

Nerdio Manager for Enterprise

Hybrid Azure Virtual Desktop with Azure Local



### **Raul Morales**

Product Manager @ Nerdio

10+ years in the IT industry6+ years in the healthcare industry

Previous roles:

- Systems Engineer
- Desktop Engineer

Fun fact: 911 dispatcher





### **David Grain**

Product Manager @ Nerdio

10+ years working with Azure
20+ years in IT in both education
and retail environments

#### Previous roles:

- Azure Technical Architect
- Tech Lead Identity and Security











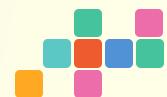
#### 1. Introduction

- Nerdio Product Managers
- DataON
- AVD and Azure Local overview

### 2. DataON - Azure Local Deep Dive

#### 3. How does Nerdio fit in?

Nerdio Manager for Enterprise





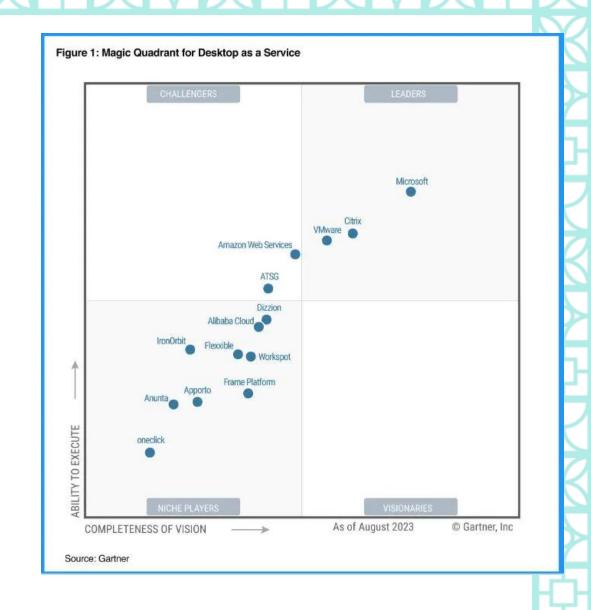
## **Azure Virtual Desktop (AVD)**

#### What's in it for the end user?

- Enables remote work flexibility
- Deliver full desktops or applications
- Connect securely
- Access via browser or local desktop client

#### What's in it for IT?

- Scalable and manageable in bulk
- Desktop images (golden images)
- Session hosts
- Cost effective
- Strong security: Azure Stack
- Native integration with your Azure environment



## **Azure Local**

# Extends Azure services to your on-premises infrastructure

 Manage on-premises machines and Azure infrastructure within the Azure Portal using the Azure Arc agent.

# You control and maintain your session hosts (VDIs), applications, and data storage

- Manage data residency and governance.
- Satisfy regulatory and compliance requirements.

### **Cost savings**

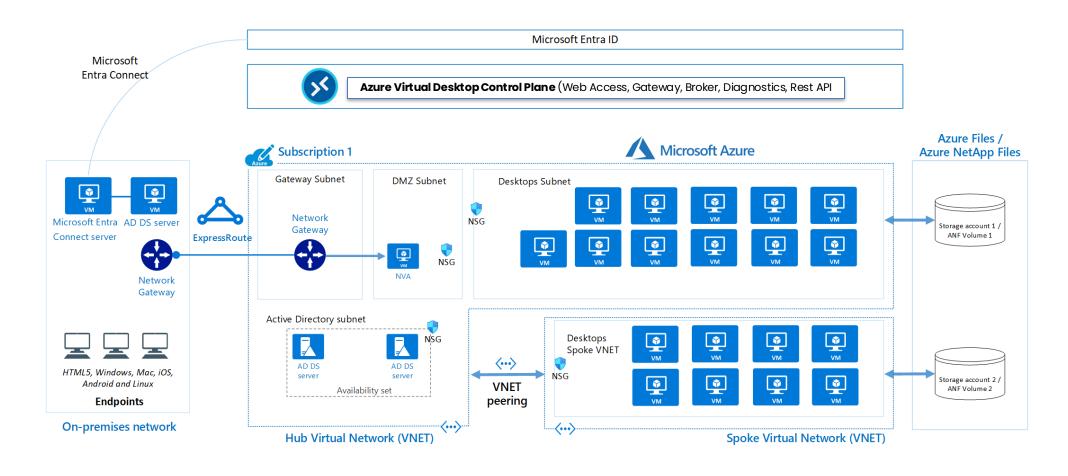
Control your hardware and compute costs.

### **Better performance**

- Low latency requirements.
- Infrastructure physically close to your staff.

