

A dark, atmospheric photograph of a server room. Rows of server racks are visible, their front panels illuminated with blue light. The ceiling has recessed lighting and some pipes. The overall mood is professional and tech-oriented.

Azure Local – Is It Your VMware Replacement



spirhed

Jan-Tore Pedersen

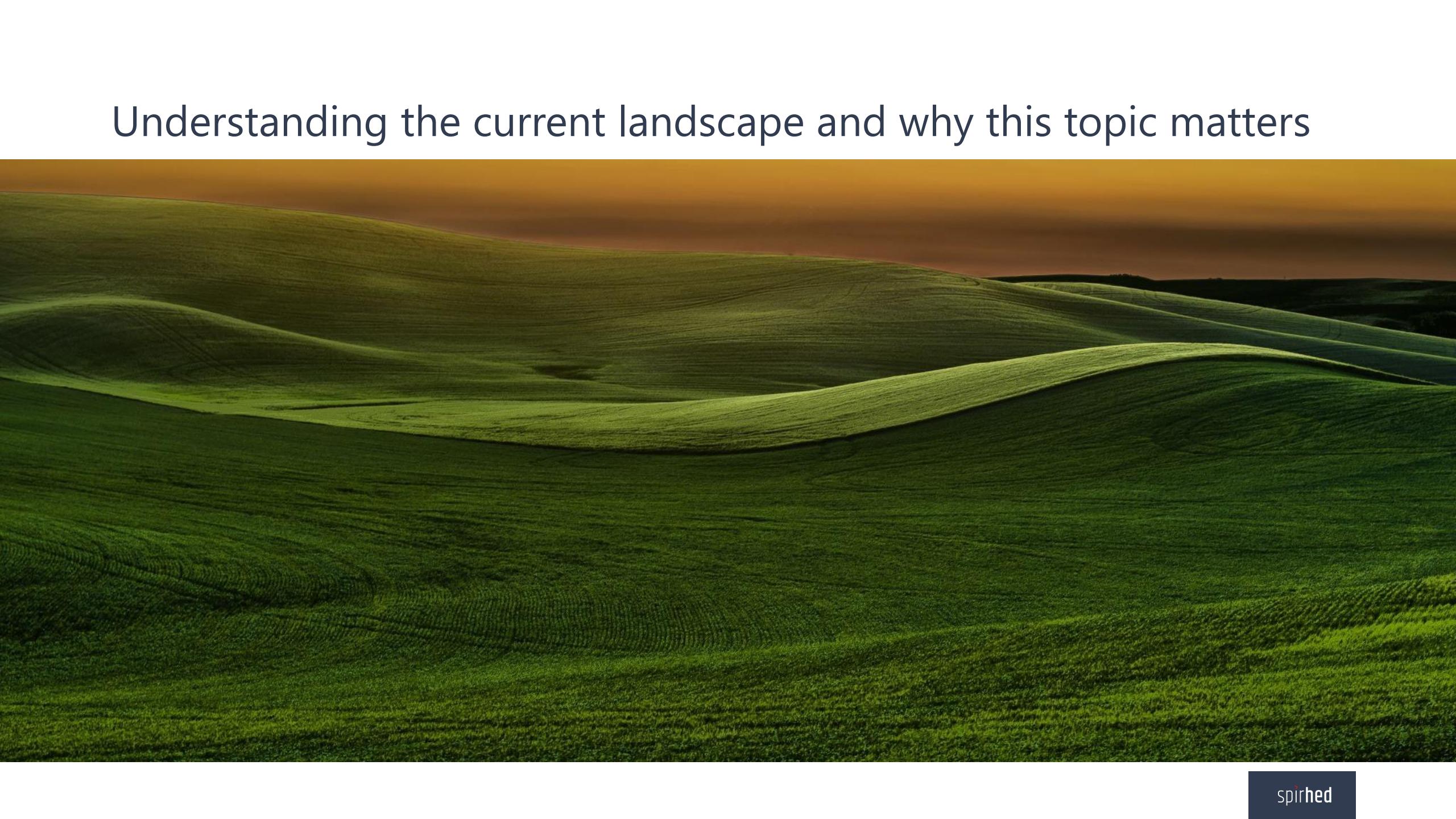


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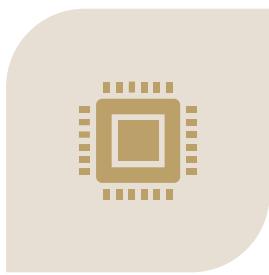
Agenda

- Understanding the current landscape and why this topic matters
- What is Azure Local?
- VMware Today
- Azure Local vs VMware – Head-to-Head
- Deep Dive: Azure Local
- Real-World Use Cases
- Migration
- Is Azure Local Ready for You?
- Q&A

Understanding the current landscape and why this topic matters

A wide-angle photograph of a rural landscape featuring rolling green hills. The foreground is dominated by dark green fields, while the middle ground shows lighter green fields. The background consists of a clear blue sky. The lighting suggests it might be early morning or late afternoon, with long shadows cast across the hills.

The Virtualization Landscape Is Changing



VMWARE HAS BEEN A MARKET LEADER IN ON-PREM VIRTUALIZATION FOR 20+ YEARS



CLOUD-FIRST MANDATES ARE NOW STANDARD (THIS MIGHT CHANGE SOON)



BROADCOM'S ACQUISITION OF VMWARE RAISED UNCERTAINTY AROUND PRICING AND STRATEGY



ORGANIZATIONS NEED MORE AGILITY AND COST CONTROL

Enterprise IT Is at an Inflection Point



Key questions decision-makers are asking:



Do we still need a traditional hypervisor like VMware?



Can we simplify our stack by aligning with our cloud roadmap?



Is Azure Local ready for prime time?



