



WEBINAR

We will begin shortly...

# Hybrid cloud, secured by **Microsoft** Cloud VDI

(AVD + Nerdio + Windows 365 + Intune + Microsoft Security)



30th October 2025

2:00 PM-3:00 PM AEDT/ 11:00 AM-12:00 PM SGT

Microsoft Teams Webinar







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Microsoft Teams Webinar



# Meet The Speakers



Eric Yun

Senior Presales Technical  
Specialist – Cloud, Crayon



Michael Brooke

Cyber Security Presales  
Lead – APAC, Crayon



Lourens van Dyk

Sr Partner Solution Architect  
(Cloud & AI Infra), Microsoft





# Agenda

- Why Cloud VDI Now?
- The Cloud VDI Landscape
- Architecting VDI for the Modern MSP
- Nerdio in Action
- Windows 365 & Microsoft Intune
- Security Best Practices for AVD & Windows 365
- Q&A



Stay Till The End For Your chance to WIN a \$100 Gift card!



# Understand the partner opportunity

- [Forrester TEI study – The Partner Opportunity for Microsoft Intune Suite](#)
- [Forrester TEI study – Windows 365 and Azure Virtual Desktop](#)
- [Forrester TEI study – Microsoft Intune Suite](#)
- [Forrester TEI study – Windows 365 Link](#)
- [Future of Operations Foundry Summary Resource](#)



# The MSP Opportunity: Windows 365 & Azure Virtual Desktop

## 🌐 Market Trends:

- **Hybrid work** is here to stay — customers need secure, anywhere access.
- **VDI-as-a-Service** demand is rising as SMBs move away from on-prem desktops.
- Device management & security complexity drive cloud desktop adoption.

## 💡 Why It Matters for MSPs:

- **Windows 365** → Fully managed, fixed-price Cloud PC (simple to deploy & support).
- **Azure Virtual Desktop** → Flexible, customizable, multi-session & app streaming.
- Together → Enable secure, scalable, cost-effective virtual desktop services.

## 💰 Forrester Study (2025):

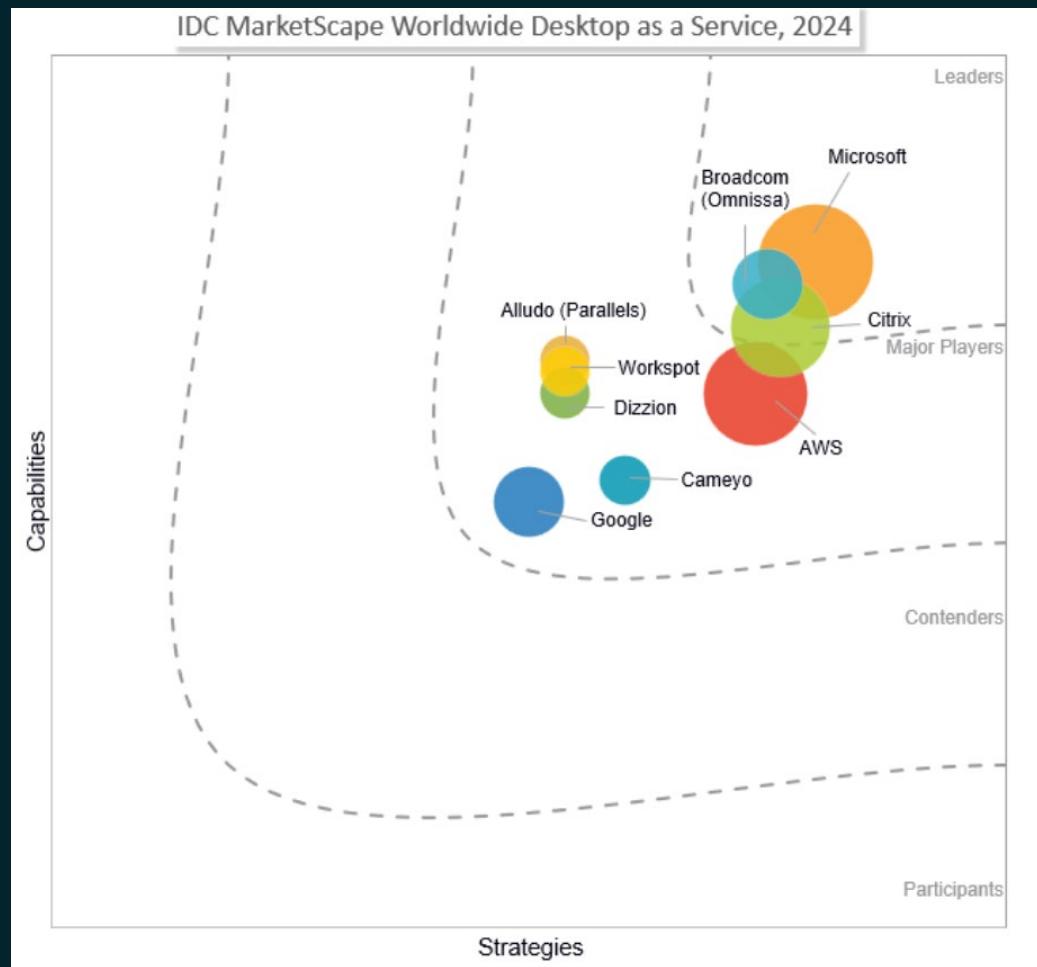
- **ROI: 94%–217%**      NPV: \$3.2M–\$7.4M      Benefits (3-yr PV): Up to \$10.8M
- **Faster onboarding, reduced hardware costs, improved security & fewer tickets.**

## MSP Takeaways:

- Package Cloud PC + AVD as a **managed desktop service**.
- Drive Azure consumption & recurring revenue.
- Modernize customer workspaces with secure, hybrid-ready solutions.

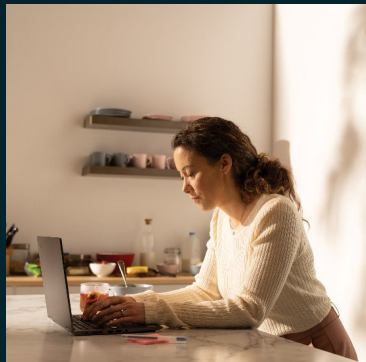


# IDC MarketScape Worldwide Desktop as a Service Vendor Assessment





# Evolving needs for end user computing



## Distributed employees

- Remote Work
- BYOPC
- Field roles
- Branch locations



## Security and regulation

- Industry standards
- Government regulations
- IP security
- Customer data



## Elastic workforce

- Mergers and acquisition
- Short-term and seasonal
- Contractor and partner access



## Specialized workloads

- LOB apps
- Customer Service
- Software dev test
- Design workstations



# Most customers are **already** eligible for AVD



## Client

Customers are eligible to access Windows 10 single and multi session and Windows 7 with Windows Virtual Desktop (AVD) if they have one of the following licenses\*:

- Microsoft 365 E3/E5
- Microsoft 365 A3/A5/Student Use Benefits
- Microsoft 365 F1
- Microsoft 365 Business Premium
- Windows 10 Enterprise E3/E5
- Windows 10 Education A3/A5
- Windows 10 VDA per user

\*Customers can access Azure Virtual Desktop from their non-Windows Pro endpoints if they have a Microsoft 365 E3/E5/F1, Microsoft 365 A3/A5 or Windows 10 VDA per user license.