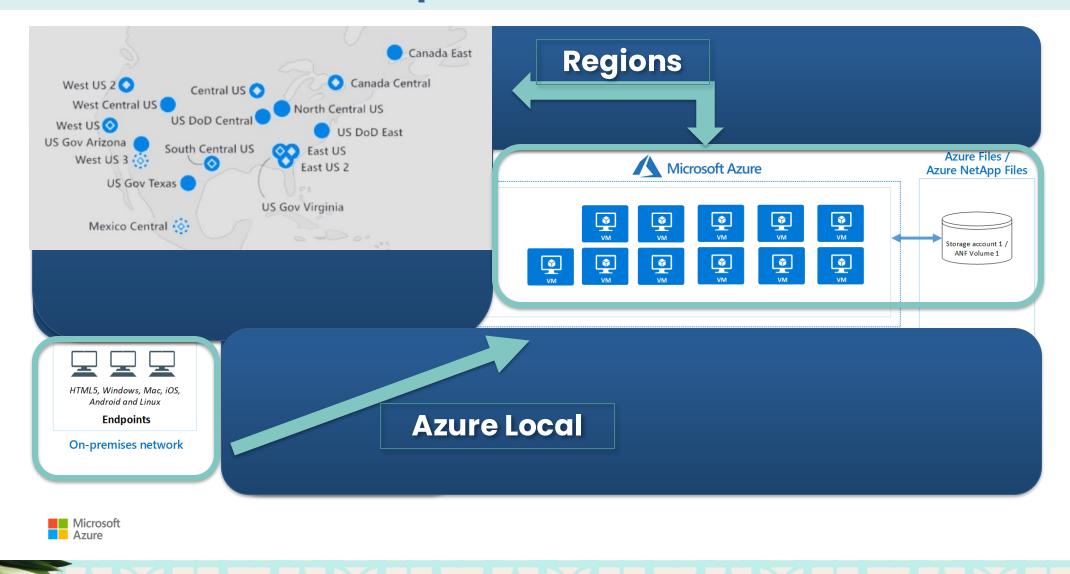


### **Azure Virtual Desktop in Azure**





### **Azure Virtual Desktop in Azure**



### Azure Local AVD Costs

Туре

User Access Rights				
BYOL for Windows 11 and Windows 10	Access Windows 11 and Windows 10 Enterprise desktops at no additional cost if you have an eligible Windows or Microsoft 365 license.	You are eligible to access Windows 11 and Windows 10 with Azure Virtual Desktop if you have one of the following <b>per user</b> licenses*:		
		Microsoft 365 E3/E5		
		Microsoft 365 A3/A5/Student Use Benefits		
		Microsoft 365 F3		
		Microsoft 365 Business Premium		
		• Windows 11/10 Enterprise E3/E5		
		• Windows 11/10 Education A3/A5		
		Windows 11/10 VDA per user		
BYOL for Windows Server	Access desktops powered by Windows Server Remote Desktop Services desktops at no additional cost if you are an eligible Microsoft Remote Desktop Services (RDS) customer.	You are eligible to access Windows Server 2019 and newer desktops if you have an:  • RDS Client Access License (CAL) license with active Software Assurance (SA) (per-user or per-device)		
		<ul> <li>RDS User Subscription License</li> <li>RDS Subscriber Access License (SAL) (per-user)**</li> </ul>		
		ND3 Subscriber Access Licerise (SAL) (per-user)		
Azure infrastructure				
Azure Local Service Fee	Azure Local is a hyperconverged infrastructure delivered as an Azure hybrid service.	Pay a monthly service fee to run Azure Local on your on-premises servers  • \$10/physical core/month		
Azure Virtual Desktop Service Fee	Azure infrastructure is required to deploy Azure Virtual Desktop.	Pay as you go to access Azure Virtual Desktop for Azure Local • \$0.01/virtual core/hour		

Eligibility/ requirement

Description

### Azure Local AVD Costs

	Туре	Description	Eligibility/ requirement	
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		Amount information to		
		Azure infrastructure		
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### **Howard Lo**

VP, Sales & Marketing @ DataON

10 years working with Azure Local/Azure Stack HCI 20 years in IT industry

Fun fact:

Semi-professional poker player







## **Azure Local**

**Enabled by Azure Arc** 

Operate infrastructure across distributed locations with Azure Arc

# Introducing Azure Local

# Cloud connected infrastructure enabled by Azure Arc



Out of the box cloud-based operations



For VMs and container-based apps





Right-sized solutions on broad hardware choices

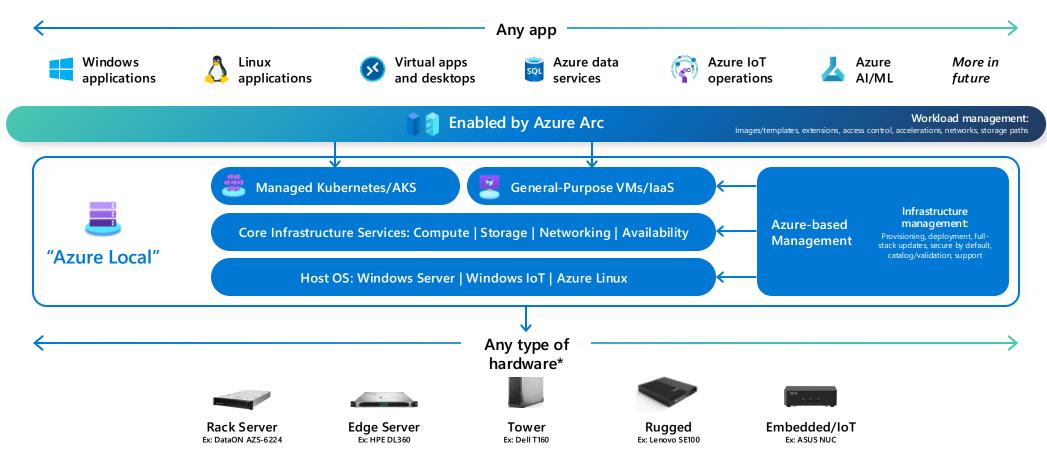


Advanced security by default



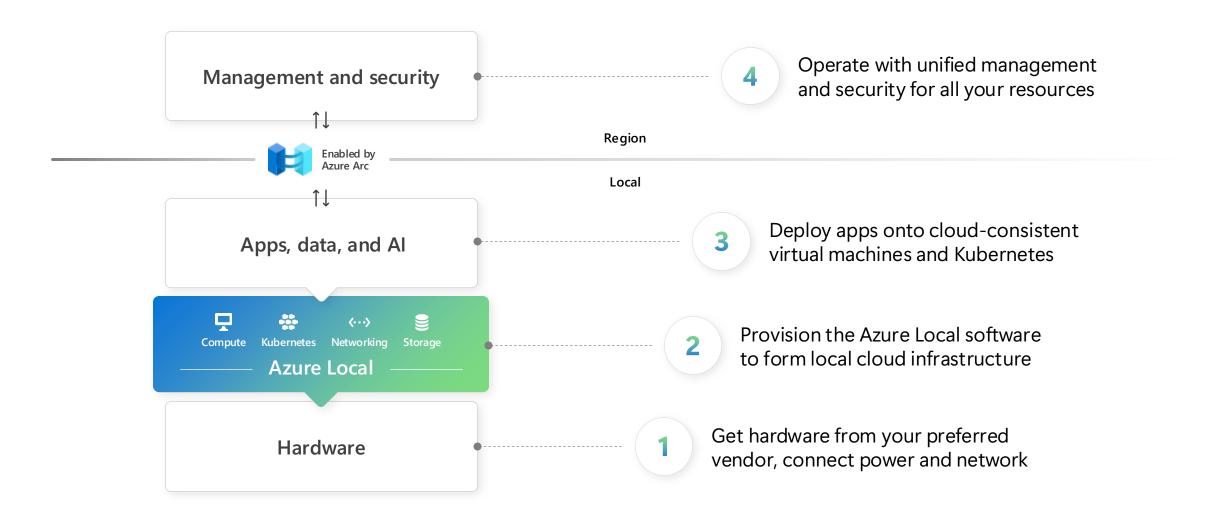
### Azure Local: One flexible offering for all target use cases

