

Windows Virtual Desktop

WEWC1086 WVD Technical Deep Dive + Hands-on Workshop

Micha Wets - Microsoft MVP | Cloud.Architect | ASPEX | MC2MC | Technine

Bart Roels - Cloud Solution Architect | Microsoft

WEWC1086 WVD Technical Deep Dive + Hands-on Workshop



01/12/2020

Audience: Technical

Competency: Cloud Platform

Level: Advanced | Intermediate



WEWC1086 WVD Technical Deep Dive + Hands-on Workshop

During this Online Windows Virtual Desktop Event, you will learn all about how to technically set up your own Windows Virtual Desktop environment in a Lab environment, learn about FSLogix, MSIX App Attach, Azure DevOps, Mobile & Thin clients.

The training, conducted by Micha Wets (MVP WVD), is divided into 2 sessions: presentation and hands-on. Remember to register to both sessions to guarantee your seat and training completion.

Agenda:

- Presentation-Led (2h):

Technical Deep Dive overview of Windows Virtual Desktop including the WVD, FSLogix, MSIX app attach, Azure DevOps, Azure Portal integration, Mobile & thin client support and much more.

- Break

- Proctor-Led Session:

Build your own WVD Lab environment using a step-by-step workshop and ask questions to the proctors.

During this proctor-led session you will get to build your own WVD Lab environment using a step-by-step workshop and ask questions to the proctors.

WEWC1086_1 WVD Technical Deep Dive

Tuesday, December 1, 2020 10:00 AM ~ 12:00 PM

[Registration >](#)

WEWC1086_2 WVD Technical Deep Dive

Tuesday, December 1, 2020 1:00 PM ~ 5:00 PM

[Registration >](#)

How did we get here?

Sept 2018

March 2019

Sept 2019

Nov 2019

April/May 2020

Ignite

Announcing WVD
Announcing Public Preview

Ignite The Tour

WVD Public Preview

GA

WVD (Fall edition) goes GA

Ignite

More service regions
MSIX Preview
Thin client support

WVD Spring edition Preview

Azure Portal integration
Azure Files support native AD
Teams AV Redirection preview

How did we get here?

April/May 2020

July 2020

Sept 2020

Nov 2020

WVD Spring edition Preview

Azure Portal integration
Azure Files support native AD
Teams AV Redirection preview

WVD Spring edition GA

Azure Portal integration
Teams AV Redirection GA

Ignite 2020 announcements

MSIX app attach portal integration
Start VM on Connect
Microsoft Endpoint Manager
HTML5 microphone redirection

WVD Shortpath preview

UDP support for ER/S2S/P2S

Bart Roels

Cloud Solution Architect
Microsoft

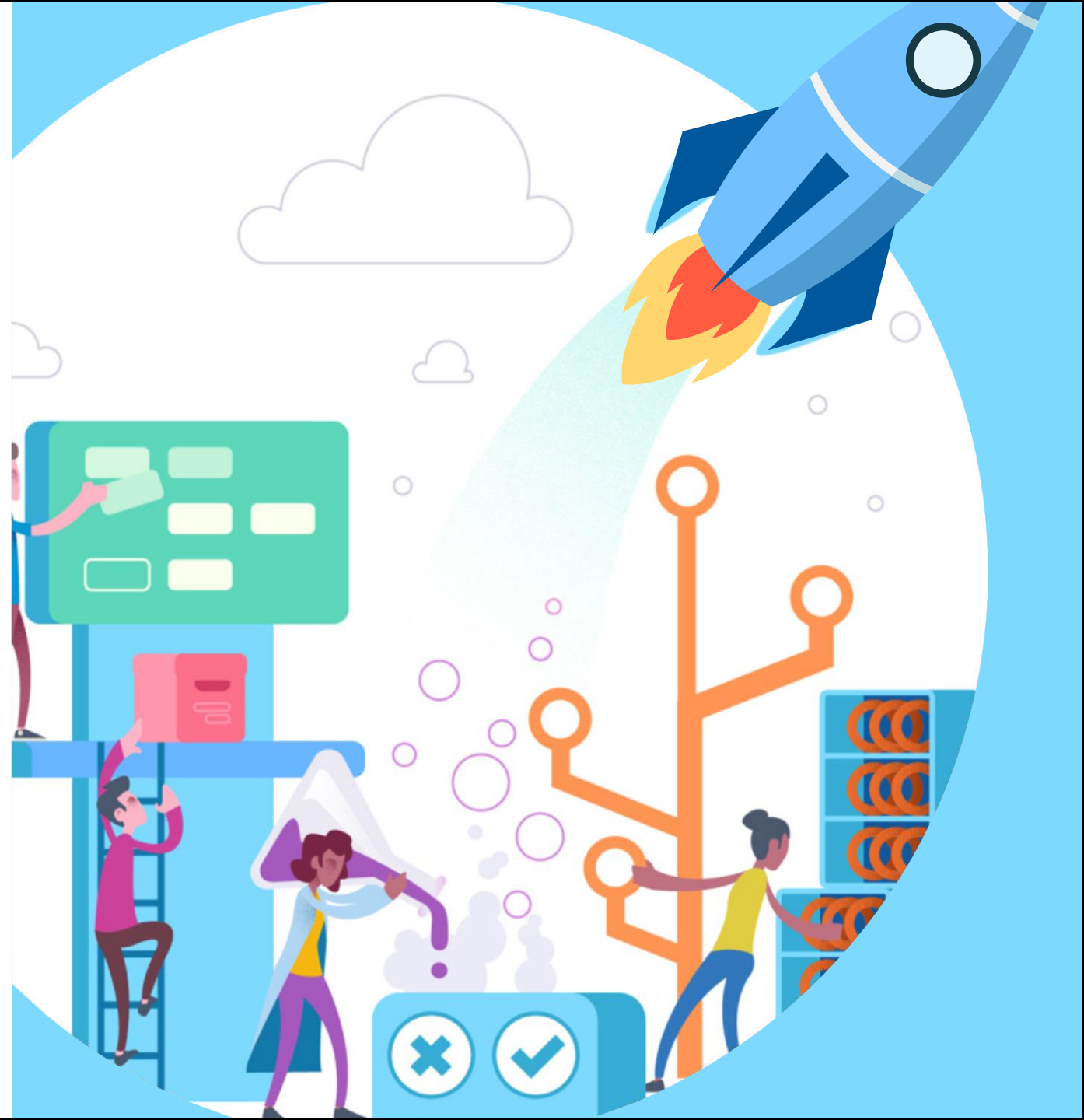
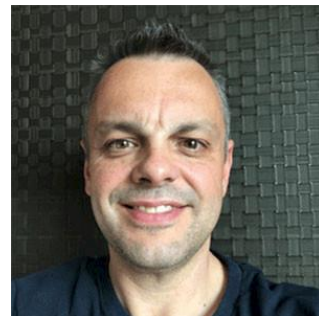
bart.roels@microsoft.com



@FomeZ



Microsoft



Micha Wets

Cloud Solution Architect
Cloud.Architect
Technology Strategist
ASPEX



Windows Virtual Desktop
Remote Desktop Services

UserGroups:

MC2MC (MC2MC.be)

Technine (Technine.be)

