# <u>Windows Virtual Desktop WVD in Azure – Part 3</u>

In this post we will cover the following:

- 1. How to create pool in Azure Portal
- 2. Configure virtual machine
- 3. Configure virtual machine settings
- 4. Authentication details
- 5. Install Remote desktop client
- 6. Assign desktop to users
- 7. Complete subscription
- 8. Login to virtual machine as user
- 9. Test
- 10. Install application, if required

Before you start Host Pool creation check this link and read through the requirements.

https://docs.microsoft.com/en-us/azure/virtual-desktop/overview

### **REQUIREMENTS:**

# Requirements

There are a few things you need to set up Windows Virtual Desktop and successfully connect your users to their Windows desktops and applications.

We support the following operating systems, so make sure you have the appropriate licenses for your users based on the desktop and apps you plan to deploy:

os	Required license
Windows 10 Enterprise multi-session or Windows 10 Enterprise	Microsoft 365 E3, E5, A3, A5, F3, Business Premium Windows E3, E5, A3, A5
Windows 7 Enterprise	Microsoft 365 E3, E5, A3, A5, F3, Business Premium Windows E3, E5, A3, A5
Windows Server 2012 R2, 2016, 2019	RDS Client Access License (CAL) with Software Assurance

# **INFRASTRUCTURE:**

Your infrastructure needs the following things to support Windows Virtual Desktop:

- An Azure Active Directory.
- A Windows Server Active Directory in sync with Azure Active Directory. You can configure this using Azure AD Connect (for hybrid organizations) or Azure AD Domain Services (for hybrid or cloud organizations).
  - A Windows Server AD in sync with Azure Active Directory. User is sourced from Windows Server AD and the Windows Virtual Desktop VM is joined to Windows Server AD domain.
  - A Windows Server AD in sync with Azure Active Directory. User is sourced from Windows Server AD and the Windows Virtual Desktop VM is joined to Azure AD Domain Services domain.
  - A Azure AD Domain Services domain. User is sourced from Azure Active Directory, and the Windows Virtual Desktop VM
    is joined to Azure AD Domain Services domain.
- An Azure subscription, parented to the same Azure AD tenant, that contains a virtual network that either contains or is connected to the Windows Server Active Directory or Azure AD DS instance.

User requirements to connect to Windows Virtual Desktop:

- The user must be sourced from the same Active Directory that's connected to Azure AD. Windows Virtual Desktop does not support B2B or MSA accounts.
- · The UPN you use to subscribe to Windows Virtual Desktop must exist in the Active Directory domain the VM is joined to.

The Azure virtual machines you create for Windows Virtual Desktop must be:

- Standard domain-joined or Hybrid AD-joined. Virtual machines can't be Azure AD-joined.
- Running one of the following supported OS images.

# **SUPPORTED OS:**

Windows Virtual Desktop supports the following x64 operating system images:

- Windows 10 Enterprise multi-session, version 1809 or later
- Windows 10 Enterprise, version 1809 or later
- Windows 7 Enterprise
- Windows Server 2019
- Windows Server 2016
- Windows Server 2012 R2

Windows Virtual Desktop does not support x86 (32-bit), Windows 10 Enterprise N, or Windows 10 Enterprise KN operating system images. Windows 7 also doesn't support any VHD or VHDX-based profile solutions hosted on managed Azure Storage due to a sector size limitation.

Available automation and deployment options depend on which OS and version you choose, as shown in the following table:

Operating system	Azure Image Gallery	Manual VM deployment	Azure Resource Manager template integration	Provision host pools on Azure Marketplace
Windows 10 Enterprise (multi- session), version 2004	Yes	Yes	Yes	Yes
Windows 10 Enterprise (multi- session), version 1909	Yes	Yes	Yes	Yes
Windows 10 Enterprise (multi- session), version 1903	Yes	Yes	No	No
Windows 10 Enterprise (multi- session), version 1809	Yes	Yes	No	No
Windows 7 Enterprise	Yes	Yes	No	No
Windows Server 2019	Yes	Yes	No	No
Windows Server 2016	Yes	Yes	Yes	Yes
Windows Server 2012 R2	Yes	Yes	No	No

# **SUPPORTED DESKTOP CLIENTS/BROWSERS:**

# **Supported Remote Desktop clients**

The following Remote Desktop clients support Windows Virtual Desktop:

- Windows Desktop
- Web
- macOS
- iOS
- Android
- Microsoft Store Client

٠	Windows 64-bit
•	Windows 32-bit
•	Windows ARM64

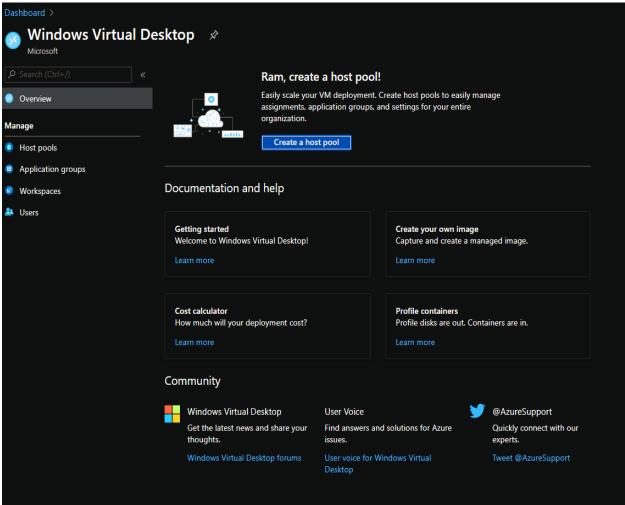
Microsoft Edge	Windows	
Internet Explorer	Windows	Version 11 or later
Apple Safari	macOS	
Mozilla Firefox	Windows, macOS, Linux	Version 55 or later
Google Chrome	Windows, macOS, Linux, Chrome OS	