What is Azure Local

spirhed

Azure Local and Windows Server



Azure Local

✓ Exciting roadmap of new HCI focused releases

Innovation focused on being the
best virtualization host

Future of Hyper-V virtualization,
software-defined storage and networking

Run apps inside Windows or Linux virtual machines

Runs on **your hardware**



Windows Server

✓ Exciting roadmap of new releases

Innovation focused on being the
best guest and traditional server

All other Windows Server roles,
like IIS, File Services, DNS, DHCP, AD/DS

Runtime for Windows apps like SQL Server

Runs **anywhere**



Azure Local

Modern infrastructure to deploy cloud native solutions anywhere



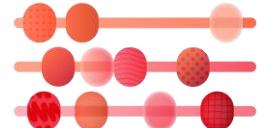
Cloud native
anywhere



Secure and run all
workloads from
cloud to edge



Familiar
management and
operations



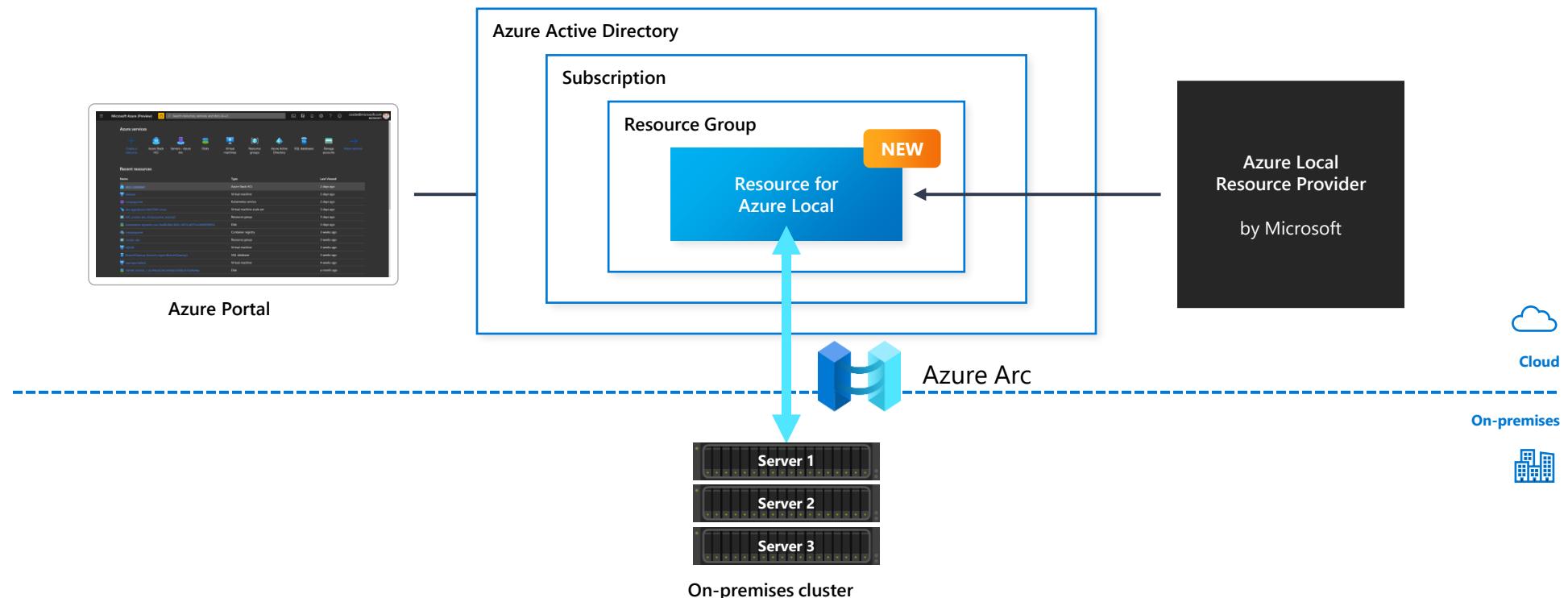
Deploy with flexible
options at the right
price/performance
point

Simplify hybrid with native Azure integration

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

Visibility in the Azure portal and foundation for hybrid management

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



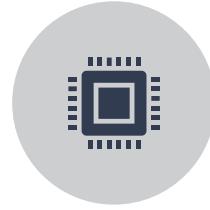
VMware Today



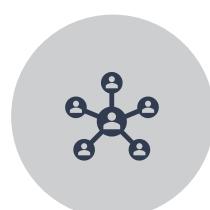
The VMware Ecosystem – What It Offers Today



VSPHERE & ESXI –
ENTERPRISE-GRADE
HYPERVISOR; CORE OF
VIRTUAL
INFRASTRUCTURE



VCENTER SERVER –
CENTRALIZED
MANAGEMENT,
AUTOMATION, AND
ORCHESTRATION



NSX – SOFTWARE-
DEFINED NETWORKING,
MICROSEGMENTATION,
AND SECURITY SERVICES



VSAN –
HYPERCONVERGED,
SOFTWARE-DEFINED
STORAGE SOLUTION



VMWARE CLOUD
FOUNDATION (VCF) –
INTEGRATED STACK FOR
HYBRID CLOUD
INFRASTRUCTURE



SUPPORTS HYBRID AND
MULTI-CLOUD (AWS,
AZURE, GOOGLE CLOUD
INTEGRATIONS)



+++++

A Trusted Foundation for Enterprise IT

Stability &
Performance – Proven
in production at scale

Tooling & Ecosystem –
Wide array of
integrations and
certified solutions

Skilled Talent Pool –
Many VMware-
certified professionals
available

Enterprise Features –
High availability,
vMotion, DRS,
snapshots, etc.