## Server

Customers are eligible to access Server workloads with Windows Virtual Desktop (AVD) if they have one of the following licenses:

- RDS CAL license with active Software Assurance (SA)



Pay only for the virtual machines (VMs), storage, and networking consumed when the users are using the service

Take advantage of options such as [one-year or three-year Azure Reserved Virtual Machine Instances](#), which can save versus pay-as-you-go pricing. [Now with monthly payment options!](#)

[AVD Pricing page on Azure.com](#)



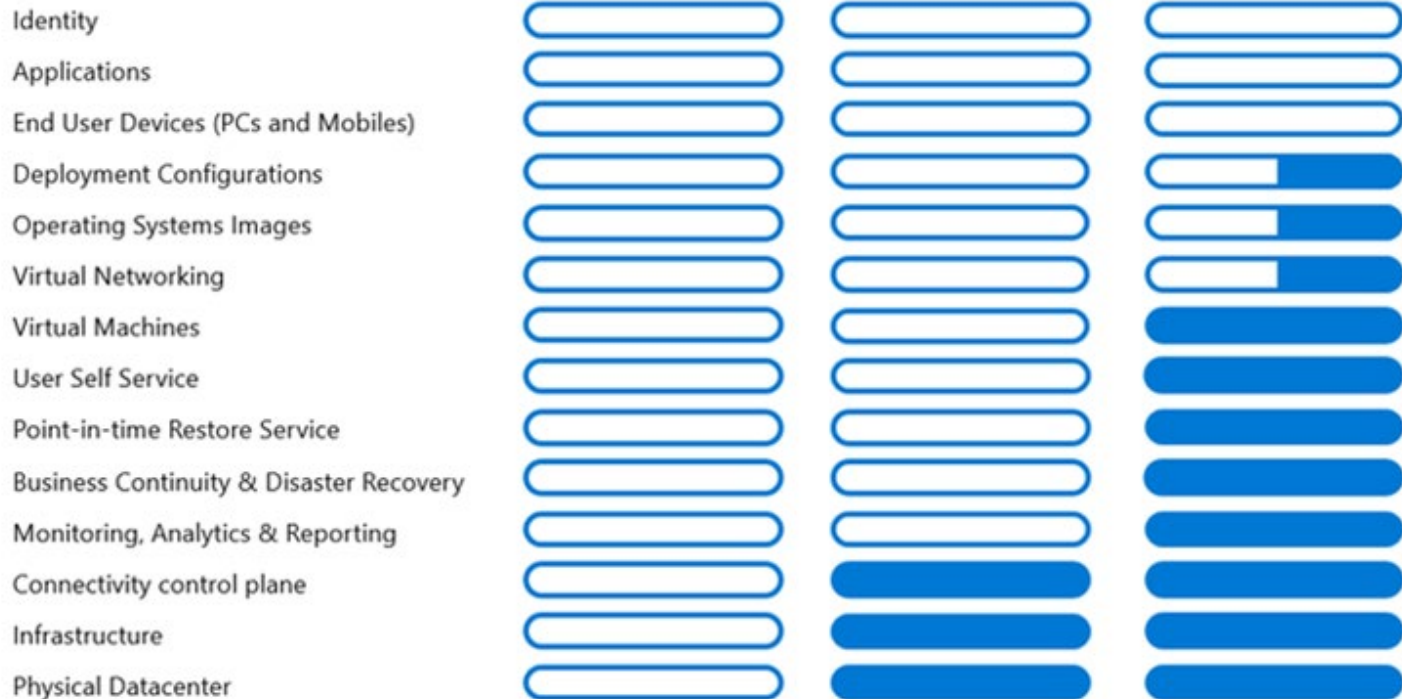
MANAGED BY CUSTOMER

CUSTOMER OR MICROSOFT

MANAGED BY MICROSOFT

## Responsibility

On-Premises VDI → Cloud VDI / AVD → Cloud PC / W365



On-Premises

IaaS + PaaS

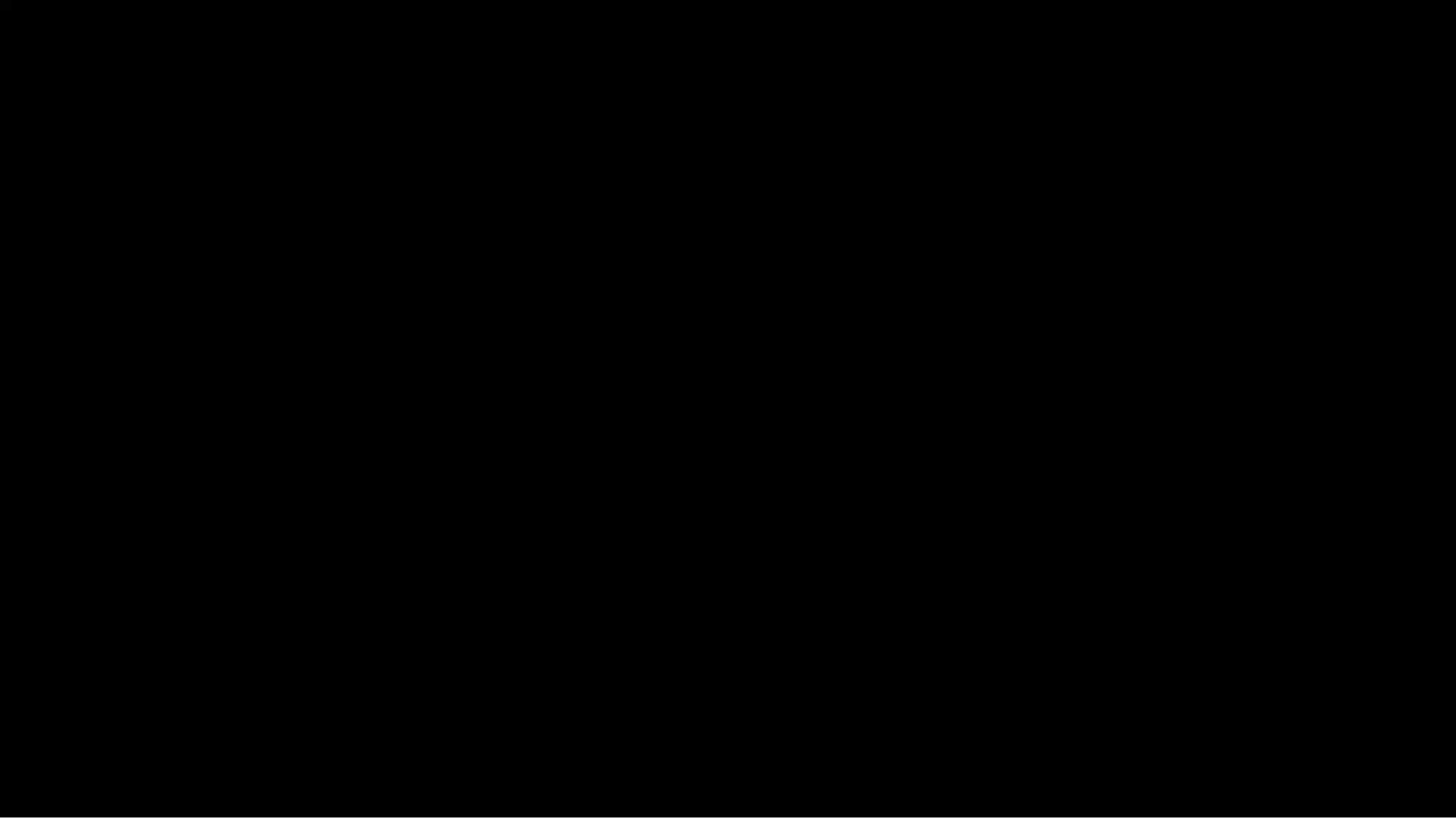
SaaS



DEMO

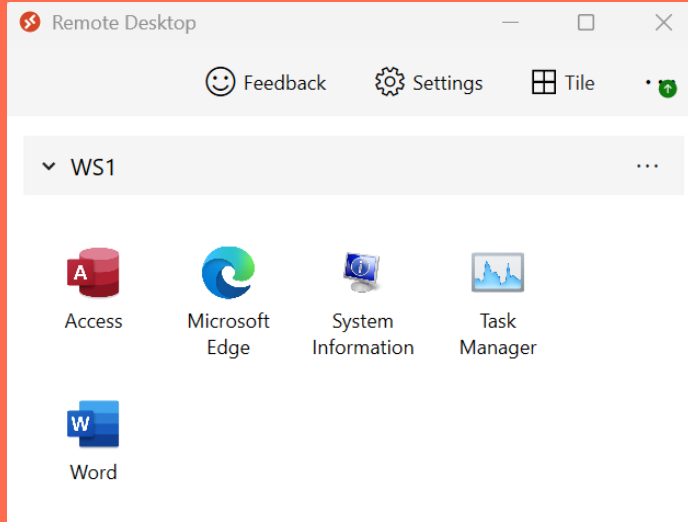
# AVD/User Experience



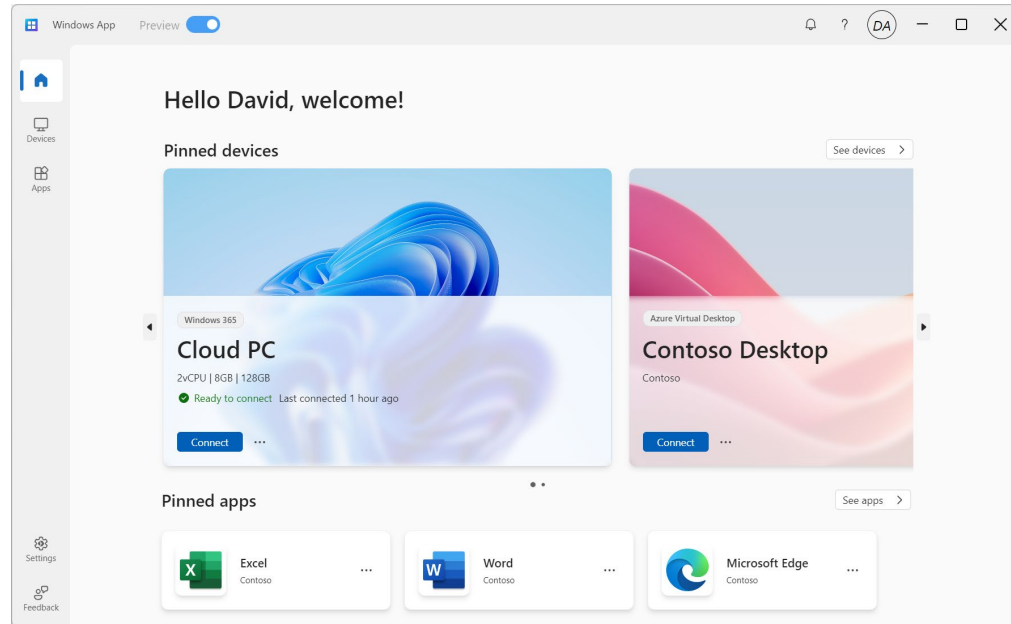




# Remote Desktop Client (will be officially retired on March 27, 2026)



## Windows App





# High-level services architecture

## Managed by You -Your subscription

### Desktops + Remote apps



Full Desktop



RemoteApp



Windows 10/11 Enterprise multi-session



Windows 10/11 Enterprise



Windows 7 Enterprise Full Desktop



Windows Server 2012 R2 and newer

### Management + policies



Image, app, and profile management



User management and identity

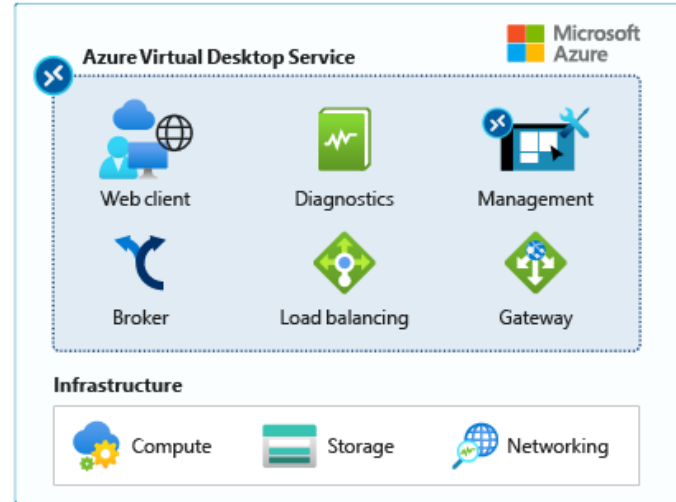


User density, VM sizing, and scaling policies

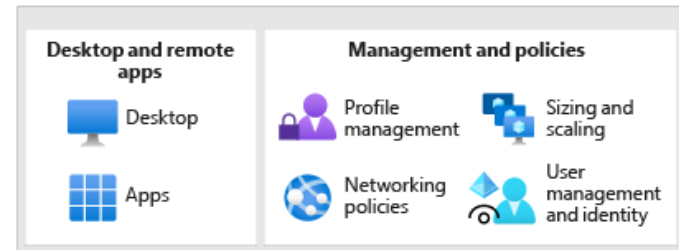


Networking policies

## Managed by Microsoft

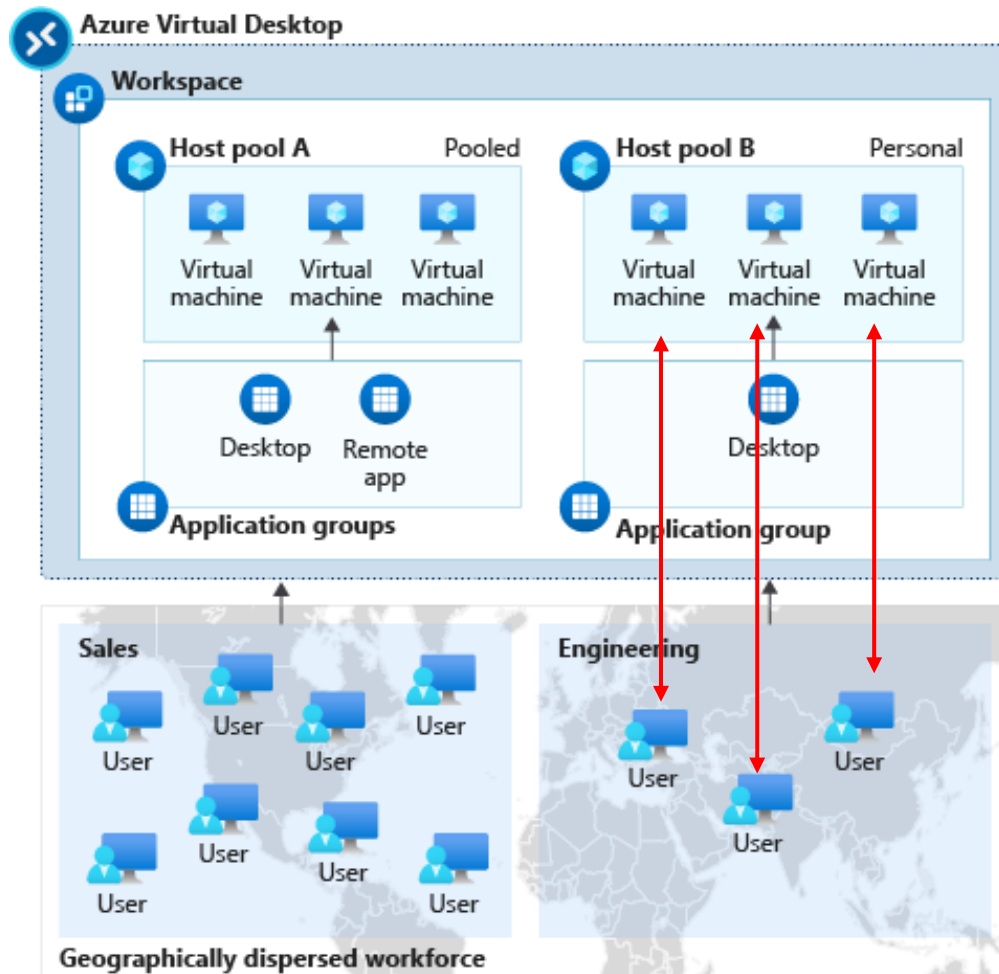


## Managed by you



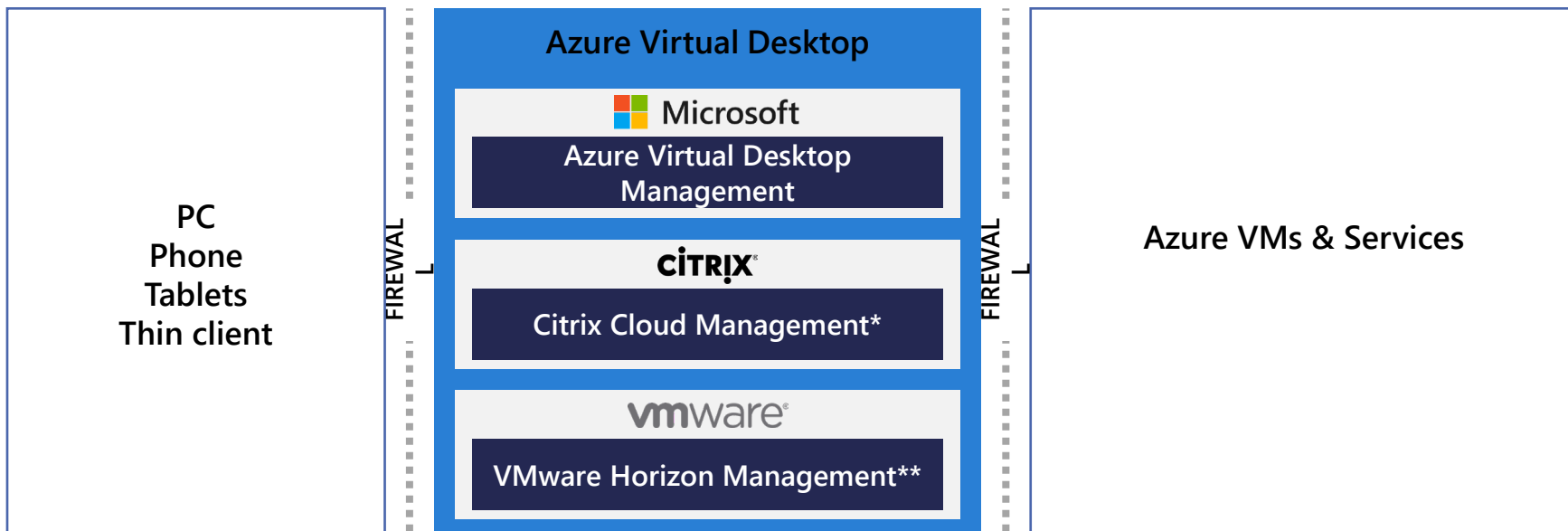


# Azure Virtual Desktop workspace with two host pools





# Azure Virtual Desktop + Citrix and VMware



\*Requires Citrix Cloud service management plane that runs on Azure. Agent installed must be the 1909 or later release to be eligible for Azure Virtual Desktop

\*\*Requires VMware Horizon Cloud on Azure



LOURENS VAN DYK