michawets@cloud-architect.be

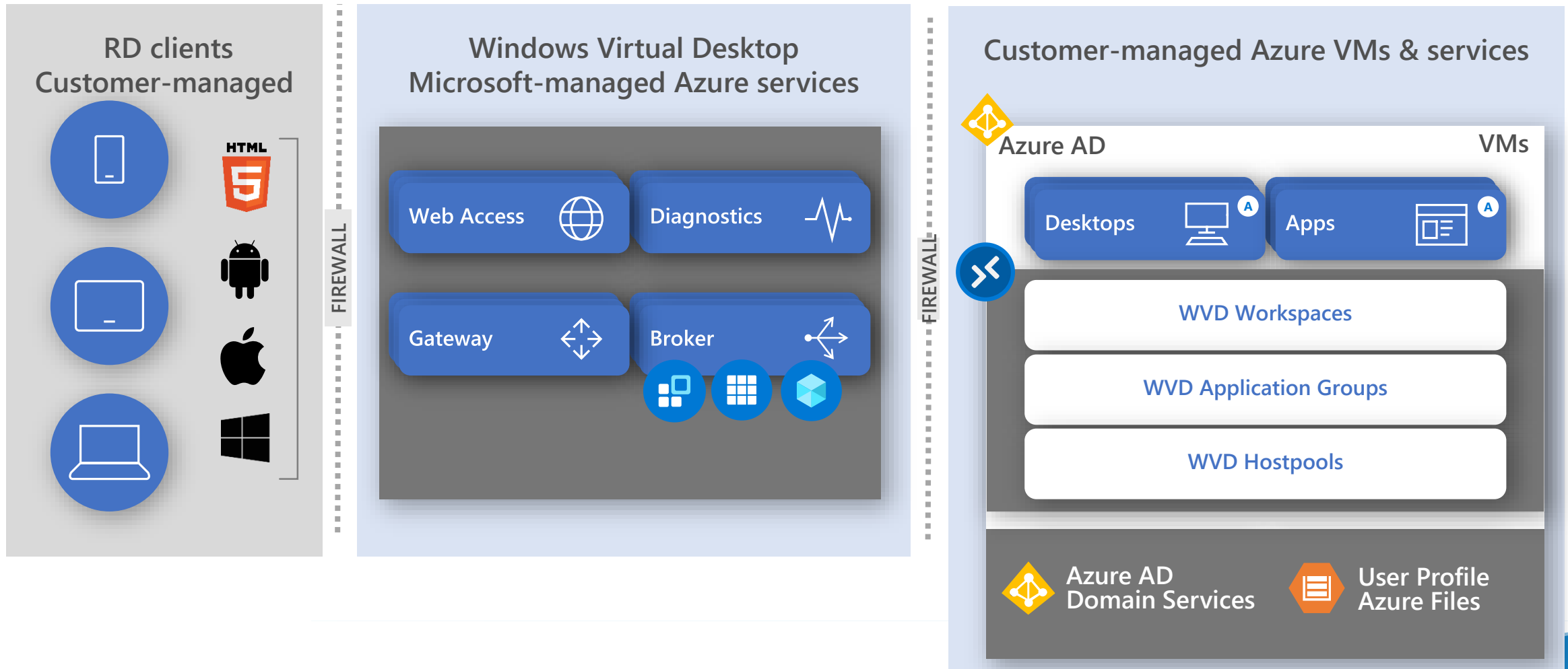


@MichaWets



Azure Portal integration

Azure Portal integration

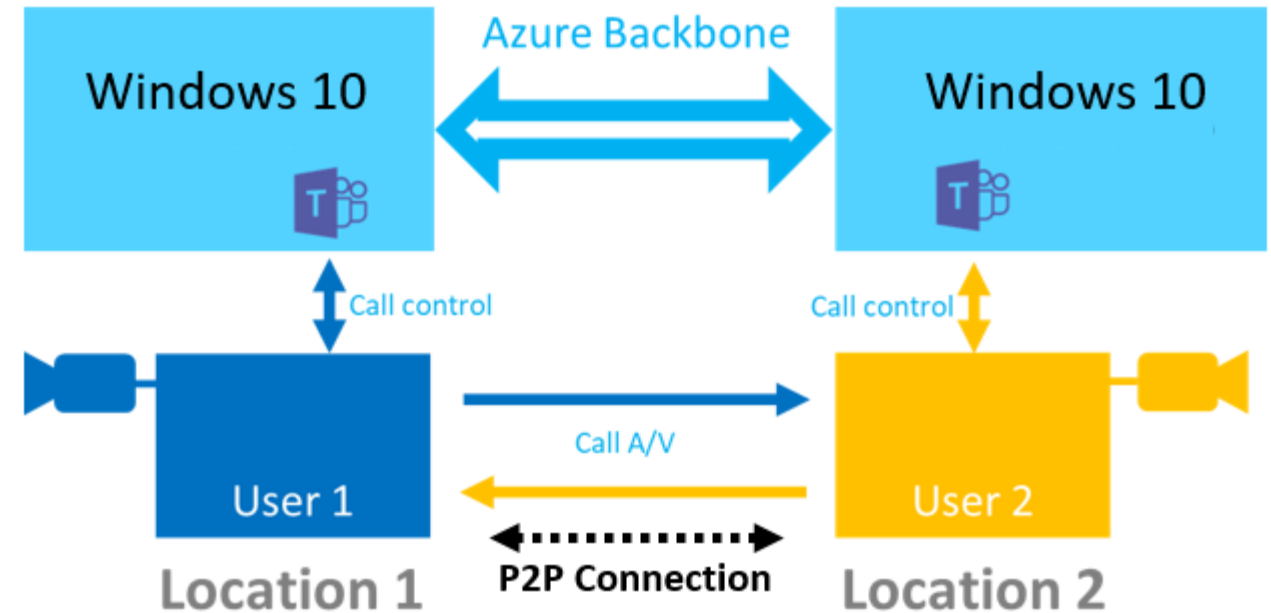


Teams with AV Redirection media optimizations

Teams with AV Redirection media optimizations

- ⌘ High-performance peer-to-peer streaming facilitated by WebRTC
- ⌘ Devices will be redirected as same hardware device – better hardware redirection support
- ⌘ On Win10 clients, all the benefits of the modern media stack including HW video decoding
- ⌘ Support for Win10 single and multi-session with Windows Virtual Desktop.

WebRTC Enabled: Peer-to-peer Teams on WVD



MSIX app attach portal integration

Applications in WVD

Applications in WVD

Option 1: Custom images

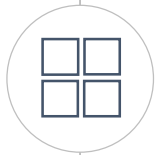
Deploying WVD



In the Portal

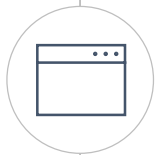
Clicking around in the portal, creating WVD Workspace, Hostpool & App Groups

- Just before creating, you can export the ARM template & parameters



ARM Templates

Deploy WVD using ARM Templates in the portal or through Powershell



Azure DevOps

Deploy WVD using ARM Templates in Azure DevOps in a CI/CD Pipeline

Deploying WVD

Sources

Azure Marketplace



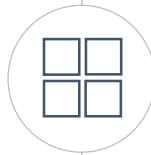
Custom Images



In the Portal

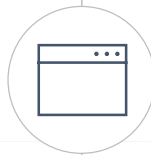
Clicking around in the portal, creating WVD Workspace, Hostpool & App Groups

- Just before creating, you can export the ARM template & parameters



ARM Templates

Deploy WVD using ARM Templates in the portal or through Powershell



Azure DevOps

Deploy WVD using ARM Templates in Azure DevOps in a CI/CD Pipeline

Custom image - advantages

- » Performance
- » Compliance

How?

- » From onPrem
- » Manually through the portal

Image from onPrem

The screenshot shows a web browser window displaying the Microsoft Docs page for "Prepare and customize a master VHD image". The browser's address bar shows the URL: docs.microsoft.com/en-us/azure/virtual-desktop/set-up-customize-master-image. The page title is "Prepare and customize a master VHD image". The left sidebar contains a navigation menu with the following items: "Overview", "Tutorials", "How-to", "Connect to Windows Virtual Desktop resources", "Set up the PowerShell module", "Create a host pool and session hosts", "Create a profile container", "Configure host pool settings", "Use Windows Virtual Desktop license", "Customize session host image", "Set up a master VHD image", and "Install Office on a master VHD image". The "How-to" and "Customize session host image" sections are expanded, and the "Set up a master VHD image" item is highlighted. The main content area includes the article title, a date of 10/14/2019, a reading time of 6 minutes, and a summary of the article. The article text describes how to prepare a master virtual hard disk (VHD) image for upload to Azure, including how to create virtual machines (VMs) and install software on them. The article also includes a section for "Create a VM" and "Local image creation". The right sidebar contains a "Feedback" section and a "Next steps" section with links to "Create a VM", "Software preparation and installation", "Prepare the image for upload to Azure", "Upload master image to a storage account in Azure", and "Next steps".

Prepare and customize a master VHD image

10/14/2019 • 6 minutes to read • +13

This article tells you how to prepare a master virtual hard disk (VHD) image for upload to Azure, including how to create virtual machines (VMs) and install software on them. These instructions are for a Windows Virtual Desktop-specific configuration that can be used with your organization's existing processes.

Create a VM

Windows 10 Enterprise multi-session is available in the Azure Image Gallery. There are two options for customizing this image.

The first option is to provision a virtual machine (VM) in Azure by following the instructions in [Create a VM from a managed image](#), and then skip ahead to [Software preparation and installation](#).

The second option is to create the image locally by downloading the image, provisioning a Hyper-V VM, and customizing it to suit your needs, which we cover in the following section.

Local image creation

Once you've downloaded the image to a local location, open **Hyper-V Manager** to create a VM

Image in Azure: Create VM, customize, sysprep and capture

The screenshot displays the Microsoft Azure Marketplace interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information for 'michawets@cloud-archi...'. The main content area shows the 'Microsoft Windows 10' product page. On the left, a sidebar lists various Windows 10 editions, including 'Windows 10 Enterprise multi-session, Version 20H2', which is highlighted. The main panel shows the 'Windows 10 multi-session + Microsoft 365 Apps' product page. It features a 'Select a plan' dropdown menu with the selected plan being 'Windows 10 Enterprise multi-session, Version 20H2 + Microsoft 365 Apps'. Below this, a list of plans is shown, including 'Windows 10 Enterprise multi-session, Version 2004 + Microsoft 365 Apps', 'Windows 10 Enterprise multi-session, Version 1909 + Microsoft 365 Apps', 'Windows 10 Enterprise multi-session, Version 1903 + Microsoft 365 Apps', 'Windows 10 Enterprise multi-session, Version 1809 + Microsoft 365 Apps', and 'Windows 10 Enterprise multi-session, Version 20H2 + Microsoft 365 Apps'. The 'Create' button is visible next to the selected plan. The bottom of the page shows a preview of the Windows 10 desktop environment.

Microsoft Azure

Search resources, services, and docs (G+)

Home > New > Marketplace >

Microsoft Windows 10

Microsoft

Windows 10 Pro, Version 2004

Create Start with a pre-set configuration

Overview Plans Usage In

This software is provided by Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft.

Learn more

What's new for Business in the Windows 10

What's new for IT pros in the Windows 10

Media

Windows 10 Enterprise multi-session, Version 20H2

Windows 10 Enterprise multi-session, Version 2004 + Microsoft 365 Apps

Windows 10 Enterprise multi-session, Version 1909 + Microsoft 365 Apps

Windows 10 Enterprise multi-session, Version 1903 + Microsoft 365 Apps

Windows 10 Enterprise multi-session, Version 1809 + Microsoft 365 Apps

Windows 10 Enterprise multi-session, Version 20H2 + Microsoft 365 Apps

Overview Plans Usage In

This software is provided by Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft.