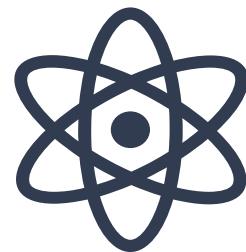
Hybrid Cloud
Flexibility – VMware
Cloud offerings across
major providers

Strengths vs. Strategic Friction



Strengths:

- Highly reliable & battle-tested
- Granular control over virtual infrastructure
- Broad customer & partner ecosystem
- Mature management tools



Challenges:

- High and rising costs – Licensing, support, and upgrades
- Complexity – Multiple layers: vCenter, NSX, vRealize, etc.
- Cloud-native mismatch – Less agile vs Azure/AWS
- Broadcom acquisition changes: licensing, ecosystem shifts, customer trust erosion

Azure Local vs VMware – Head-to-Head

Azure Local vs VMware

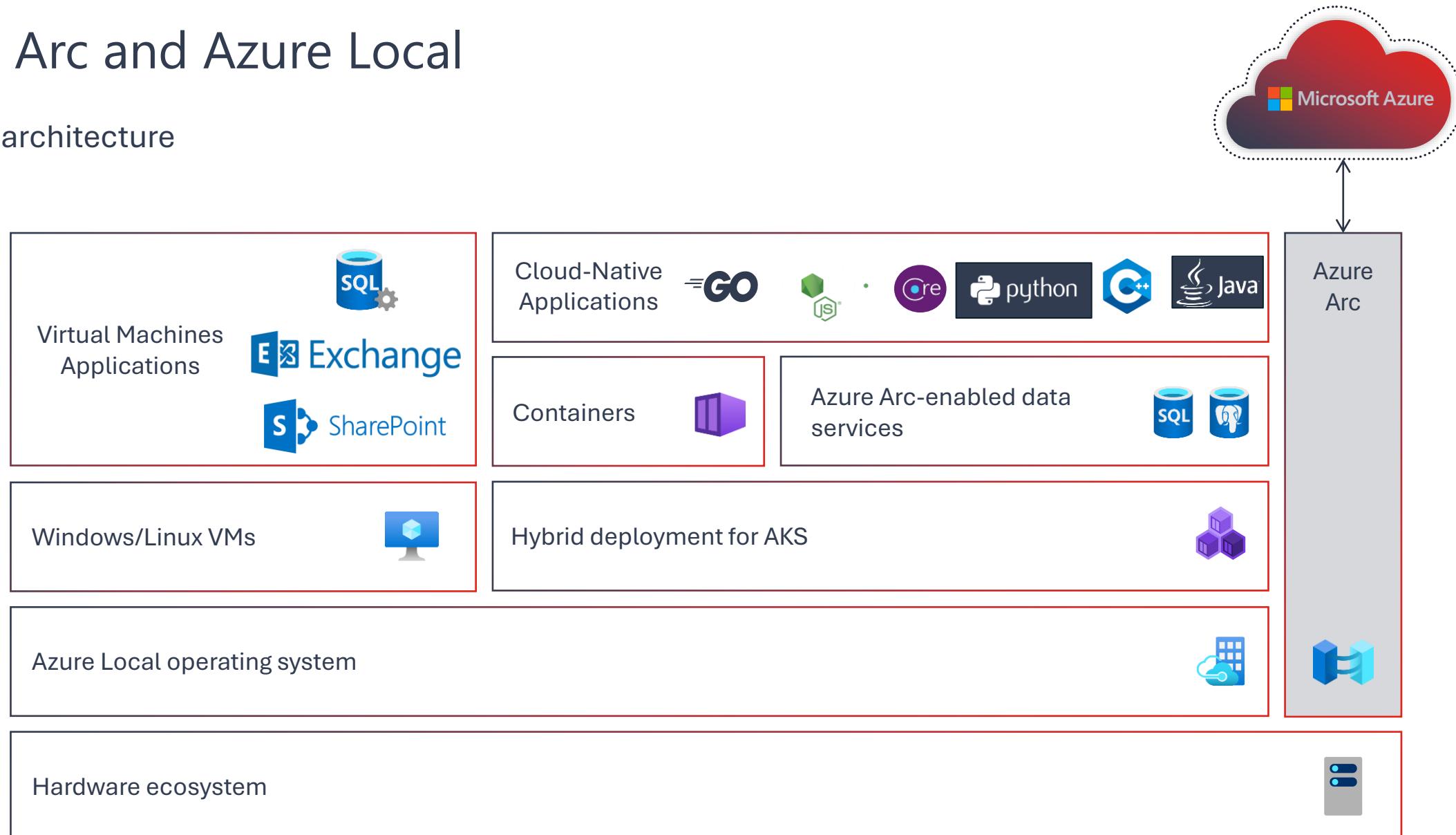
CATEGORY	AZURE LOCAL	VMWARE
Hypervisor	Hyper-V (Windows Server based)	ESXi (bare-metal hypervisor)
Management Console	Azure Portal via Azure Arc	vCenter Server
Host OS	Windows Server Core + Azure Local OS	ESXi Hypervisor (proprietary Linux-like OS)
Cluster Management	Windows Admin Center, Azure Arc	vCenter, vSphere Clustering
Networking	Azure SDN integrations, Network Adapter, BGP	NSX, Distributed Switches
Storage	Storage Spaces Direct, Azure Blob, iSCSI, SMB	vSAN, VMFS, NFS
Backup & DR	Azure Backup, Site Recovery, Veeam	VDP (deprecated), SRM, Veeam
Security	Azure Defender, Just-In-Time Access, Conditional Access	NSX microsegmentation, vSphere Trust Authority
Automation	Azure Policy, Azure Automation, Bicep, ARM templates	vRealize Orchestrator, PowerCLI, Auto Deploy
Monitoring	Azure Monitor, Log Analytics, Update Management	vRealize Operations, vCenter Alarms
Guest OS Support	Windows, Linux (Ubuntu, RedHat, etc.)	Windows, Linux, PhotonOS
Kubernetes Support	AKS on HCI / Arc-enabled K8s	Tanzu Kubernetes Grid (TKG)
Hybrid Cloud Support	Native Azure integration + Arc to connect any infra	VMware Cloud Foundation + AWS, Azure, GCP connectors
Edge Computing	Strong edge use cases, disconnected mode, minimal footprint	VMware Edge Compute Stack, less mature deployment tools
Licensing Model	Subscription, Azure-consumption based	Perpetual/subscription (shifting under Broadcom)
Billing Flexibility	Pay-as-you-go, integrated with Azure EA / CSP	Prepaid or per-core licensing, fixed tiers
Hardware Compatibility	Certified Azure Local hardware list	VMware HCL (broader but stricter BIOS/firmware dependencies)
Cloud Native Integration	ARM/Bicep templates, GitHub Actions, DevOps pipelines	Terraform, Ansible, vRealize Automation
User Community & Ecosystem	Growing fast, backed by Microsoft Cloud	Very mature and long-standing ecosystem