Unified distributed infrastructure service spanning all hardware/scale points



<sup>\*</sup>Must meet minimum requirements per operating system and solution-level pass validation

### How Azure Local works (connected)



### Durable scenarios for distributed local infrastructure

These workloads are unlikely to move to cloud

### Local AI inferencing, especially video



Process data at the source

#### **EXAMPLES**:

Retail loss prevention, smart self-checkout, pipeline monitoring Mission critical, Business continuity



Continue through power/ network outage

#### **EXAMPLES:**

Factory and warehouse operations, stadiums, transit

Control systems and near real time



Extreme latency requirements

#### **EXAMPLES**:

Manufacturing execution system, industrial QA, financial infrastructure

Regulatory and DDIL connectivity



Keep data and/or control local

#### **EXAMPLES:**

Government and military, energy infrastructure

# A leader in 2024 Gartner® Magic Quadrant™

Microsoft recognized once again as a Leader for its ability to execute and completeness of vision in 2024 Gartner® Magic Quadrant™ for Distributed Hybrid Infrastructure

# Gartner

2024 Gartner® Magic Quadrant™ for Distributed, Hybrid, Infrastructure (DHI)

Gartner, Magic Quadrant for Distributed Hybrid Infrastructure, Julia Palmer, Jeffrey Hewitt, Tony Harvey, Dennis Smith, Stephanie Bauman, Kevin Ji, 7 October 2024.

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Figure 1: Magic Quadrant for Distributed Hybrid Infrastructure







Broadcom's stated strategy ignores most VMware customers

The Register May 30, 2022

As some VMware products come to an end, some customers face 1,200% rise in prices
IT Asset Management

January 30, 2024

Broadcom support, an absolute horror show Reddit July 2024

### VMware customers weigh alternatives

#### Azure Local or Hyper-V

Cloud-hosted/laaS on AWS

Oracle Linux virtualization

Red Hat virtualization

Cloud-hosted/laaS on Azure

VMware on AWS

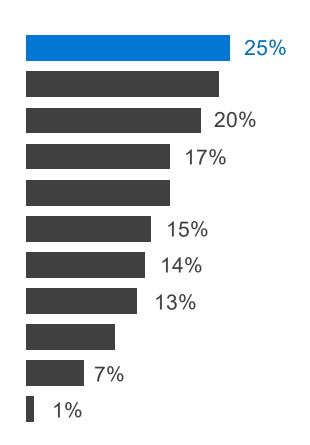
VMware on Azure

**Nutanix AHV** 

Cloud-hosted/laaS on Google

Promox

Other





Survey of over 550 enterprise IT leaders

CIO / Veeam Research Report: VMware Customers Weigh Alternatives (Oct 2024)

### Full-featured, general-purpose virtual machines



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







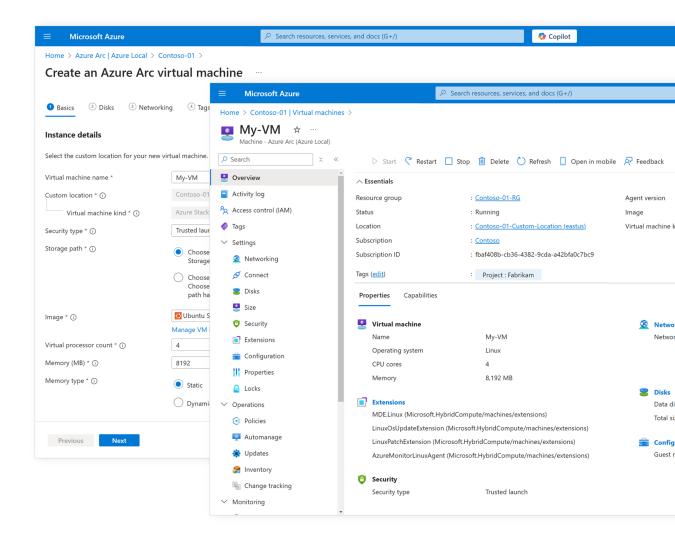
Total flexibility to customize VM specs, networking, storage, and configuration