Media

Windows 10 Enterprise multi-session, Version 20H2 + Microsoft 365 Apps

time licensing agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft. By clicking 'Create', I acknowledge that I or the organization I represent agree to the license agreement with Microsoft.

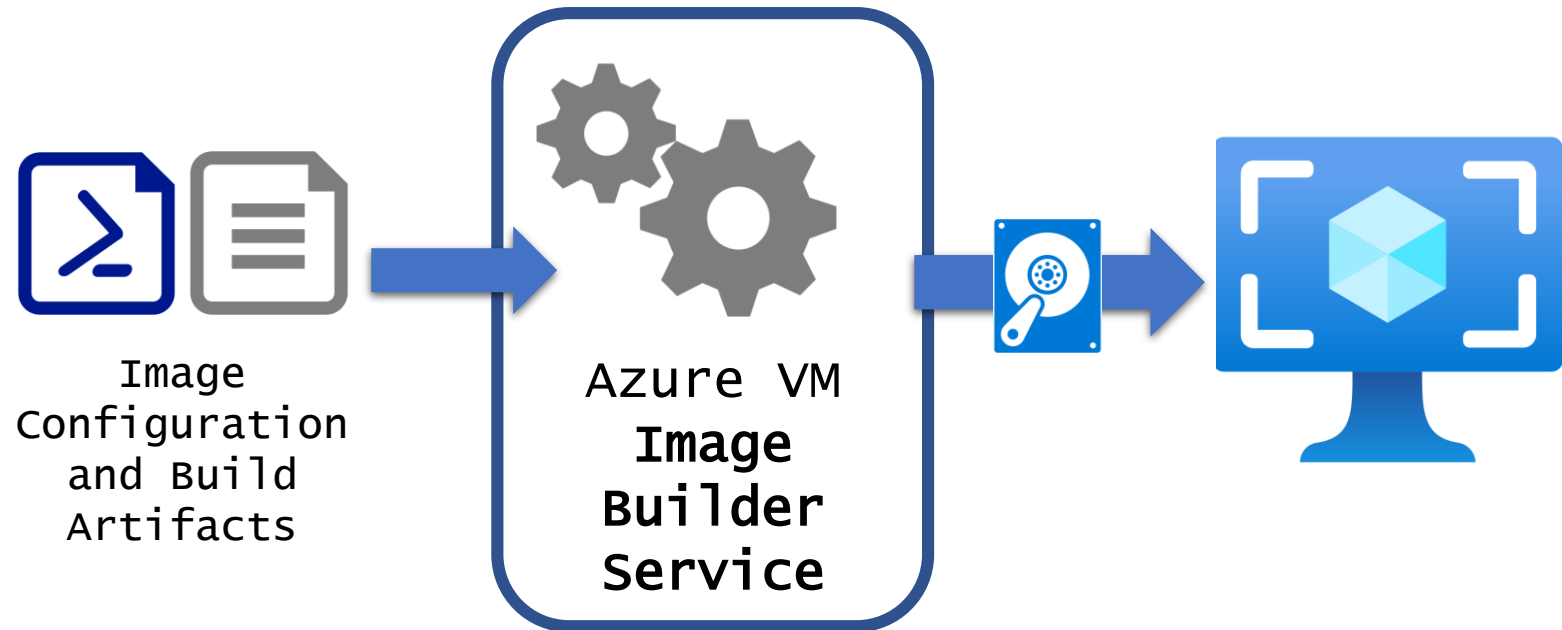


Azure Image Builder (AIB)

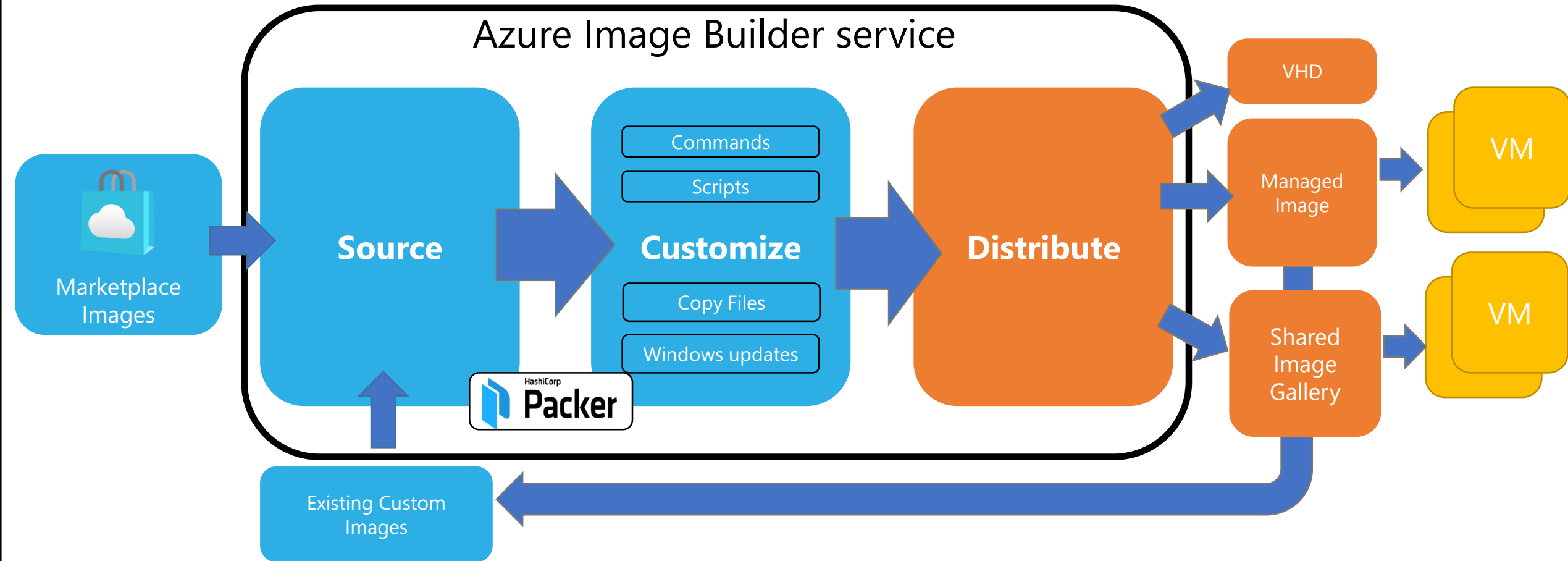
- ⌘ Automatic Image creation system
- ⌘ Customize your image
- ⌘ Multiple distribution options

Azure Image Builder (AIB)

- » Unification
- » Simplification
- » Compliance
- » Management
- » Upgrade



Azure Image Builder flow



Custom image - issues

- ⌘ You need to keep the images up to date
 - ⌘ Windows & AntiVirus updates
 - ⌘ Custom software updates
- ⌘ Redeploy Sessionhosts if the image changes
- ⌘ All installed applications are visible for all users

Applications in WVD

Option 2: Custom images + App masking

FSLogix Technologies: Application Masking



Container



App Masking



Java Redirection



FSLogix Technologies: Application Masking

Application Management without sequencing, snapshotting, packaging, or virtualization.

All apps installed in base image.

- Excellent app compatibility
- Only apps a user is entitled to are revealed.
- App entitlements can be changed in real time.

Massively reduce the number of gold images that must be maintained





Demo

Applications in WVD
App Masking

Custom image + App Masking - issues

- ⌘ You need to keep the images up to date
 - ⌘ Redeploy Sessionhosts if the image changes
 - ~~⌘ All installed applications are visible for all users~~
-
- ⌘ Additional actions to set FSLogix rules
 - ⌘ Application licensing could be challenging

Applications in WVD

Option 3: MSIX app attach

MSIX app attach

All **benefits of MSIX** (declarative install, simple deployment, per user, OS Managed)



Native format is MSIX (**no re-packaging**)

MSIX Apps can be **stored off the windows disk**

Remotely **mount the apps** to the VM on-demand

Apps groups are assigned to users, and **available instantly**

Looks and feels local to the user and to windows

MSIX app attach – Terminology

Expanding MSIX

Taking an MSIX package (or output from conversion) and transforming it into an app attach package

Staging / Destaging

Making the app attach package available on the WVD Host

Registering / DeRegistering

Making the stages app attach package available for the user

Delayed registration

Delay the registering of the application until session is established

On Demand

Allow users to load application on the fly as needed

MSIX app attach - advantages

- ⌘ Using the MSIX standard → easy convert to MSIX app attach
- ⌘ Build into Windows, using direct Windows APIs
- ⌘ No additional agent/server/service required
- ⌘ Use of CimFS (.CIM) instead of VHD(X) (\geq Windows 10 2004)
 - ⌘ Less CPU
 - ⌘ Less Memory
 - ⌘ Always ReadOnly

MSIX app attach – Terminology



MSIX image: VHD(x) / CIM (app attach image / app attach container)



MSIX package (MSIX packaged app)



MSIX application

Traditional install vs MSIX app attach

Win32 install

Install

Install Office suite in
master image
(Outlook, Excel, Word, OneNote)

Workspace > Hostpool > Provision VM

Publish
local

Publish local application

Assign to user(s) / groups

MSIX app attach

Expand MSIX to MSIX
image & upload to FS

Expand and Upload

Connect MSIX packaged
app with hostpool

Add / Remove

Publish MSIX app

Publish / Remove



Demo

MSIX app attach

MSIX app attach - issues

- ⌘ Powershell scripts
- ⌘ GPOs (Startup/Shutdown or Scheduled tasks)
- ⌘ → additional maintenance in the environment (not in Azure Portal)
- ⌘ Complex setup if VHD(X) contains multiple packages