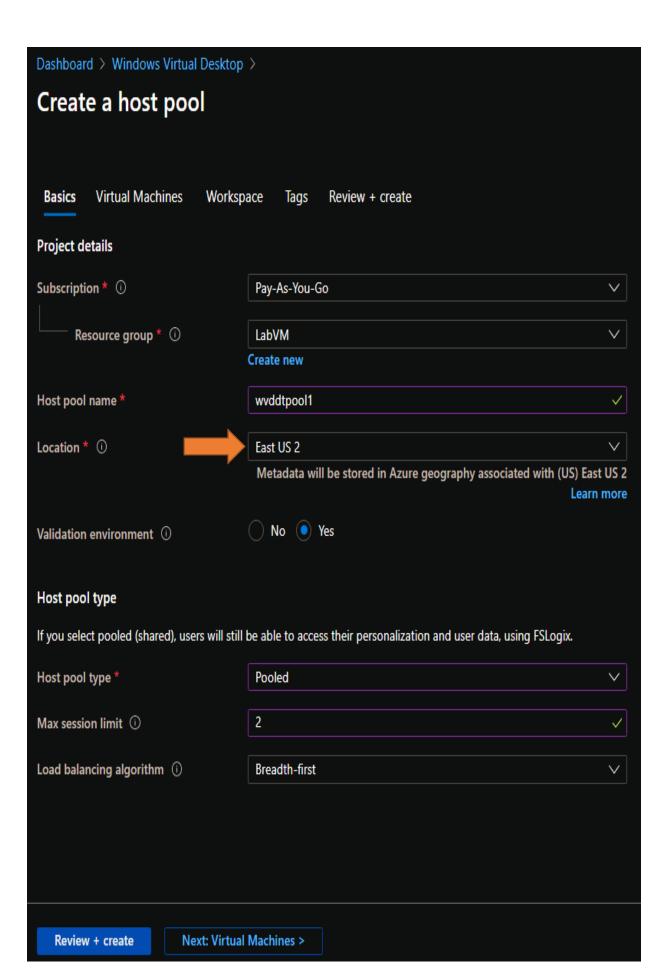
# **HOST POOL CREATION:**

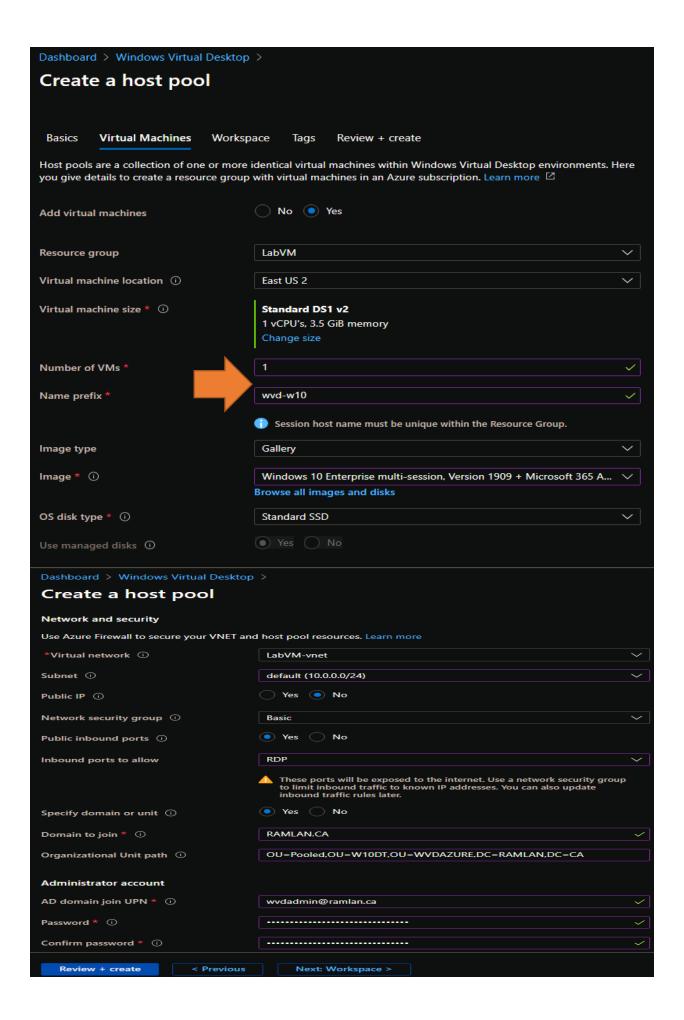
Login to Portal – In the search box type windows virtual desktop – Create a Host Pool

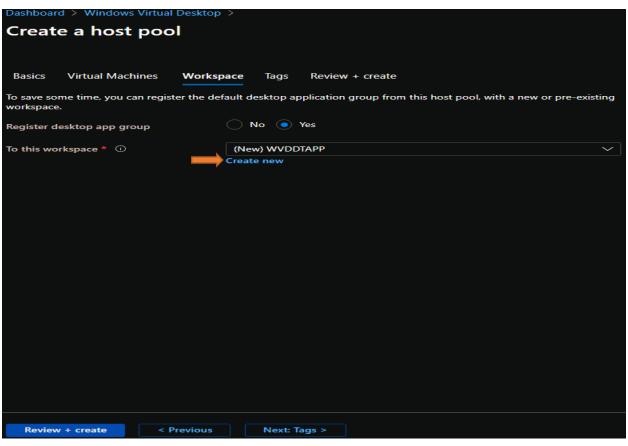
# Begin the host pool setup process To start creating your new host pool: 1. Sign in to the Azure portal at https://portal.azure.com. ![NOTE] If you're signing in to the US Gov portal, go to https://portal.azure.us/ instead. 2. Enter Windows Virtual Desktop into the search bar, then find and select Windows Virtual Desktop under Services.

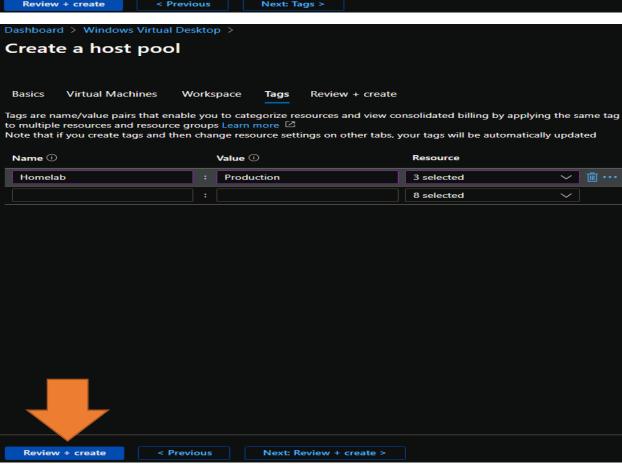












# Dashboard > Windows Virtual Desktop >

# Create a host pool



Basics Virtual Machines Workspace Tags Review + create

# Basics

Subscription Pay-As-You-Go

Resource group LabVM

Host pool name WVDW10POOL01

Location East US 2
Host pool type Pooled
Max session limit 4

Load balancing algorithm Breadth-first

# **Virtual Machines**

Resource group

Virtual machine location

Virtual machine size

Virtual machine size

Allocate by

LabVM

East US 2

Standard B1ms

Number of VMs

Number of VMs 1

Name prefix wvd-dt
Image type Gallery

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

OS disk type Standard HDD

Use managed disks Yes

Virtual network LabVM-vnet

Subnet default(10.0.0.0/24)

