



Microsoft Azure



Azure Local

Overview of Azure Local, workloads, and strategic capabilities

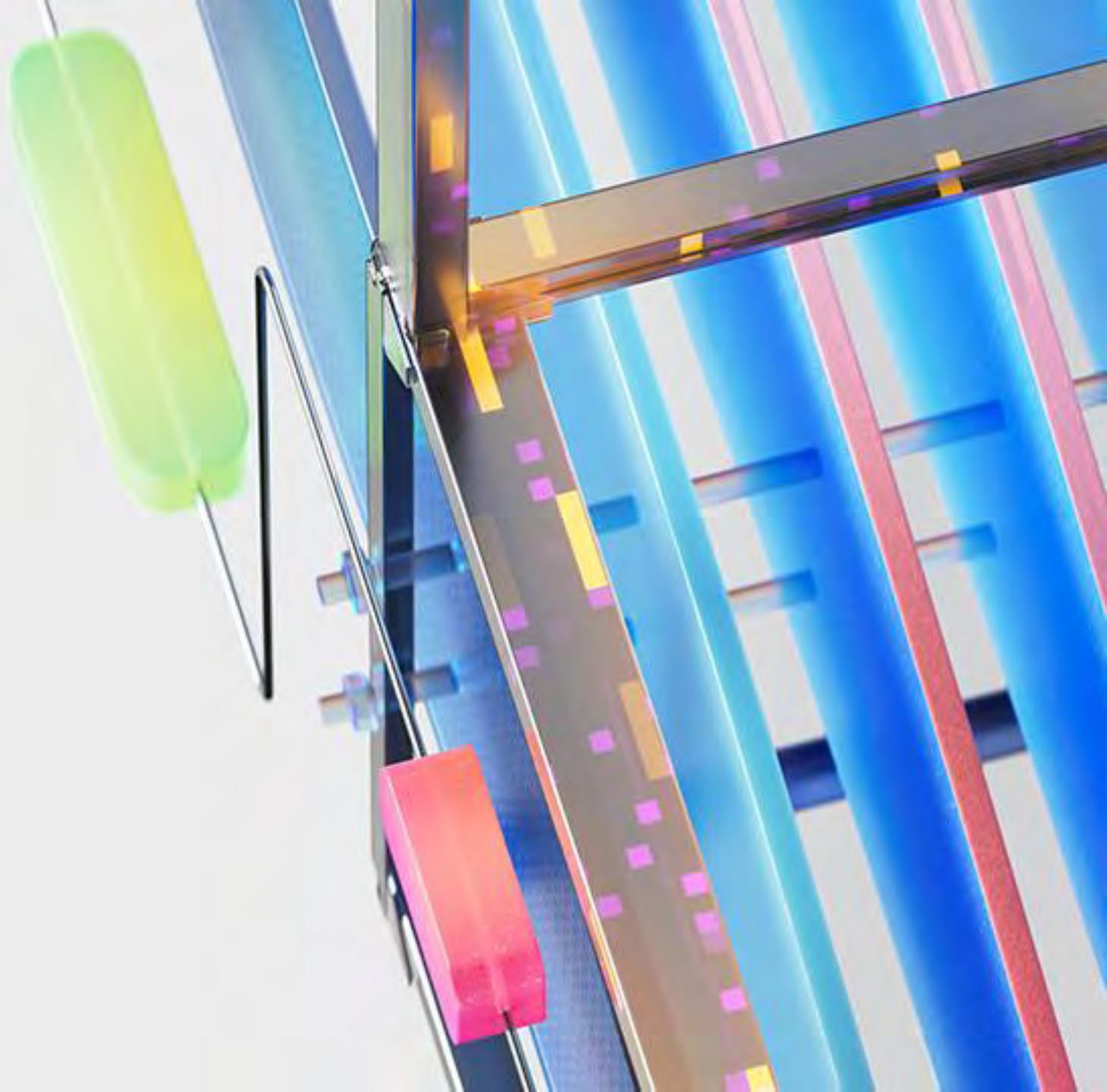


Table of contents

- 1 Adaptive cloud
- 2 Azure Local overview
- 3 Use cases
- 4 Architecture
- 5 Workloads
- 6 Networking
- 7 High availability
- 8 Security
- 9 Sovereignty
- 10 Operational capabilities
- 11 Data center migration
- 12 Edge AI
- 13 OEM partner solutions
- 14 Roadmap

Adaptive cloud



Fragmented IT solutions result in:

Difficult to manage
disparate locations,
systems, and tools

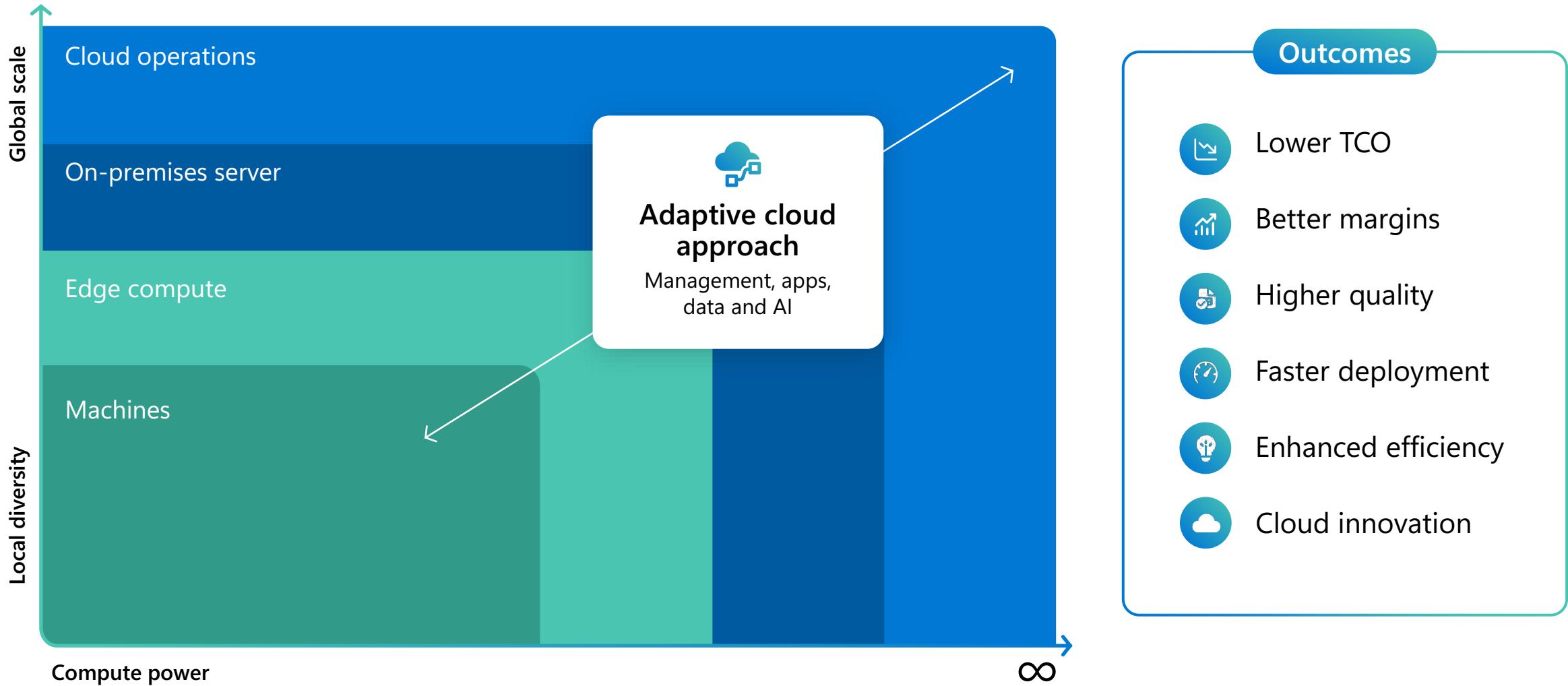
Hard to innovate
and adapt

Data stuck
in silos

Why is this a problem?

Fragmented IT solutions slow operations, stifle innovation, and isolate data, making it harder for teams to collaborate, react to change, implement AI and deliver value at scale.

Consolidate with cloud-native solutions



Not all workloads are cloud-ready



Local AI inferencing

- Pipeline leak detection
- Personnel safety checks



Mission critical business continuity

- Production line operations
- Point of sale systems



Near real-time systems

- Quality assurance
- Manufacturing execution system



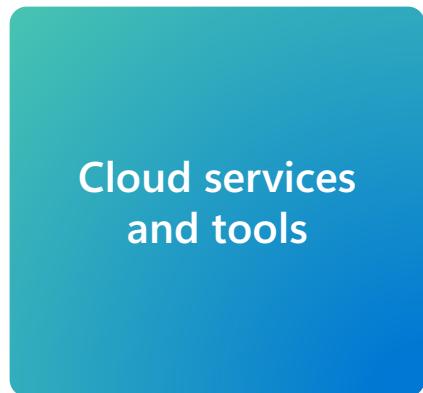
Custom sovereignty and regulatory requirements

- Highly regulated industries
- Defense and intelligence

Azure's adaptive cloud approach



Enabled by Azure Arc



Operate with AI-enhanced central **management & security**



Develop and scale **applications** across boundaries

Unify **data and AI** across a distributed estate



Innovate on limitless and trusted **infrastructure with Azure Local**



Public cloud

Hybrid cloud

Sovereign cloud

Multi-cloud

Edge

IoT

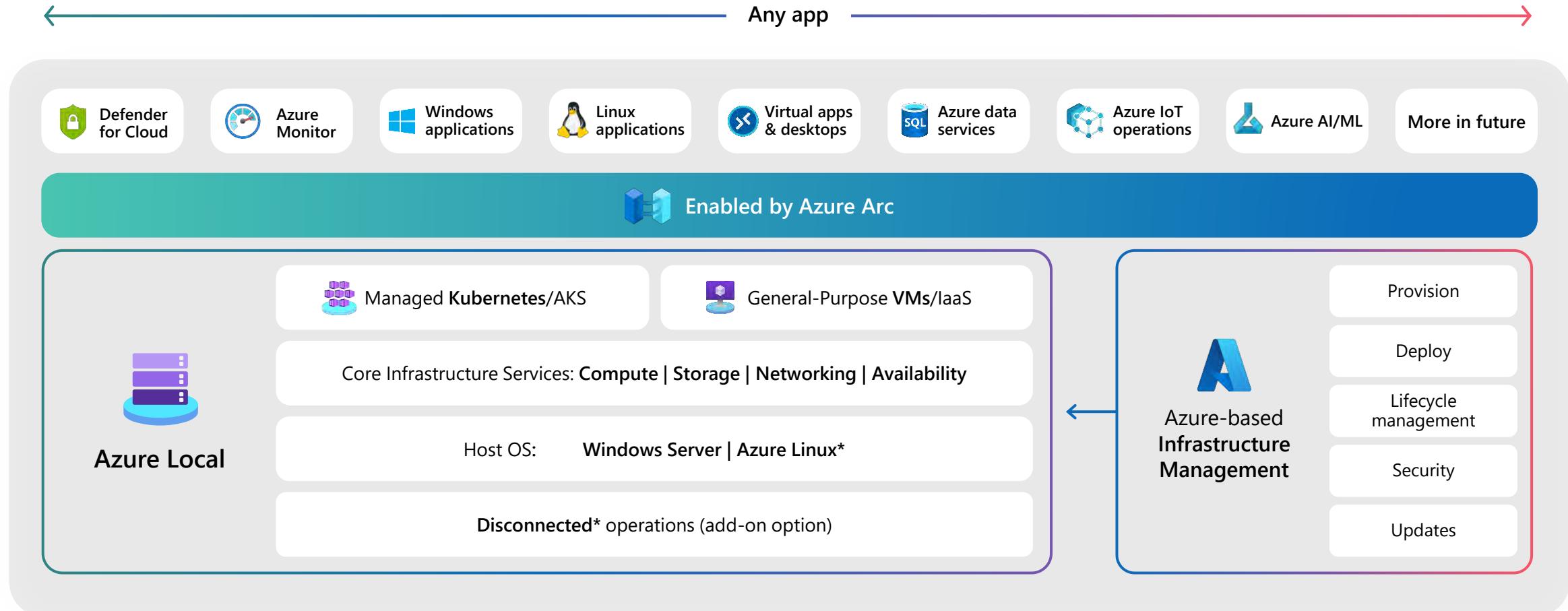
Azure Local overview





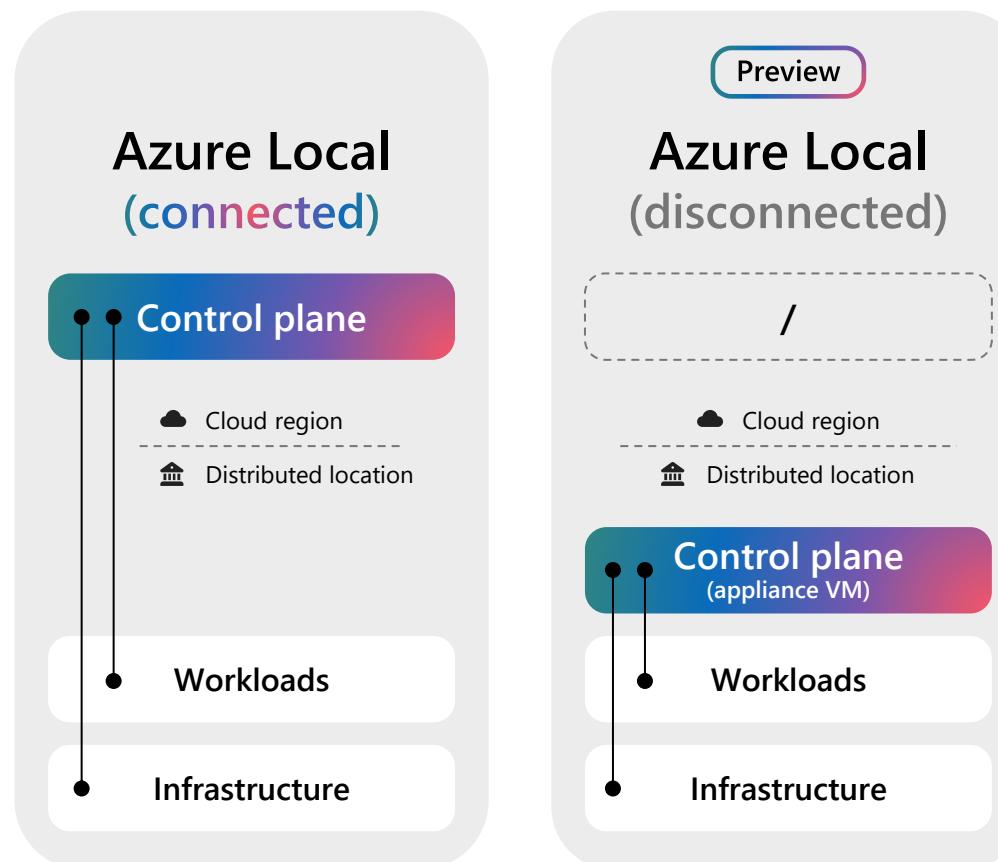
Azure Local

Cloud-connected infrastructure solution for distributed locations

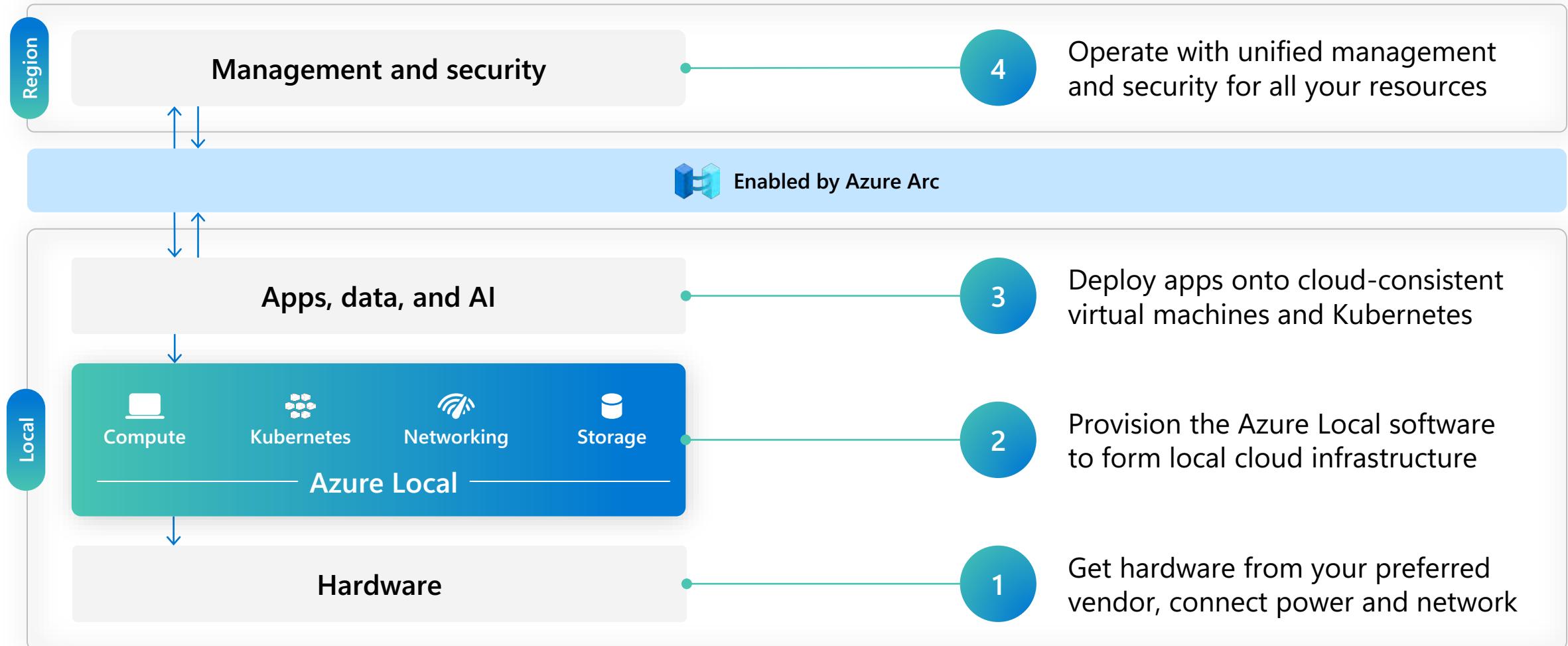


Connected or disconnected flexibility

Operate seamlessly when connected to Azure or fully autonomous in air-gapped



How Azure Local works (connected)