MSIX app attach – complex disk builds

VHD 1

MSIX packaged app #1
Package Name 1

App1 v1

VHD 2

MSIX packaged app #1
Package Name 1

App1 v1

MSIX packaged app #2
Package Name 2

App2 v5

VHD 3

MSIX packaged app #1
Package Name 1

App1 v1

App11 v7

VHD 4

MSIX packaged app #1
Package Name 1

App1 v1

App11 v7

MSIX packaged app #2
Package Name 2

App2 v5

Applications in WVD

Option 4: MSIX app attach – Next Gen

MSIX app attach – Portal integrated

» ~~Staging – Registration – De-Registration – De-Staging~~

» ~~GPOs with Powershell scripts~~

» Azure Portal integration

» **WVD RD Agent!**

» CimFS (.CIM)

» Complex disk builds → no issue

MSIX app attach – PreReqs

- ⌘ File storage
 - ⌘ Azure Fileshare
 - ⌘ Azure NetApp files
 - ⌘ Fileserver
- ⌘ MSIX app attach packages (vhdx/cim) uploaded
- ⌘ WVD sessionhosts → access to MSIX images



Demo

MSIX app attach
Add MSIX Package to Hostpool

MSIX app attach – Terminology



MSIX image: VHD(x) / CIM (app attach image / app attach container)



MSIX package (MSIX packaged app)



MSIX application

Add MSIX Package

>> Home > Windows Virtual Desktop > Host pools >



hp-02

Host pool | PREVIEW

Search



Add



Manage views



Refresh



Change state



Delete

MSIX packages are conceptually similar to installation media for Win32 applications. [Learn more](#)

Filter by name

<input type="checkbox"/>	Package name ↑↓	Image path ↑↓	Display name ↑↓	State ↑↓	Dependencies ↑↓	Version ↑↓
<input type="checkbox"/>	Microsoft.Media Player	\\fileshare\folder\MSIX\mplayer.vhdx	Media Player	Active	View	12.34.1 ...
<input type="checkbox"/>	Windows.Travel	\\fileshare\folder\MSIX\maps.cim	Maps	Inactive	View	10.32.14 ...

Settings

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Locks

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Application groups

MSIX packages

Session hosts

Monitoring

D diagnostic settings

Support + troubleshooting

New support request

Add MSIX Package

Home > Windows Virtual Desktop > Host pools >

hp-02
Host pool | PREVIEW

Search

+ Add Manage views Refresh Change state

MSIX packages are conceptually similar to installation media for Win32 applications

Filter by name

<input type="checkbox"/>	Package name	Image path
<input type="checkbox"/>	Microsoft.Media Player	\\fileshare\folder\MSIX\mplayer.vh
<input type="checkbox"/>	Windows.Travel	\\fileshare\folder\MSIX\maps.cim

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

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MSIX packages

Session hosts

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Diagnostic settings

Support + troubleshooting

New support request

Add MSIX package

Adding MSIX package notifies WVD that a new application has been made available for publishing and assigning.

MSIX image path * ⓘ

MSIX package * ⓘ

MSIX application path ⓘ

Display name ⓘ

Version * ⓘ

Description ⓘ

Registration type ⓘ

State ⓘ

On-demand

Log on blocking

Inactive

Active

Add

Cancel

Add MSIX Package

Home > Windows Virtual Desktop > Host pools >

hp-02

Host pool | PREVIEW

Search

+ Add Manage views Refresh Change state

MSIX packages are conceptually similar to installation media for Win32 applications

Filter by name

<input type="checkbox"/>	Package name	Image path
<input type="checkbox"/>	Microsoft.Media Player	\\fileshare\folder\MSIX\mplayer.vh
<input type="checkbox"/>	Windows.Travel	\\fileshare\folder\MSIX\maps.cim

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New support request

Add MSIX package

Adding MSIX package notifies WVD that a new application has been made available for publishing and assigning.

MSIX image path *

\\fileshare\folder\MSIX\paint.cim

MSIX package *

Select a package

Search

Package 1

Package 2

Package 3

Paint package

Package 5

Package 6

Package 7

MSIX application path

Display name

Version *

Description

Registration type

State

☒ Inactive

☐ Active

Add

Cancel



Demo

MSIX app attach
Change app status

Change state: Active to Inactive

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information for Connie Wilson (CONTOSO). The breadcrumb trail indicates the path: Home > Windows Virtual Desktop > Host pools > hp-02. The left sidebar contains various navigation options, with 'MSIX packages' highlighted under the 'Manage' section. The main content area displays the 'hp-02' Host pool details, including a search bar and a table of MSIX packages. The table has columns for Package name, Image path, Display name, State, Dependencies, and Version. Two packages are listed: 'Microsoft.Media Player' (Active) and 'Windows.Travel' (Inactive). A context menu is open for the 'Windows.Travel' package, showing options to 'Active', 'Inactive', or 'Delete'. The 'Inactive' option is highlighted.

Microsoft Azure

Search resources, services and docs

Home > Windows Virtual Desktop > Host pools >

hp-02
Host pool | PREVIEW

Search

+ Add Manage views Refresh Change state Delete

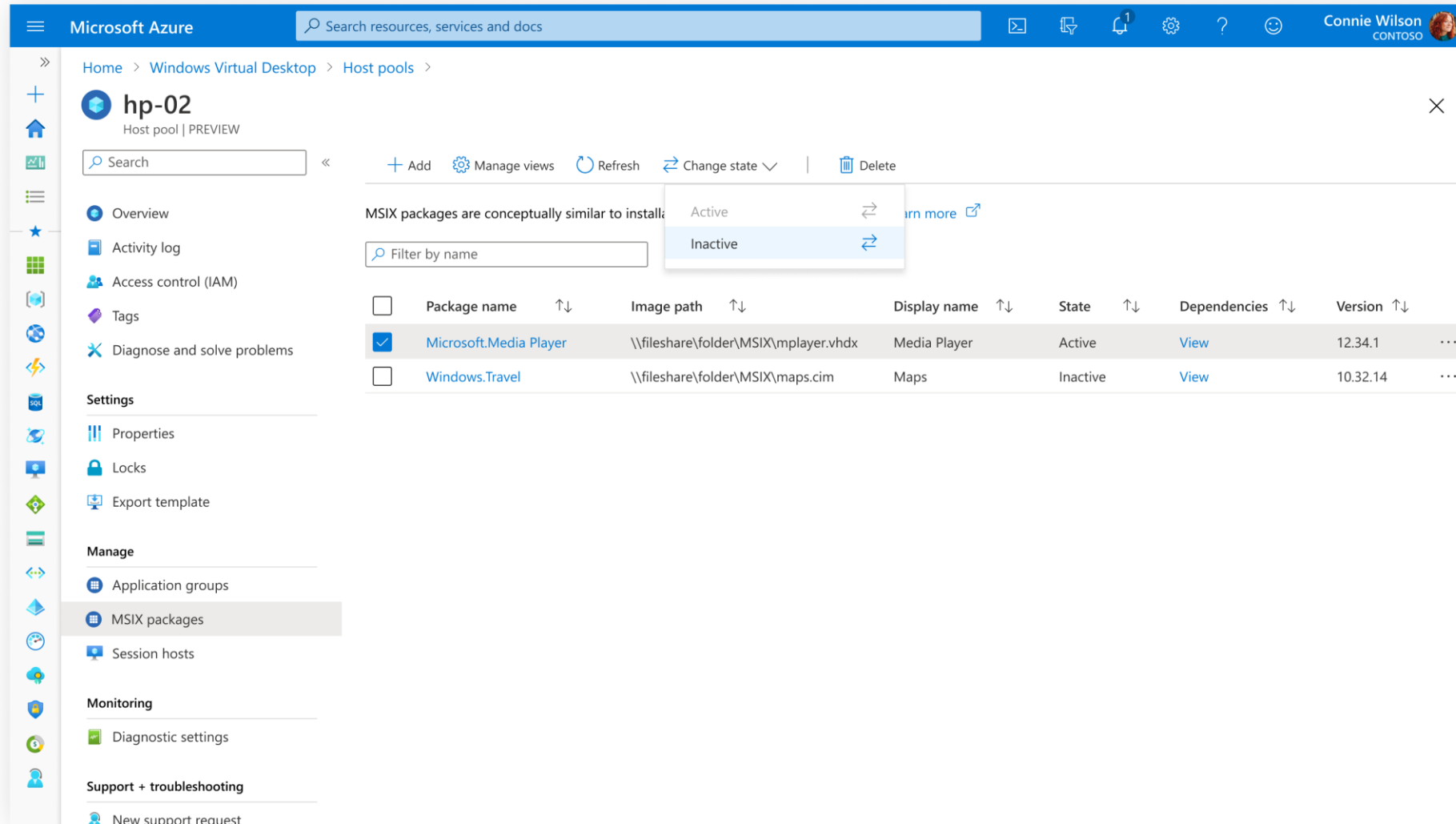
MSIX packages are conceptually similar to installation media for Win32 applications. [Learn more](#)

Filter by name

<input type="checkbox"/>	Package name	Image path	Display name	State	Dependencies	Version
<input type="checkbox"/>	Microsoft.Media Player	\\fileshare\folder\MSIX\mplayer.vhdx	Media Player	Active	View	12.34.1
<input type="checkbox"/>	Windows.Travel	\\fileshare\folder\MSIX\maps.cim	Maps	Inactive	View	

- Active
- Inactive
- Delete

Change state: Active to Inactive



Microsoft Azure

Search resources, services and docs

Home > Windows Virtual Desktop > Host pools >

hp-02
Host pool | PREVIEW

Search

+ Add Manage views Refresh Change state ▼ Delete

MSIX packages are conceptually similar to installing applications. [Learn more](#)

Filter by name

<input type="checkbox"/>	Package name	Image path	Display name	State	Dependencies	Version	
<input checked="" type="checkbox"/>	Microsoft.Media Player	\\fileshare\folder\MSIX\mplayer.vhdx	Media Player	Active	View	12.34.1	...
<input type="checkbox"/>	Windows.Travel	\\fileshare\folder\MSIX\maps.cim	Maps	Inactive	View	10.32.14	...