Public IP No
Network security group Basic

Public inbound ports

Inbound ports to allow

Allow selected ports

RDP (3389), HTTP (80)

Specify domain or unit Yes

Domain to join RAMLAN.CA

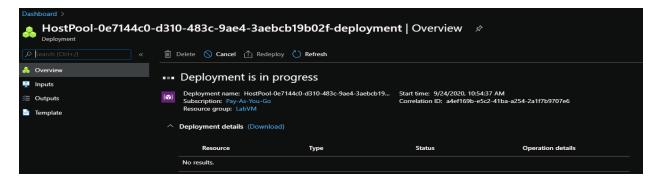
Organizational Unit path OU=Pooled,OU=W10DT,OU=WVDAZURE,DC=RAMLAN,DC=CA

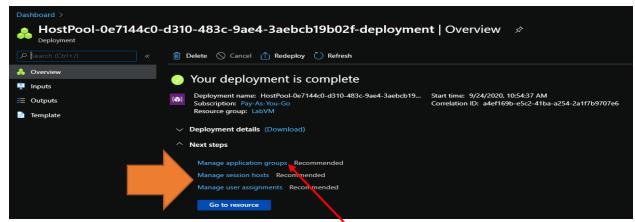
# Workspace

Workspace name (New) WVDDTAPP

Create < Previous

Download a template for automation

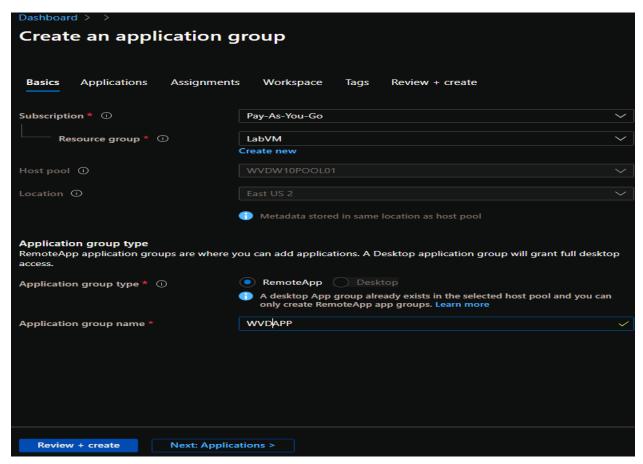


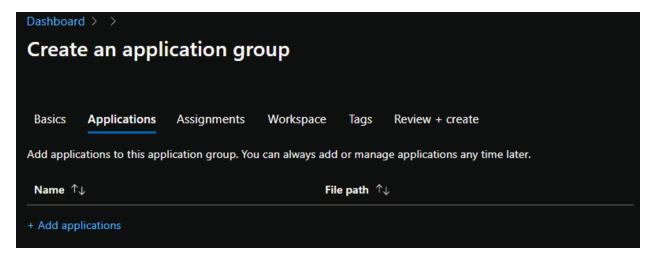


With this we have completed Step 1-4.

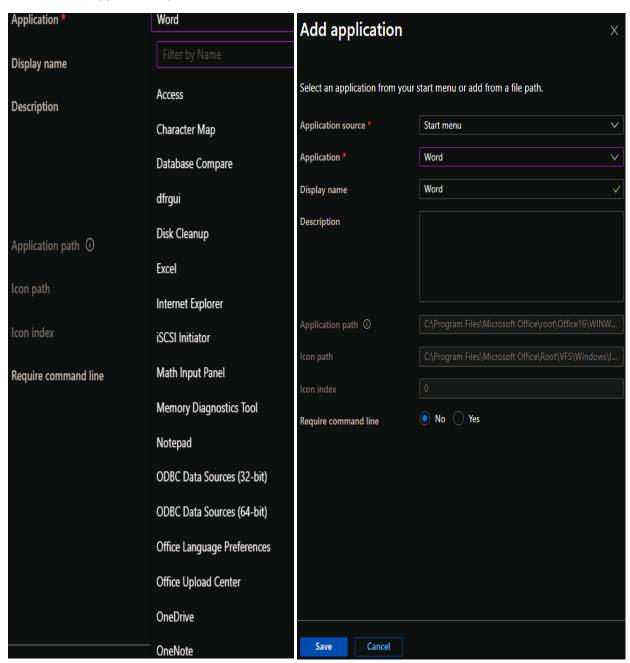
# **REMOTE APP:**

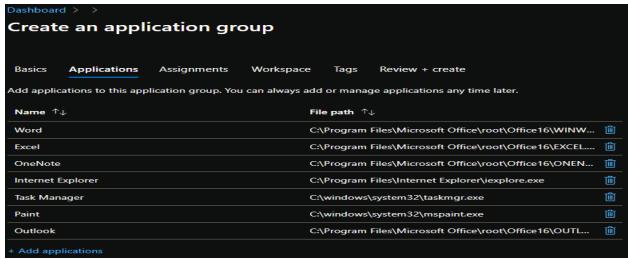
We will create remote app group for this pool. Click Manage application groups – Click Add