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



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



## Migrate VMs from VMware to Azure Local (preview)



Reduce your VMware costs and footprint with full-stack alternative



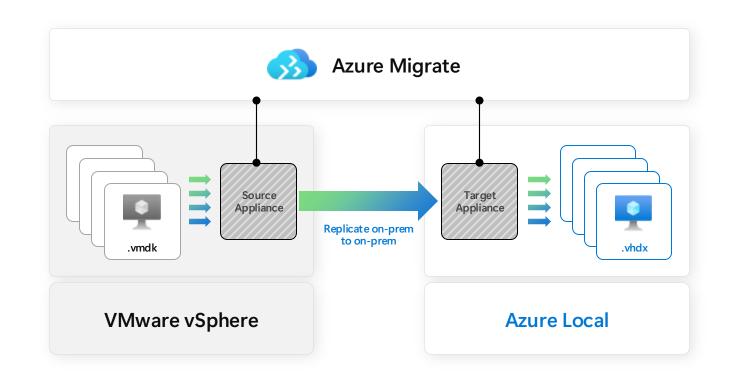
No need to change/rewrite apps



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

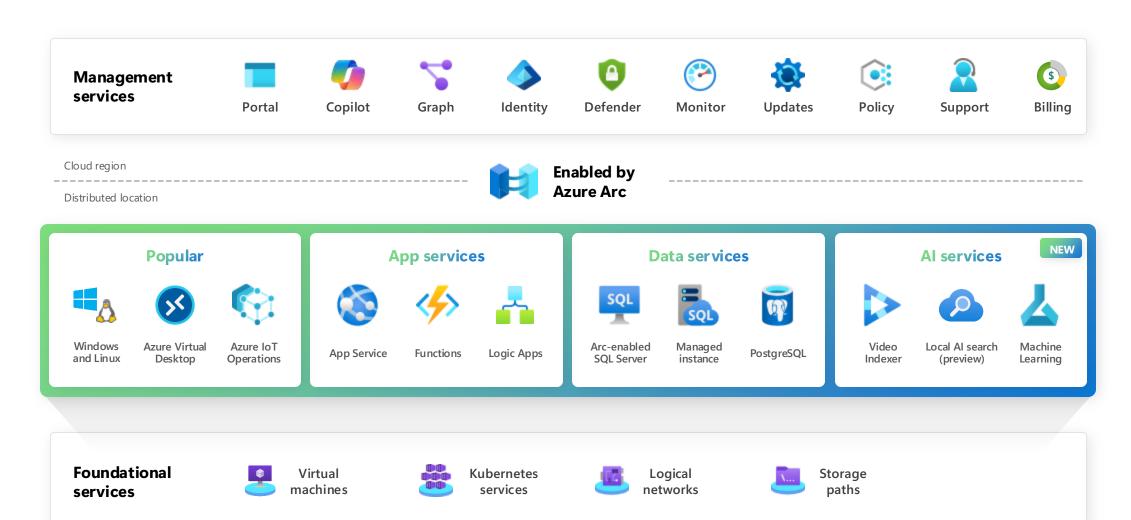


**Guided workflow in Azure Migrate** 



Try the public preview »

## Bring Azure app, data, and AI services anywhere



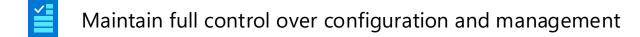
Available now

# **Azure Virtual Desktop** for Azure Local

# Azure Virtual Desktop is a cloud virtual desktop infrastructure (VDI) solution designed to meet the challenges of distributed workforces

Enable a secure remote desktop experience from anywhere





- Get the security and reliability of Azure
- \$ Optimize cost with multi-session and pay for only what you use

### Azure Virtual Desktop for Azure Local now generally available



- Designed for customers who need secure, on-premises virtualized apps and desktops
- Combines the benefits of Azure Virtual Desktop and Azure Local
- Customers can deploy in their datacenters to extend their on-premises infrastructure to Azure
- All while enjoying many of the key benefits of
  Azure Virtual Desktop on Azure, such as Azure portal,
  Windows 11, and Windows 10 multi-session

# Azure Virtual Desktop for Azure Local extends the benefits of cloud VDI to your local on-premises environment



#### Secure anywhere

- Run virtualized desktops and apps securely with Entra ID, conditional access, and MFA
- Simplify VDI deployment
- No need to manage brokers, gateways, or underlying servers and storage



### Windows 11 and 10 multi-session

- Windows 11 and 10 multi-session or single-session support
- Achieve high utilization & lower operation costs



#### Prime performance

- Enjoy optimized Microsoft 365/Teams/ Windows App experiences
- Run graphic-intensive workloads with GPU support
- Built for sensitive low-latency workloads



#### **Full control**

- Satisfy data locality requirements
- On-premises storage and data residency



#### Scale cloud and on-premises

- Manage and scale deployments across both Azure and Azure Local through a single management experience
- Use the familiar Azure portal and admin experience



#### **Optimize for cost**

- Use existing eligible Windows licenses
- No need to manage overhead licenses for Remote Desktop Services (RDS)
- Save with Windows 11 and 10 multisession support

### Drivers of Azure Virtual Desktop for Azure Local deployments



### **Security and compliance**

Secure, high-performance cloud platform for financial institutions that meets compliance requirements



### **Data sovereignty**

Cloud functionality that can meet the data sovereignty and data gravity requirements for public sector entities