Settings

- Properties
- Locks
- Export template

Manage

- Application groups
- MSIX packages**
- Session hosts

Monitoring

- D diagnostic settings

Support + troubleshooting


- New support request









Demo

MSIX app attach
Publish MSIX in Application Group

Publish MSIX in Application Group




 Microsoft Azure

Search resources, services and docs







Connie Wilson
CONTOSO


Home > Windows Virtual Desktop > Application groups


 **appgroup-03**  


Application group


 Add  Refresh |  Remove

 Overview


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 Diagnose and solve problems


Settings


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Support + troubleshooting

 New support request

<input type="checkbox"/>	Application name ↑↓	Application type ↑↓	Require command line ↑↓	
<input type="checkbox"/>	Media Player Application	Win32	Yes	...
<input type="checkbox"/>	Windows Travel Maps	MSIX	NA	...







 Microsoft

@mchaWets

Publish MSIX in Application Group


Microsoft Azure

Search resources, services and docs



Connie Wilson
CONTOSO

Home > Windows Virtual Desktop > Application groups

 **appgroup-03**
Application group

[+ Add](#) [Refresh](#) [Remove](#)

Overview

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New support request

☐ Application name ↑↓

☐ Media Player Application

☐ Windows Travel Maps

Application type ↑↓

Win32

MSIX

Add application

Application source * ⓘ
MSIX package

MSIX package * ⓘ
Start menu
File path
MSIX package

MSIX application * ⓘ

Display name

Description

Application path

Icon path * ⓘ

Icon index * ⓘ

Show in web feeds ⓘ
☒ Yes
☐ No







Add

Cancel

Publish MSIX in Application Group


Microsoft Azure

Search resources, services and docs



Connie Wilson
CONTOSO

Home > Windows Virtual Desktop > Application groups

 **appgroup-03**
Application group

[+ Add](#) [Refresh](#) [Remove](#)

Overview

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New support request

☐ Application name ↑↓

Application type ↑↓

☐ Media Player Application

Win32

☐ Windows Travel Maps

MSIX

Add application

Application source * ⓘ

MSIX package

MSIX package * ⓘ

Paint package

MSIX application * ⓘ

Package 1

Package 2

Package 3

Paint package

Package 5

Package 6

Package 7

Display name

Description

Application path

Icon path * ⓘ

Icon index * ⓘ

Show in web feeds ⓘ

☒ Yes

☐ No

Add

Cancel

 Microsoft

@michaWets

Publish MSIX in Application Group

Microsoft Azure

Search resources, services and docs

Connie Wilson
CONTOSO

Home > Windows Virtual Desktop > Application groups

appgroup-03
Application group

<< + Add Refresh | Remove

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Support + troubleshooting

New support request

<input type="checkbox"/>	Application name ↑↓	Application type ↑↓
<input type="checkbox"/>	Media Player Application	Win32
<input type="checkbox"/>	Windows Travel Maps	MSIX

Add application

Application source * ⓘ

MSIX package * ⓘ

MSIX application * ⓘ

Display name

Description

Application path

Icon path * ⓘ

Icon index * ⓘ

Show in web feeds ⓘ

MSIX package

Paint package

Paint

Application 1

Application 2

Application 3

Paint

☒ Yes

☐ No

Add

Cancel

@michaWets

Publish MSIX in Application Group

Microsoft Azure

Search resources, services and docs

1

?

Connie Wilson
CONTOSO

Home > Windows Virtual Desktop > Application groups

appgroup-03

Application group

Search

«

+ Add

Refresh

Remove

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Access control (IAM)

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Diagnose and solve problems

Settings

Properties

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New support request

Filter by name

<input type="checkbox"/>	Application name ↑↓	Application type ↑↓
<input type="checkbox"/>	Media Player Application	Win32
<input type="checkbox"/>	Windows Travel Maps	MSIX

Add application

Application source * ⓘ

MSIX package

MSIX package * ⓘ

Paint package

MSIX application * ⓘ

Paint

Display name

Paint

Description

This is paint application

Application path

C:\Program Files (x86)\Windows M...\paint.exe

Icon path * ⓘ

c:\apps\icons\custom.ico

Icon index * ⓘ

0

Show in web feeds ⓘ


☒ Yes

☐ No







Add

Cancel

Publish MSIX in Application Group




 Microsoft Azure

Search resources, services and docs







Connie Wilson
CONTOSO


Home > Windows Virtual Desktop > Application groups


 **appgroup-03**  


Application group


<<  Add  Refresh |  Remove

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 Activity log


 Access control (IAM)


 Tags

 Diagnose and solve problems


Settings


 Properties

 Locks


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Support + troubleshooting

 New support request

<input type="checkbox"/>	Application name ↑↓	Application type ↑↓	Require command line ↑↓	
<input type="checkbox"/>	Media Player Application	Win32	Yes	...
<input type="checkbox"/>	Windows Travel Maps	MSIX	NA	...
<input type="checkbox"/>	Paint	MSIX	NA	...

Start VM on Connect

(Private Preview)

Start VM on Connect (Private Preview)

Personal | Properties
Host pool | Directory: [redacted]

Search (Ctrl+/) << Save Discard Download template

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- RDP Properties
- Properties**
- Locks

Manage

- Application groups
- Session hosts

Monitoring

Resource group [redacted]
[Change resource group](#)

Subscription [redacted]
[Change subscription](#)

Location
West Europe

Name
Personal

Configuration

Personal desktop Yes No

Assignment type [dropdown]
Enable Start VM on connect to allow users to start the virtual machine from a deallocated state.

Start VM on connect ⓘ ☐ No ☒ Yes

Validation environment ⓘ ☐ No ☒ Yes

Microsoft Endpoint Manager

(Public Preview)

Microsoft Endpoint Manager (Public Preview)

PreReqs

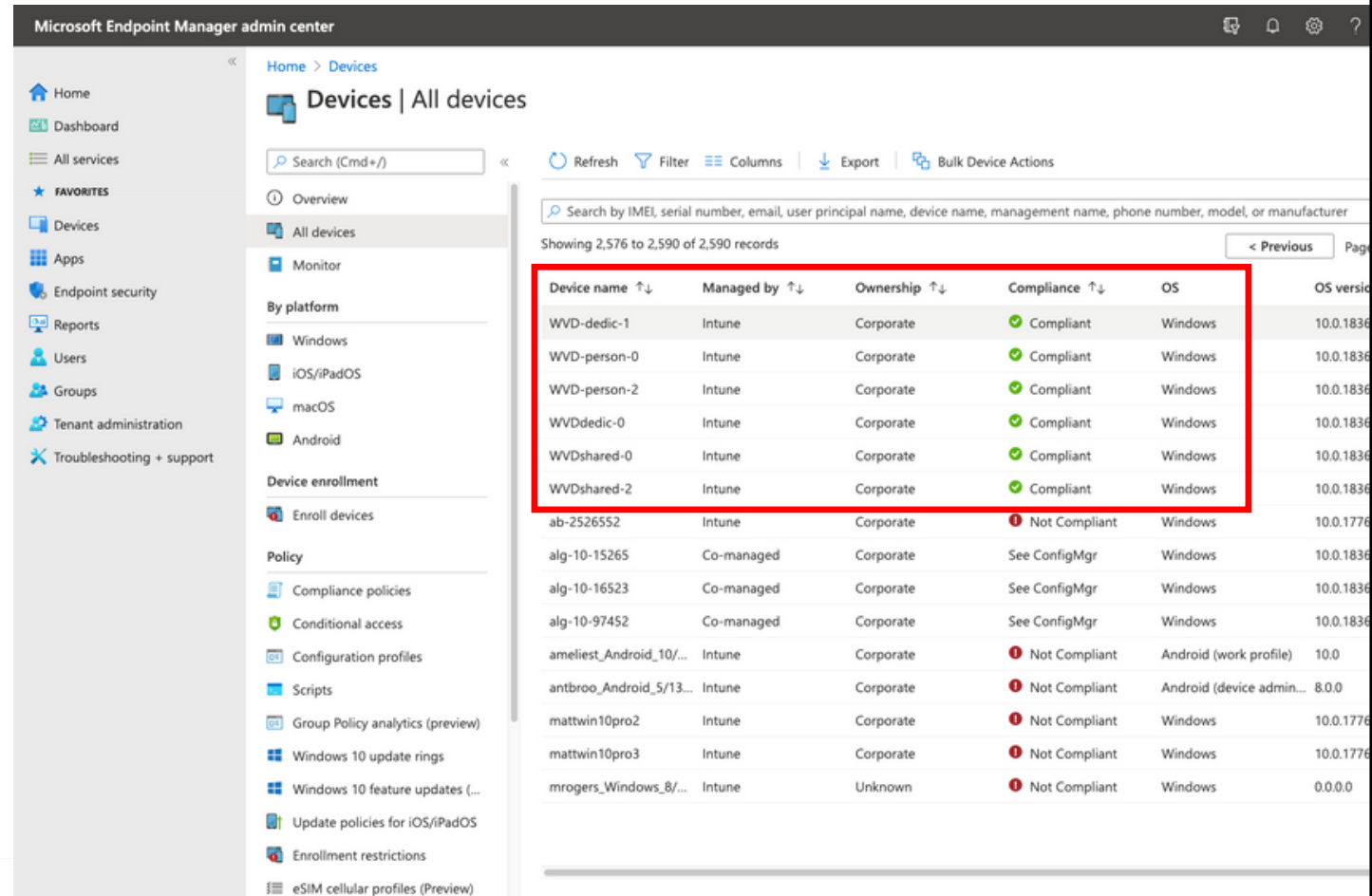
- ❧ Hybrid AD joined

Benefits

- ❧ Manage policies
- ❧ Distribute application
- ❧ Centralized view across both physical devices & virtual desktops