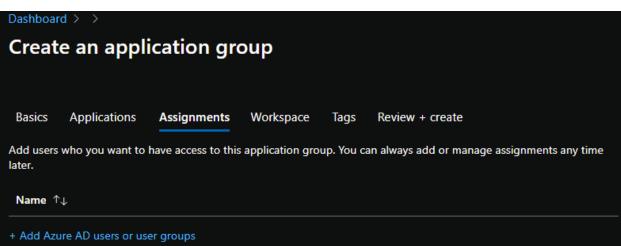


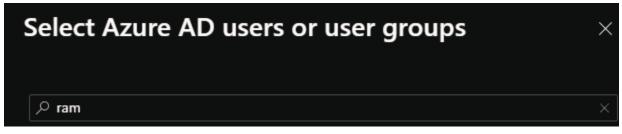


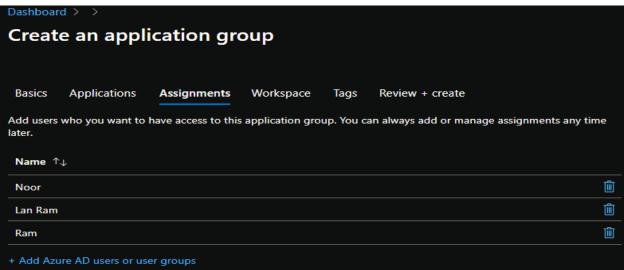
See the list of applications you can have it to the start menu.