AZURE LOCAL DEEP DIVE



Azure Arc and Azure Local

Platform architecture



Layered security built-in



Industry leading built-in security

Microsoft's security products are industry leading in several Gartner magic quadrants.

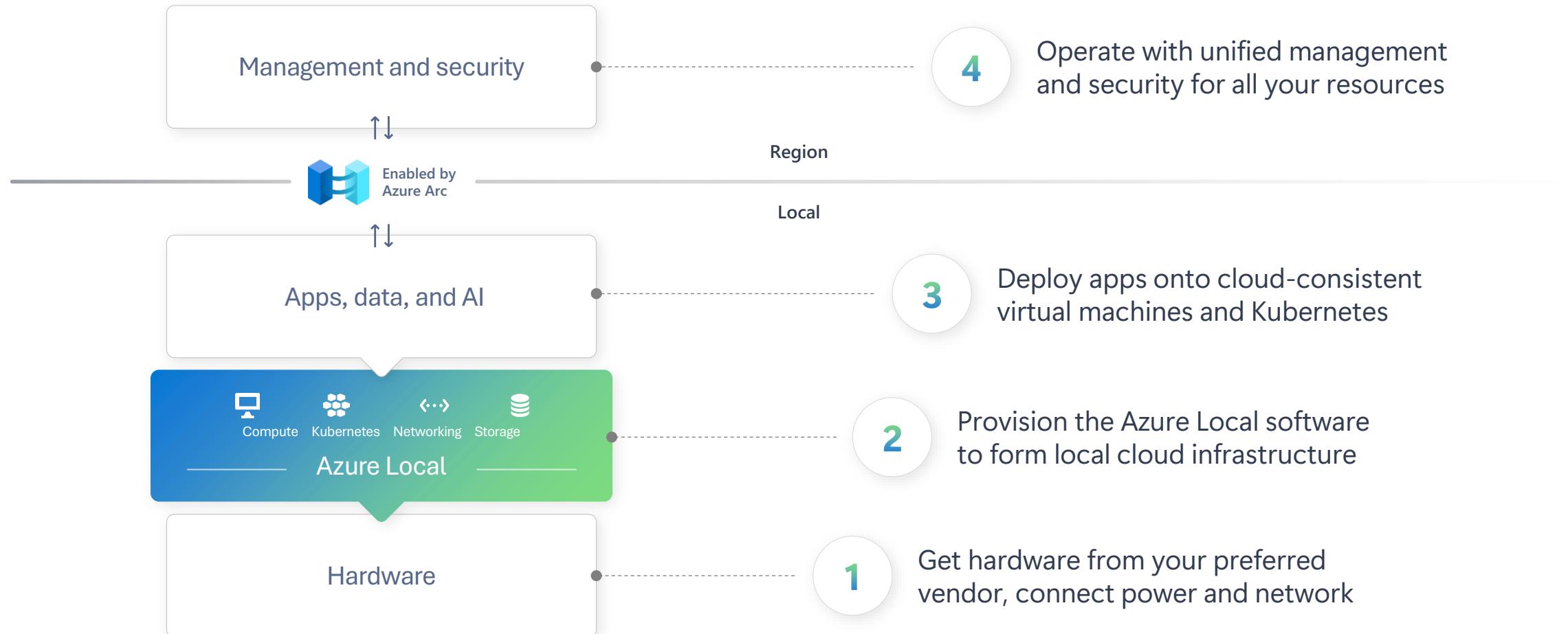
Security built for the Azure datacenter

Azure Localsecurity derives learnings from our hyperscale cloud and brings it to your datacenter.

Silicon assisted security

Unique differentiation delivered with our Silicon and OEM partners via Secured-core.

How Azure Local works (connected)