Azure Local supported regions

Azure public and government regions support geographic locations worldwide, for Azure Local solutions deployed around the world



Azure Local's various scale points

AI-ready infrastructure, anywhere

Connected to Azure region



Enabled by Azure Arc

Disconnected to Azure region



Enabled by Azure Arc

Managed operations
Day 0 to Day N



Managed Kubernetes/AKS

General-Purpose VMs/IaaS

Core Infrastructure Services: Compute | Storage | Networking | Availability

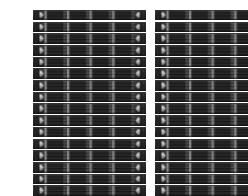
Host OS: Windows Server | Azure Linux

Azure-based infrastructure management

Provisioning, deployment, lifecycle management, security, updates



Composable scale point for sovereign AI from single nodes up to multiple racks clusters



Preview

Additional scale points and disconnected for multi-rack scale offering will be coming in the future

Durable distributed infrastructure for industry

Manufacturing



- Real-time defect detection
- Predictive maintenance
- Secure, consistent operations

Retail



- Reimagined in person retail
- Streamline store operations
- Maximize the value of data with local AI inferencing

Healthcare



- Compliant and secure data
- Connected care experiences
- Clinical and operational data per regulatory requirements

From fragmentation to collaboration

Process data at the source

Continuity and low latency

Keep data and control local

A Leader in 2025 Gartner® Magic Quadrant™

Microsoft recognized once again as a Leader for its Ability to execute and Completeness of vision in 2025 Gartner® Magic Quadrant™ for Distributed Hybrid Infrastructure.

Gartner®

2025 Gartner® Magic Quadrant™ for Distributed Hybrid Infrastructure (DHI)

Gartner, Magic Quadrant for Distributed Hybrid Infrastructure, Julia Palmer, Jeffrey Hewitt, Dennis Smith, Tony Harvey, Elaine Zhang, 8 September 2025.

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Figure 1: Magic Quadrant for Distributed Hybrid Infrastructure



Use cases

Regulated industries need hybrid solutions



Data residency laws

Mandates to keep sensitive data within borders



Geopolitical instability

Shifting global policies drive need for local control



Privacy & control demands

Customers want transparency and ownership



Industry-specific rules

Sectors need strict compliance and auditability



Strategic autonomy

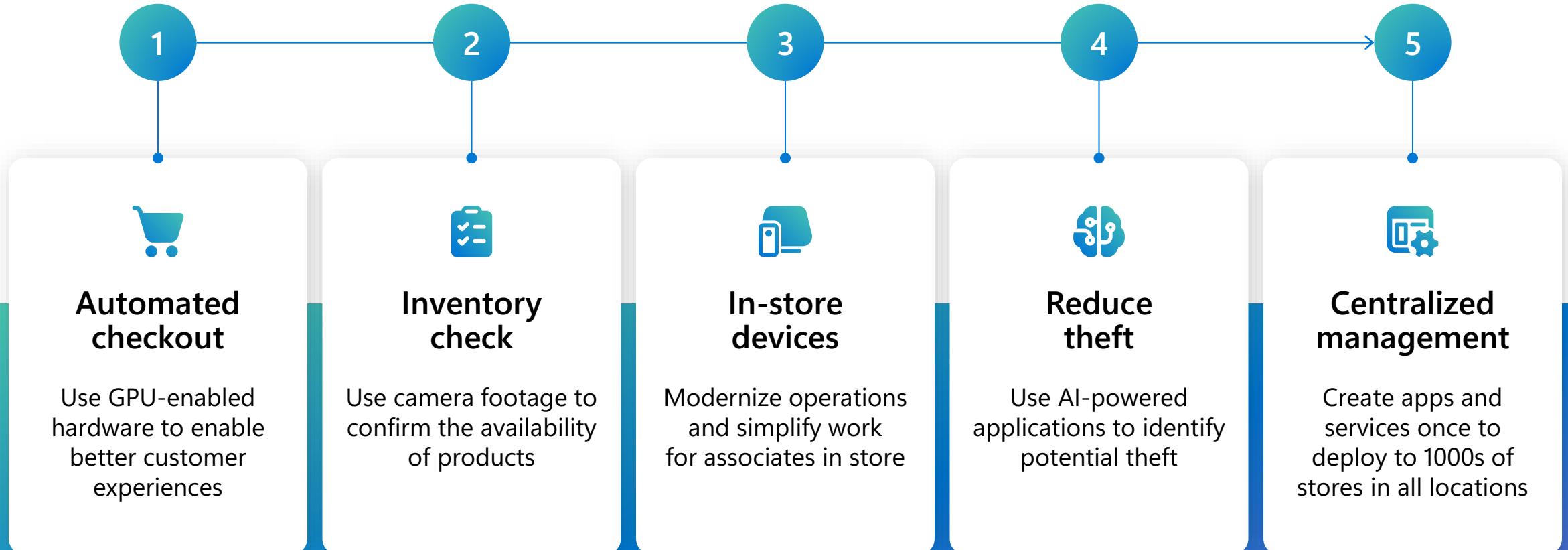
Reduce reliance on non-EU cloud providers



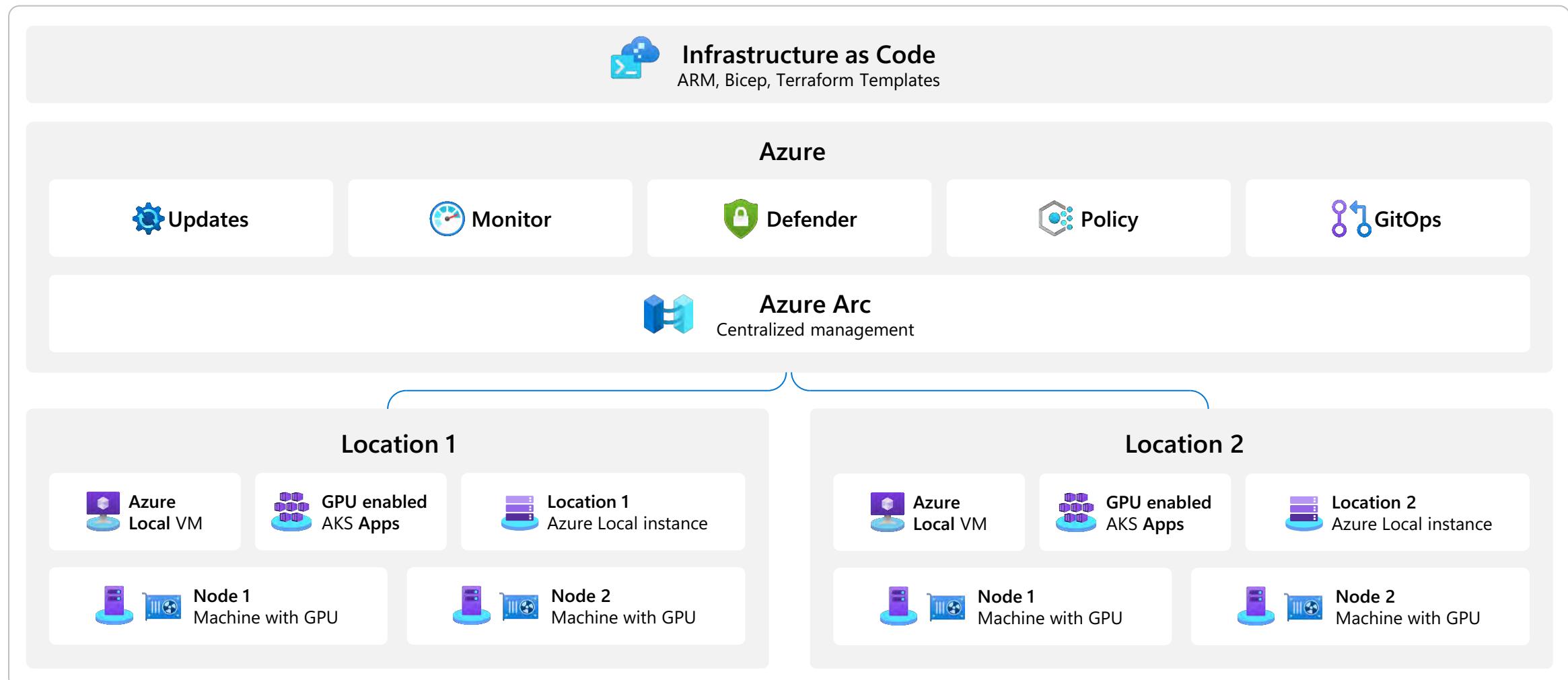
Cybersecurity threats

Attacks rising; need for secure local environments

Retail example scenario



Azure Local example architecture





Customer
Coles Group

Industry
Retailers

Size
10,000+ employees

Country
Australia

Products and services
Azure
Azure Machine Learning
Azure Local
Azure Kubernetes Service
enabled by Azure Arc

[Read full story here](#)



“We've met our target of a six-times increase in the pace that we can deploy applications to stores, so that speed, and the reliability at that scale, have been amazing.”

—Silvio Giorgio, General Manager of Data and Intelligence, Coles Group

Situation

- Coles Group, which helps feed millions of Australians, has a strong track record of investing in innovation, particularly in AI and computer vision.
- To enhance efficiency and deliver leading customer experiences, the company aimed to scale its edge AI capabilities.

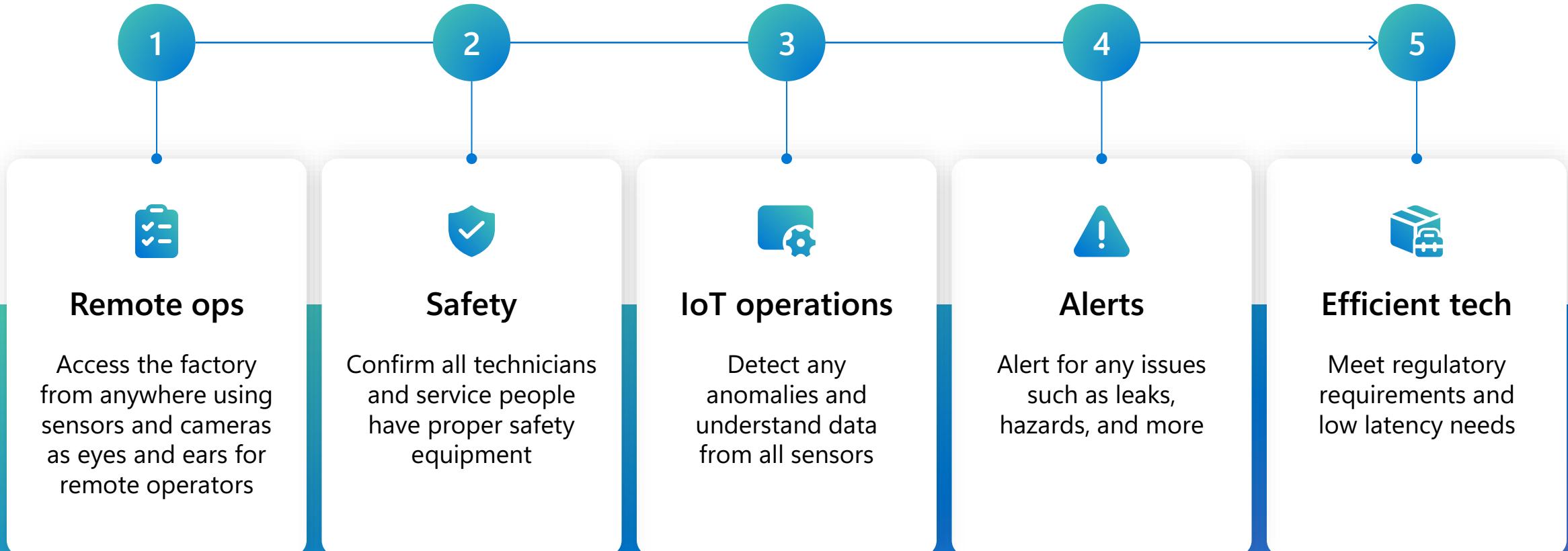
Solution

- Coles Group is using Microsoft Azure Local as the foundation for its intelligent edge backbone, enabling more efficient management of applications, AI, and computer vision use cases across its large retail network.

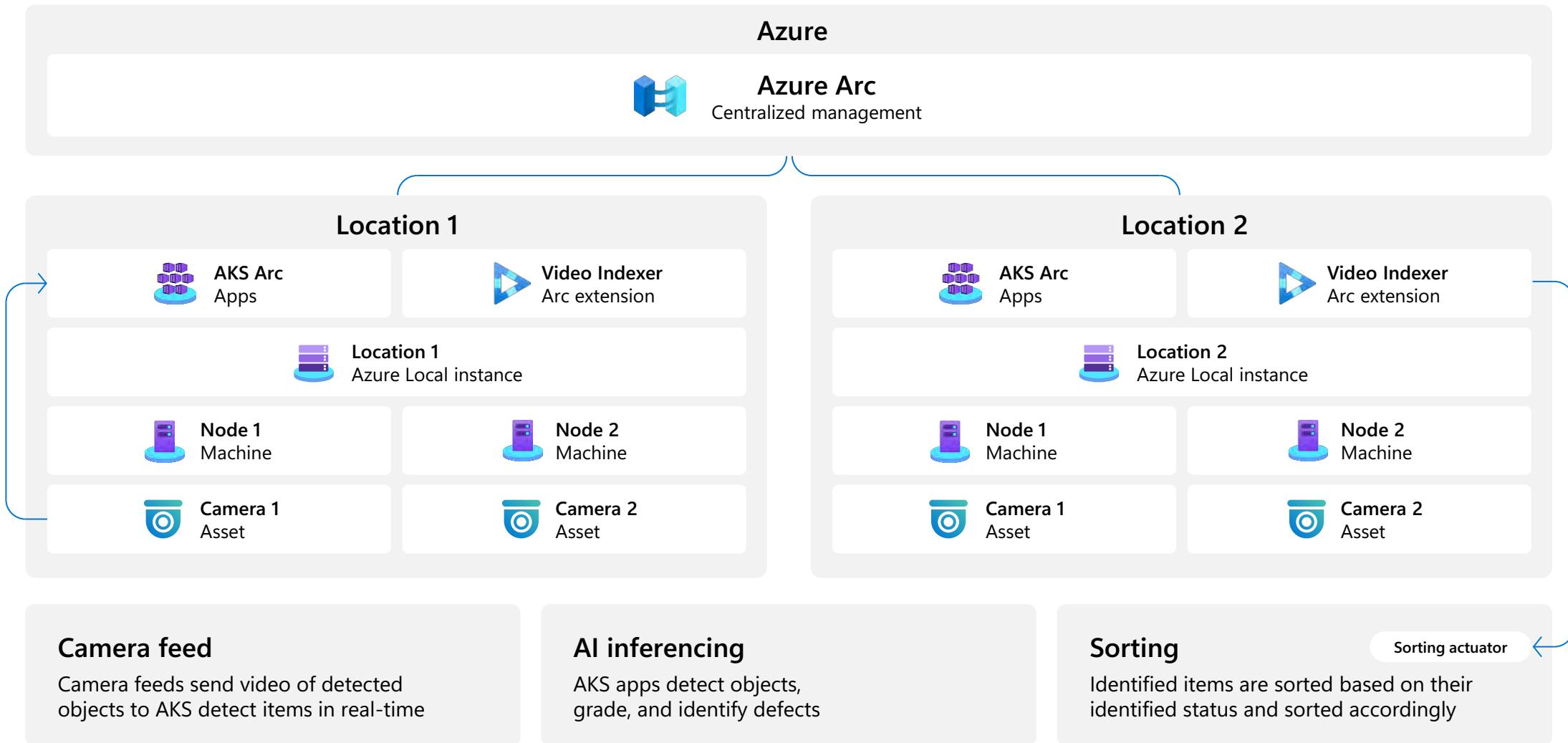
Impact

- Since expanding its Azure Local footprint from 2 to over 500 stores, Coles can now deploy new applications 6x faster, without disrupting store operations, by leveraging its intelligent edge backbone.
- This increased speed gives teams more capacity to focus on driving value and enhancing in-store experiences.

