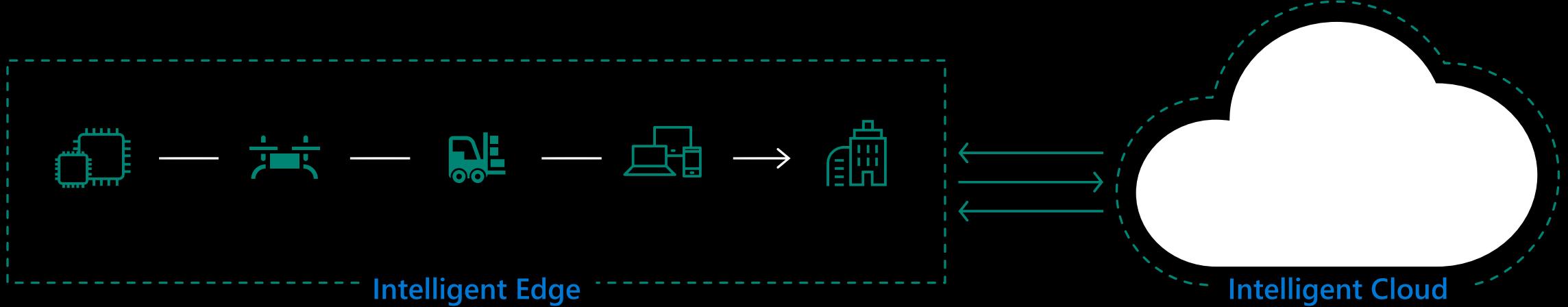


Azure Stack HCI: Hybrid Cloud Infrastructure for Modern Applications

Sameera Perera
Azure Core CSA - Microsoft

Intelligent cloud and intelligent edge



A set of connected systems and devices that can run online or offline

Gather information and run AI close to the physical world

Deliver real-time insights and immersive experiences that are highly responsive and contextually aware

Unlimited computing enabled by public cloud

Robust AI capabilities to power every type of intelligent application and system



Unlimited power!

Intelligent Cloud & Intelligent Edge Services



Sensors + Control

Sensors to Interactive

Integrated Platform

Global scale processing

Microcontroller Azure Sphere

- Highly-secured, connected MCU
- Azure Sphere Linux OS for modern MCUs
- Azure Sphere Public Preview release in September 2018
- Included Azure IoT Device SDK

IoT Devices

Azure IoT Device SDK

- 1000+ devices
- 250+ partners
- All certified to work great with Azure IoT Hub

Edge Devices Azure IoT Edge

- Deploy and manage Azure Services in containers on any IoT device
- AI, Azure ML, Azure Stream Analytics and more
- Generally available

Edge Appliances Azure Stack Edge

- Azure Stack Edge: AI-Enabled, Storage and compute Azure Edge appliance
- Data Box: Offline, ruggedized data transport, 100 TB – 1 PB
- Includes Azure IoT Edge

Hybrid Cloud Azure Stack HCI

- Continue to run virtualized applications on-premises, replace and consolidate aging server infrastructure, and connect to Azure for cloud management services