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



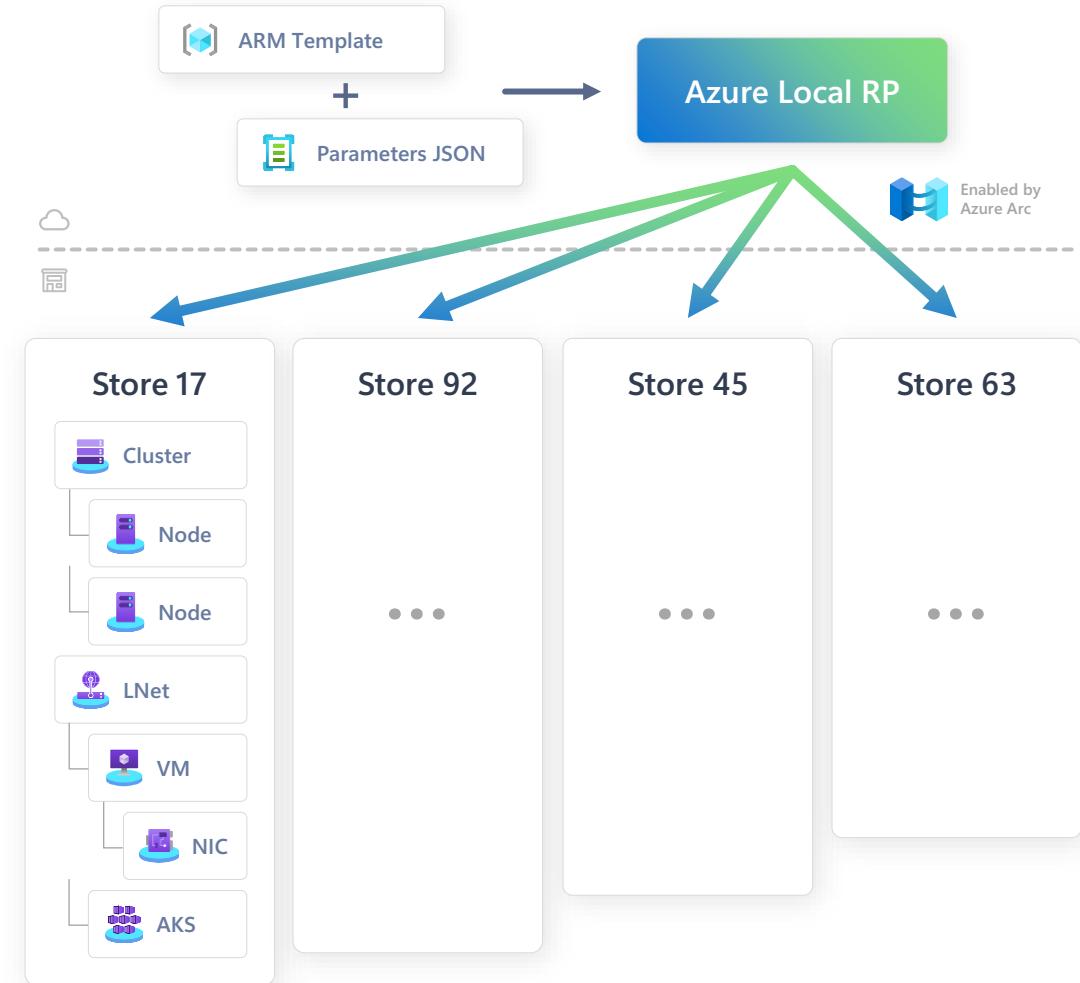
Advanced options to customize the cluster, networking, and storage for your environment

The screenshot displays the Microsoft Azure portal interface for deploying Azure Local. It shows three steps of a wizard:

- Step 1: Basics**
 - Instance name: Contoso-01
 - Region: (US) East US
 - Add machines: + Add machines (refresh)
 - Table: Name, Status, OS Type
 - Store-771-Node1: Ready, Azure Linux
 - Store-771-Node2: Ready, Azure Linux - Buttons: Install extensions, Validate selected machine
- Step 2: Networking**
 - Select the machines to use and validate: Selecting more than one machine creates a multi-node instance.
 - Choose whether to use a network switch for the storage network:
 - No switch for storage: Storage network adapters connect all machines directly.
 - Network switch for storage: Storage network adapters connect to a network switch.
 - Group network traffic types by intent:
 - Group all traffic: Management, compute and storage intent.
 - Group management and compute traffic: Management and compute intent, Storage intent.
 - Group compute and storage traffic: Management intent, Compute and storage intent.
- Step 3: Customize**
 - Customization options for Data Center B, Adapter properties, RDMA protocols, and more.
 - Buttons: Review + create, < Previous, Next: Management, Save