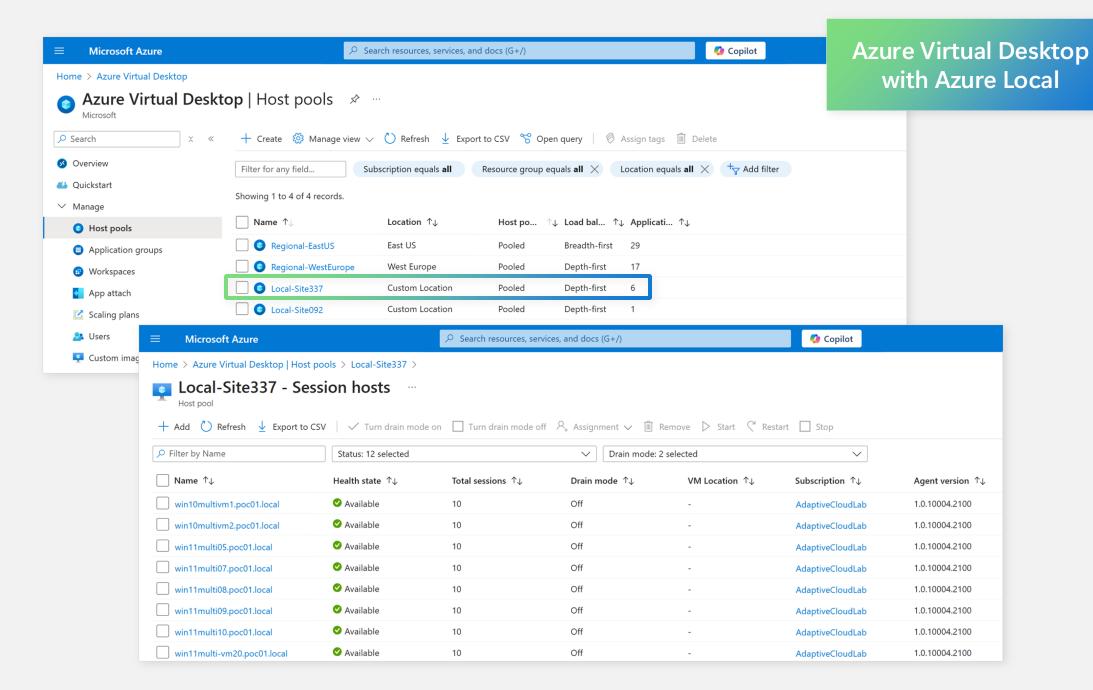
### Low latency workloads

High performance and low latency cloud capabilities that can meet the compute requirements for the most demanding workloads



# Virtual desktop infrastructure (VDI) modernization

Migrate existing VDI workloads to Azure using Azure Local



## **About DataON**

### **About DataON**



Delighting customers Since 1987



Exclusive Microsoft Partner Infrastructure Solutions Partner



On-premises Hybrid Cloud & Azure Services



Must number of validated solutions in the Azure Local catalog (34)



Management software for Azure Local





Exclusive server, compute,
GPU, and networking
technology partner

### **Enterprise customers choose Microsoft & DataON**

State & Local Gov



Retail & Consumer



Higher Education and K-12



Financial Services



Federal / Non-Profit



Manufacturing / Utilities



Software / Services



Technology / Hosting



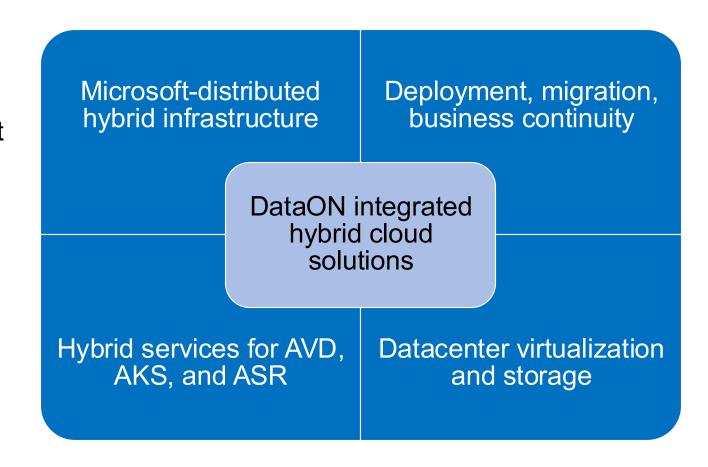
#### Healthcare



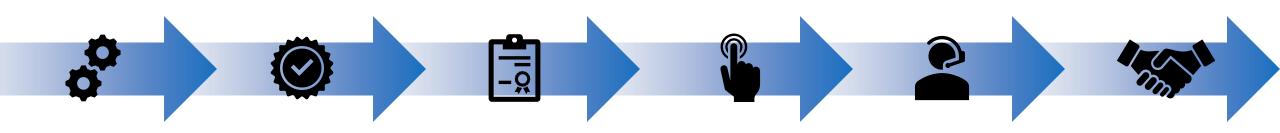
### Delivering a complete, turnkey experience

DataON solutions are purpose-built to deliver enterprise-level virtualization optimized for Azure hybrid workloads.

DataON helps VMware customers migrate to Azure Local with Azure Migrate.



### DataON and Microsoft lifecycle



#### **Engineering** partnership DataON partners with Microsoft to plan roadmaps together.

#### partnership DataON and Microsoft provide highly curated, co-architected solutions with

tested reference

architectures.

**Validation** 

#### Continuous validation Periodic systematic validation by

DataON and Microsoft for supported architectures and workloads.

#### **Data ON MUST** SBE

Hardware updates jointly tested by DataON and Microsoft with seamless singleclick deployment.

#### **One-stop** support

DataON is the primary point of contact for all **Azure Local** issues, both software and hardware.

#### Joint escalations

Joint support from DataON and Microsoft with warm ticket exchanges to reduce time-toresolution for incidents.

## White glove service with world-class deployment services and premium support

#### Design phase

- Recommend solution
- · Compute, network, storage, VM
- · Backups, DR, and hybrid cloud services

#### Deployment

- Customer pre-deployment meeting
- Remote/onsite deployment support
- MUST Pro SBE management

#### Premium support services

- 24/7 around-theclock support
- Semi-annual health check and update
- Azure monitoring



#### Planning phase

- Baseline Microsoft software-defined
- · Discuss customer requirements
- Share DataON business values



#### Pre-deployment

- Validate hardware
- Perform VM Fleet POC and stress testing
- · Verify and apply latest baseline builds
- Prepare customer deployment package