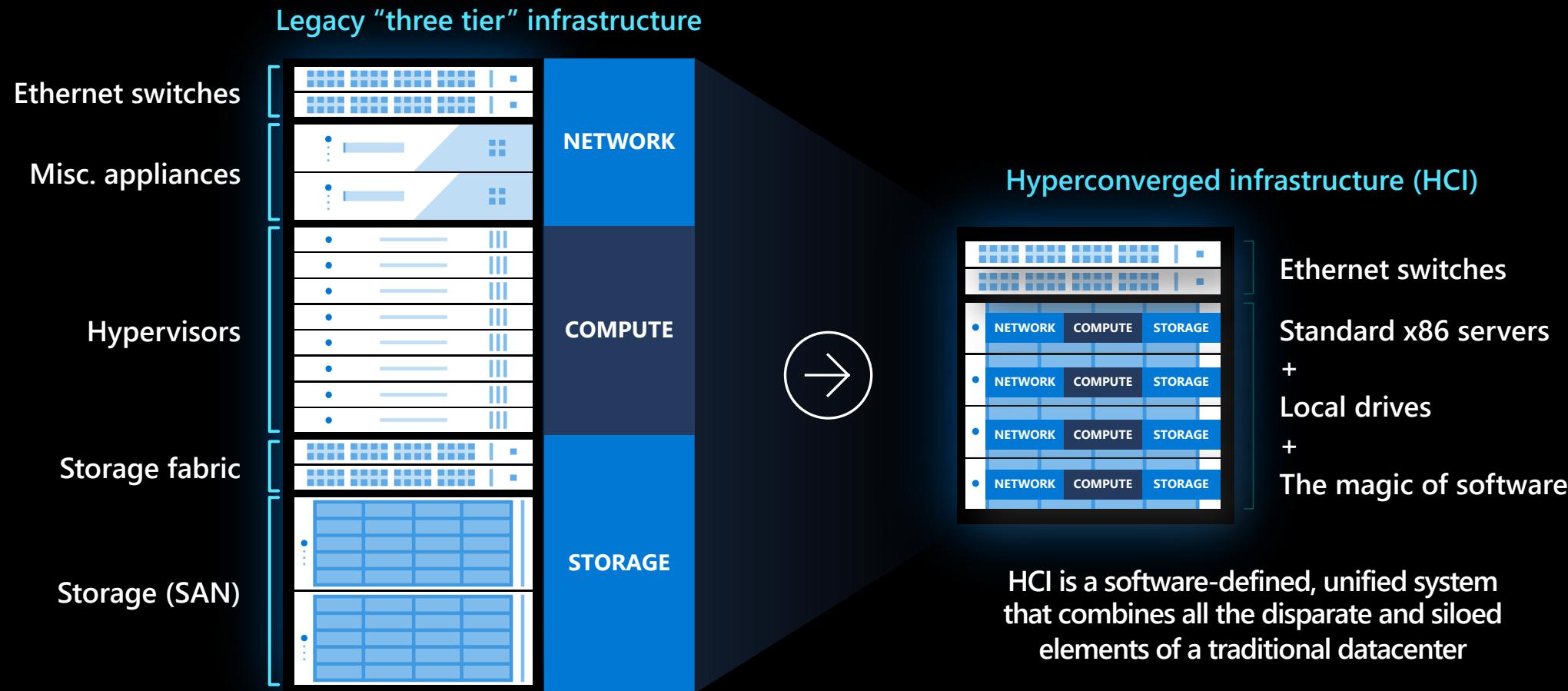
Hybrid Cloud Azure Stack

- Cloud Consistent Edge
- Edge and Disconnected Scenarios
- Regulatory Requirements
- Cloud app model on-premises

Hyperscale Cloud Azure Regions

- Full Range Hyperscale Cloud Services
- Tiered Service availability: Heroes > Hubs > Satellites
- Open Source Based Services & Tools

Azure Stack HCI – What is it?



Azure Stack HCI

Modern subscription for flexible, familiar hyperconverged infrastructure

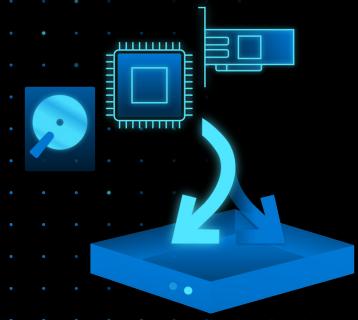


Azure hybrid
by design

Enterprise scale
and price
performance



Familiar
management
and operations



Choice of
deployment
options

Azure hybrid by design

- Native integration with Azure Arc and Azure Monitor
- Connect to hybrid services like Microsoft Defender for Cloud, Azure Backup, Azure Monitor, and Azure Site Recovery as examples

Monitor and manage clusters at scale from Azure

- Centrally manage VMs from Azure portal
- Fleet management for hosts and VMs

Always up to date HCI as a service

- Regular and consistent feature and security updates
- Unified Azure billing
- Leverage existing Azure support plan