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"
```



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 content¹



Non-disruptive (workloads keep running)



You control when to apply updates

The screenshot shows the Microsoft Azure Update Manager interface. At the top, there's a navigation bar with 'Microsoft Azure' and a search bar. Below it, the title 'Azure Update Manager | Azure Local' is displayed. Underneath, there are buttons for 'Refresh', 'One-time update', and 'Feedback'. A 'Filter by name...' input field is followed by a 'Subscription == 1 selected' button, which has a hand cursor over it. Other buttons include 'Resource group == All', 'Location == All', 'Status == All', and 'Update'. A table below lists 10 results, each with a checkbox, a device icon, a name, a status, an update readiness indicator, and a current version number. The names listed are Contoso-Store-1508, Contoso-Store-0695, Contoso-Store-2240, Contoso-Store-0137, Contoso-Store-1424, Contoso-Store-0869, Contoso-Store-0773, Contoso-Store-0774, Contoso-Store-0781, and Contoso-Store-0546. The status column shows 'Up to date' for several entries and 'Update(s) available' for others. The update readiness column shows 'Critical' for one entry and 'Healthy' for most others. The current version column shows various versions like 10.2411.0, 10.2405.0, etc.

Name	Status	Update readiness	Current version
Contoso-Store-1508	Up to date	Critical	10.2411.0
Contoso-Store-0695	Update(s) available	Healthy	10.2405.0
Contoso-Store-2240	Update(s) available	Healthy	10.2405.0
Contoso-Store-0137	Update(s) available	Healthy	10.2408.2
Contoso-Store-1424	Up to date	Healthy	10.2408.0
Contoso-Store-0869	Up to date	Healthy	10.2411.0
Contoso-Store-0773	Update(s) available	Healthy	10.2405.0
Contoso-Store-0774	Update(s) available	Healthy	10.2405.0
Contoso-Store-0781	Up to date	Healthy	10.2408.1
Contoso-Store-0546	Update(s) available	Healthy	10.2405.0

Showing 1 - 10 of 10 results.

¹ : Firmware and driver packages available for Premier solutions like Dell APEX Cloud Platform and Lenovo ThinkAgile MX455 V3

Central visibility across all your locations



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



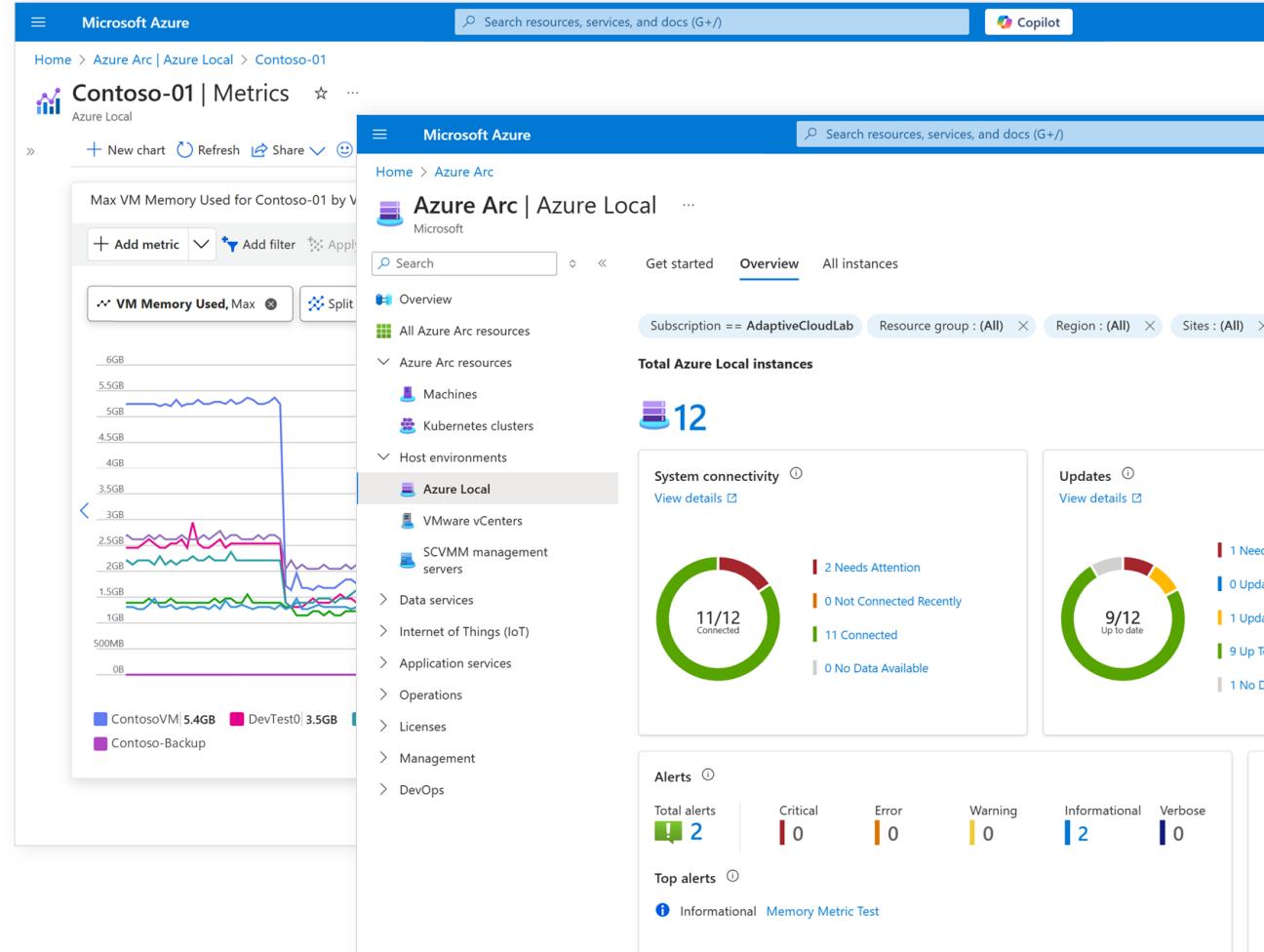
Ready-made dashboards you can customize



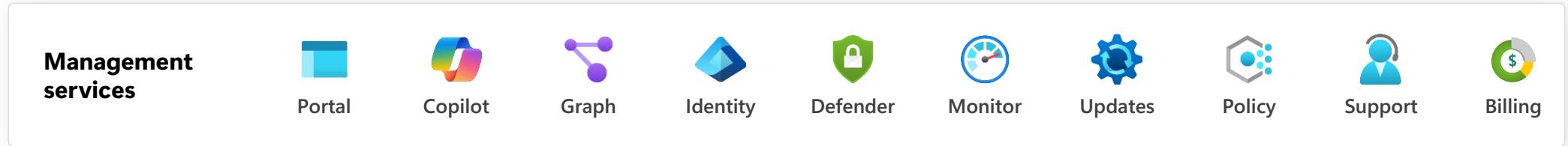
50+ standard metrics for infrastructure cover hypervisor, storage, and networking



Set alert rules to send email and more



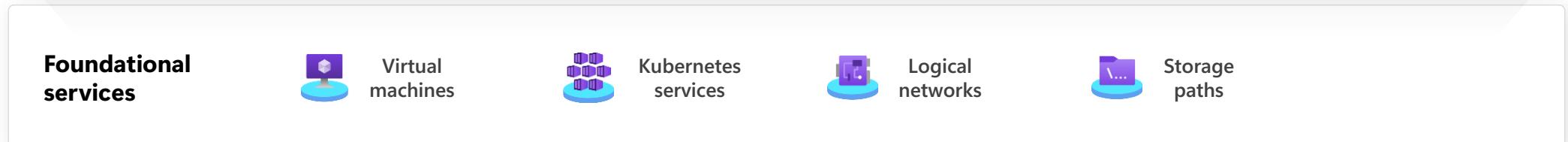
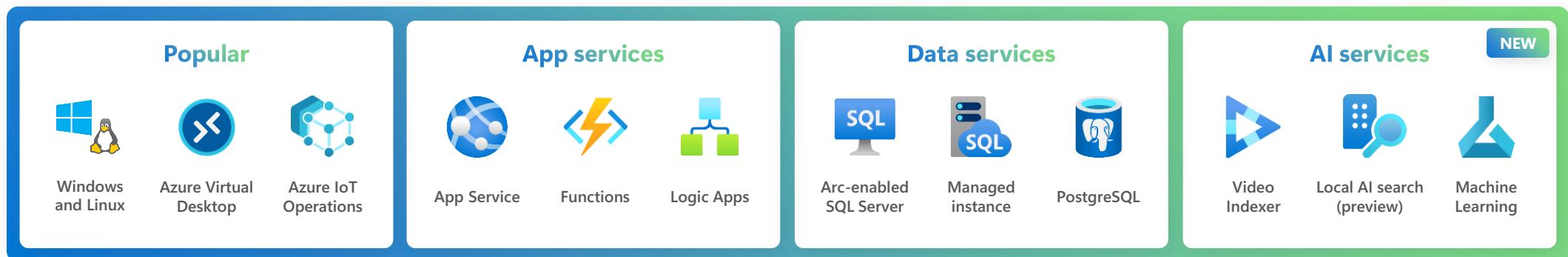
Bring Azure app, data, and AI services anywhere



Cloud region

Distributed location

 Enabled by Azure Arc



The screenshot shows two Microsoft Azure interface pages related to Azure Virtual Desktop Host pools.

Top Page: Azure Virtual Desktop | Host pools

This page displays a list of host pools. The table has columns: Name, Location, Host pool type, Load balancing strategy, and Application count. One row, "Local-Site337", is selected and highlighted with a green border.

Name	Location	Host pool type	Load bal...	Applicati...
Regional-EastUS	East US	Pooled	Breadth-first	29
Regional-WestEurope	West Europe	Pooled	Depth-first	17