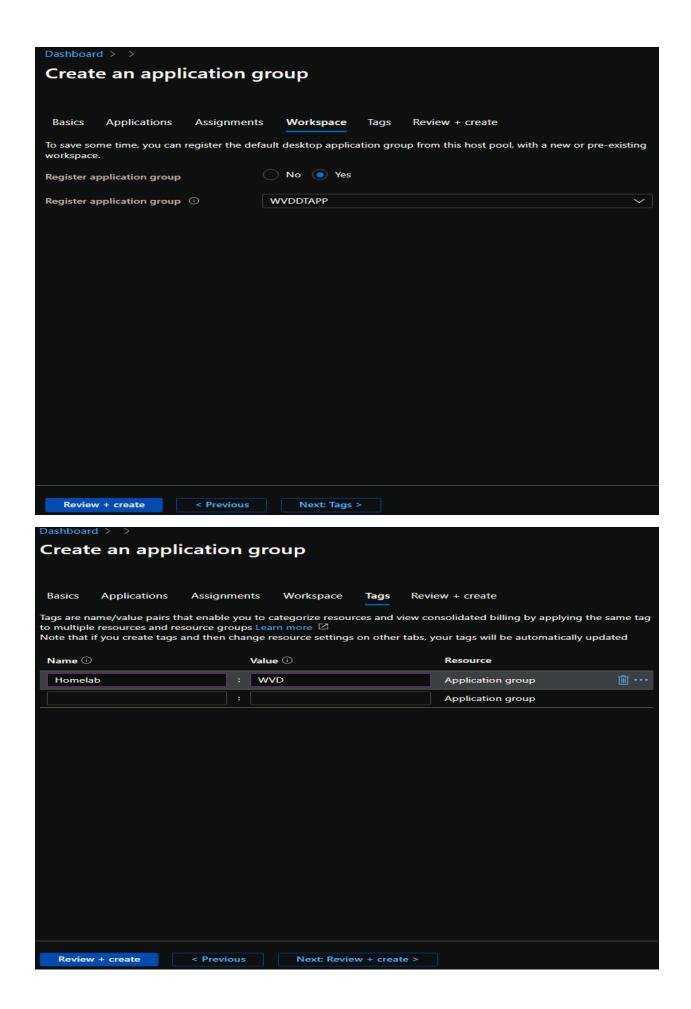


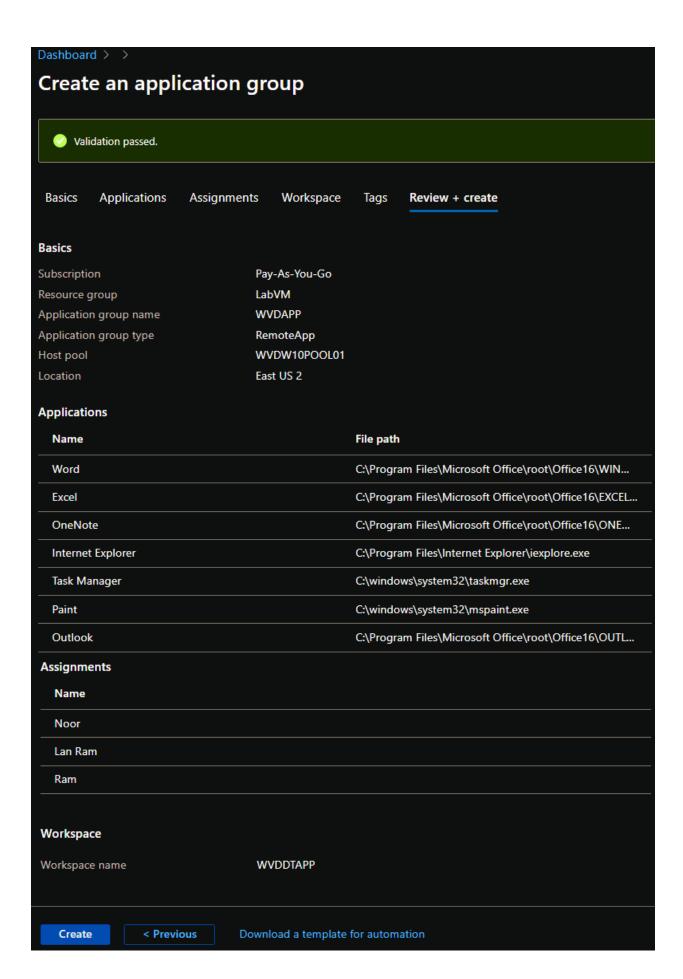


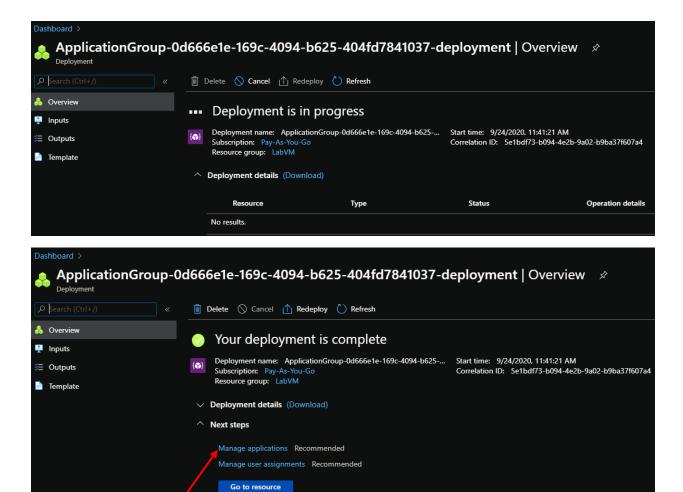










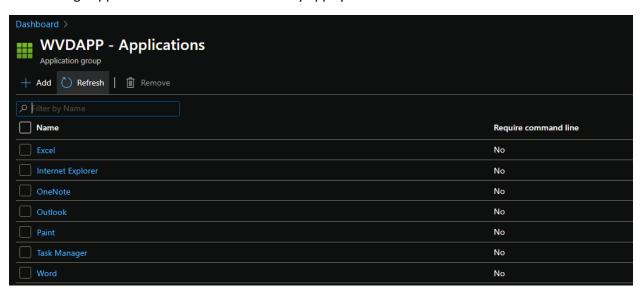


# (i) Important

You can only create 50 application groups for each Azure Active Directory tenant. We added this limit because of service limitations for retrieving feeds for our users. This limit doesn't apply to app groups created in Windows Virtual Desktop (classic).

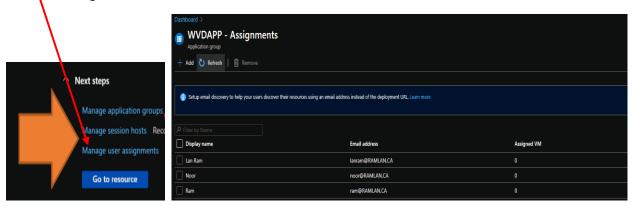
# MANAGE APPLICATIONS:

Click Manage applications and add or remove any apps you don't need. Not much to do here.