Azure hybrid
by design

Industry leading price-performance

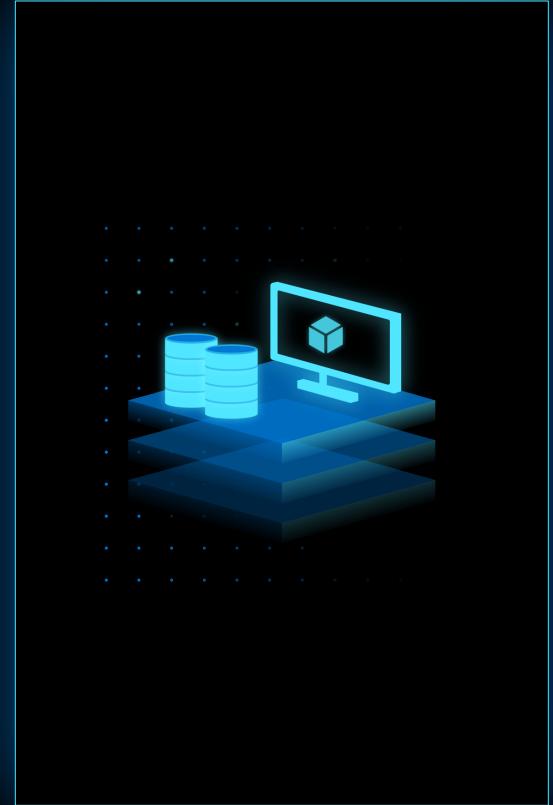
- Millions of IOPs and batch requests with Storage Spaces Direct
- Optimized for SQL Server virtual workloads
- Per physical core monthly subscription to scale up or down

Secure virtualization platform for Windows and Linux

- Unlimited hosting of Linux VMs
- Choice of licenses available for Windows VMs
- Secured-core server supported for ultimate enterprise security
- Includes Extended Security Updates (ESU) for Windows Server and SQL Server 2008/2012 R2

Built-in HA/DR

- New simple deployment GUI for clusters available through Windows Admin Center
- Stretch cluster: extend HCI cluster from a single site to two sites
- Protect VMs with cloud backup



Enterprise
scale and
price
performance

Leverage existing skills

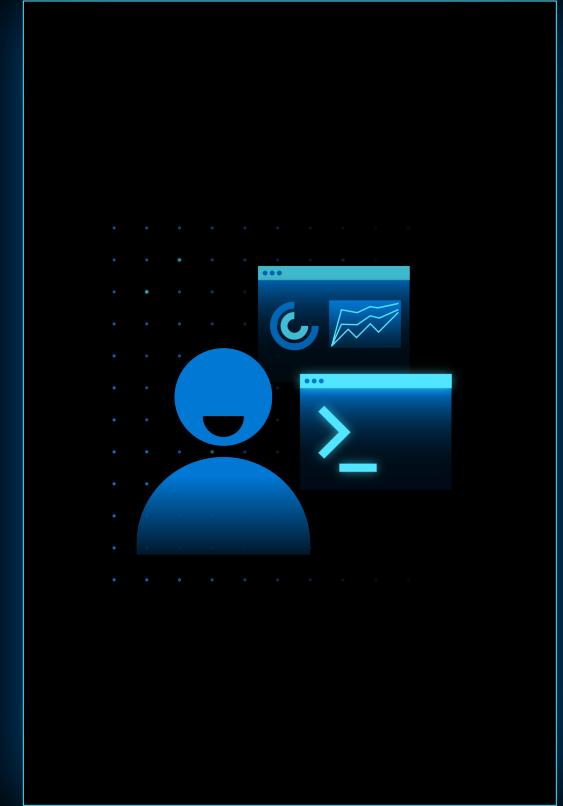
- Built on foundation of Windows Server and Hyper-V
- Familiar tools like Windows Server Admin Center and Azure portal
- Support for Active Directory, Group Policy Object

Work with popular tools

- Work with familiar Microsoft tools such as System Center and Windows Admin Center
- Compatible with popular third-party tools such as Altaro, Datadog, Commvault, Veeam, and Veritas to name a few

Benefit from automation

- Management tasks are completely scriptable using popular, cross-platform Windows PowerShell framework