Local-Site337	Custom Location	Pooled	Depth-first	6
Local-Site092	Custom Location	Pooled	Depth-first	1

Bottom Page: Local-Site337 - Session hosts

This page shows session hosts within the Local-Site337 host pool. The table includes columns: Name, Health state, Total sessions, Drain mode, VM Location, Subscription, and Agent version. All hosts are marked as "Available".

Name	Health state	Total sessions	Drain mode	VM Location	Subscription	Agent version
win10multivm1.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win10multivm2.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win11multi05.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win11multi07.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win11multi08.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win11multi09.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win11multi10.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100
win11multi-vm20.poc01.local	Available	10	Off	-	AdaptiveCloudLab	1.0.10004.2100

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 re-use existing hardware

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

Hardware deployment comparison

Feature	Validated Nodes	Integrated Systems	Premier Solutions
Validated solution with certified hardware configuration	✓	✓	✓
Solution committed to 5 years of hardware support	✓	✓	✓
Solution testing requirement	Once	2-4 times/year	Continuously
Ease of deployment and updates	Manual	Double-click	Single-click, seamless
HCI software pre-installed or on-site deployment services		✓	✓
Solution available as multi-node		✓	✓
Support from Microsoft and hardware solution partner		✓	✓
Security settings and features enabled by default		✓	✓
Validated by Microsoft in our own labs			✓
One stop for Level 1 and Level 2 support for HCI software			✓
Call home support service option available			✓
Global availability (solution and services in 100+ countries)			✓
White glove deployment services available			✓
As-a-service purchasing option available			✓
Optimal customer use case	Customers who run multiple operating systems or want to manage their own firmware, driver, and OS updates	Customers seeking some level integration and validation from Azure Local for multi-node clusters	Customers requiring turnkey, enterprise-wide deployments across their global portfolio with simplified management

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

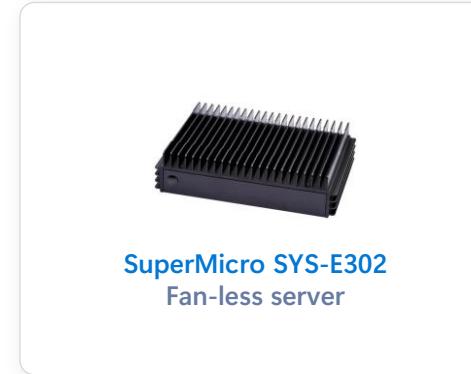
Purchase 1 to N nodes
up-front or as-a-service

Explore solutions at aka.ms/AzureLocalCatalog

NEW

Low-spec, low-cost options for edge use cases

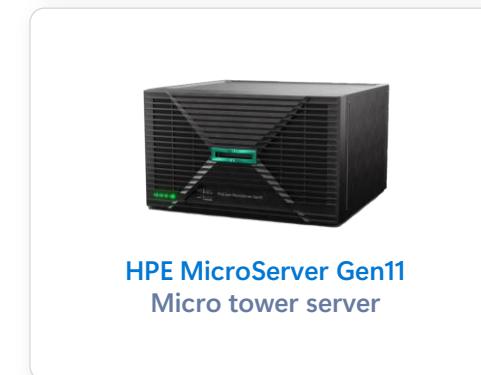
Azure Local Requirements at launch	Azure Local ¹ Requirements at launch
Windows Server certified	Windows Server certified
Min. 2+ machines	1+ machine
Min. 4+ disks per machine	1+ SSD per machine ²
Min. 10 Gbps w/ RDMA	1 Gbps/2.5 Gbps Ethernet ³
Active Directory required	Doesn't require AD ⁴



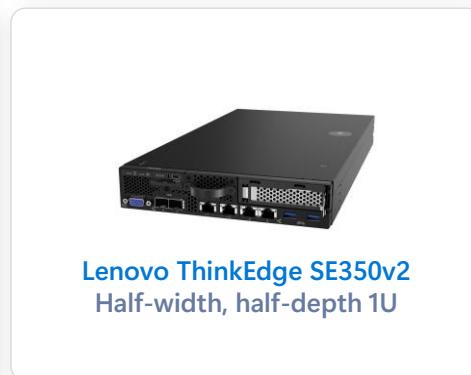
SuperMicro SYS-E302
Fan-less server



Dell MC-4000r/z + MC-4510c
Rugged two-sled chassis



HPE MicroServer Gen11
Micro tower server



Lenovo ThinkEdge SE350v2
Half-width, half-depth 1U