Available for

- ❧ Windows 10 Enterprise desktops (GA)
- ❧ Windows 10 Enterprise multi-session (preview – 25 sessions)



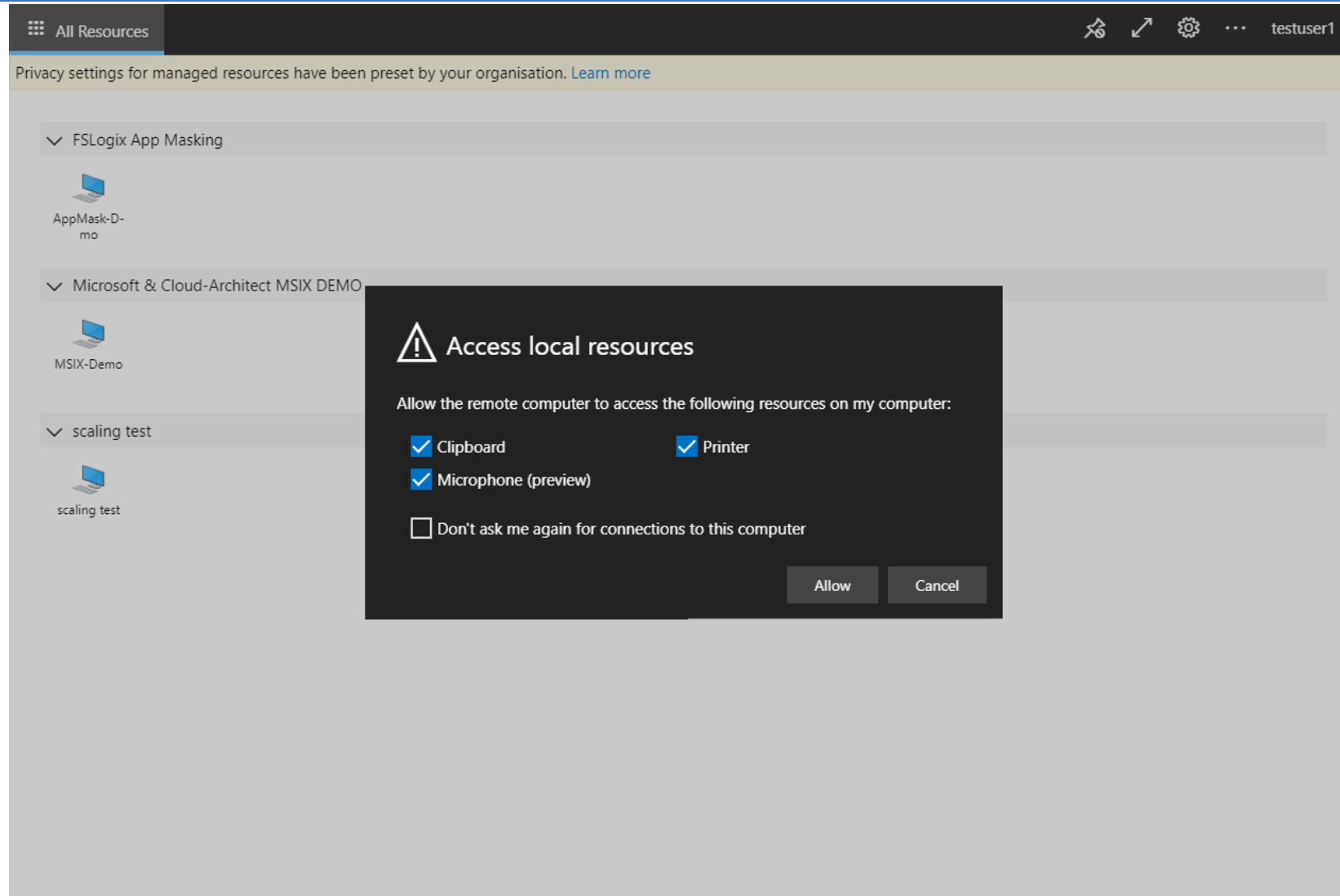
The screenshot displays the Microsoft Endpoint Manager admin center interface. The left sidebar contains navigation options: Home, Dashboard, All services, FAVORITES, Devices, Apps, Endpoint security, Reports, Users, Groups, Tenant administration, and Troubleshooting + support. The main content area is titled 'Devices | All devices' and includes a search bar, refresh, filter, columns, export, and bulk device actions buttons. Below these are tabs for Overview, All devices, and Monitor. A 'By platform' section lists Windows, iOS/iPadOS, macOS, and Android. The 'Device enrollment' section includes 'Enroll devices'. The 'Policy' section lists Compliance policies, Conditional access, Configuration profiles, Scripts, Group Policy analytics (preview), Windows 10 update rings, Windows 10 feature updates (...), Update policies for iOS/iPadOS, Enrollment restrictions, and eSIM cellular profiles (Preview). The main table displays a list of devices with columns: Device name, Managed by, Ownership, Compliance, OS, and OS version. A red box highlights the first six rows of the table, which all show 'Compliant' status. The table shows 2,576 to 2,590 of 2,590 records.

Device name	Managed by	Ownership	Compliance	OS	OS version
WVD-dedic-1	Intune	Corporate	Compliant	Windows	10.0.18362
WVD-person-0	Intune	Corporate	Compliant	Windows	10.0.18362
WVD-person-2	Intune	Corporate	Compliant	Windows	10.0.18362
WVDdedic-0	Intune	Corporate	Compliant	Windows	10.0.18362
WVDshared-0	Intune	Corporate	Compliant	Windows	10.0.18362
WVDshared-2	Intune	Corporate	Compliant	Windows	10.0.18362
ab-2526552	Intune	Corporate	Not Compliant	Windows	10.0.17763
alg-10-15265	Co-managed	Corporate	See ConfigMgr	Windows	10.0.18362
alg-10-16523	Co-managed	Corporate	See ConfigMgr	Windows	10.0.18362
alg-10-97452	Co-managed	Corporate	See ConfigMgr	Windows	10.0.18362
ameliest_Android_10/...	Intune	Corporate	Not Compliant	Android (work profile)	10.0
antbroo_Android_5/13...	Intune	Corporate	Not Compliant	Android (device admin...)	8.0.0
mattwin10pro2	Intune	Corporate	Not Compliant	Windows	10.0.17763
mattwin10pro3	Intune	Corporate	Not Compliant	Windows	10.0.17763
mrogers_Windows_8/...	Intune	Unknown	Not Compliant	Windows	0.0.0.0

HTML5 microphone redirection

(Public Preview)

HTML5 microphone redirection (Public Preview)