Familiar
management
and
operations

Choice of Validated Nodes or Integrated Systems

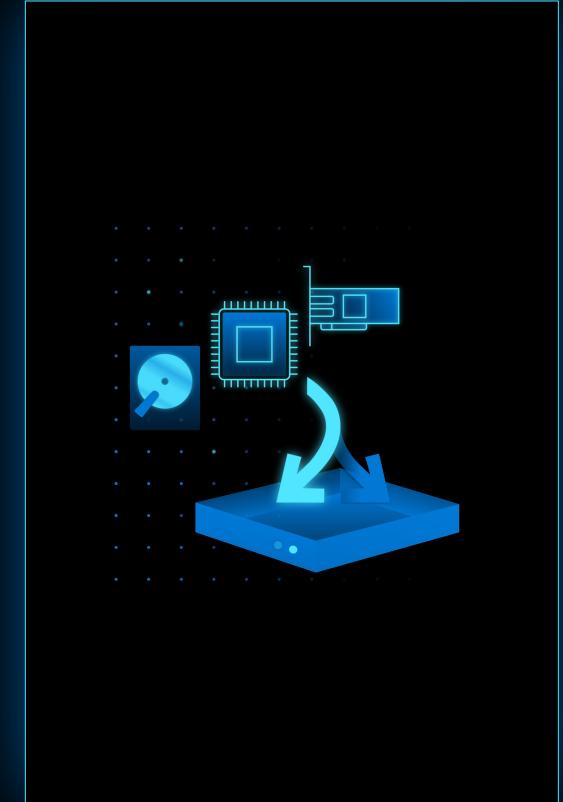
- Validated nodes based on standardized reference architecture
- Available Integrated Systems for fastest time to value: pre-installed software and integrated drivers and firmware

Extensive choice of hardware partners

- Choose your preferred vendor for local support and delivery
- Flexible sizing available from small to rack class options

Possible to use existing hardware

- Check with your OEM or solution provider to ensure you are running a validated solution. In certain cases, you may be able to re-use existing hardware



Choice of deployment options

When to use Azure Stack HCI

When customers need to flexibly meet regulatory and connectivity needs—
multiple use cases



Modernize
and secure
your retail
infrastructure



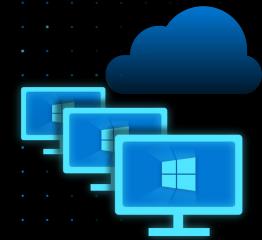
Affordably run
intelligent edge
and remote
branch retail
solutions



Industry-best
performance for
SQL Server
databases



Deploy cloud
native apps and
Azure Arc enabled
services through
tight integration
with AKS enabled
by Azure Arc



Best in class virtual
desktop experience
with Azure Virtual
Desktop for Azure
Stack HCI (public
preview 2)

How it works: Azure Arc + Azure Stack HCI

North Star experience

1

Deploy Azure Stack HCI and it appears immediately as Azure Arc enabled resource in the Portal

2

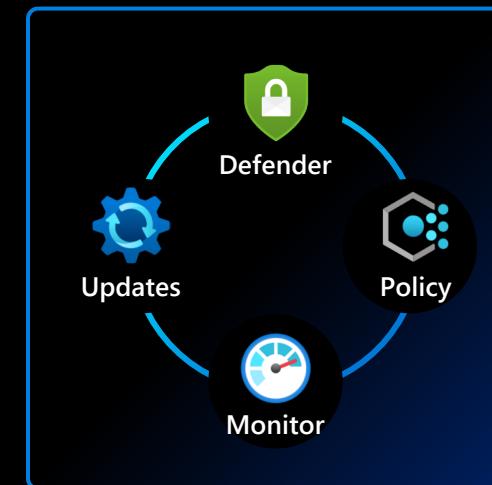
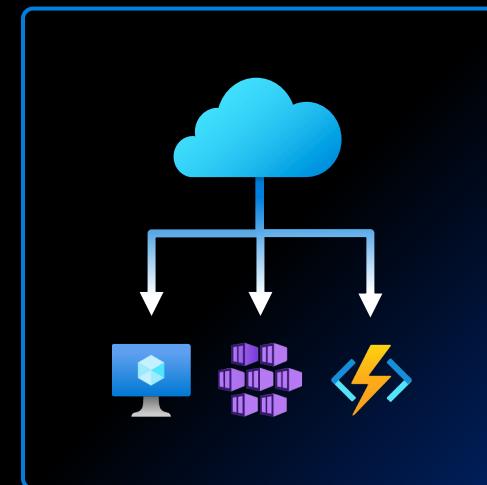
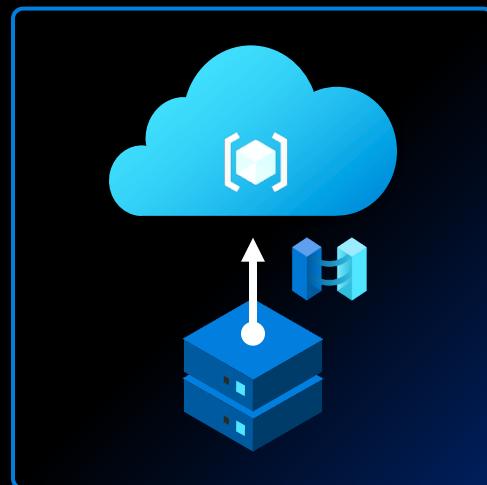
From Arc in the Portal, you can deploy containers, virtual machines, and services