## Architecting VDI for the Modern MSP





# Creating the foundation for your Azure Virtual Desktop environment



## Performance requirements and sizing

- Virtual machine (VM) recommendations
- Multi-session and sizing guidelines
- Storage for your VMs
- Storage for your FSLogix profiles
- GPU VMs
- Networking
- New features



## User experience

- Host pools and session hosts
- Personal or pooled host pools
- User profile management (FSLogix)
- Remote App Streaming
- New features:
  - Personal desktop unassignment and reassignment
  - Storage cost savings with FSLogix



## Networking and connectivity

- Networking considerations
- On-premises to Azure connectivity
- Inter-Azure traffic management
- New features:
  - RDP Shortpath



# Azure Virtual Desktop host sizing recommendations (multi-session and single session)

## Multi-session recommendations

The following table lists the maximum suggested number of users per virtual central processing unit (vCPU) and the minimum virtual machine (VM) configuration for each workload. These recommendations are based on Remote Desktop workloads.

Workload type	Maximum users per vCPU	vCPU/RAM/OS storage minimum	Example Azure instances	Profile container storage minimum
Light	6	2 vCPUs, 8 GB RAM, 16 GB storage	D2s_v3, F2s_v2	30 GB
Medium	4	4 vCPUs, 16 GB RAM, 32 GB storage	D4s_v3, F4s_v2	30 GB
Heavy	2	4 vCPUs, 16 GB RAM, 32 GB storage	D4s_v3, F4s_v2	30 GB
Power	1	6 vCPUs, 56 GB RAM, 340 GB storage	D4s_v3, F4s_v2, NV6	30 GB

## Single-session/personal desktop recommendations

- Sizing largely dependent on the workload, apps deployed, and user type.
- We recommend at least two physical CPU cores per VM (typically four vCPUs with hyperthreading).
- If you need more specific VM sizing recommendations for single-session scenarios, check with your software vendors specific to your workload .
- VM sizing for single-session VMs will likely align with physical device guidelines .
- Use other tools to get granular level sizing and scaling recommendations.