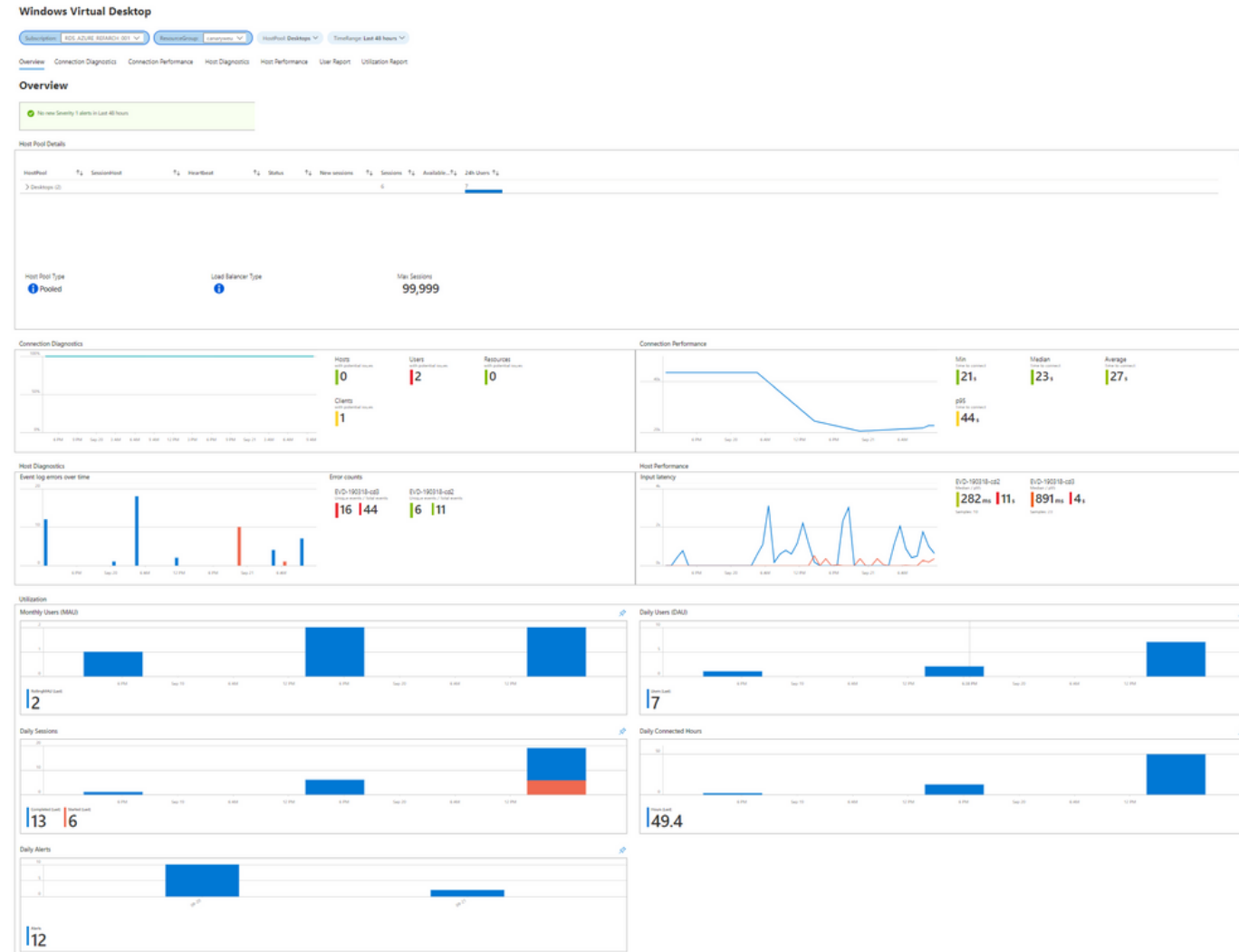


Azure Monitor for WVD

(Private Preview)

Azure Monitor for WVD (Private Preview)

- ✕ Monitoring telemetry
- ✕ Visualizations
- ✕ Debug & troubleshooting issues
- ✕ Configure alerts to proactively identify issues
- ✕ Look at connection and host level performance
- ✕ Drill down to specific user session
- ✕ Usage across host pools





Demo

Azure Monitor for WVD
(Private Preview)

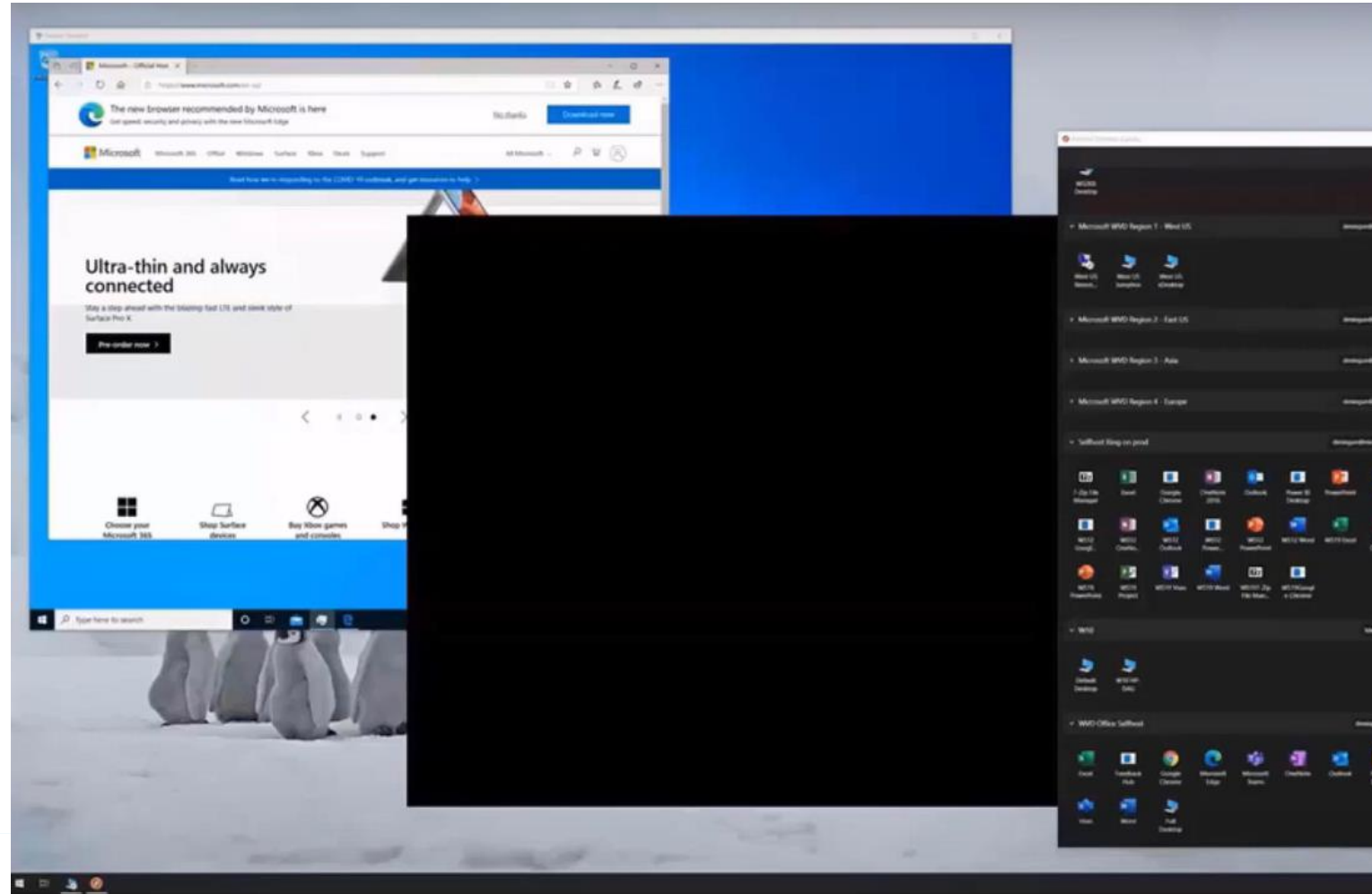


Screen capture protection

(Private Preview)

Screen capture protection (Private Preview)

- ⌘ Protect sensitive information
- ⌘ Both Remote Apps & Desktops
- ⌘ On all supported WVD clients



Windows Virtual Desktop RDP Shortpath

(Public Preview)

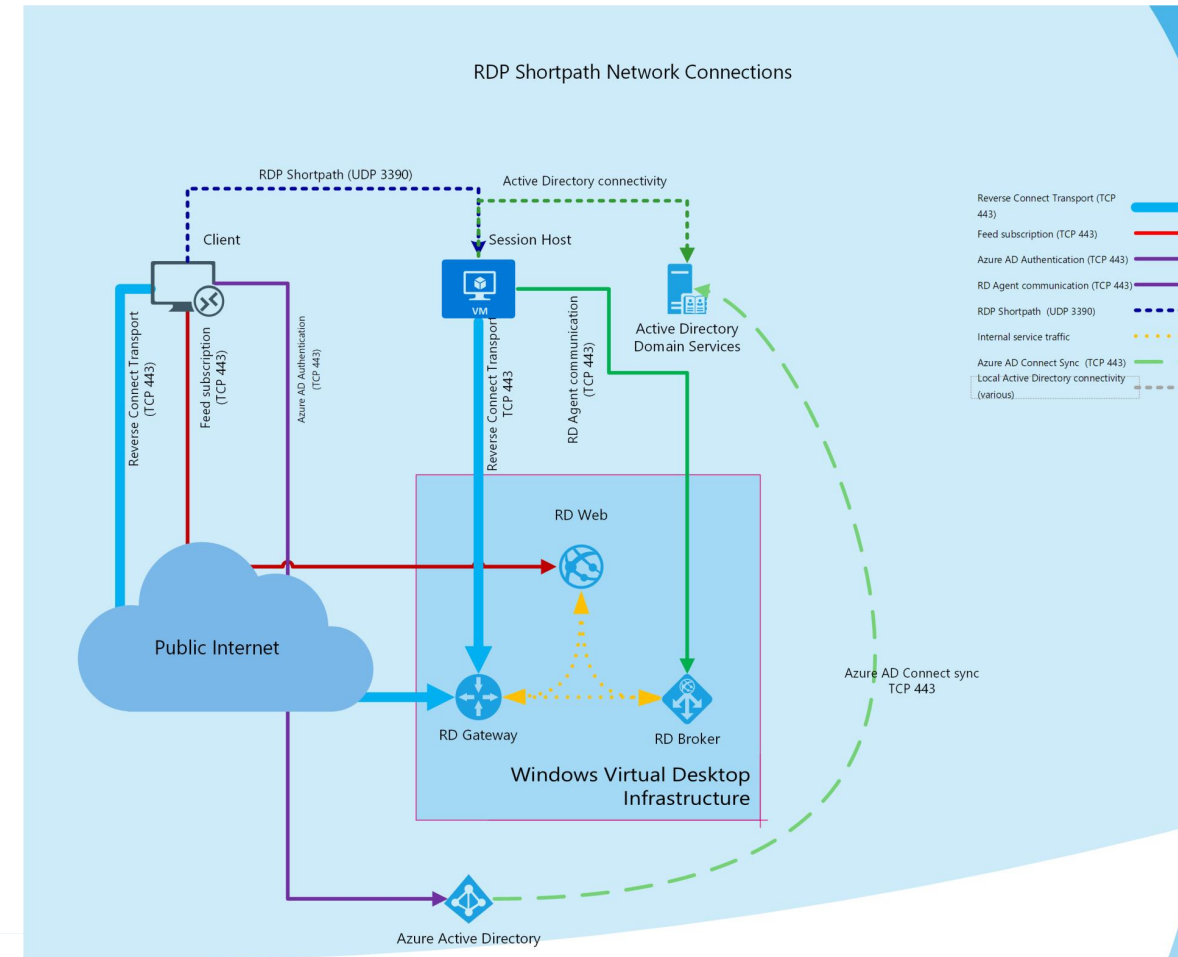
Windows Virtual Desktop RDP Shortpath (Private Preview)