3

Deployed resources appear in the Portal via Arc too, so you can manage, secure, govern them

4

Support, observability, and updates for Azure Stack HCI provided through Arc

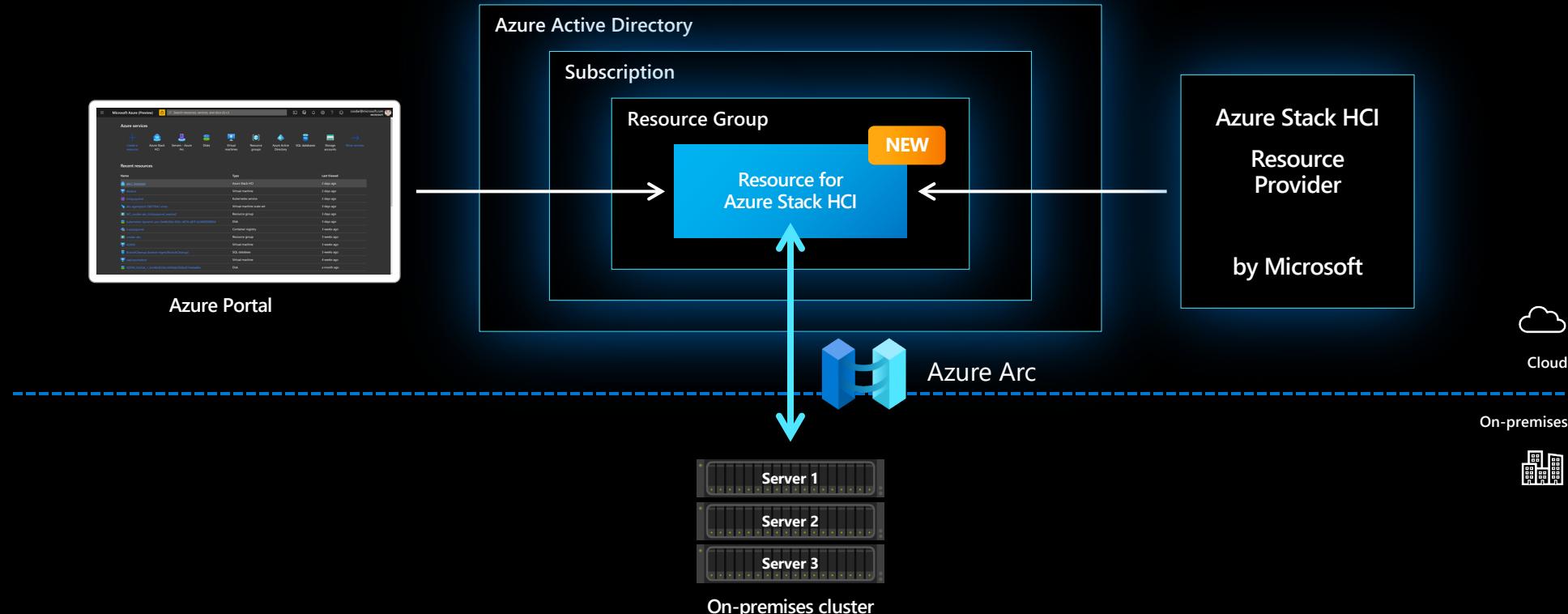


Simplify hybrid with native Azure integration

Azure Resource Manager (ARM) resource represents each on-premises Azure Stack HCI cluster