Manufacturing example scenario



Azure Local example architecture





Customer
Emirates Global Aluminium

Industry
Manufacturing

Size
10,000+ employees

Country
United Arab Emirates

Products and services
Azure Arc
Azure Local
Azure Kubernetes Service
enabled by Azure Arc

[Read full story here](#)



"Emirates Global Aluminium cuts cost of manufacturing AI by 86 percent with the introduction of Azure Local."

Situation

- Many manufacturing technology applications, especially those involving AI, require proximity to equipment to meet cybersecurity, latency, and real-time response demands.
- A public cloud-only strategy fell short of supporting edge use cases that depended on low-latency performance.

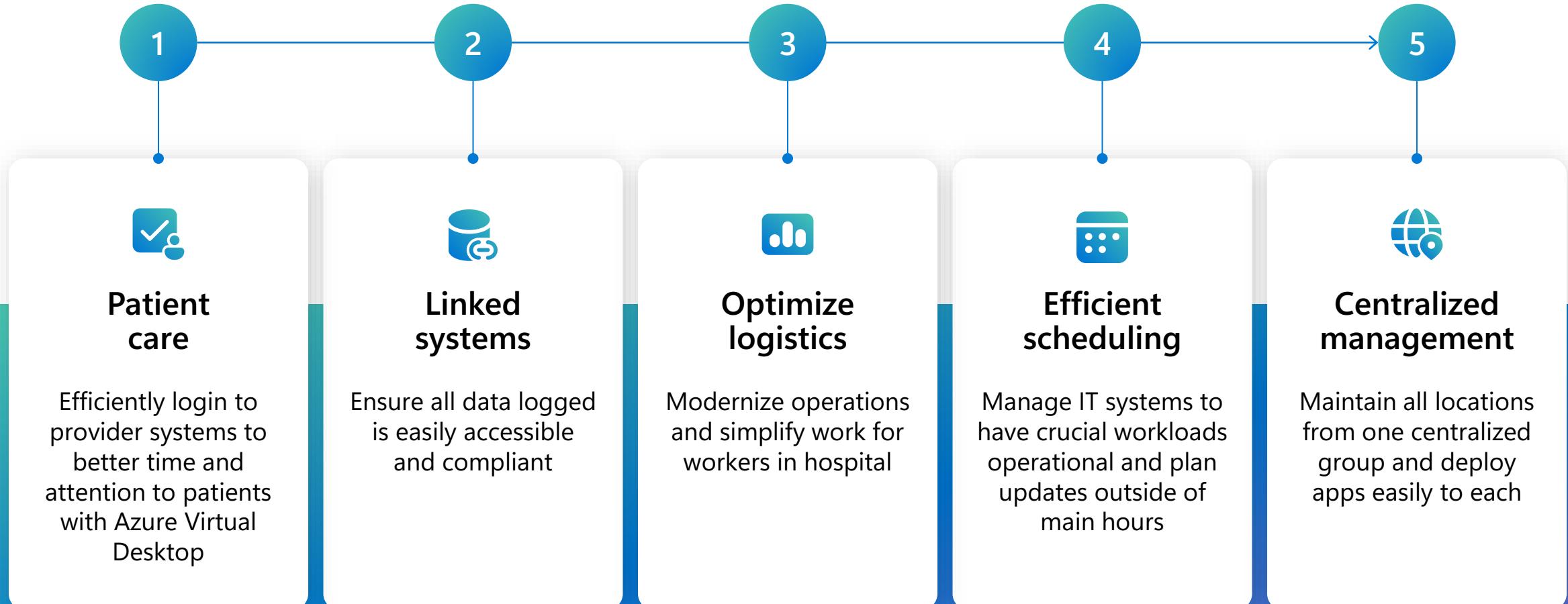
Solution

- Bringing together public and hybrid clouds, EGA built a new digital manufacturing platform with a hybrid cloud architecture.
- It runs Azure Kubernetes Service (AKS) on Azure Local to enable containerization on-premises and uses Azure Arc for a consistent management layer across public and hybrid cloud environments.

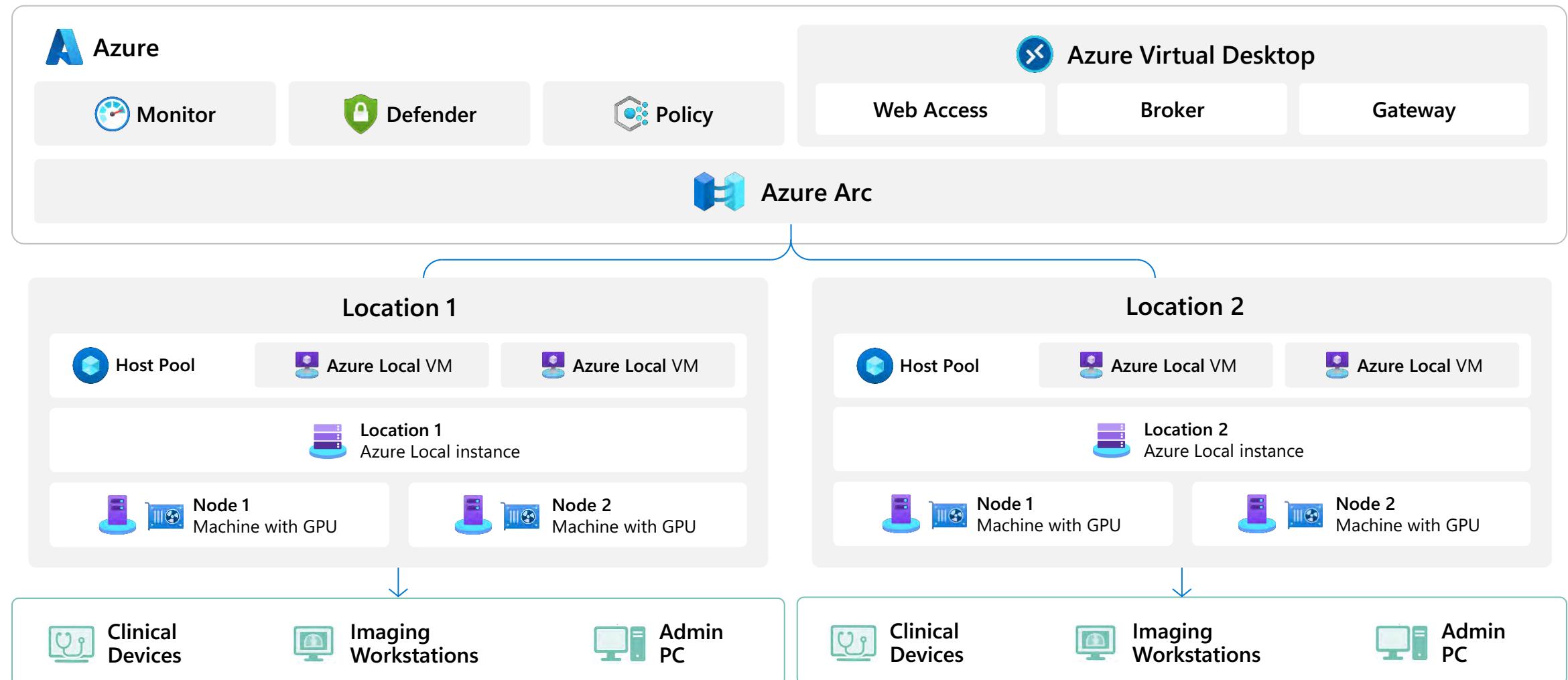
Impact

- By moving to the Azure hybrid cloud digital manufacturing platform, we reduced costs by 86% compared to our previous public cloud setup for current use cases.
- We also shifted from releasing updates every few weeks or months to multiple times per day, significantly improving our ability to respond to changing business needs.

Healthcare example scenario



Azure Local example architecture





Customer
Baptist Health

Industry
Healthcare

Size
700K+ patients

Country
United States

Products and services
Azure Local
Azure Virtual Desktop
Azure Monitor
Azure Arc
Microsoft Defender
Microsoft Entra ID

[Read full story here](#)



“Running Azure Local on-premises lets us use capital expenditure for those server assets. That’s our biggest cost-savings gain. We can run Azure Virtual Desktop on-premises, extending our host pools into the cloud and reducing login times for clinicians.”

— Ryan Hooley, Senior Director of Enterprise Architecture at Baptist Health



Situation

- At Baptist Health, app login times could take up to 3 minutes per session.
- For some apps, clinicians had to manually load their roaming profiles on each device throughout their shift.
- Software installations and configurations were manual and time-consuming.



Solution

- Baptist Health implemented Azure Virtual Desktop on Azure Local, integrated with Epic.
- They also began migrating to Windows 11 and deployed Azure Local to centralize IT management and gain greater visibility across its environment.

Impact

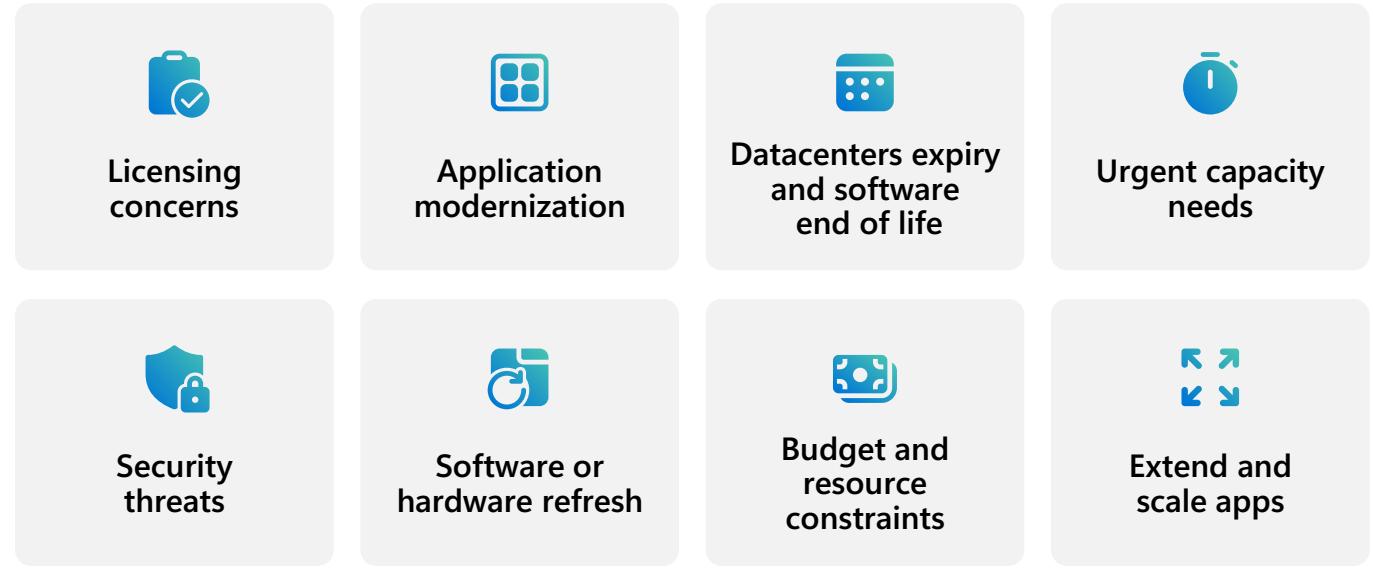
- By reducing login times to as little as 5 seconds, Baptist Health is saving an estimated USD \$1M annually.
- The IT team also automated software installations and configurations, freeing up time for higher-value work.
- Software and service issues can now be resolved remotely, improving efficiency and responsiveness.

Virtualization customer migrations

Legacy infrastructure customers today

- Existing on-premises environments
- Legacy skillsets
- Legacy subscriptions
- Overprovisioned hardware and datacenters

Why customers move workloads off legacy infrastructure



**Customer**

Publix Employees
Federal Credit Union

Industry

Finance

Size

117,100+ members

Country

United States

Products and services

Azure Local
Azure Migrate
Azure Site Recovery
Azure Arc
Azure Update Manager
Microsoft Entra ID

[Read full story here](#)



PUBLIX EMPLOYEES FEDERAL CREDIT UNION



“Using Azure Migrate, we were able to move entire subnets in batches without anyone noticing. It was a seamless experience for our internal teams and our members.”

— Ali Molavi, Infrastructure Solutions Architect, PEFCU

Situation

- Confronted with increasingly severe hurricanes, aging infrastructure, and rising costs, Publix Employees Federal Credit Union (PEFCU) set out to modernize its disaster recovery strategy, streamline operations, and future-proof its IT environment.

Solution

- PEFCU consolidated its infrastructure into a Tier IV data center and adopted Azure Local, Azure Arc, Azure Site Recovery, and Azure Migrate to streamline IT management, strengthen disaster recovery, eliminate branch-level servers, and lay the groundwork for a hybrid cloud environment.

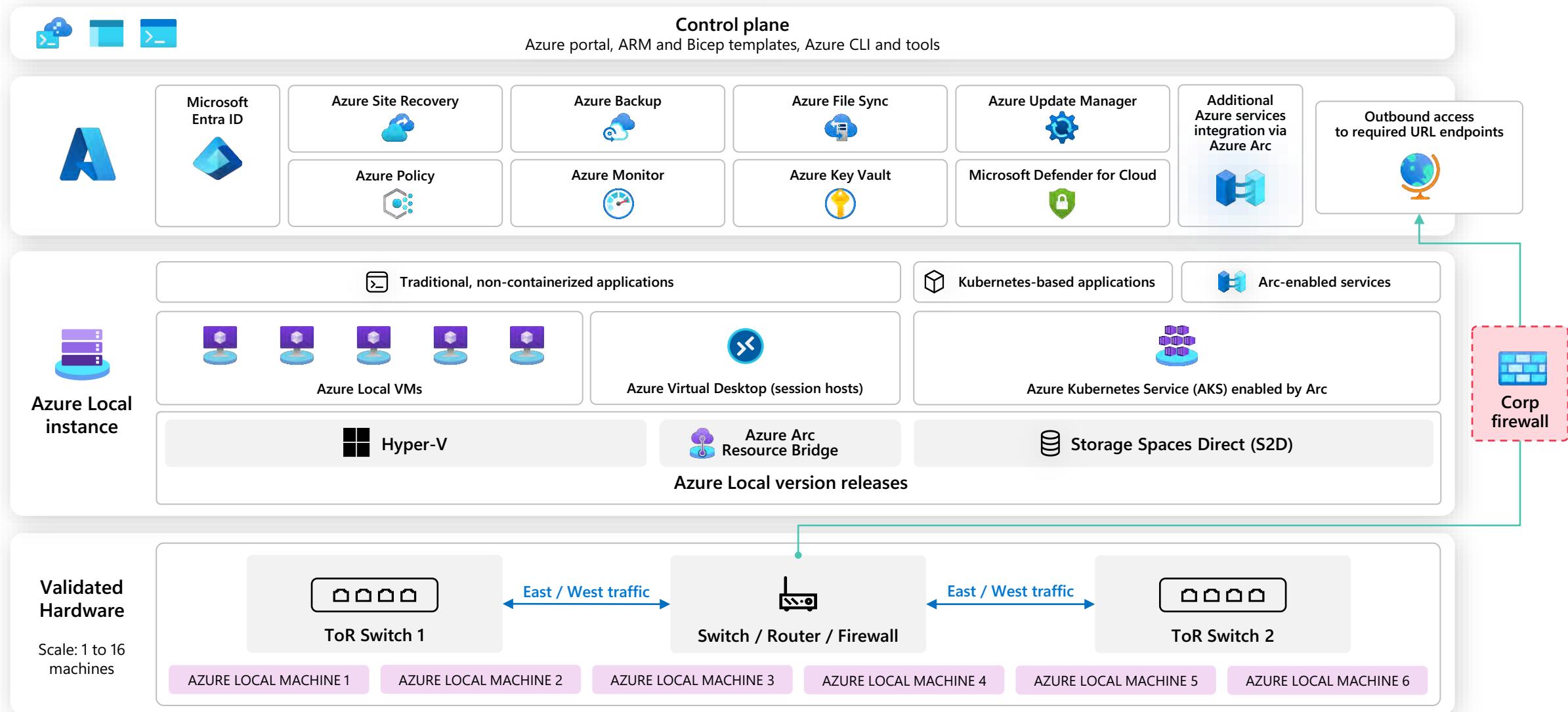
Impact

- PEFCU reduced costs, streamlined operations, and enhanced disaster recovery.
- During migration, they kept downtime under 10 minutes per VM, saved \$35,000 annually in licensing costs, and freed up engineering capacity to focus on innovation and future cloud expansion.