Requirements

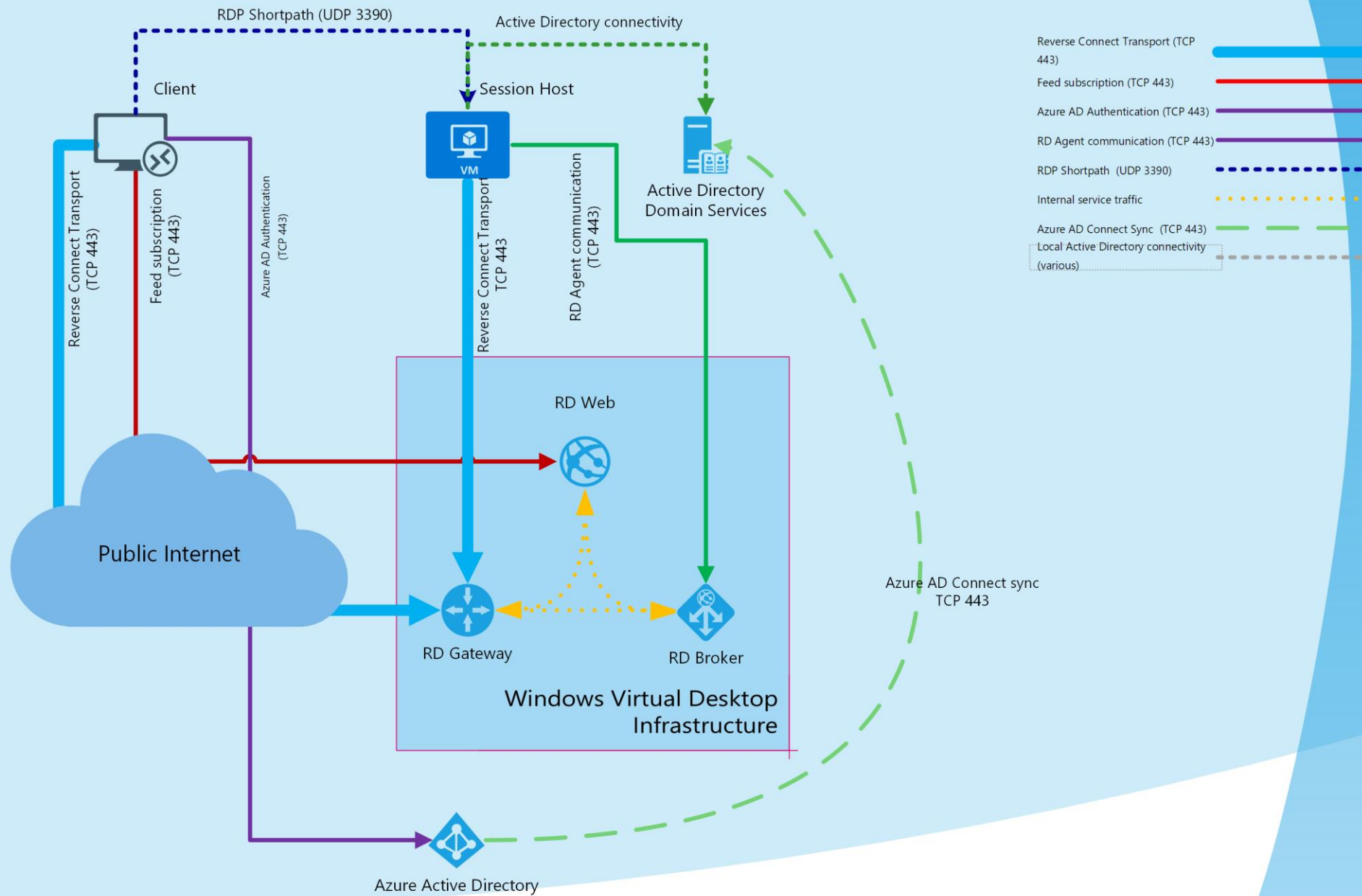
- ❌ Client needs direct line-of-sight with Sessionhost
 - ❌ ExpressRoute
 - ❌ Site-to-Site (S2S)
 - ❌ Point-to-Site (P2S)
 - ❌ Public IP (pls don't)

Benefits

- ✕ Based on top of highly efficient Universal Rate Control Protocol (URCP)
- ✕ Direct connectivity between Remote Desktop client and Session Host
- ✕ Reduces the round-trip time
- ✕ Support for configuring Quality of Service (QoS)
- ✕ Limiting outbound network traffic (throttle rate for each session)



RDP Shortpath Network Connections





Demo

Windows Virtual Desktop RDP Shortpath
(Public Preview)

Other updates

Other updates

WVD Client

- » Multiple accounts in the client
_msradc TXT 1 Hours <https://rdweb.wvd.microsoft.com/api/arm/feeddiscovery>
- » Auto update client

Management

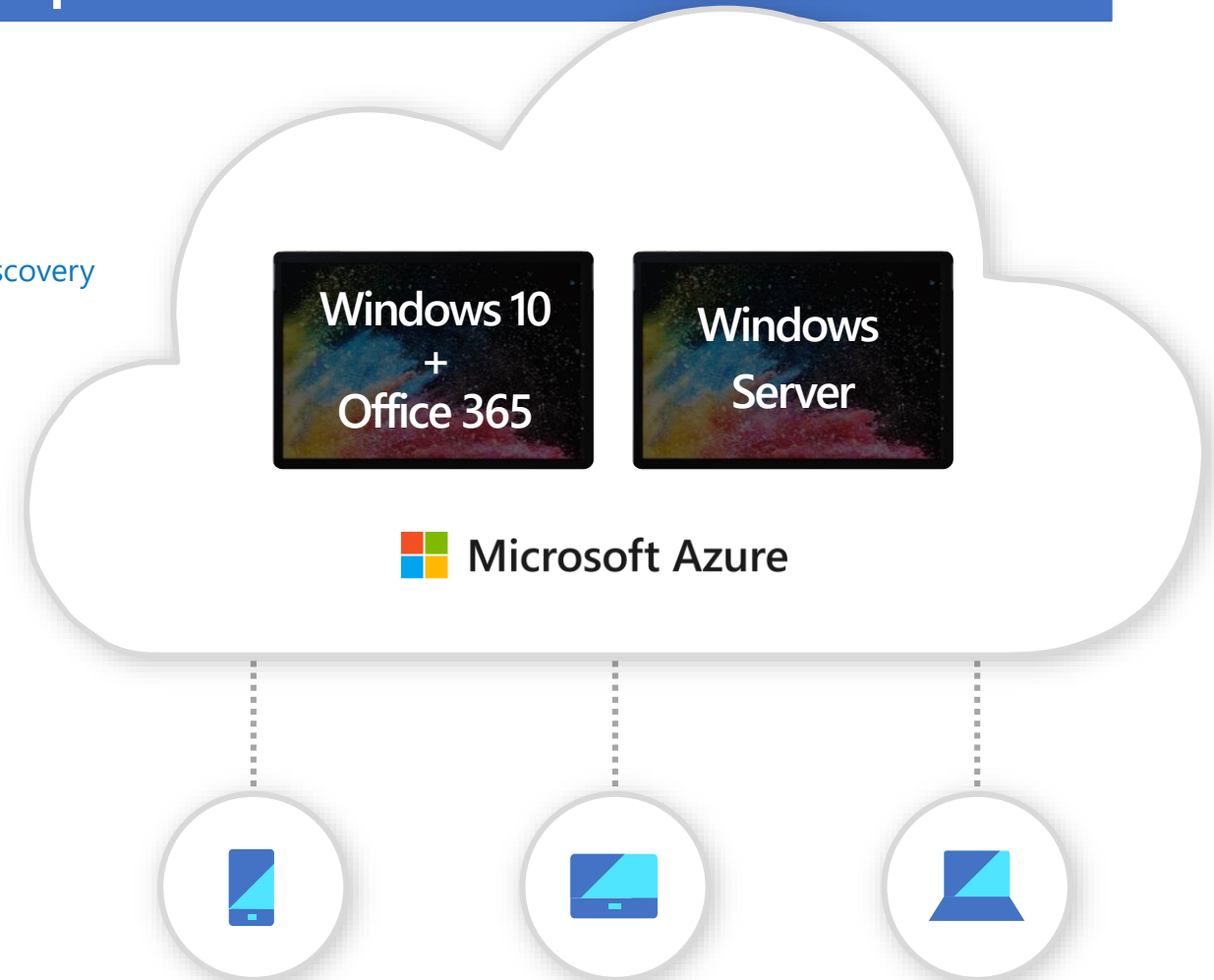
- » Update to Powershell modules
Az.DesktopVirtualization 2.0.1

Optimizations

- » Multi Media Redirection (Chrome & Edge extension)

Azure Portal

- » Change VM image template
- » Renaming of session desktops



Windows Virtual Desktop

WEWC1086 WVD Technical Deep Dive + Hands-on Workshop

Micha Wets - Microsoft MVP | Cloud.Architect | ASPEX | MC2MC | Technine

Bart Roels - Cloud Solution Architect | Microsoft