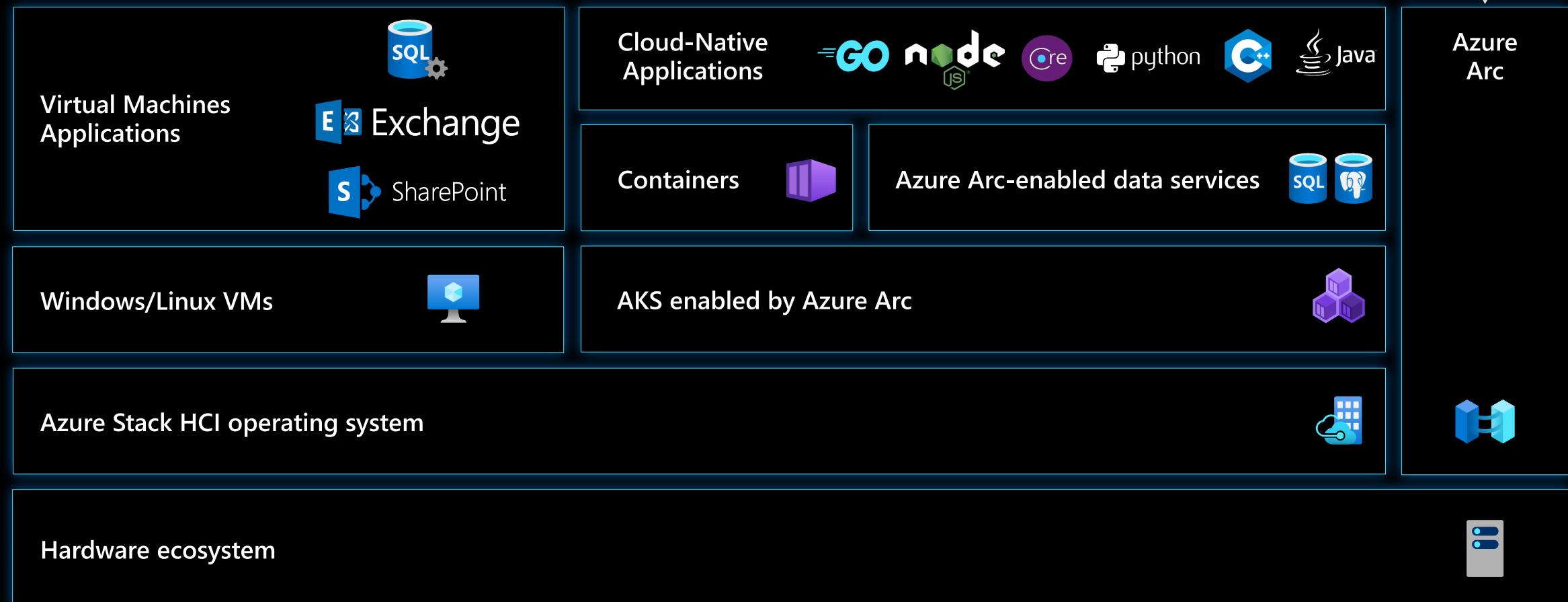
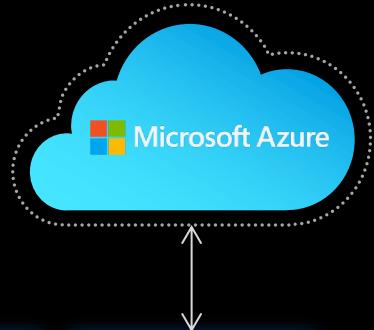
Visibility in the Azure Portal and foundation for hybrid management

No fuss with agents or scripts—it's built-in!



Azure Arc and Azure Stack HCI

Platform architecture



Demo

- Azure Stack HCI



Microsoft Learning Paths

Learn new skills and discover the power of Azure Stack HCI
with step-by-step guidance



Azure Stack HCI Foundations

Modules:

[Introduction to Azure Stack](#)

[Introduction to Azure Stack HCI core technologies](#)

[Plan and deploy Azure Stack HCI](#)

[Integrate Azure Arc and Azure Stack HCI](#)



Operate and Maintain Azure Stack HCI

Modules:

[Manage Azure Stack HCI clusters](#)

[Integrate Azure services with Azure Stack HCI](#)

[Manage Azure Stack HCI virtual machine workloads](#)

[Manage Azure Kubernetes Service on Azure Stack HCI](#)



Advanced learn modules for administrators

Modules:

[Implement Datacenter Firewall and Software Load Balancer on Azure Stack HCI](#)

[Plan for and deploy SDN infrastructure on Azure Stack HCI](#)

Q & A

- Thank you!