# Azure Virtual Desktop storage considerations – OS disk choice

## OS disk type

Each Azure Virtual Desktop VM needs an OS disk. The disc type can be configured by the system admin during set up or at any point. The table below compares the different options at a high level (more details [here](https://aka.ms/AzureManagedDiskTypes) (aka.ms/AzureManagedDiskTypes)).

	Premium SSD	SSD	HDD	<a href="#">Ephemeral Disk</a>
<a href="#">SLA</a> + <a href="#">HA</a>	● ● ●	● ●	● ●	●
IOPS & throughput	● ●	● ●	●	● ● ●
Flexibility	● ● ●	● ●	● ●	●
Low cost	●	● ●	● ● ●	● ● ● ● ●



Use Ephemeral disks (free) to save costs if your scenario allows it



# Azure Virtual Desktop storage considerations – FSLogix profile Storage

## FSLogix profile storage

Azure offers multiple solutions that you can use to store your FSLogix profile containers.

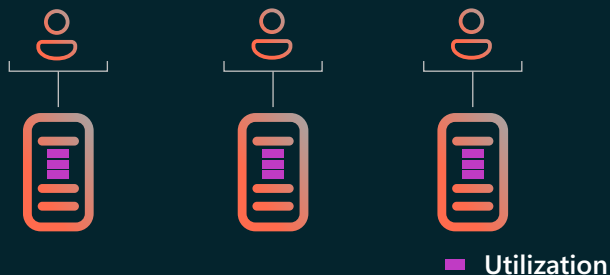
The table below compares the different options at a high level (more details [here](#)).

	Azure Files Premium	Azure NetApp Files	Storage Spaces Direct
Workload type	Medium user, low-concurrency	All user types, high-concurrency	Light user, low-concurrency
SLA + HA	••	•••	•
IOPS & throughput	••	••	•
Low latency	••	•••	•
Flexibility	•••	•••	••
Low cost	••	••	•
Data protection	••	•••	••



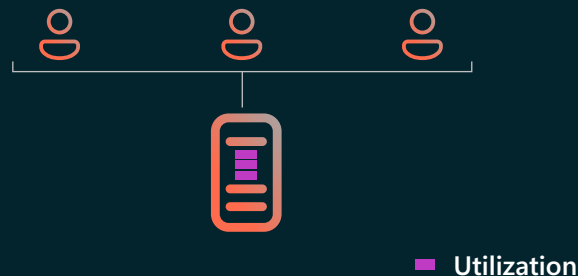
# Choose the right configuration to meet your user requirements

## Personal desktops



- Ideal for **single-session** users with **heavy performance** requirements
- Choose the right VM to run robust business apps such as CAD, SAP and others
- Always-on experience and single state retention

## Pooled desktops



- Ideal for **multi-session** users and certain **single-session** with **light – medium** workloads with basic business requirements
- Choose the right VM to run most business apps

**Azure automation** – Automate your Azure management tasks and orchestrate actions across external systems from within Azure

Pay only for the virtual machines (VMs), storage, and networking consumed when the service is in use