Example possible solutions, pending validation

1 : Reduced requirements allowed up to maximum of 3-node cluster 2 : Excludes OS boot disk 3 : Must support Hyper-V virtualization 4 : In preview now, coming 2025

Licensing



108nok pr month pr physical core



Hybird Benefits

- Free with EA Software Assurance
- Free with CSP Windows Server Datacenter Subscription
- Each 16 core license covers 16vcpu on AKS



You need to license workloads on top

- Windows Server Licenses either normal or via Subscription based
- AVD 1 cent pr hour pr vcpu + Windows 11 Enterprise
- Linux Lincenses
- Plus any other software that requires a license

Overview of Extended Security Updates (ESU) supported solutions

Windows Server 2012 and 2012 R2 and SQL Server 2012

Product version	Hosted	ESU duration	ESU end date
Windows Server 2012 Windows Server 2012 R2	Azure*	Three years	October 13, 2026
Windows Server 2012 Windows Server 2012 R2	Not in Azure	Three years	October 13, 2026

	On premises	SPLA	Azure VMs and Azure Dedicated Host	Azure Local	Azure VMware Solution, Azure Nutanix Solution
SQL Server	Option to purchase ESU	Not available	Free ESUs	Free ESUs	Free ESUs
Windows Server	Option to purchase ESU	Not available	Free ESUs	Free ESUs	Free ESUs

Windows Server 2016



Real World Use Cases

- Deployed to Government Companies
- Universities
- Factories OT Environments
- Retail
- + + +

Coles

1,800+ stores in Australia

Deploying edge AI to improve efficiency and offer leading customer experiences

Deployed over 1,000 instances of Azure Local in production¹



Migrate from VMware to Azure Local (preview)



Reduce your VMware costs and footprint with full-stack alternative



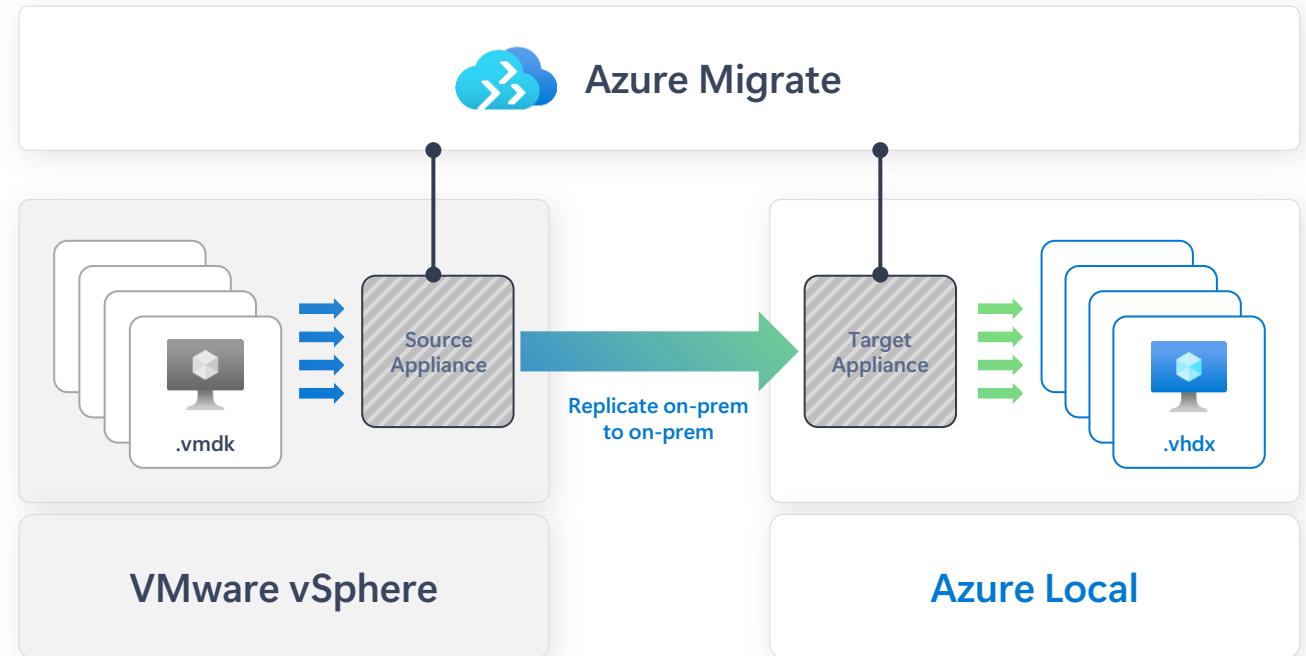
No need to change/rewrite apps



Copy and convert VMware VMDK to Azure Arc VM entirely on-premises



Guided workflow in Azure Migrate



Learn more at aka.ms/AzureLocal/Migrate

Is Azure Local Ready for you?



Supports modern VM workloads (Windows/Linux), containers, and AKS on Azure Local.



Azure Arc enables centralized policy, monitoring, security, and automation across environments.



Comparable to VMware with easier SDN configuration via Azure services; no NSX learning curve.



Uses Storage Spaces Direct with support for SMB, iSCSI, and Azure Blob integration.



Built-in integration with Microsoft Defender, Just-in-Time VM access, and compliance policy enforcement.



Well-suited for branch and disconnected deployments with offline management capabilities.



Some enterprise-grade features like DRS-like load balancing still maturing.



Growing, but not yet as broad as VMware's long-established vendor integrations.

Azure Local May Be Right for You If...



You want to modernize infrastructure while maintaining on-premises control.



You're invested in Azure or Microsoft-based services already.



You're managing remote sites, edge environments, or need offline resilience.



You're looking to simplify SDN and storage management without steep learning curves.



You want to reduce reliance on traditional VMware licensing and pricing models.



You can handle a platform evolution and aren't dependent on VMware-exclusive tools.

Q&A



spirhed