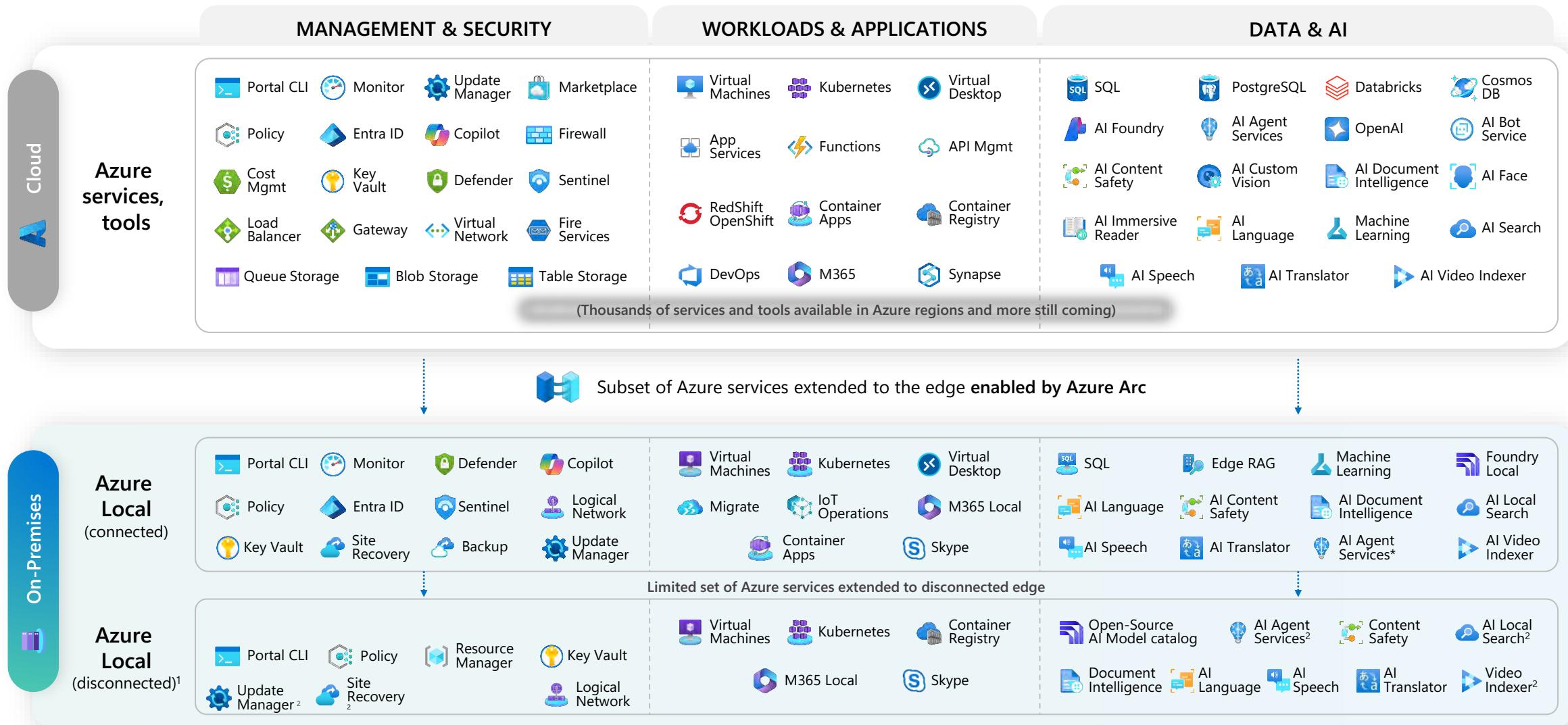
Architecture



Azure Local: Solution reference architecture



Bring Azure's app, data, and AI services anywhere



Workloads

Azure Local Virtual Machines (VMs), enabled by Azure Arc

Full-featured, general-purpose virtual machines



Run traditional apps in VMs with your own images or Azure Marketplace images



Flexibility to customize VM specs, networking and storage configuration



Use familiar Azure portal, Azure CLI and automation templates for cloud-consistent VM operations



VM extensions for monitoring, security, updates, AD join, custom script, and more



Assign specific role-based access controls for VM admins

The screenshot shows the Azure portal interface for creating and managing Azure Arc virtual machines.

Create an Azure Arc virtual machine (Left Panel):

- Basics:** Fields include Virtual machine name (My-VM), Custom location (Contoso-01), Virtual machine kind (Windows), Security type (Standard), Storage path (My-VM), Image (Ubuntu 22.04 LTS), Virtual processor count (2), Memory (8 GB), and Memory type (Standard).
- Next Step:** The "Next Step" button is visible.

My-VM (Right Panel):

- Overview:** Status: Running, Location: Contoso-01, Subscription: Contoso.
- Essentials:** Resource group: Contoso-01-RG, Agent version: Image.
- Properties:** Name: My-VM, Operating system: Linux, CPU cores: 4, Memory: 8.192 MB.
- Extensions:** MDELinux, LinuxOsUpdateExtension, LinuxPatchExtension, AzureMonitorLinuxAgent.
- Security:** Security type: Trusted launch.

Azure Kubernetes Service, enabled by Azure Arc (AKS Arc)

Deploy cloud-native apps locally



Deploy container and cloud-native apps leveraging open-source technology



Managed Kubernetes with AKS-consistent portal and APIs to simplify operations



Microsoft-provided storage (CSI) driver and images for Linux and Windows



Infra-as-code and continuous delivery with Terraform and GitOps support

No extra cost for use of Azure Kubernetes Service

The screenshot shows two side-by-side Azure portal pages. The left page is a 'Create a Kubernetes cluster with Azure Arc' wizard, with the 'Basics' tab selected. It shows fields for 'Subscription' (Contoso), 'Resource group' (Contoso-01-RG), 'Kubernetes cluster name' (My-AKS-Cluster), 'Custom location' (East US), and 'Kubernetes version' (1.29.4). The right page is a 'My-AKS-Cluster' details page under 'Kubernetes - Azure Arc'. It lists 'Essentials' information: Subscription (Contoso), Subscription ID (ebaf548b-cb71-4663-9cda-a42bfa0c7bc9), Resource group (Contoso-01-RG), Status (Connecting), Location (Contoso-01 (East US)), and Tags (Add tags). It also shows 'Properties' for the Kubernetes service, including Agent version (1.21.10), Managed identity certificate (January 5, 2025 at 10:21 AM PST), Kubernetes version (1.29.4), Total node count (5), and Total core count (20). The bottom navigation bar includes 'Review + create' and 'Previous' buttons.

Azure Virtual Desktop (AVD) for Azure Local

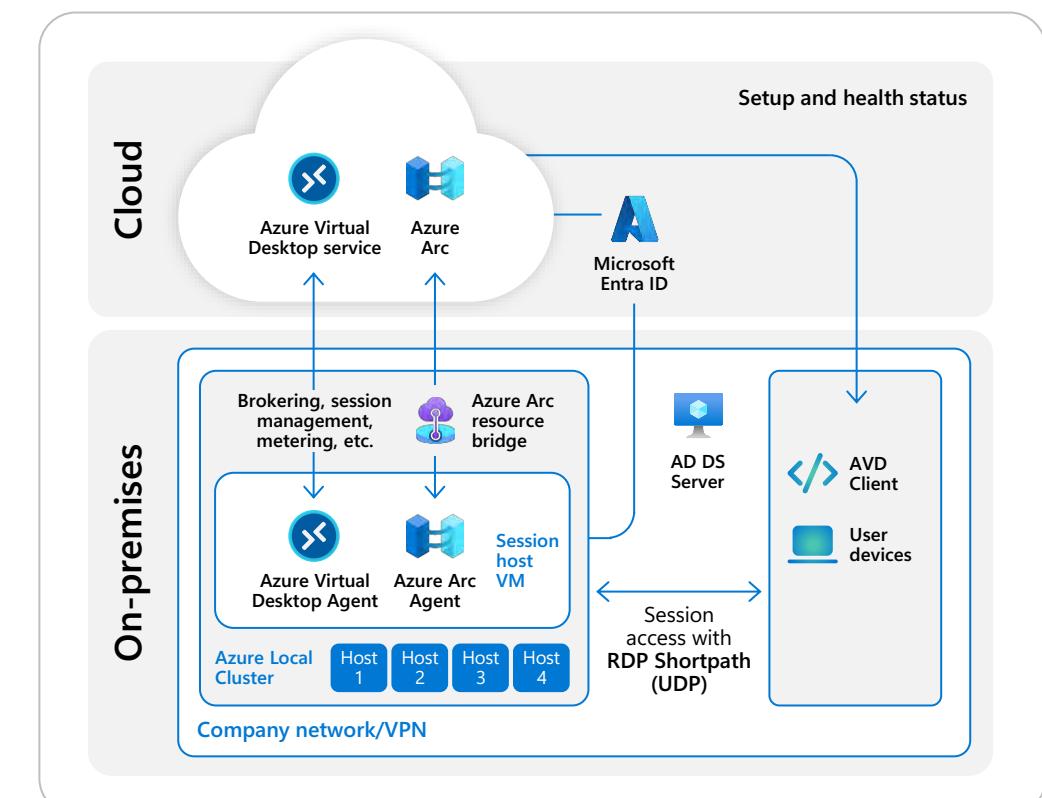
Improve fault tolerance and workload resilience

 Access Windows 11 and Windows 10 with low latency

 Maintain full control over configuration, management, and data sovereignty

 Get the security and reliability of Azure through Entra ID, MFA, and conditional access

 Optimize cost with multi-session and pay for only what you use



Microsoft 365 Local

Supports **Exchange Server**, **SharePoint Server**, and **Skype for Business Server** on Azure Local



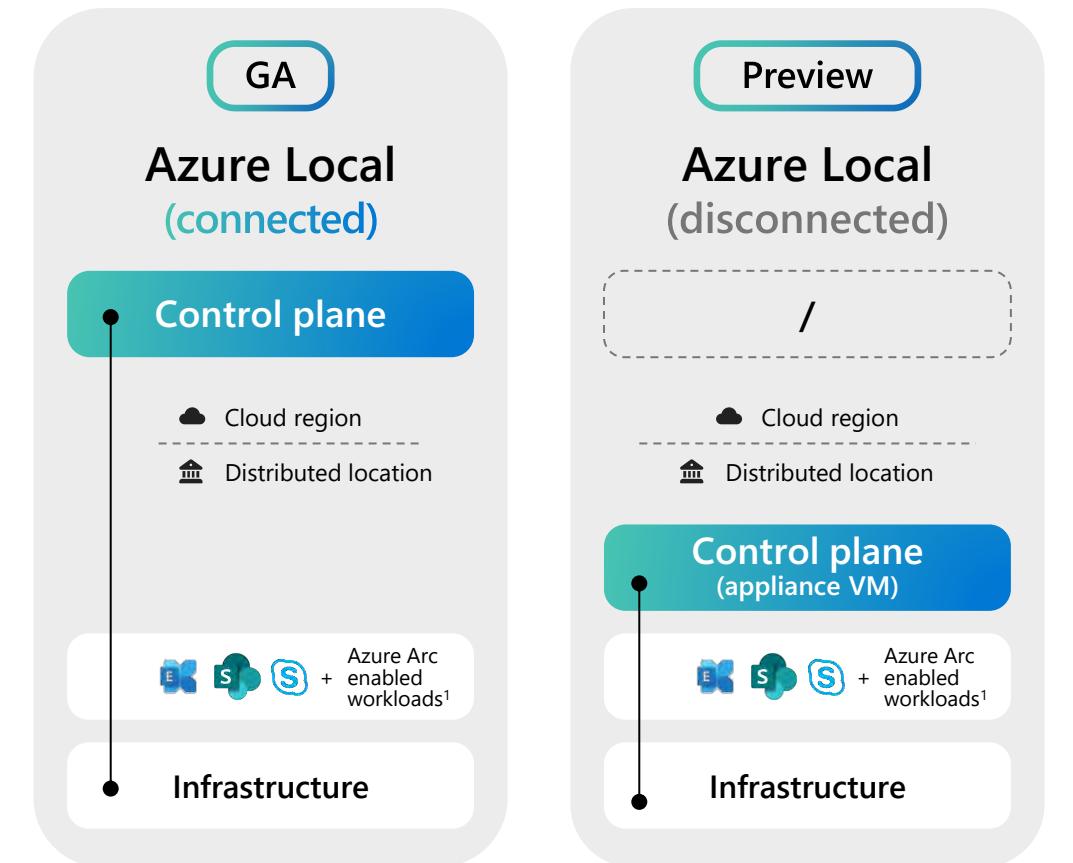
Familiar productivity, sovereign-ready, locally deployed for data residency and sovereignty needs



Deploy and run workloads and services in a private cloud through Azure-consistent experiences



Simplify operations and manageability by running Microsoft 365 on Azure Local



Networking



SDN enabled by Arc

Supported resources



Network Controller running as a Failover Cluster Service

Network Controller runs as a Failover Cluster set of services and enabled by Azure Local Orchestrator.

No need to deploy additional VMs to run Network Controller, optimizing the infrastructure resources to bring more capacity for workloads.



Arc managed Logical Networks

Once SDN enabled by Arc is deployed, existing or new Logical Networks will be managed by Network Controller.

User experience remains the same. Control plane to manage Logical Networks with Arc is what changes.



Arc managed Network Security Groups

Once SDN enabled by Arc is deployed, users can start creating and applying Arc managed Network Security Groups (NSGs) to LNETs and VM network interfaces.

Security Rules can be added, edited or removed.