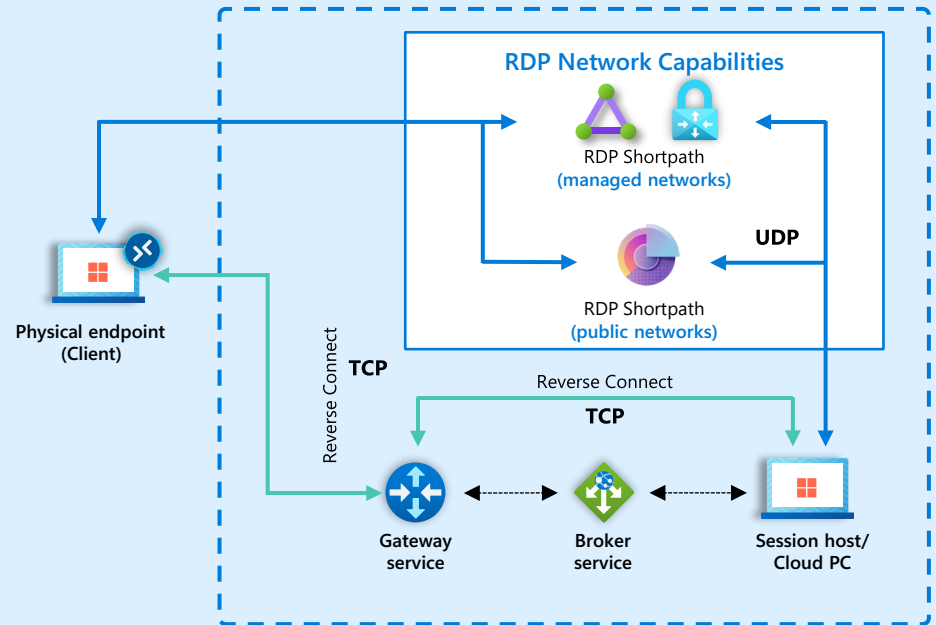
## Connection performance – RDP Shortpath

Connection performance is a collection of **protocol transport improvements** that fit under the umbrella of the evolved RDP experience.

RDP Shortpath establishes **reliable UDP-based transport** with the goal of improving the **connection reliability and reducing overall latency**.

Previously all connections were made via TCP (reverse connect) which allowed retransmission of packets at the cost of latency.

RDP Shortpath ensures that RDP connections have **high connectivity** and **lower latency than TCP** based connections.





# Identity strategies

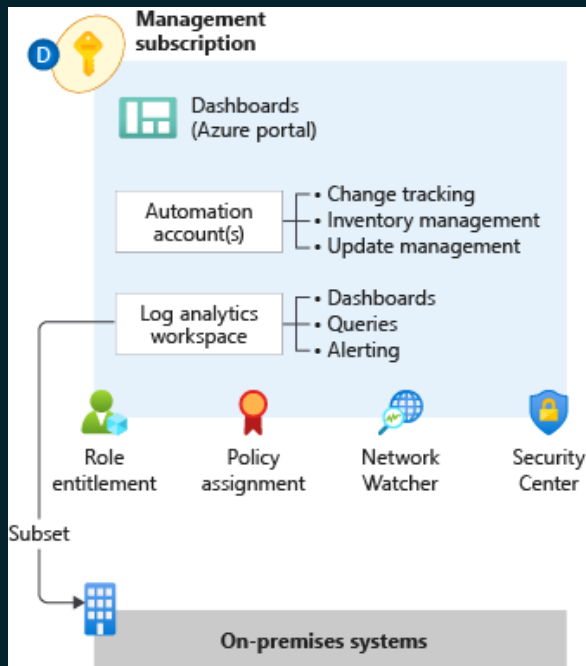
Option	Pros	Cons
Entra ID joined session hosts + hybrid identity	<p>Best choice for ease of management and feature availability</p> <p>No line-of-sight connection required to Active Directory Domain Controllers from the session hosts</p>	<p>Requires Intune or custom scripting for policies &amp; settings management</p>
Hybrid joined session hosts + hybrid identity	<p>Most comprehensive and feature complete option</p>	<p>Requires line-of-sight network connection to Active Directory Domain Controllers from the session hosts</p> <p>Usually uses GPOs to manage settings</p> <p>Usually requires Site-to-Site VPN or Express Route to on-premises</p>
Entra ID joined session hosts + cloud-only identity	<p>Zero-trust solution with least complex management</p>	<p>Requires Intune or custom scripting for policies &amp; settings management</p> <p>Limitations on using FSLogix profiles, recommended primarily for personal desktops with local profiles or remote apps without need for data persistence.</p> <p>Support for cloud-only users on Azure Files is coming soon.</p>
Entra ID Domain Services	<p>For Test &amp; quick Lab setup</p>	<p>Several feature limitations e.g. no management via Intune, no SSO support, no hybrid join and no migration to any other identity solution</p>



# Management & monitoring



## Planning for platform & application management & monitoring



## Design considerations

- Use Azure Monitor Log Analytics workspaces as the administrative boundary of logs.
- Collect telemetry from the platform services workspaces and HostPools.
- Performance counters should be collected.
- Azure event logs should be collected.
- Create a dashboard from the platform logs to centralize visuals for reporting operation.



## Design recommendations

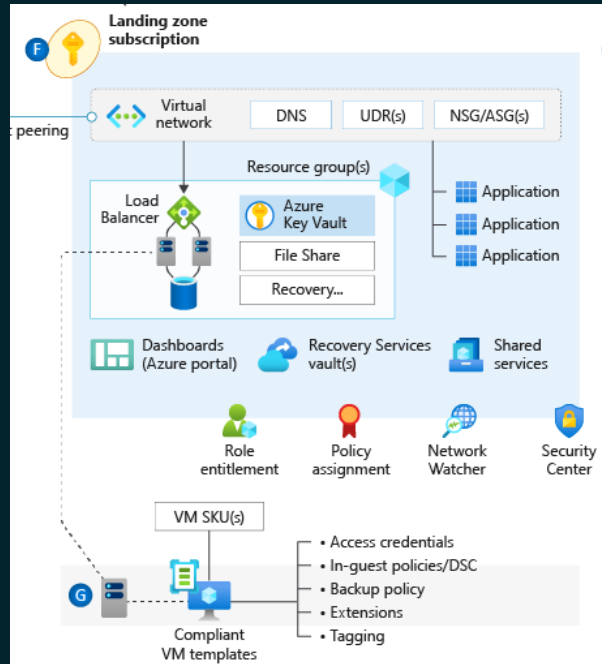
- Use a separate dedicated Azure Monitor Log Analytics workspace for Azure Virtual Desktop.
- Centralize your Azure Monitor Log Analytics workspace in the region of your Azure Virtual Desktop deployment.
- Export diagnostic settings to a storage account if there's a need to go beyond the two-year retention period.



# BCDR – Strategy & design



## Planning for business continuity and disaster recovery (BC/DR)



## Design considerations

- User Data Replication.
- Use of active-passive availability pattern in a multi-region deployment.



## Design recommendations

- For Personal (dedicated) host pools, it's recommended to use ASR to replicate host pool VMs in a secondary DR region (Active-Passive with Cold Stand-By). Region should be aligned with DR of the storage backend used by FSLogix.



# Azure Virtual Desktop landing zone accelerator



Azure Virtual Desktop landing zone accelerator is an **architectural approach and reference implementation that enables effective workload and scenario operationalization** of landing zones on Azure, at scale and **aligned** with **Azure Roadmap** and **Microsoft Cloud Adoption Framework for Azure**



## Authoritative

Provides holistic design decision framework for Azure Platform



## Proven

Based on success of large-scale migration projects at-scale



## Prescriptive

Apply it on clearly plan and design your Azure environment

### Azure Virtual Desktop landing zone accelerator architecture

Landing zone accelerator design guidelines: Guidelines (decisions and recommendations) for the six components of the enterprise-scale architecture.

### Azure Virtual Desktop landing zone reference implementation

A reference implementation of shared services containing network, security, identity, governance services required to construct and operationalize an enterprise-scale landing zone.