#### Warranty

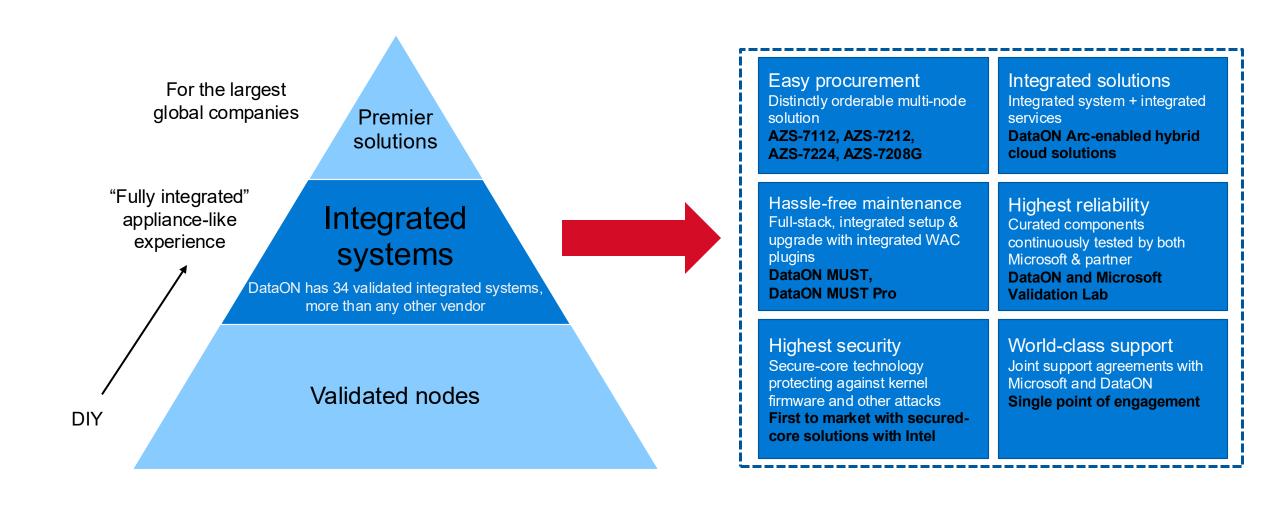
- Standard 3-year hardware warranty and support
- Extension to 5-year
- Next-day parts replacement or onsite spares







### Three tiers of Azure Local solutions



### Three tiers of Azure Local solutions

	Premier solutions (2 solution partners)	Integrated systems Plus from DataON	Integrated solutions (3 solution partners)	Validated nodes (21 solution partners)
Exclusive Microsoft partner		Yes		
Validated solutions in the Microsoft catalog	9	34	40	310
Validated HW with at least 5 years support	Yes	Yes	Yes	
Solution testing frequency	Continuously	2-4 times per year	2-4 times per year	Once
Solution update automation	Single software & firmware/driver updates	Single software & firmware/driver updates	Single software & firmware/driver updates	Separate software & firmware/driver updates
Azure Local pre-installed	Yes	Yes	Yes	
White glove deployment services	Available	Included		
Integrated support between Microsoft and partner	Yes	Yes	Yes	
Detects HW and partner health issues	Yes	Coming soon		
Seamless 1-click updates	Yes	Coming soon		
Proactive call home support service	Yes			
Security features enabled by default	Yes	Yes	Yes	

## **Integrated systems for Azure Local**

Number of solutions in the Azure Local catalog				
TOTAL	DataON	Dell	HPE	Lenovo
74	34	17	8	14

\*As of 4/1/25

## Designed by Intel, delivered by DataON

intel

**NVIDIA**®

**SOLIDIGM.**..

Western Digital®





AZS-7112 Integrated System
All-NVMe Flash
Optimized for density & performance

AZS-7208G Integrated System All-NVMe Flash Optimized for density & GPU

AZS-7212 Integrated System
Hybrid with High Endurance NVMe SSD
Optimized for balanced performance & capacity

AZS-7224 Integrated System
All-NVMe Flash
Optimized for maximum performance & IOPS



## **Azure Virtual Desktop**



Modern, unified management platform for Cloud VDI, Cloud PCs, on-premises VDI, and physical endpoints