Arc managed VM Network Interfaces

Once SDN enabled by Arc is deployed, users can start creating and deleting Arc managed VM Network Interfaces

Network security groups

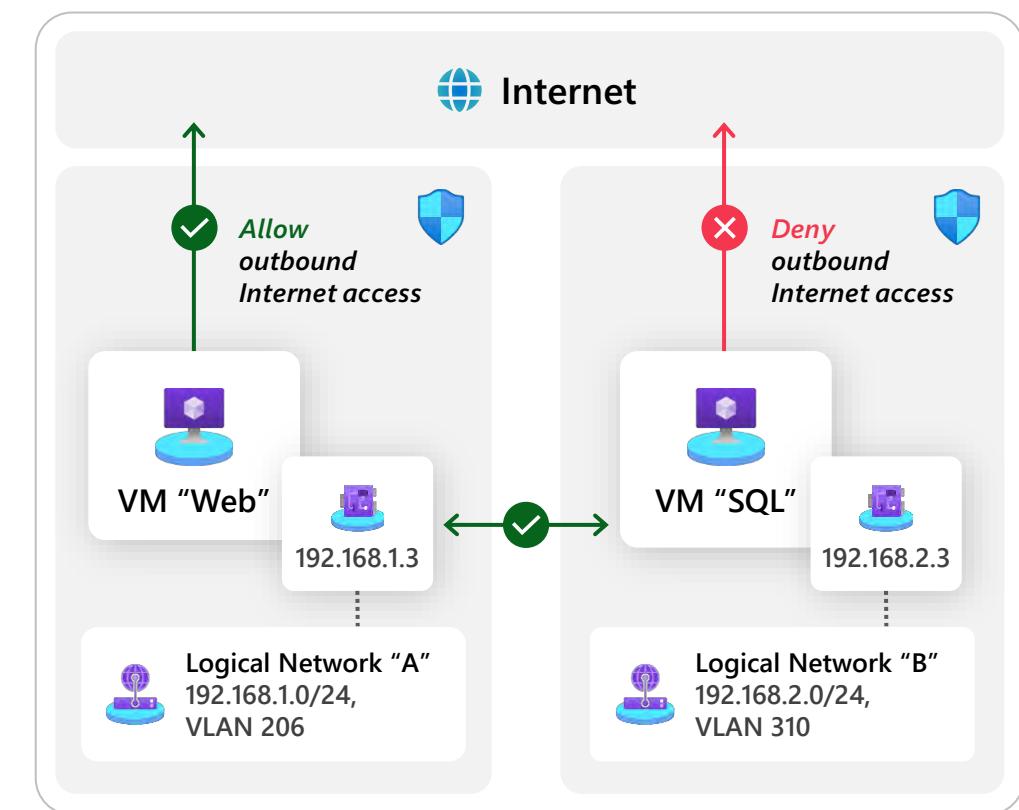
Protect and isolate your network traffic

 Protect network access with inbound and outbound allow and deny rules

 Complete 5-tuple control: source and destination IP, port, and protocol

 Assign NSGs to individual VM interfaces or whole logical networks

 Enforced within the virtual switch at the virtual port level



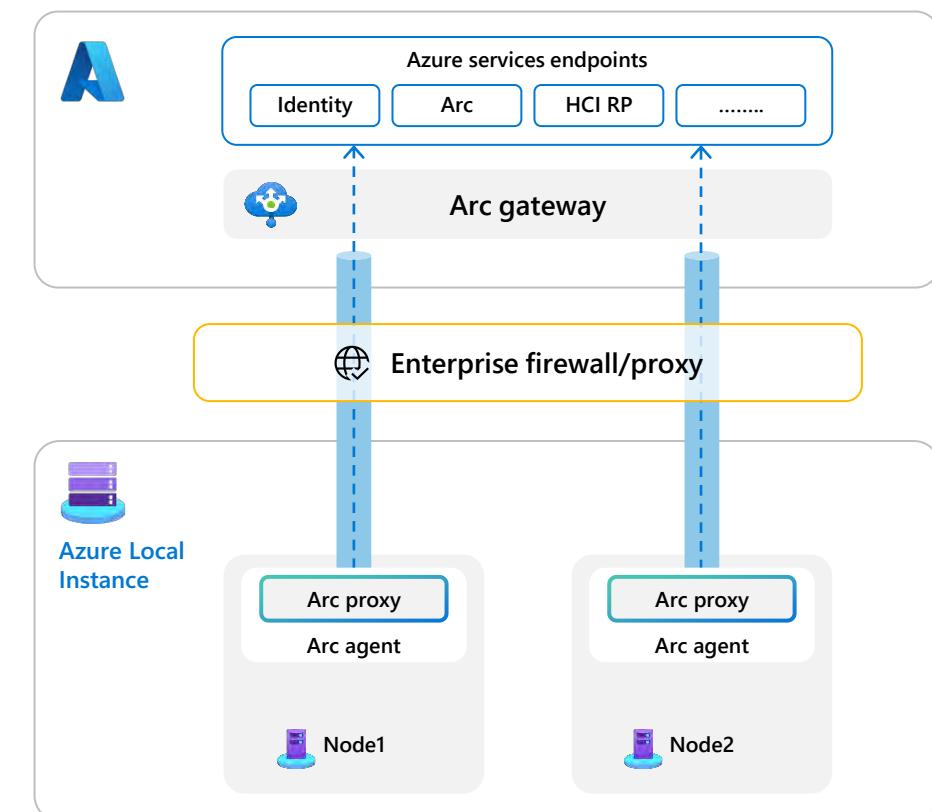
Azure Arc gateway

Simplifying and securing outbound connectivity

➡ Arc gateway resource that serves as a common front-end for Azure traffic

➡ Drastically reduce the number of endpoints required to deploy and operate Azure Local

➡ Reduce operational overhead on network and security teams



High availability

Backup and disaster recovery

Using the cloud for resiliency

	Microsoft Azure Backup Service	Preview		
	<ul style="list-style-type: none">Protect your virtual machines locally, in Azure, or a mix of both for backup destinationTake application-consistent backups of SQL or Volume Shadow Copy (VSS) compatible applications			
	Azure Site Recovery	Preview		
	<ul style="list-style-type: none">Consistently replicate and run mission critical VMs in AzureSet up ASR across all nodes simultaneously through Azure portal wizardFailover to run the VM on Azure and failback when disaster has been resolved			
	Hyper-V Replica			
	<ul style="list-style-type: none">Local replication and failover between two Azure Local instancesConfigure Hyper-V Replica manually (out-of-band)Replicate, failover to run the VM on other Azure Local instance and failback when disaster has been resolved			
	Rack aware clusters	Preview		
	<ul style="list-style-type: none">Supports clusters that extend across two different racks or rooms within the same Layer-2 networkWell suited for environments like manufacturing facilities or campus settings			
	Partner options			
	Consider comprehensive solutions from our partners including: <ul style="list-style-type: none">✓ Commvault✓ Rubrik✓ Veeam			

Azure Site Recovery on Azure Local

Preview

Minimize workload downtime and business disruptions



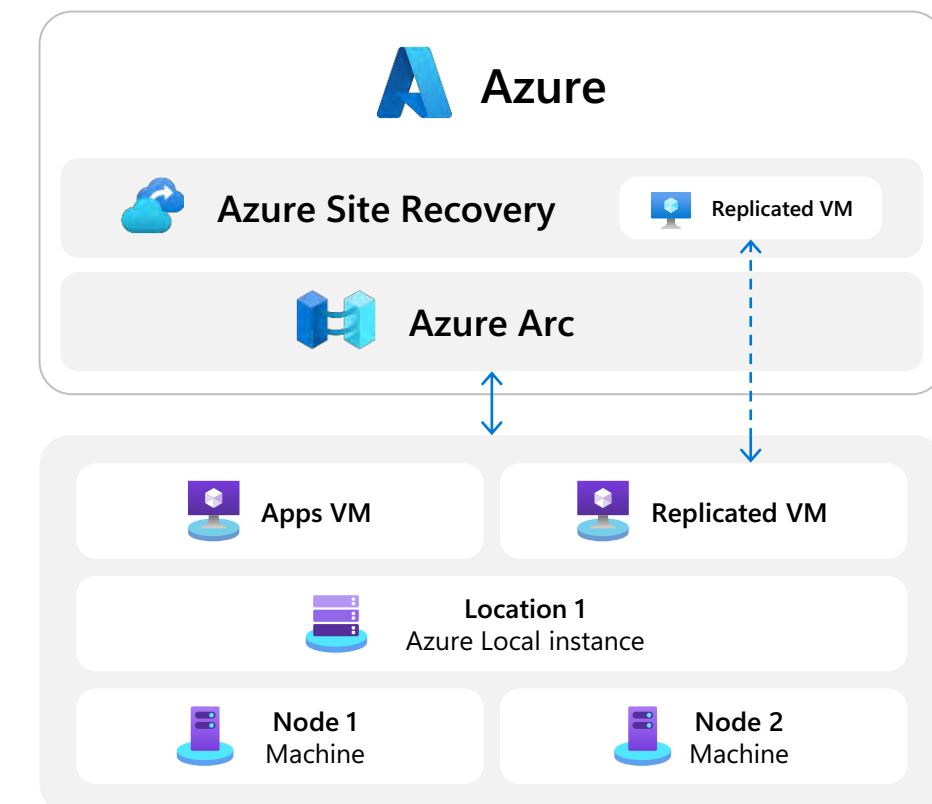
Replicate VM workloads to protect from outages and interruptions



Failover workloads from Azure Local to Azure cloud



Fallback workloads to Azure Local once outage is over



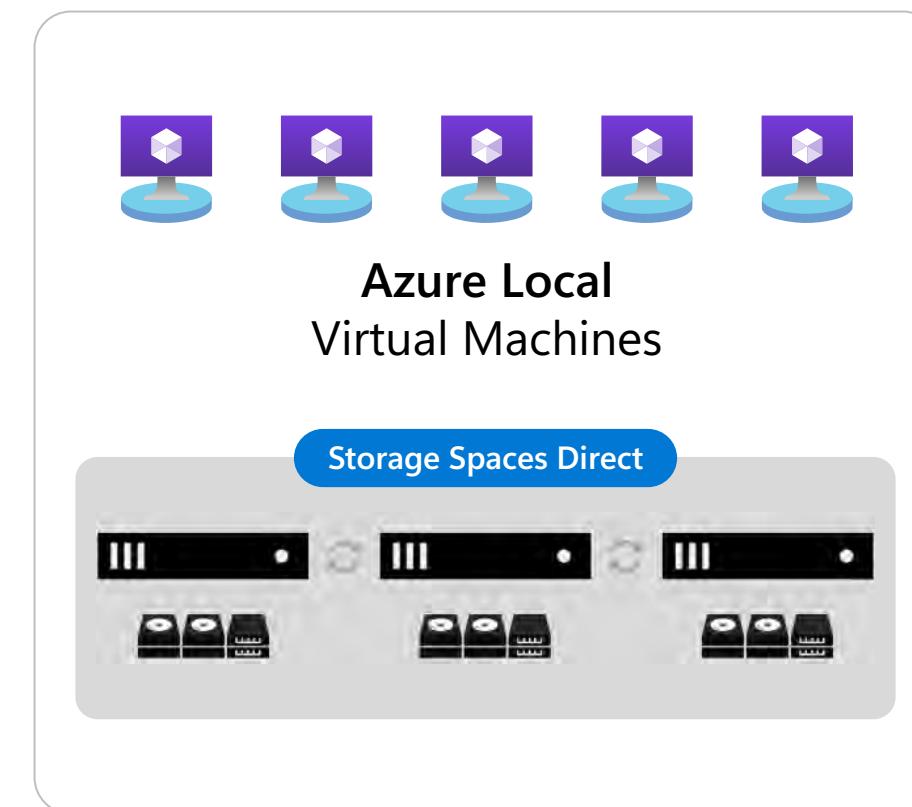
Storage resiliency with Storage Spaces Direct

Highly available storage through mirroring and parity

High performance storage volumes, capable of millions of IOPS

Low cost using commodity drives certified for Azure Local

Smart resiliency levels selection by Azure Local based on node count (Two-Way, Three-Way mirror)



Rack aware clusters

Preview

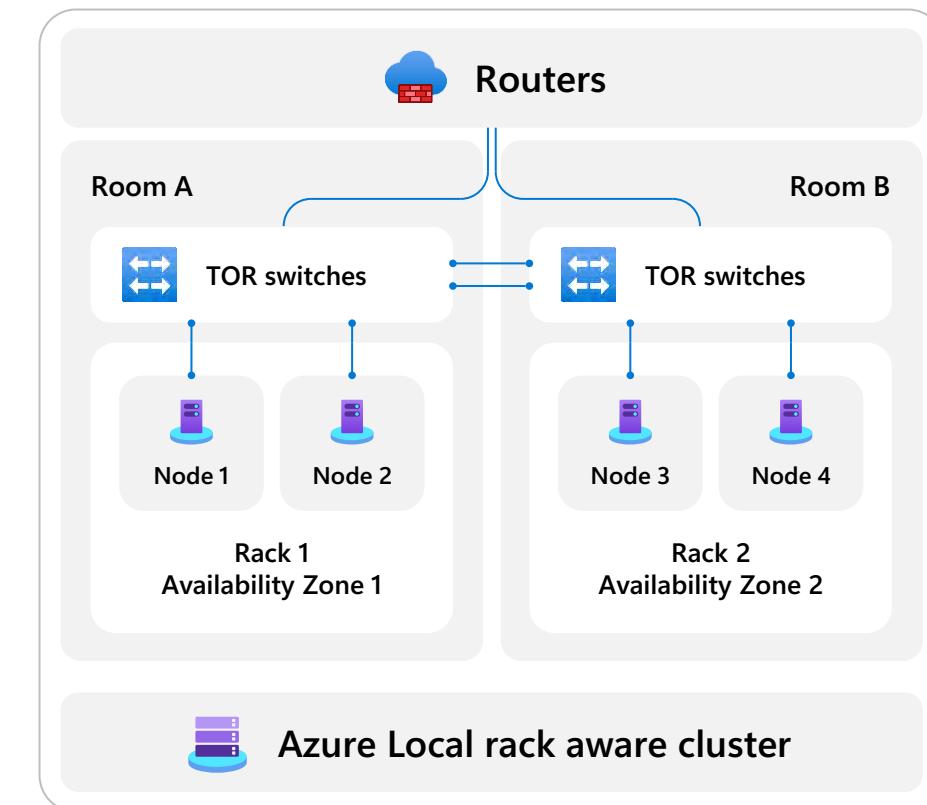
Improve fault tolerance and workload resilience

 High availability (HA) between two rooms in the same location

 Synchronized S2D storage replication between local availability zones

 Provision workloads to a specific local availability zone

 Automatic workload and volume failover and fallback



VM live migration

Keep VM workloads running



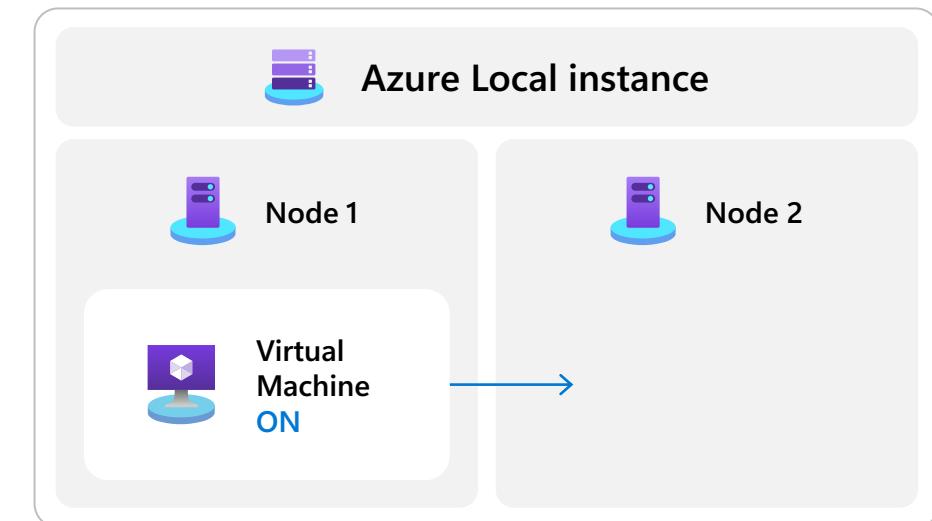
Move running VMs between hosts in an Azure Local instance



Enables VM flexibility to keep uptime during updates or server outage



Supports all Azure Local VMs, including those with GPU acceleration



Security



Strong default security for apps and infrastructure

Management and security tools

Centralized security management

Azure Policy, OS Config



Simplified compliance

Azure Policy, Azure Security Benchmarks

Security posture mgmt.

Azure Policy, Monitor, Defender for Cloud



Simplified operational hardening

VM isolation

Hardware enforced VM isolation



Privileged access

JIT, JEA, PIM, PAM, CG

Network security

Datacenter Firewall, Secure DNS

Sensitive workload protection

OS + firmware protection

TVM, Guest attestation



Confidential Compute*

CVM, Guest & workload attestation

Data-at-rest and integrity protection

Encryption + data protection

SMB, BitLocker

System security + zero trust

Hardened defaults, Trusted Boot, Certificates, Cryptography, Code Signing and Integrity, Device Attestation, Zero trust

Secured-core certification

Hardware root-of-trust

TPM 2.0, DRTM, Secure Boot



Silicon assisted security

Firmware, DMA, Memory, Secured Kernel

Highly regulated industries

Security assurance



Certification



Secure supply chain

Host component governance

Provenance, patching and continuous vulnerability management of OS components

Trusted launch VMs

Preview

Protects VMs from advanced threats



Secure Boot ensures only trusted software can run during boot



Boot Integrity extends the benefits of Secure Boot and identifies vulnerabilities



Microsoft Azure Attestation service regularly verifies TVM components



Keys and secrets persist through VM movements (live migration, failover)

Project details

Select the subscription to deploy your virtual machine. Use resource groups like folders to organize and manage all your resources.