# Azure Virtual Desktop landing zone accelerator design areas



Identity access management



Management & monitoring



Security, governance, & compliance



Network topology & connectivity

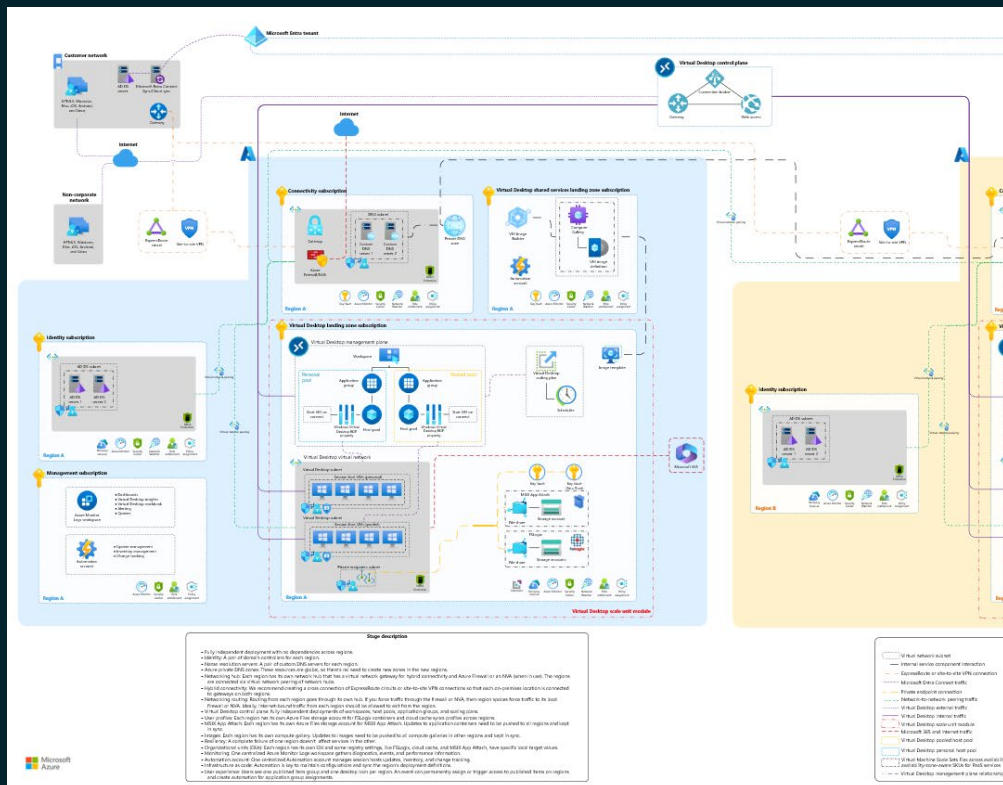


Business continuity & disaster recovery



Platform automation & DevOps

[Azure landing zones for Azure Virtual Desktop instances - Cloud Adoption Framework](#)





# Nerdio's evolution

2018

## Nerdio for Azure

- Empower MSPs to build cloud practices in Azure with RDS
- WVD Private Preview

2019

## Nerdio for Azure & WVD

- WVD Public Preview and GA
- Nerdio supports AVD on day 1 of GA

2020

## Nerdio Manager for AVD

- Ultimate AVD deployment, AVD management, & auto-scaling for IT Pros

2021-  
2023

## Nerdio Manager for MSP

- Unified management platform for DaaS & physical endpoints
- Windows 365 Cloud PC launch partner
- Intune integration

2024+

## Nerdio Manager for MSP

- Beginning the journey into Modern Work with Intune
- Expand on Microsoft 365 management



# Nerdio's key AVD management features



Host Pool  
Management



Session Host  
Auto-Scaling



Custom  
RBAC Roles



AVD Cost  
Estimator



Backup and  
Restore



AVD Lifecycle  
Image Management



User Profile  
Management



PowerShell  
Scripting

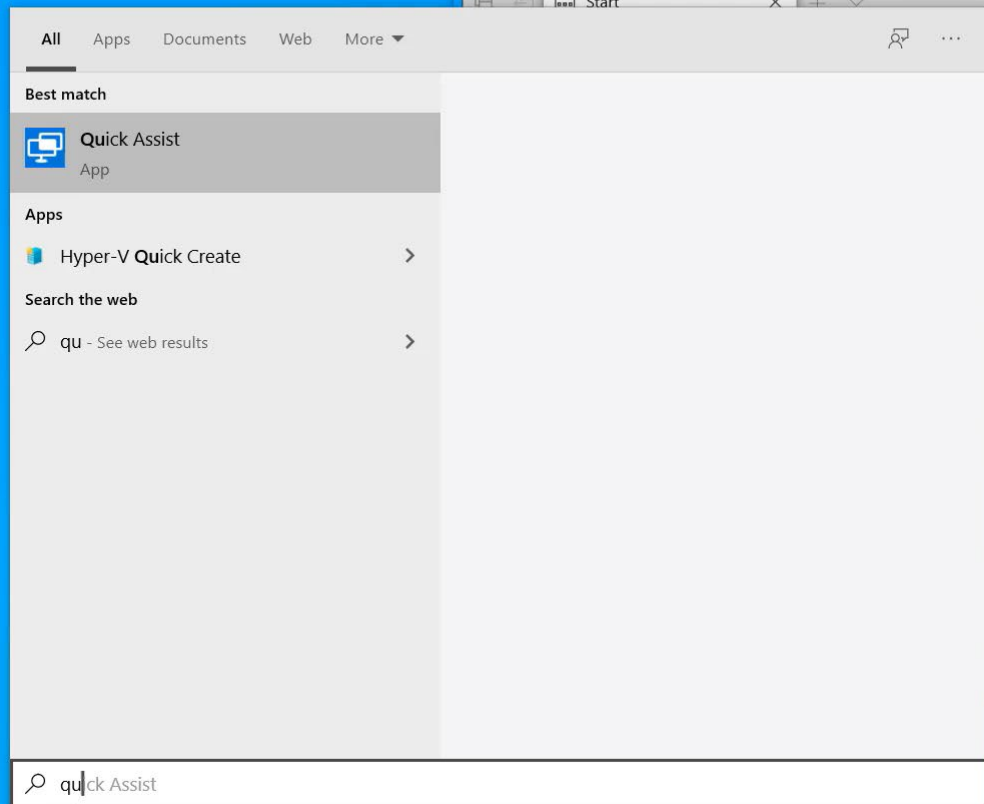
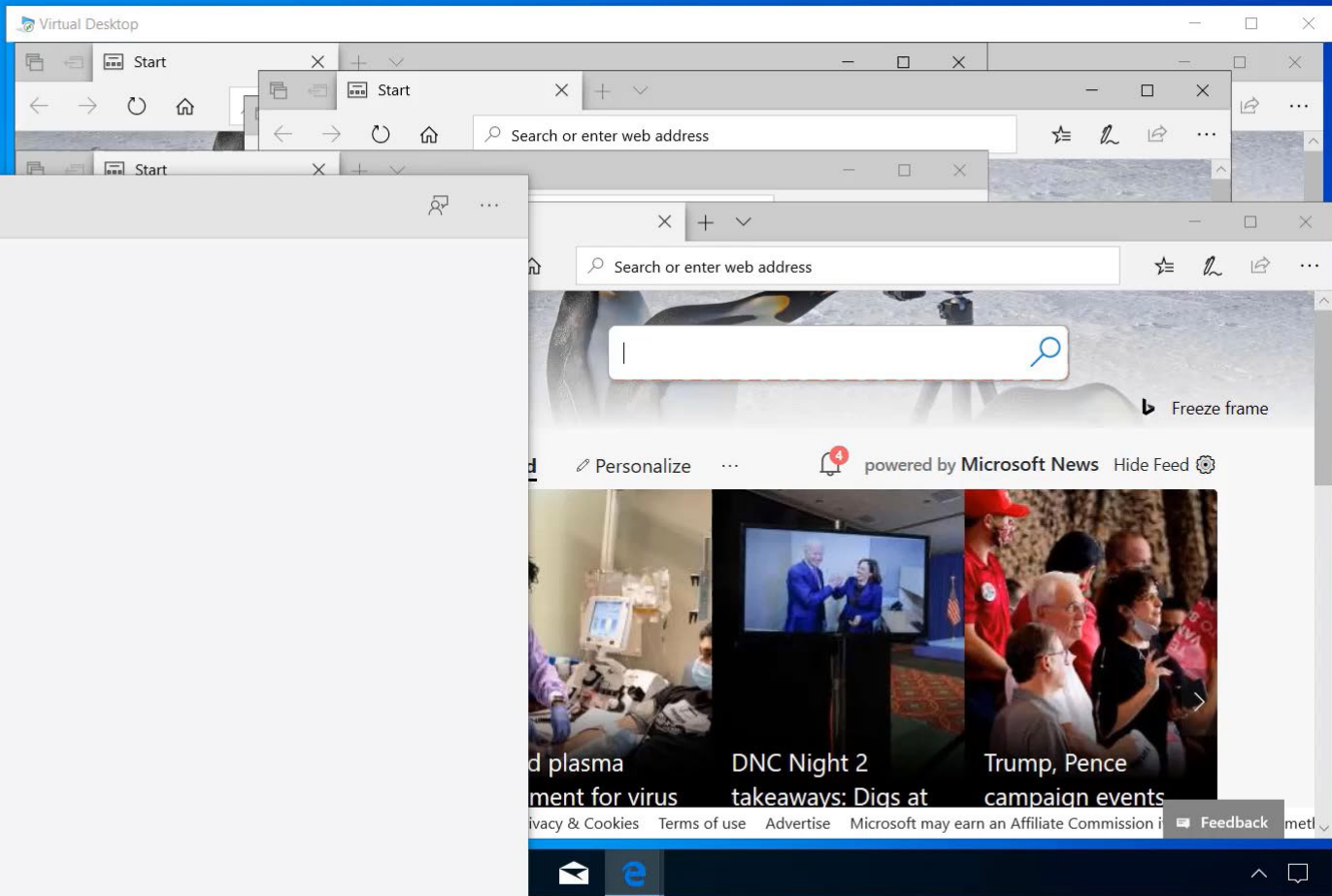