MINIMIZE COSTS



ACCELERATE DEPLOYMENT



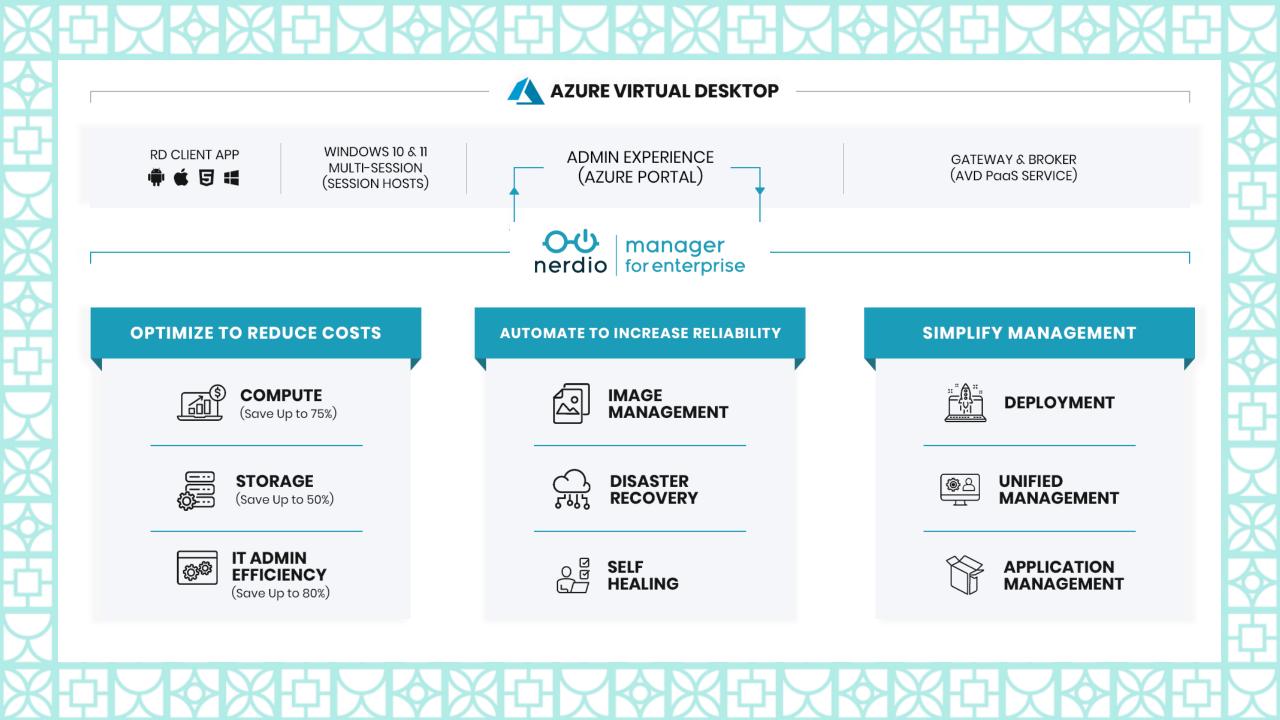
REDUCE COMPLEXITY





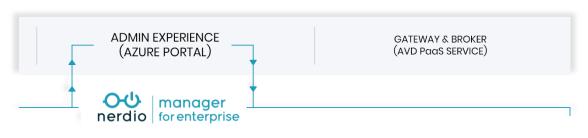






# How does Nerdio enhance Azure Local?

- Simplified deployment
  - Create Azure Local host pools quickly
- Enhanced security
  - Install Nerdio within your Azure environment
- Intuitive user interface
  - · Easy to learn, easier to manage
- Manage desktop images
  - Create, import, and update
  - Version control and backups & restores
- Manage session costs
  - Scalable (and fast)
- Streamlined management
  - Single pane of glass for managing and deploying to:
    - Endpoints
      - Physical, Azure native, and Azure Local
    - User sessions
      - Remote assistance
      - Disconnect, log off, bulk actions
- · Observability, monitoring, and reporting







- Automate tasks: Save time and costs
  - Deploy or schedule
    - Software and scripts
  - Deploy or schedule re-imaging of desktop images and session hosts

## Cost savings with Nerdio

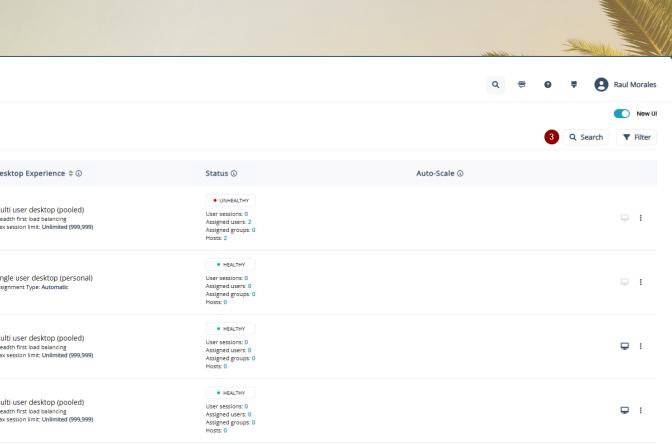
## Auto-scale session hosts automatically based on:

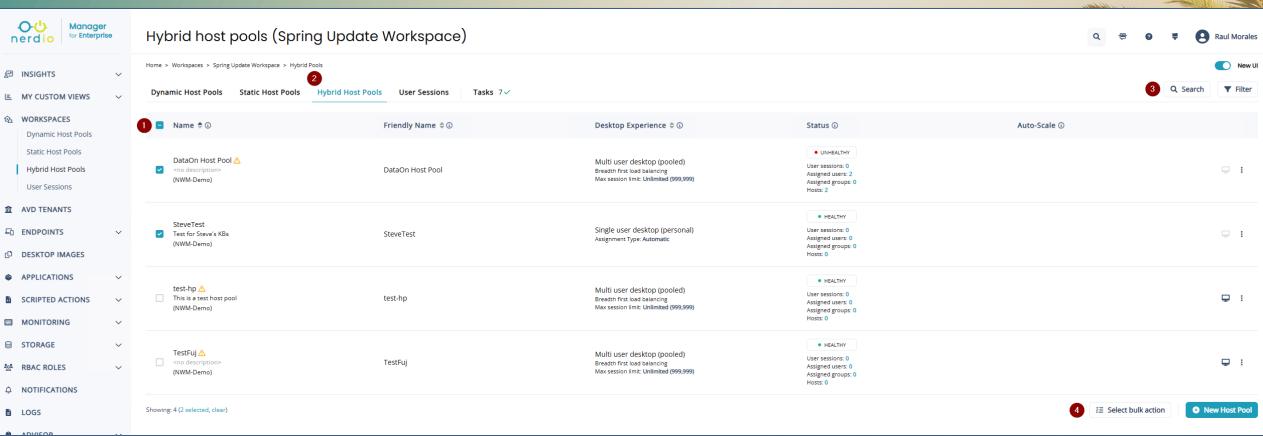
- Schedule, metrics, patterns, and usage behavior
- Why scale out?
  - Increase available resources with demand
- Why scale in?
  - Environmental sustainability
  - Lower data center electricity consumption
  - Reduce AVD service fee

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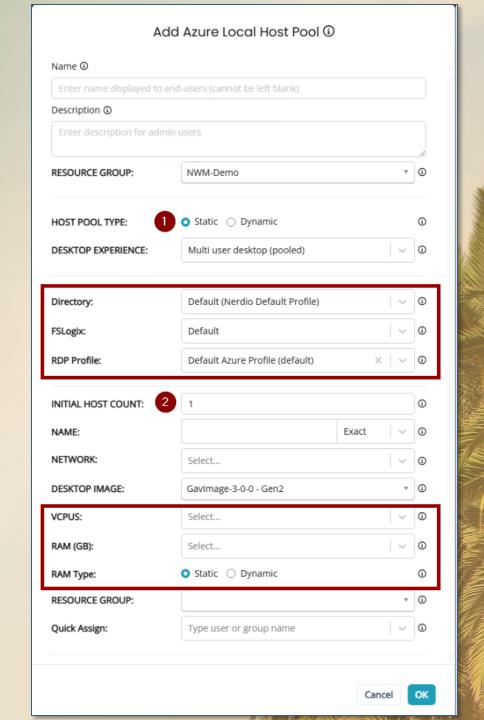