Subscription * Resource group *

Instance details

Virtual machine name * Custom location * Virtual machine kind * Security type * Storage path * Image *

VirtualMachine01

Machine - Azure Arc (Azure Local)

Start Stop Delete Refresh Open in mobile Feedback

Resource group : [Centoso-01](#) Agent version : 1.43.02

Status : Running Image : WinSvr2022

Location : [Centoso-01 \(eastus\)](#) Virtual machine kind : Azure Local

Subscription : [AdaptiveCloudLab](#)

Subscription ID : [fbaf508b-cb61-4383-9cda-a42bfa0c7bc9](#)

Tags (edit) : Add tags

Properties Capabilities

Virtual machine

Name	VirtualMachine01
Operating system	Windows
CPU cores	4
Memory	8,192 MB

Networking Network interfaces

Disks Data disks Total size

Configuration Guest management

Extensions [joindomain \(Microsoft.HybridCompute/machines/extensions\)](#)

Security

Security type	Trusted launch
Enable Secure Boot	Enabled
Enable vTPM	Enabled
Integrity monitoring	Enabled (last updated 11/20/2024 8:00 AM)

Confidential computing

Provides hardware-enforced isolation for workloads



Ideal for sensitive workloads in regulated industries using Azure Local



Guest and workload attestation ensures protection of data in use



Uses hardware-based Trusted Execution Environments (TEEs) to protect data in use



Supports Zero Trust architecture with TPM 2.0, Secure Boot, and DRTM



Role based access controls (RBAC)

Give access only to those who need it



Manage access with Azure Local roles
like any other Azure roles



Assign specific role-based access
controls for VM admins



Assign access to user, group, service
principal, or managed identity

The screenshot shows the Microsoft Azure Access control (IAM) interface for the 'AdaptiveCloudLab' subscription. The 'Roles' tab is selected. A search bar at the top right contains the text 'HCI'. The results list shows 13 items, with the first item, 'AC-HCI_VMageContributer', highlighted with a blue border. The list includes:

- AC-HCI_VMageContributer
- Azure Connected Machine Resource Manager
- Azure Stack HCI
- Azure Stack HCI Administrator
- Azure Stack HCI Connected InfraVMs
- Azure Stack HCI Device Management Role
- Azure Stack HCI Edge Machine Contributor Role
- Azure Stack HCI TVM Attestation Role (Custom)
- Azure Stack HCI VM Contributor
- Azure Stack HCI VM Reader
- Microsoft.AzureStackHCI Device Pool Machine Manager
- Microsoft.AzureStackHCI Device Pool Manager
- Microsoft.AzureStackHCI EdgeMachine Reader

Descriptions for the roles are provided on the right side of the list.

Azure Policy

Assign built-in policies for compliance across resources



Enforce organizational standards and assess compliance at-scale across cloud and edge



Can be used alongside Microsoft Defender for Cloud to ensure security compliance



Azure Policy is included for at no extra cost to Azure Local hosts and VMs

Name	Reference ID	Effect type	Version (preview)	Compliance state
Configure Windows Arc-enabled machines to run Azure Monitor Agent	deployazuremonitoragent...	DeployIfNotExists	2.*	Compliant
Configure Windows Machines to be associated with a Data Collection Rule	associateddatacollectionrule...	DeployIfNotExists	4.*	Compliant
Configure Windows virtual machines to run Azure Monitor Agent using a Data Collection Rule	deployazuremonitoringag...	DeployIfNotExists	4.*	Compliant
Configure Windows virtual machine scale sets to run Azure Monitor Agent using a Data Collection Rule	deployazuremonitoragent...	DeployIfNotExists	3.*	Compliant

Local Identity without Active Directory

[Preview](#)

Simplified identity model with Azure Key Vault



Deploy without Active Directory – hosts don't need to be domain joined



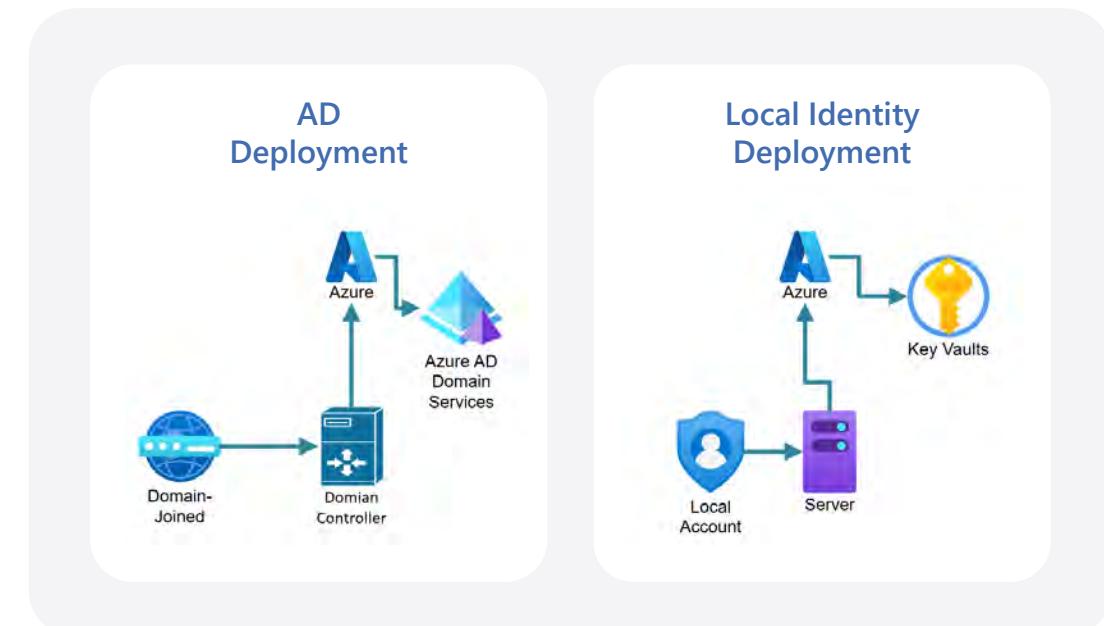
Full feature parity with AD-based deployment, including live migration and other fabric operations



Secrets automatically backed up to Azure Key Vault - local user passwords and BitLocker recovery keys



Built-in DNS Support – customers no longer need to provide their own DNS



Sovereignty

Microsoft Sovereign Cloud

Most comprehensive set of sovereignty solutions across AI, productivity, security and cloud platform workloads

Sovereign Public Cloud

Operations and access controlled by European personnel

Data stays in Europe, under European law

AI model choice and AI processing that stays in Europe

National Partner Clouds

Access in-country expertise and nationally owned organizations

Germany: Delos Cloud designed to meet BSI Cloud requirements

France: Bleu designed to meet SecNumCloud requirements

Sovereign Private Cloud

Continuous operations across hybrid or disconnected environments

Integrated cloud and productivity with Microsoft 365 Local

AI capabilities and advanced GPU support with Azure Local

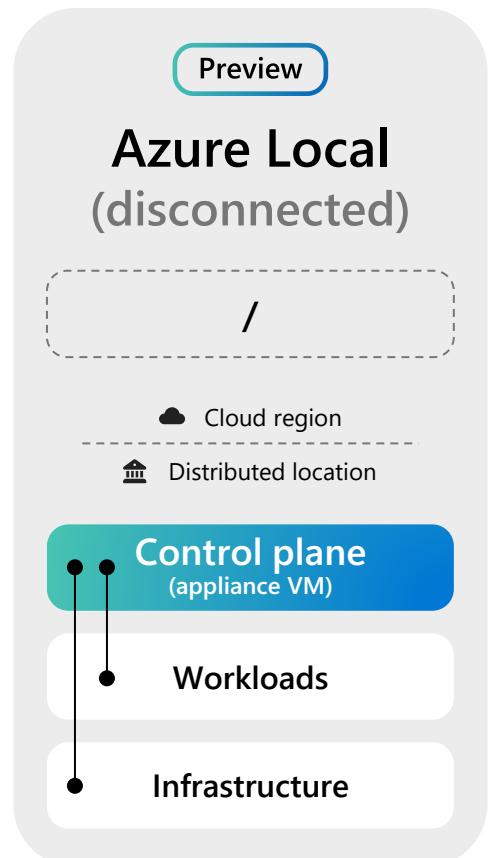
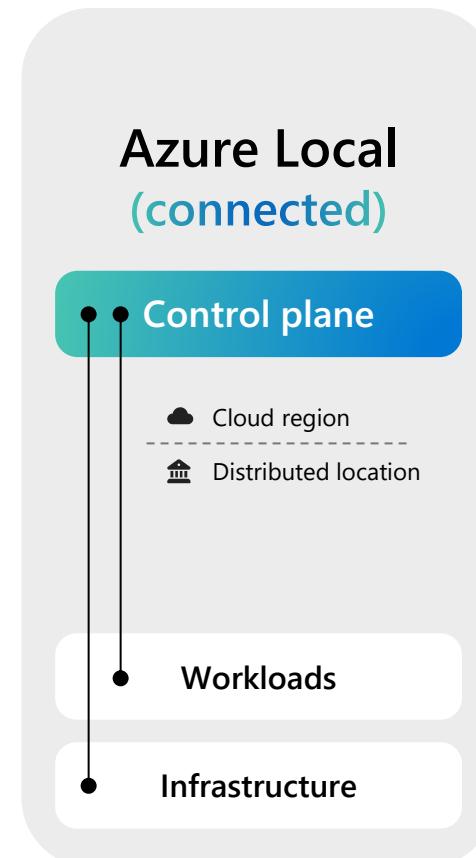
← Consistent infrastructure management and development platform →

Azure Local with disconnected operations

[Preview](#)

-  Satisfy regulatory requirements by operating permanently disconnected from the cloud
-  Host backend Azure resource manager, portal, and services in local appliance VM
-  Integrate with existing datacenter systems for Identity, Monitoring, and PKI

Subset of services available:



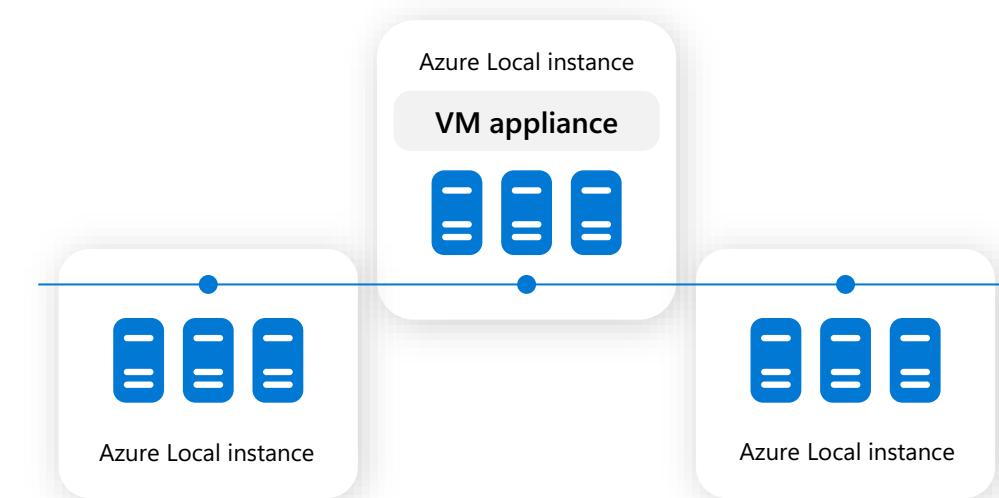
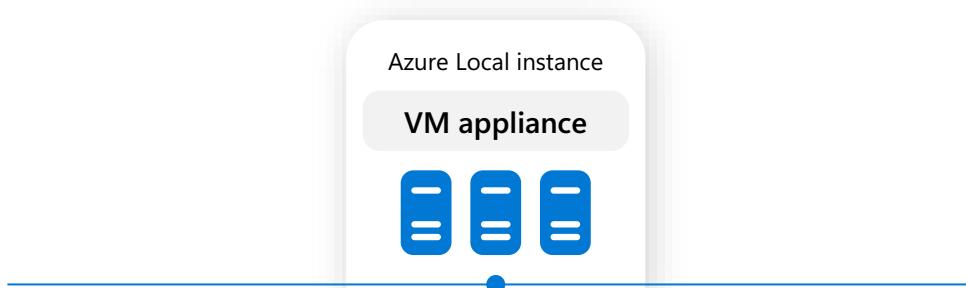
Disconnected operations deployment scenarios

1

Run control plane (VM Appliance) and workloads on a single Azure Local Instance

2

Deploy and manage multiple Azure Local instances from a centralized management cluster to distribute workloads



Operational capabilities



Deploy distributed infrastructure from the cloud



Shift responsibility from on-site to central IT



Treat physical machines like cloud resources, using Azure portal, APIs, or even Terraform



Simple wizard, backed by powerful automation



Advanced options to customize the cluster, networking, and storage for your environment

The screenshot shows the Microsoft Azure 'Deploy Azure Local' wizard interface. The 'Networking' tab is active. It includes sections for selecting machines, choosing a storage network switch (with 'No switch for storage' and 'Network switch for storage' options), and grouping network traffic types by intent (with 'Management, compute and storage intent', 'Management and compute intent', 'Storage intent', 'Management intent', and 'Compute and storage intent' options). The interface also shows tabs for 'Basics', 'Configuration', 'Networking', 'Management', 'Security', 'Advanced', 'Tags', 'Validation', and 'Review'.

One-click infrastructure updates from the cloud



Conveniently view and manage updates across locations in Azure Update Manager



Full-stack update package includes all Azure Local software plus OEM content



Non-disruptive (workloads keep running)



You control when to apply updates

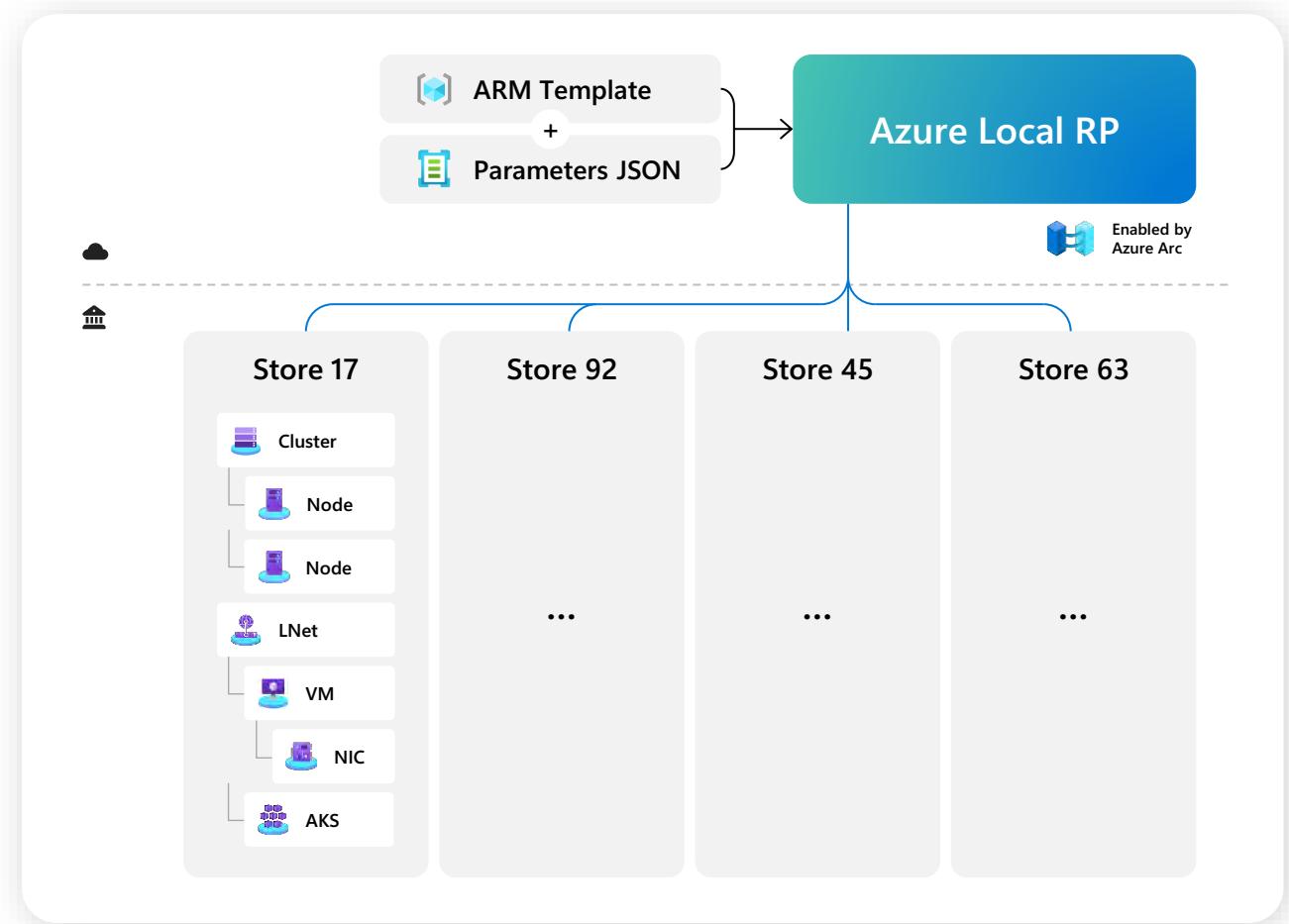
The screenshot shows the Azure Update Manager interface within the Microsoft Azure portal. The left sidebar navigation includes 'Overview', 'Get started', 'Resources' (with 'Machines' and 'Azure Local' selected), 'Manage' (with 'Pending updates', 'History', 'Maintenance configuration', 'Policy', 'Monitoring', and 'Support + troubleshooting' options), and 'Support + troubleshooting'. The main content area displays a table of machines with their names, update status, and last success. The table includes columns for Name, Status, Update readiness, Current version, and Last success. A status bar at the bottom indicates 'Add or remove favorites by pressing Ctrl+shift+F'.