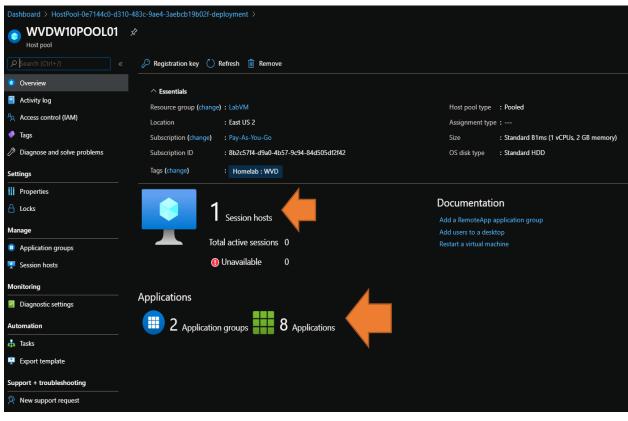


# **USER ASSIGNMENTS:**

Click User assignment and add or remove users. Not much to do here.



Now we have completed host pool task (Ste 5-10). This is how the host pool dashboard looks.



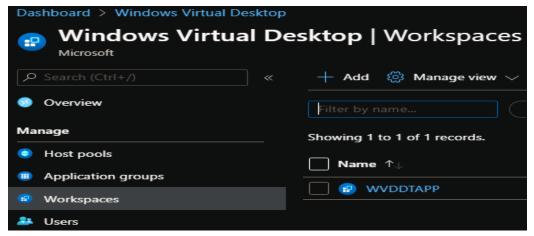




If you go to search bar and type windows virtual desktop – you can see all that we configured so far.







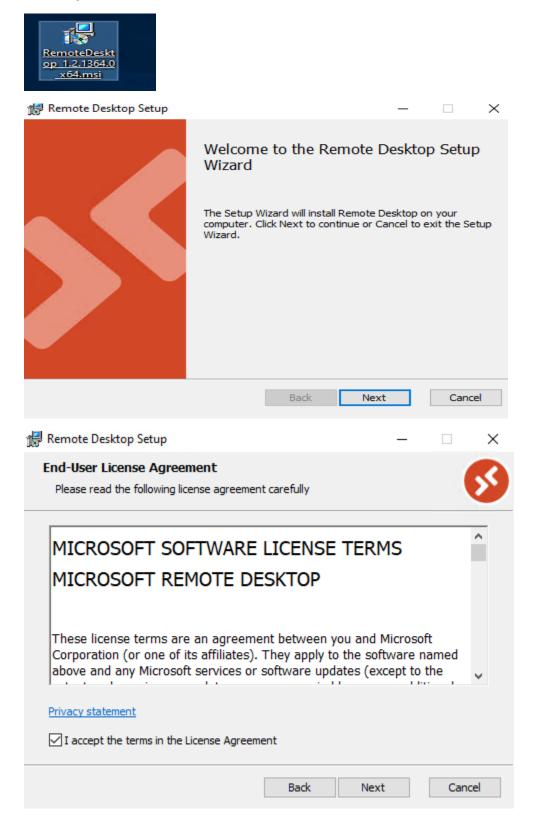


# **TESTING:**

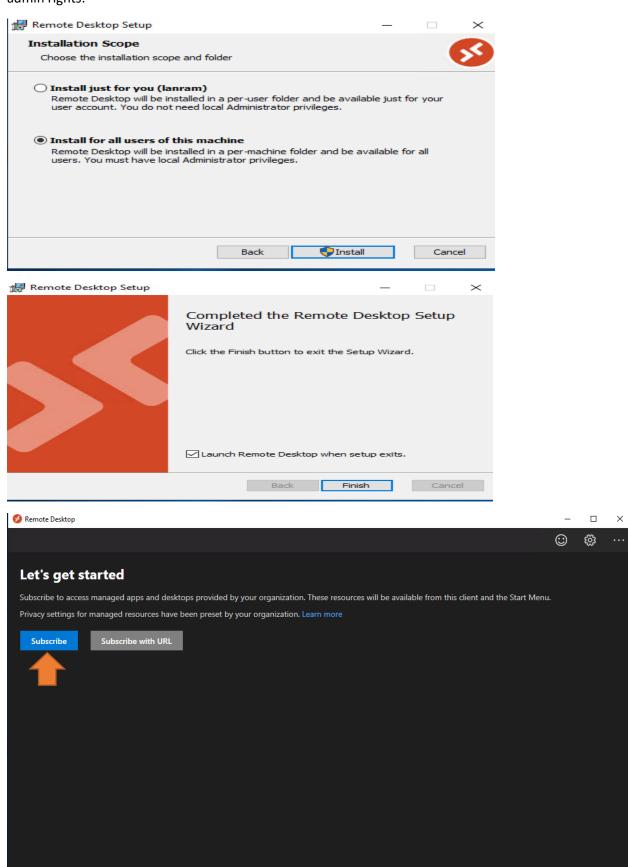
Check this link and read through the steps for testing.