## Azure Local host pools



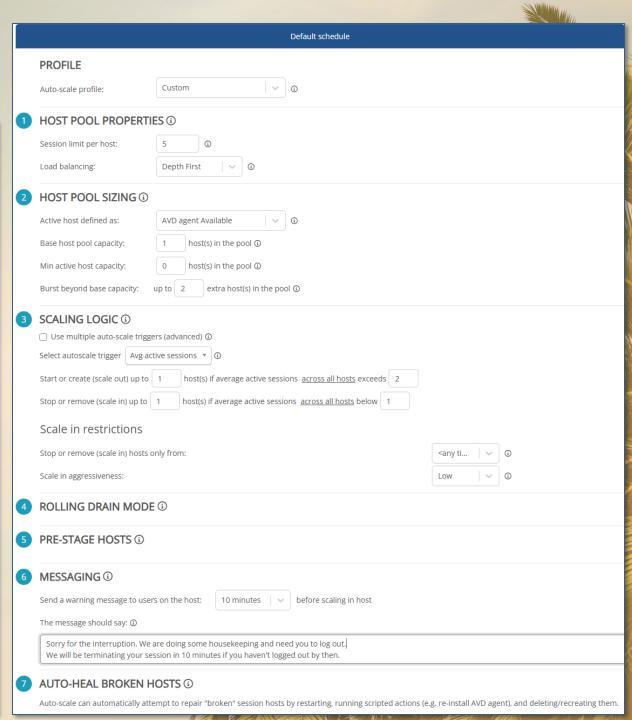


# Azure Local host pool creation



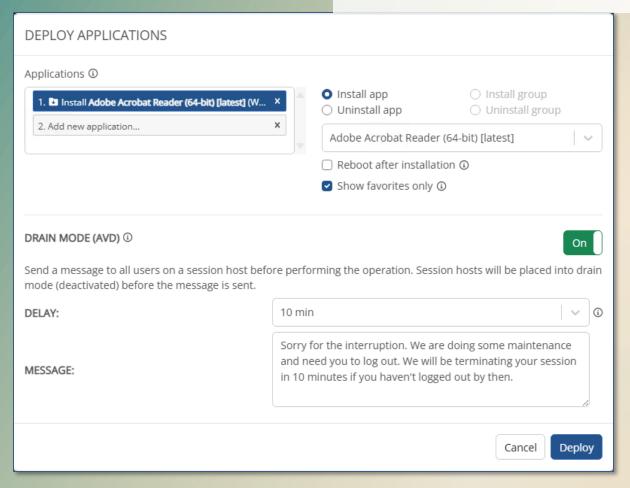
### Azure Local: Dynamic Host Pool Auto-Scale

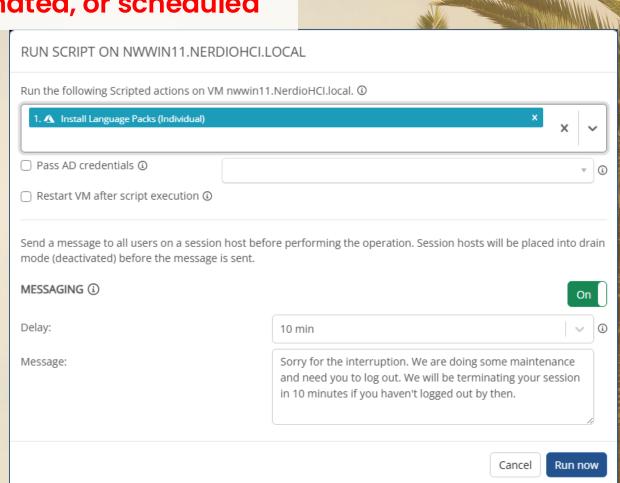
#### MANAGE AUTO-SCALE NME-HCI-DYNAMIC BETA Q AUTO-SCALE (i) RemoteApp host pools deliver applications that are published to assigned users. These RemoteApp the host pool with sufficient capacity to support the user load. When auto-scale is turned off, sess **AUTOSCALE TIMEZONE:** (UTC-03:00) Brasilia Hosts will be provisioned based on the template for pool: NAME: NME-HCI-{##} Pattern NETWORK: nerdiohci-clus-network win11-marketplace - Gen2 (microsoftwindo... DESKTOP IMAGE (TEMPLATE): VCPUS (TEMPLATE): 2 RAM (GB) (TEMPLATE): Static Dynamic RAM TYPE: RESOURCE GROUP: NME-AVD-Resources VM NAMING: Re-use names Automatically re-image used hosts ③ Changes to the template will apply to newly created or re-imaged host VMs.



# Azure Local: AVD Script and Application deployments

#### On-demand, automated, or scheduled





## What is "Hybrid" AVD with Azure Local?

Azure Native (cloud)

Desktop images
Session hosts
Storage
Auto-scale
Deployments: Scripts and software
Monitoring, Analytics, and Reporting

Azure Local (on-premises)

Desktop images
Session hosts
Storage
Auto-scale
Deployments: Scripts and software
Monitoring, Analytics, and Reporting



## Nerdio: Roadmap for AVD and Azure Local

#### Recent

- Azure Local branding updates in product
- Auto-Scaling
- Support of static and dynamic memory types
- Desktop images (custom locations)

#### • 2025 H2+

- Integrate pre-existing host pools
- GPU support
- Expand monitoring and reporting
- What should we implement next?
   Submit your feedback in the forums!



## Thank you for joining us!

Submit feature requests in the Nerdio forums! <a href="https://nmehelp.getnerdio.com/">https://nmehelp.getnerdio.com/</a>

Or scan the QR code!