Name	Status	Update readiness	Current version	Last success
abashqa-az0	Update(s) available	Healthy	10.2411.3.2	
ak-myclusternew	Up to date	Healthy	10.2502.0.16	
anandrac1	Update(s) available	Healthy	12.2504.1001.20	
b88a1204-cl	Up to date	Critical	12.2507.1001.4	
b88a1206-cl	Up to date	Critical	12.2507.1001.4	
b88a1207-cl	Up to date	Critical	12.2507.1001.4	
b88a1208-cl	Up to date	Critical	12.2507.1001.4	
b88a1209-cl	Up to date	Critical	12.2507.1001.4	
b88a1210-cl	Up to date	Critical	12.2507.1001.4	
b88a1211-cl	Up to date	Critical	12.2507.1001.4	
b88a1212-cl	Up to date	Healthy	12.2508.1001.5	

Repeat and scale with infrastructure-as-code

Contoso-Store-092.parameters.json X

```
29  "parameters": {  
30    "clusterName": {  
31      "value": "Contoso-Store-092"  
32    },  
33    "useDhcp": {  
34      "value": false  
35    },  
36    "networkingPattern": {  
37      "value": "hyperConverged"  
38    },  
39    "physicalNodesSettings": {  
40      "value": [  
41        {  
42          "name": "Node1",  
43          "ipv4Address": "100.156.94.11"  
44        },  
45        {  
46          "name": "Node2",  
47          "ipv4Address": "100.156.94.12"  
48        },  
49        {  
50          "name": "Node3",  
51          "ipv4Address": "100.156.94.13"  
52        }  
53      ]  
54    },  
55    "securityLevel": {  
56      "value": "Recommended"  
57    },  
58    "clusterWitnessStorageAccountName": {  
59      "value": "contoso092storageaccount"  
60    }  
61  },  
62  "resources": {  
63    "type": "Microsoft.Compute/virtualMachines",  
64    "name": "Contoso-Store-092",  
65    "location": "East US",  
66    "properties": {  
67      "osProfile": {  
68        "computerName": "Contoso-Store-092",  
69        "adminUsername": "Administrator",  
70        "adminPassword": "P@ssw0rd",  
71        "vmSize": "Standard_D2s_v3",  
72        "storageProfile": {  
73          "osDisk": {  
74            "name": "Contoso-Store-092",  
75            "osType": "Windows",  
76            "caching": "None",  
77            "createOption": "FromImage",  
78            "imageReference": {  
79              "id": "/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/Contoso-  
80              "name": "Contoso-Store-092",  
81              "type": "Microsoft.Compute/images",  
82              "version": "latest"  
83            }  
84          }  
85        }  
86      }  
87    }  
88  }  
89 }  
90 }
```



Central visibility across all your locations



Monitor infrastructure, VMs, and Kubernetes from the Azure portal, enabled by Azure Arc



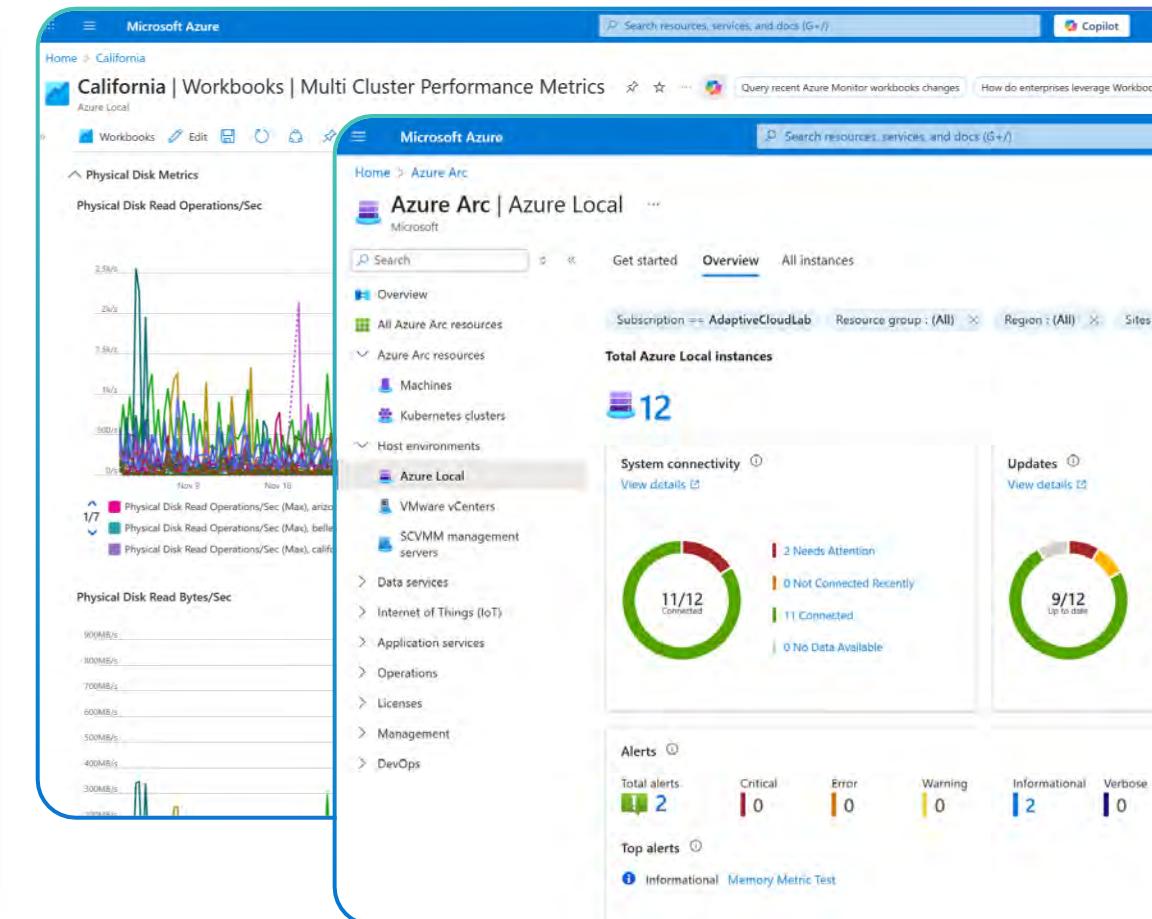
Ready-made dashboards you can customize, including multi-cluster views



50+ standard metrics for infrastructure cover hypervisor, storage, and networking



Set alert rules to send email and more





Get insights with Microsoft Copilot in Azure

Microsoft Azure Search resources, services, and docs (G+)

Copilot Is this Azure Local cluster up to date?

Copilot AI-generated content may be incorrect

Status

- It's in Connected status.

Alerts

- No active alert found.

Updates

- 1 Azure Local instances report their update status and all are up to date.

Changes during last 24 hours

- There is no change detected.
- To get the details about resource update changes, open query [Resource property updates](#).

Workload

- There are 8 VMs. 7 out of them are connected to Arc.

Copilot Give me CLI commands to create AKS Arc on Azure Local

Copilot AI-generated content may be incorrect

To create an AKS Arc cluster on Azure Local using Azure CLI, you can use the following command:

```
Bash
az aksarc create -n <aksArcName> -g <resourceGroup> --custom-location <customLocation> --vnet-ids <vnetId> --aad-admin-group-object-ids <aadGroupId> --ssh-key-value <sshKeyValue>
```

Replace the placeholders with your specific values:

- <aksArcName>: The name of your AKS Arc cluster.
- <resourceGroup>: The name of the resource group.
- <customLocation>: The custom location for the AKS Arc.
- <vnetId>: The ID of the virtual network.
- <aadGroupId>: The Azure Active Directory group object IDs.
- <sshKeyValue>: The SSH key value for access.

Make sure to have the necessary permissions and configurations set up in your Azure environment before executing the command.

How do I configure Azure Arc for Kubernetes? | What are the prerequisites for setting up AKS Arc?

Can you provide a step-by-step guide for deploying AKS Arc?

Copilot Summarize my cost for the last month

Copilot AI-generated content may be incorrect

For June 2025, your total charges amounted to \$4,934 for the subscription "AdaptiveCloudLab." Here's a breakdown of the top 10 charges by service:

Service	Charges	% of Total Charges
Azure Local	\$2,285	46.3%
VPN Gateway	\$481.10	9.8%
Azure Firewall	\$397.87	8.1%
Microsoft Defender fo...	\$317.78	6.4%
Azure DNS	\$278.26	5.6%
Virtual Machines	\$267.31	5.4%
Azure IoT Operations	\$171.42	3.5%
Virtual Network	\$114.86	2.3%
Storage	\$80.31	1.6%
Microsoft Fabric	\$77.76	1.6%

Data center migration

Microsoft options for VMware migration



Azure Arc

Cloud



Bring the Azure control plane to your on-premises environment

On-prem



Azure VMware Solution Fastest path to the cloud

Azure IaaS and PaaS Start modernizing

Top use cases

- Datacenter exit made easy, no application modifications required
- Retain VMware skills, familiar tooling
- Modernization with highspeed connectivity to Azure services
- Lower TCO
- Worldclass availability and security managed by Microsoft
- Modernize with flexible IaaS and PaaS services (e.g., Azure Virtual Desktop, Azure SQL)

Benefits

- Reuse existing VMware tools and skills
- Up to 5-year reserved instance
- No VMware subscription required
- Modern, cloud-based tooling
- No VMware subscription required

Top use cases

- Run all applications (VM and container based) with Arc-enabled infra
- Flexible hardware and software options from a variety of form factors
- Out-of-the box cloud-based operations and security

Benefits

- Integration with Azure Services including Azure Virtual Desktop
- No VMware subscription required
- SA customers can reuse existing benefits and licenses
- On-premises infrastructure in a variety of storage architectures
- Broad hardware ecosystem support



Windows Server Arc-enabled infrastructure

Microsoft hybrid infrastructure options



Azure Local (HOST)

- Hypervisor (Hyper-V) powers Hyperscale Cloud (Azure) [🔗](#)
- Customer managed infra using cloud management tools (**Azure Portal / CLI**) [🔗](#)
- Required** Arc-enablement [🔗](#)
- Supports Hyperconverged Infrastructure (HCI) up to 16-Nodes [🔗](#)
- Supports **fibre channel SAN** storage on validated hardware [🔗](#)
- Major version upgrades **quarterly** with 6-months support [🔗](#)
- Runs on **validated** solution [🔗](#)
- Azure Virtual Desktop** with multisession support [🔗](#)
- Azure Benefits: Hotpatching and ESUs **included** [🔗](#)
- VM migration using **Azure Migrate** [🔗](#)



Windows Server (HOST or GUEST)

- Hypervisor (Hyper-V) powers Hyperscale Cloud (Azure) [🔗](#)
- Customer managed infra with traditional management tools (**VMM / WAC**) [🔗](#)
- Recommended** Arc-enablement [🔗](#)
- Supports Hyperconverged Infrastructure (HCI) up to 16-nodes [🔗](#)
- Supports** SAN, NAS, and standalone storage configurations [🔗](#)
- Major version upgrades **3-5 years** with 10 years of support [🔗](#)
- Runs on **certified** hardware [🔗](#)
- Azure Virtual Desktop for hybrid** without multisession [🔗](#)
- Hotpatching and ESUs available **for purchase** [🔗](#)
- VM migration using **Virtual Machine Manager** or Windows Admin Center [🔗](#)

Azure Migrate

Move your workloads seamlessly from VMware to Azure Local



Full-stack alternative with Azure Local



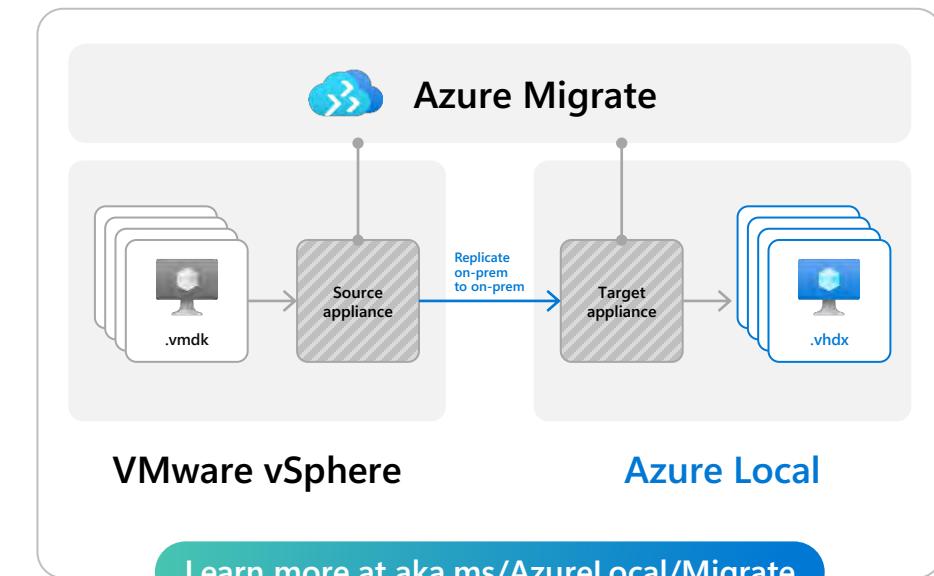
No need to change/rewrite apps



Copy and convert VMware VMDK to Azure Local VM enabled by Azure Arc entirely on-premises at no cost



Guided, agentless workflow in Azure Migrate



VM guest management enablement

Preview

Connect and manage all VMs on Azure Local



Transform unmanaged VMs to Azure Local VMs enabled by Azure Arc

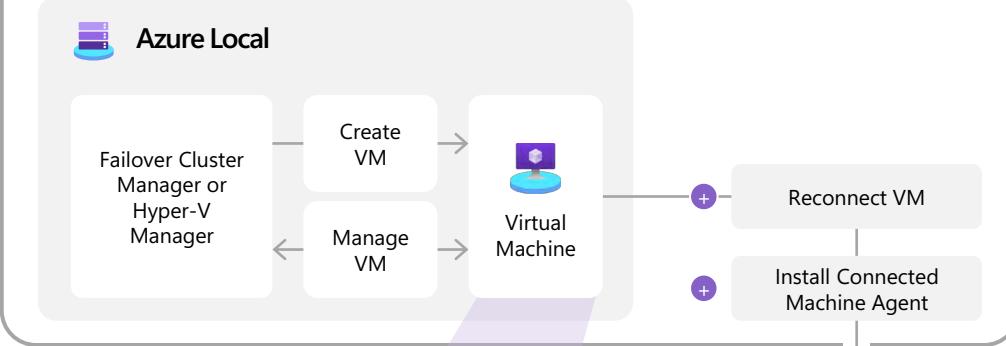


Register VM to enable all lifecycle management capabilities

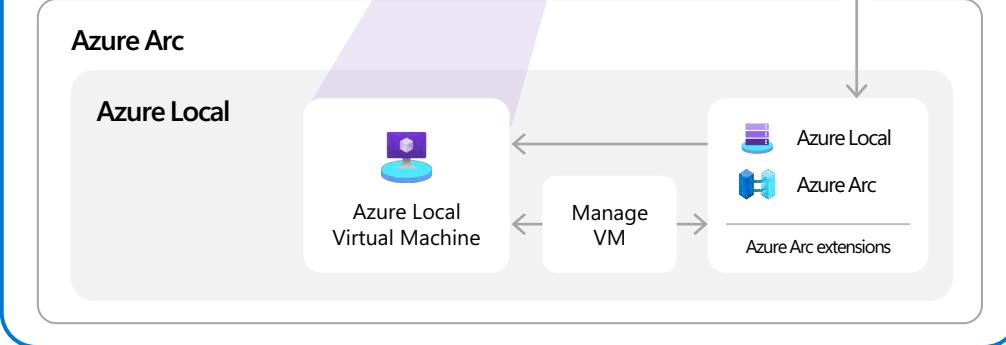


Full capabilities of Arc-enabled servers including extension support

On-premises



Azure Cloud



External storage for Azure Local

[Preview](#)