# DEMO

## W365/Cloud PC

- Helpdesk Capabilities







	Windows 365/Coud PC		Azure Virtual Desktop	
	Enterprise	Business	Personal	Pooled
Control plane	Azure Virtual Desktop		Azure Virtual Desktop	
Azure subscriptions	Microsoft-managed, except networking	Fully Microsoft-managed	Customer-managed	
Compute	Microsoft-managed, fixed cost, no direct admin access to VMs		Customer-managed, usage-based cost, flexible	
Storage	Microsoft-managed, fixed cost, multiple storage sizes, service-level DR		OS disks, FSLogix, customer-managed, usage-based cost, flexible, easy to back up	
Networking	Customer-managed, usage-based cost, flexible routing, IPs, and security	Microsoft-managed, fixed cost, no direct admin access, no flexibility	Customer-managed, usage-based cost, flexible routing, IPs, and security	
User profiles	Local profiles		FSLogix optional	FSLogix mandatory
Identity	<b>Hybrid AD join or Entra ID join supported.</b> Entra ID DS not supported. Unified Entra authentication and passwordless methods standard; legacy MFA and SSPR policies retired September 2025.	<b>Entra ID join only.</b> No Hybrid AD option. Passwordless/conditional access standard.	Entra ID DS, Windows AD, or Entra ID supported. Native Entra ID join now generally available. Passwordless, conditional access, and unified Entra authentication required.	

Reference : <https://getnerdio.com/blog/windows-365-vs-azure-virtual-desktop-avd-comparing-two-daas-products/>



# Selecting the right solution(s)



## Windows 365

- Personalized Windows 365 Cloud PCs available across devices.
- Simple and turnkey to buy and deploy.
- Predictable per user, per month pricing.
- Easily scalable compute and storage.
- No VDI experience or skills required.



## Azure Virtual Desktop

- Flexibility and control.
- Multi-session Windows VMs.
- Data residency and geo requirements.
- Remote app streaming.
- Specialized GPU and HPC workloads.
- Scalable compute and storage to optimize for cost and experience.



## Azure Virtual Desktop with Citrix and VMware VDI

- Optimize existing investments and skills in Citrix and VMware VDI.
- Create a multi-cloud or hybrid architecture with a single control panel.



# Microsoft Intune

Cloud-native endpoint management  
enlightened by generative AI

## Simplify and consolidate endpoint management

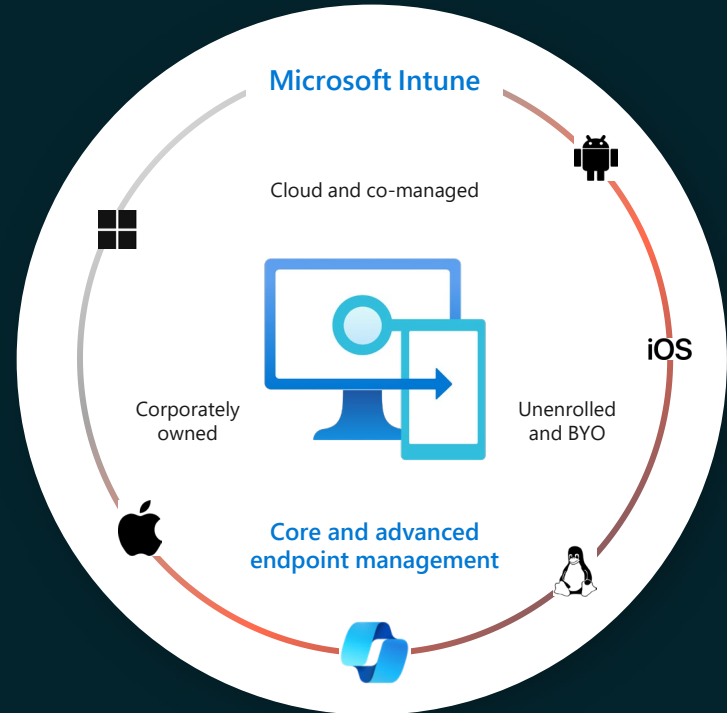
Cut cost and complexity by shifting to the cloud, unifying endpoint management and security tools in one place.

## Fortify Zero Trust security

Mitigate threats and improve compliance across all devices by protecting users, devices, apps, and data

## Power better experiences

Proactively manage better user experiences while driving operational excellence with AI and automation.





# DEMO

Modern Endpoint Management for Frontline Workers  
with **Microsoft Intune**



- Home
- Dashboard
- All services
- Devices
- Apps
- Endpoint security
- Reports
- Users
- Groups
- Tenant administration
- Troubleshooting + support

Home > Devices | Android >



## Android | Android devices

Search

### Android devices

#### Monitor

#### Device onboarding

##### Enrollment

#### Manage devices

##### Configuration

##### Compliance

#### Manage updates

##### Android FOTA deployments

#### Organize devices

##### Device clean-up rules

December 31st, 2024 marks the end of Microsoft Intune support for Android device administrator management on devices with access to Google Mobile Services (GMS). Use alternate Intune Android management options instead. [Learn more about these Android support changes.](#)

Refresh Export Columns Bulk device actions

3 devices

Search



OS: Android (device administrator), Android (personally-ow... , +5

Add filters

Device name	Managed by	Ownership	Compliance	OS	OS version	Primary user UPN	Last check-in
Boston Store Devi	Intune	Corporate	Compliant	Android (dedicated)	14	None	09/06/2024, 01:35 PM
Boston Store Man	Intune	Corporate	Compliant	Android (fully man...	10	Jason@testintune...	09/06/2024, 12:29 PM
Jason_AndroidEnt	Intune	Corporate	Compliant	Android (fully man...	10	Jason@testintune...	09/05/2024, 03:41 PM



# Managing the modern environment

## Unified Endpoint Management

### Intune

- Cross-platform endpoint management
- Endpoint security built in
- Mobile application management
- Device compliance
- Endpoint analytics
- Shared device management

### Intune Suite

- Remote Help
- Endpoint Privilege Management
- Advanced Analytics
- Enterprise Application Management
- Cloud PKI
- Tunnel for MAM
- Specialty devices and firmware updates

## Security Copilot

### Copilot in Intune

- Detect hidden patterns
- Troubleshoot & root cause mapping
- Act faster with AI insights
- Create recommended policies
- Report on security
- Strengthen IT expertise

Built on the integrated value of the Microsoft Cloud.



MICHAEL BROOKE

## Security Best Practices For Cloud





## THE MICROSOFT ADVANTAGE FOR SECURITY



Large-scale data  
and threat intelligence



Most complete, integrated,  
end-to-end protection



Industry-leading  
responsible and secure AI



# The Security benefits of AVD

## Built-in Security Controls

Cloud PCs include support for Multi-Factor Authentication, Conditional Access, and antivirus/EDR integration to minimize unauthorized access and threats.