Enterprise-class block storage with Fibre channel support



Bring your own SAN storage to keep data local with full operational control



Choose trusted storage partner solutions to meet sovereign needs



Deliver enterprise-grade performance with Fiber Channel SAN side-by-side with S2D

Available with



PURE STORAGE®



NetApp®



Multi-rack deployments of Azure Local

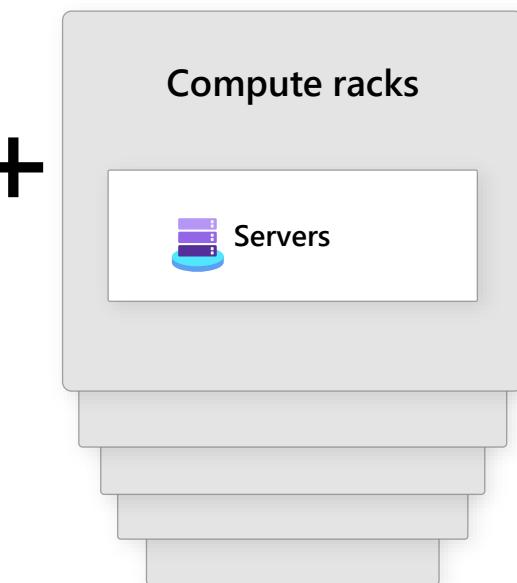
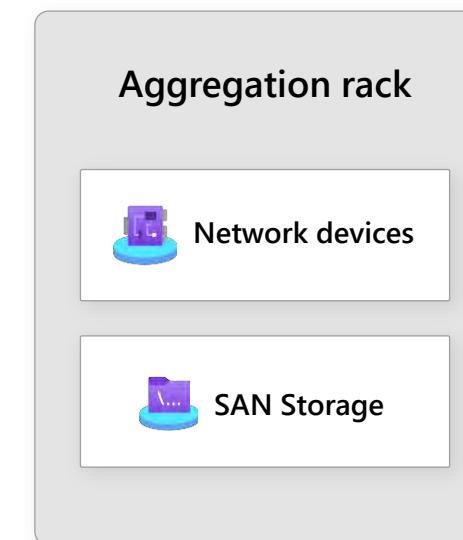
Preview

Expand Azure Local scale to hundreds of nodes in a single instance

↗ Expands the maximum scale point of Azure Local up to hundreds of nodes per instance

📋 Delivered as integrated racks of compute, storage, and networking

☁️ Fully managed compute, storage, and networking via Azure



Edge AI



Azure Local AI Options

Azure Local AI stack

AI Services



BYO RAG

Bring your own RAG application and logic



Edge RAG

Search and analyze local knowledge, including SharePoint data



AI Video Indexer

AI video and audio insights from live* or recorded sources



Foundry Local Model Catalog



OpenAI OSS



Llama



Mistral



DeepSeek



Microsoft

Task-specific models

OCR, speech, vision, translation, and more

BYO models

Foundry Local Model Server

(inferencing and runtime deployment*)

AI Infrastructure

NVIDIA GPUs

Leading OEM Partners

Dell, HPE, Lenovo, and more

Small to large footprints

Single node to multi-rack deployments

← Connected and fully disconnected* operations with Azure Local →

Edge RAG

Preview

Intelligent Knowledge Handling



- LazyGraphRAG for high-quality retrieval
- OCR-based parsing of documents, tables, and images, with SharePoint integration.



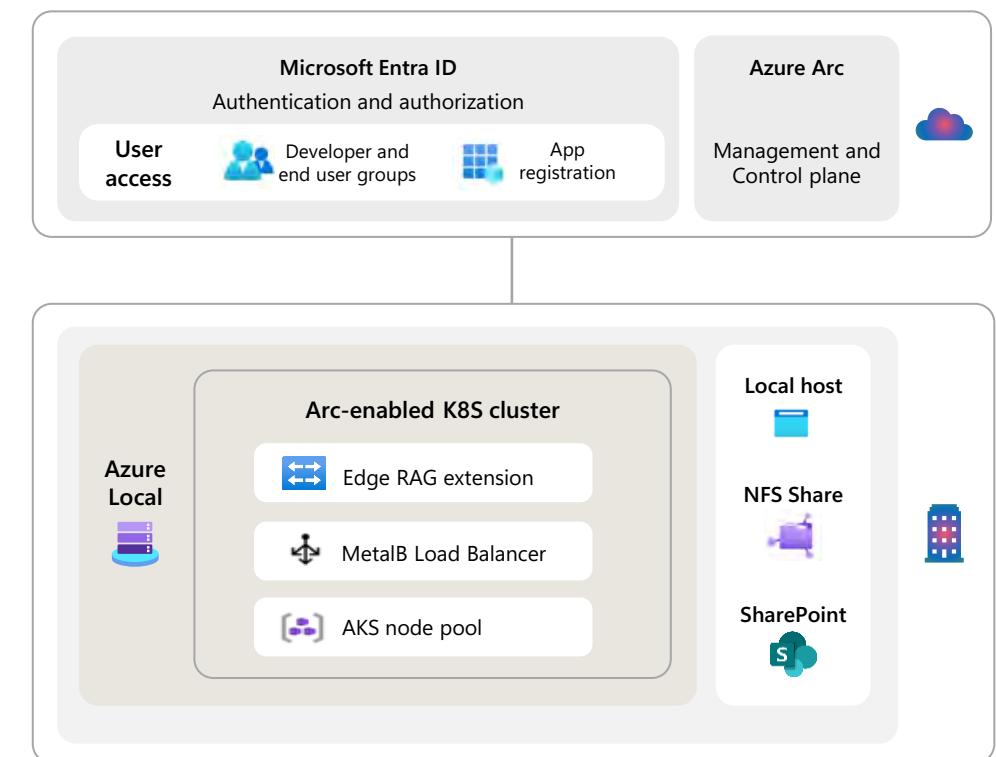
- 100x faster ingestion of live-streamed images
- 5x faster query performance for Hybrid Search



- Multimodal search, image retrieval & image-rich outputs with chat UI upgrades
- Connected and fully disconnected scenarios



- Agentic workflows combining OCR and LLMs for complex document review and regulatory analysis



Vision AI: Azure AI Video Indexer

[Preview](#)

Enable Real-Time Video Intelligence



Create custom AI models with natural language and apply object detection in restricted areas.



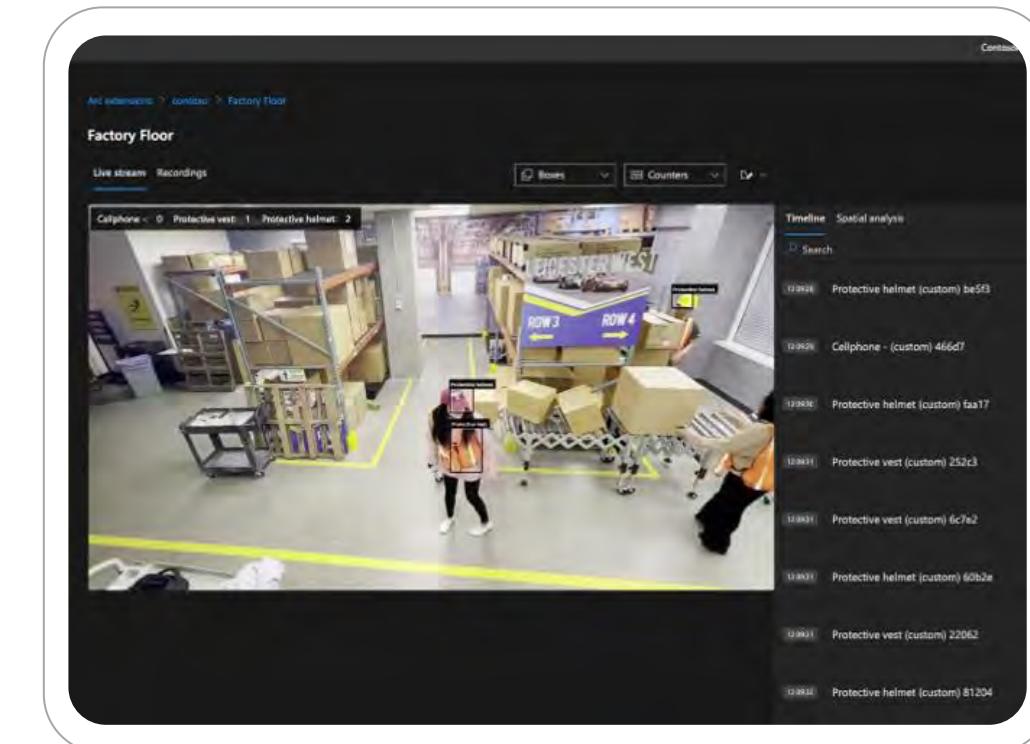
AI video assistant chat: Ask questions in natural language and get real-time answers



Video agents for retail, service, security, and sales to monitor safety, experience, and performance



Capture key events and insights using natural language to generate summaries



Microsoft Foundry spans cloud to edge

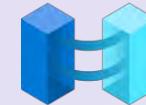


Foundry Local

Windows, MacOS, &
Android (Private Preview)



IoT, phones, laptops, desktops



Azure Local enabled by Azure Arc

Edge and on-premise



Edge, hybrid, air-gapped



Microsoft Foundry

Frontier models & fine-tuning hub



Cloud



Fine tunes and policy



Observability traces and other signals

OEM partner solutions



Visit the [Azure Local Catalog](#) to discover the current hardware solutions available to fit your edge needs

Azure Local solution categories

Premier Solutions

Turnkey Azure Local solution

- Deepest integration and highest level of automation, built through deep engineering collaboration between Microsoft and solution partners
- Continuous testing by Microsoft and our partners, to ensure higher reliability and minimal downtime
- End-to-end deployment workflows that make it easy to deploy one cluster or a thousand clusters

Integrated Systems

Single purpose system with pre-installed software

- Optimized hardware selection with regular testing for ongoing reliability
- Delivered with software pre-installed and security set by default
- Validated full-stack updates and native hardware management tools

Validated Nodes

Broadest choice of hardware components

- Choose from a diverse selection of validated hardware from more than 30 partners, or re-use existing validated hardware
- Engage with preferred SI for deployment and integration, as needed
- On new hardware or check with your OEM or solution provider to ensure you are running a validated solution. In certain cases, you may be able to reuse existing hardware

Choose hardware from your preferred vendor



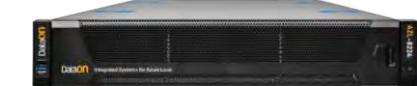
DELL Technologies



Lenovo



Hewlett Packard
Enterprise



DataON



CISCO



SUPERMICRO



FUJITSU

1

Engage directly with
your preferred vendor

2

Customize hardware specs,
storage, and networking

3

Purchase 1 to N nodes
up-front or as-a-service

Explore solutions at aka.ms/AzureLocalCatalog

Accelerate demanding workloads with GPUs



Over 50 GPU-capable platforms with NVIDIA, including RTX PRO 6000, and others



Dedicate whole GPUs to workloads to maximize AI/ML performance



Partition GPUs to increase density with **virtual apps and desktops**



Azure Local VMs with GPU partitioning support **live migration and failover***

Storage path * ⓘ

Choose automatically
Storage path with high availability is selected automatically. [Learn more](#) ⓘ

Choose manually
Choose an existing storage path on this Azure Local instance. Ensure that selected storage path has sufficient storage space. [Learn more](#) ⓘ

Image * ⓘ

2022-datacenter-azure-edition-02

Manage VM images

Virtual processor count * ⓘ

4

Memory (MB) * ⓘ

8192

Memory type * ⓘ

Static

Dynamic

Attach GPU ⓘ

GPU Setup * ⓘ

In order to attach GPU, you must have prepared and configured GPUs on the system. [Learn more](#) ⓘ

DDA

GPU Partition

Previous

Next

Roadmap



Azure Local includes:



Core capabilities

Unified Infrastructure: Compute (Hyper-V), Storage (S2D or SAN), Networking (SDN)

Azure Arc Integration: Arc-enabled VMs, Kubernetes (AKS), Azure Monitor, Backup, Site Recovery

AI & ML Workloads at the edge

Azure Virtual Desktop (AVD) on-premises support

Hardware Flexibility: Wide range of OEM-validated options in catalog including GPU support



Management & tooling

Azure Portal integration & CLI support

Monitoring & Visibility: 50+ metrics, dashboards, alert rules via Azure Arc

Bicep & ARM Templates

Firmware & Driver Validation for certified hardware



Security & compliance

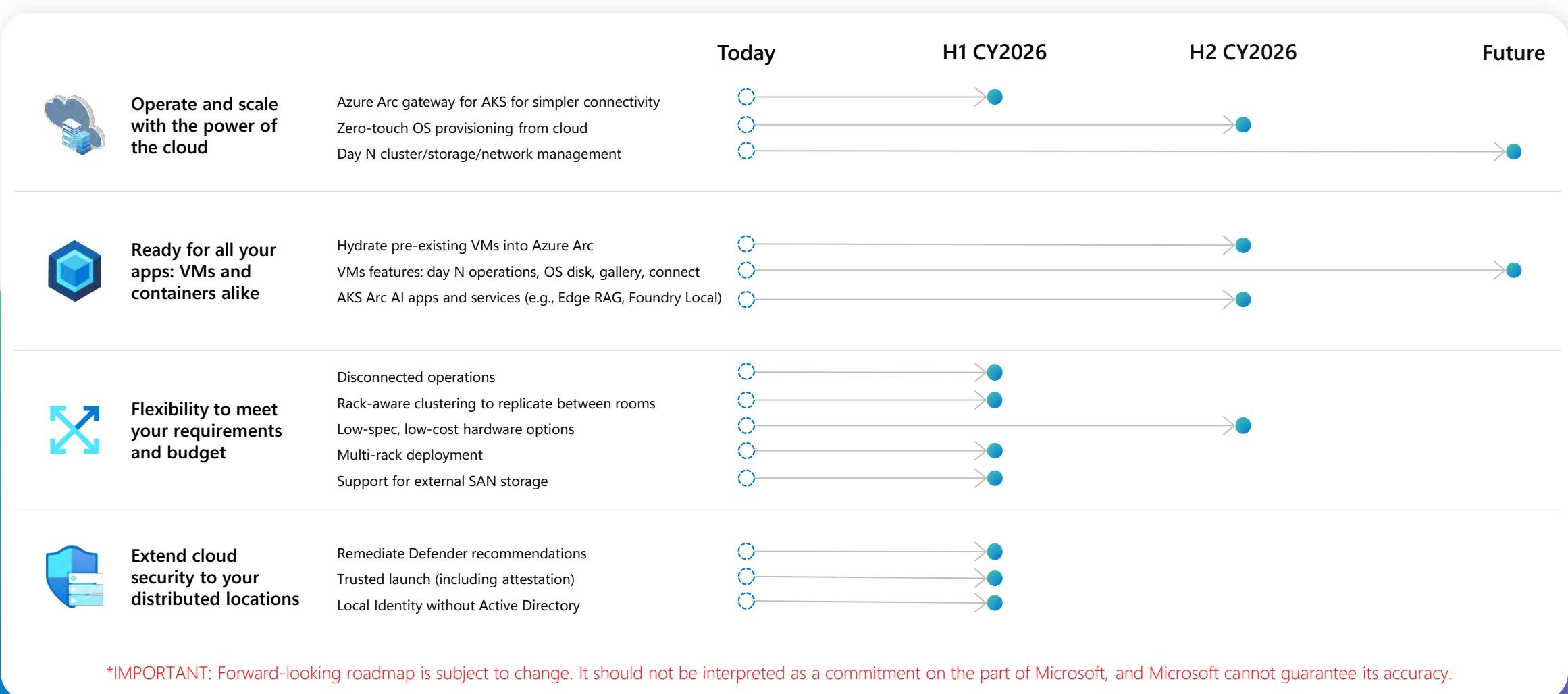
Advanced Security-by-Default

Integration with **Microsoft Defender**

Azure Local (partial) product roadmap*

Preview

GA



*IMPORTANT: Forward-looking roadmap is subject to change. It should not be interpreted as a commitment on the part of Microsoft, and Microsoft cannot guarantee its accuracy.



Thank you!

azure.microsoft.com/products/local