## Reduced Data Breach Risk

Storing data in the cloud reduces risks from lost or stolen physical devices, enhancing data security especially in remote work.

## Centralised Updates and Patching

Cloud PCs receive automatic centralised updates, ensuring consistent protection from vulnerabilities without user intervention.

## Resilience with Instant Access

Features like Windows 365 Reserve provide users instant access to a pre-configured Cloud PC if their device is lost or compromised.





# Security shared responsibility model for Azure Virtual Desktop

Component	Responsibility
Identity	Customer or partner
User devices (mobile and PC)	Customer or partner
App security	Customer or partner
Session host operating system	Customer or partner
Deployment configuration	Customer or partner
Network controls	Customer or partner
Virtualization control plane	Microsoft
Physical hosts	Microsoft
Physical network	Microsoft
Physical datacenter	Microsoft

Using AVD removes some of the management and security complexity away

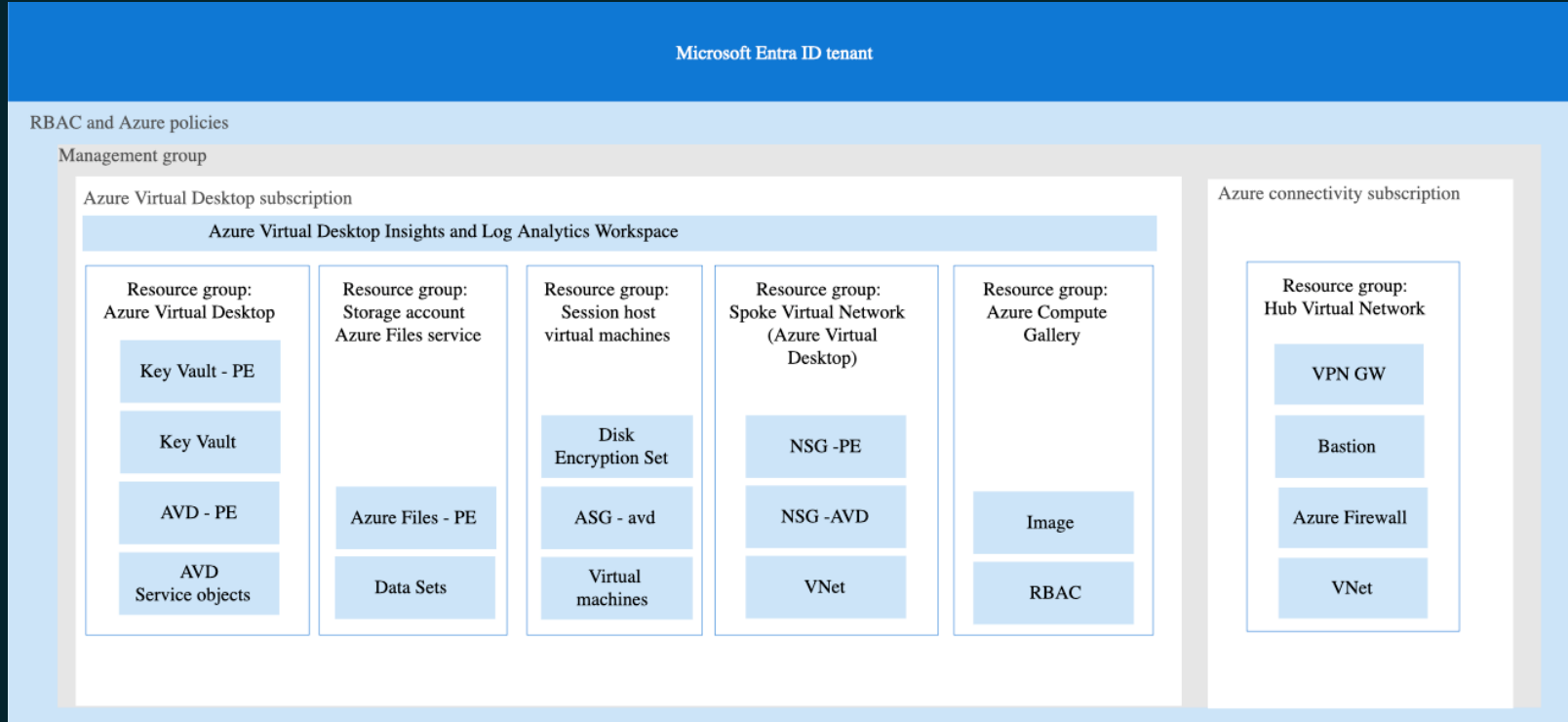
Benefits are:

- No VMWARE licenses!
- No Host/Network patching
- Focus on the Service not the Infra



## BEST PRACTISE

# Best Practice Logical Architecture





# Applying Zero trust to AVD

Step	Task	Zero Trust principle(s) applied	Microsoft Solution
1	Secure your identities with Zero Trust.	Verify explicitly	Entra ID (MFA, SSO, SSPR)
2	Secure your endpoints with Zero Trust.	Verify explicitly	MDE + Intune (MDM, EDR, ASR, TVM)
3	Apply Zero Trust principles to Azure Virtual Desktop storage resources.	Verify explicitly Use least privileged access Assume breach	Entra ID, Defender for Cloud, Defender for Storage, Network Security Groups
4	Apply Zero Trust principles to hub and spoke Azure Virtual Desktop VNets.	Verify explicitly Use least privileged access Assume breach	Application Security Groups, Private Endpoints, VPN, Express Route
5	Apply Zero Trust principles to Azure Virtual Desktop session host.	Verify explicitly Use least privileged access Assume breach	MDE + Intune (MDM, EDR, ASR, TVM)
6	Deploy security, governance, and compliance to Azure Virtual Desktop.	Assume breach	Defender XDR, Sentinel
7	Deploy secure management and monitoring to Azure Virtual Desktop.	Assume breach	Defender XDR, Sentinel



# Build a unified approach to defend against threats (Physical or Virtual)

## Native integration across domains



Prevent



Protect



Detect and respond

Email protection that maximizes user productivity and reduces total cost of ownership.

Email

Security that works across platforms—from iOS and Android to Linux and macOS to Windows and enterprise IoT devices.

Endpoints

Protect all identities with native security controls, threat detection, and remediation.

Identities

Get full visibility of your SaaS app landscape and protect your apps.

Cloud apps

Protect your multicloud, hybrid, and on-premises workloads.

Workloads



Unified entities and inventories

Automatically disrupt in-progress attacks

Cross-product detection engines

Unified threat intelligence and analytics

Managed services support across domains





# M365 E5 Enterprise

## M365 E3

O365 E3

EMS E3

Win Ent E3

## M365 E5 Security

Defender for  
o365

Defender for  
Cloud Apps

Defender for  
Identity

Entra ID P2

Defender for  
Endpoint

## M365 Purview

Information  
Protection &  
Governance

Insider Risk  
Management

eDiscovery &  
Audit

Defender for  
Cloud Apps

Power BI Pro

Teams Audio  
Conferencing

Teams Phone



# Azure Virtual Desktop Security checklist

## Azure Admin Security

- ✓ Enable Defender for Cloud
- ✓ Review your Secure Score and improve it
- ✓ Require MFA
- ✓ Enable Conditional Access
- ✓ Collect Logs
- ✓ Monitor usage with Azure Monitor

## Session Host Security

- ✓ EndPoint Protection and EDR
- ✓ Use Threat and Vulnerability Management
- ✓ Patch Vulnerabilities
- ✓ Set session inactive times and screen locking
- ✓ Limit local Admin, ideally don't allow!



# Q & A





# Your chance to WIN a \$100 Gift card!



We would love to get your  
feedback about this  
session

Fill out the form now and  
get in the draw to win!

**SCAN ME**

[bit.ly/CloudVDI](https://bit.ly/CloudVDI)

**WIN A  
\$100  
Gift Card!**

*One winner will be picked by 3<sup>rd</sup> November, and our team will get in touch*





# Thank You !



Get In Touch:

ANZ: [eric.yun@crayon.com](mailto:eric.yun@crayon.com)

SEA: [tome.saveski@crayon.com](mailto:tome.saveski@crayon.com)