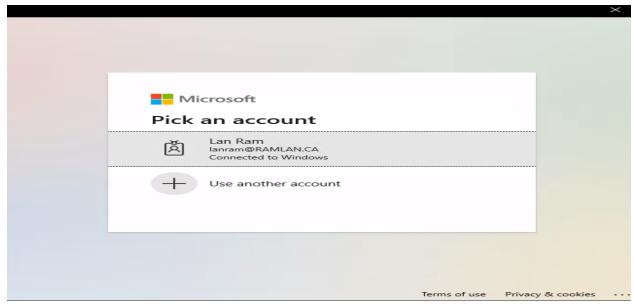
https://docs.microsoft.com/en-us/azure/virtual-desktop/connect-windows-7-10

I will do test from Windows 10 machine and through web browser. Download the client. Will install and test using domain user.

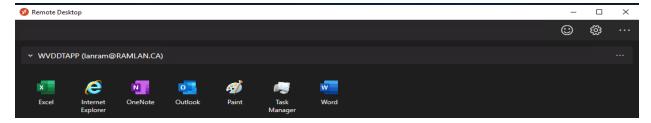


When you install for all user's admin rights is required. If you install for current user it does not require admin rights.

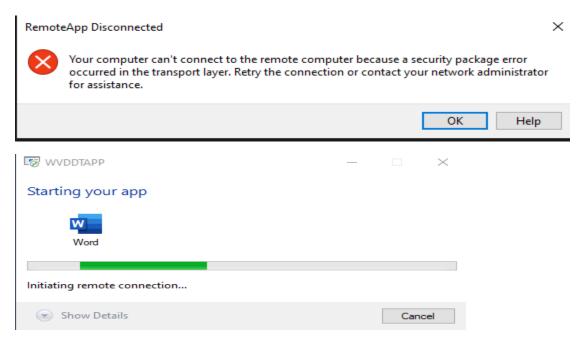




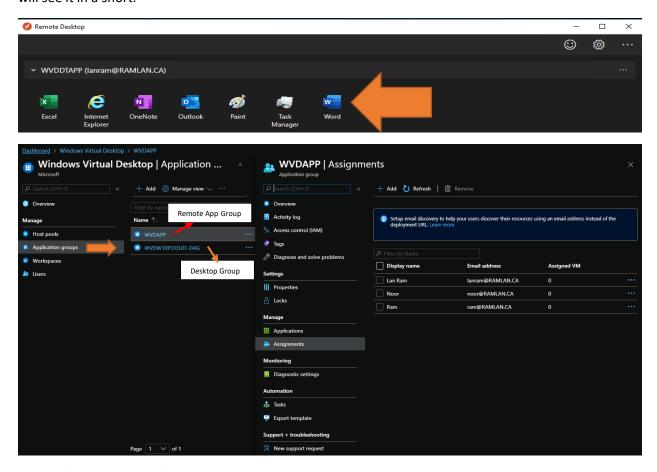




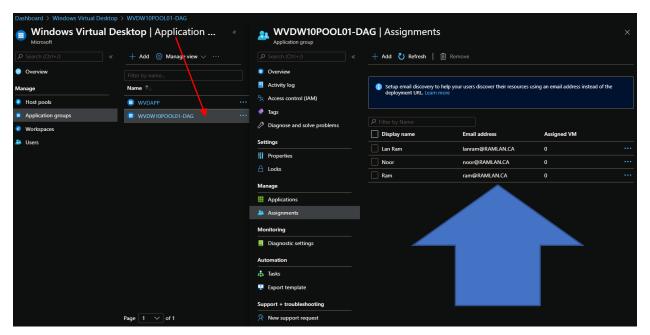
As you can see we are getting an error when we open remote app. I need to investigate what it is and fix.



You are seeing just the application when user logged in because the user is part of Remote Application Group. If the user is part of Desktop group user will have full access to Win 10 operating system. You will see it in a short.

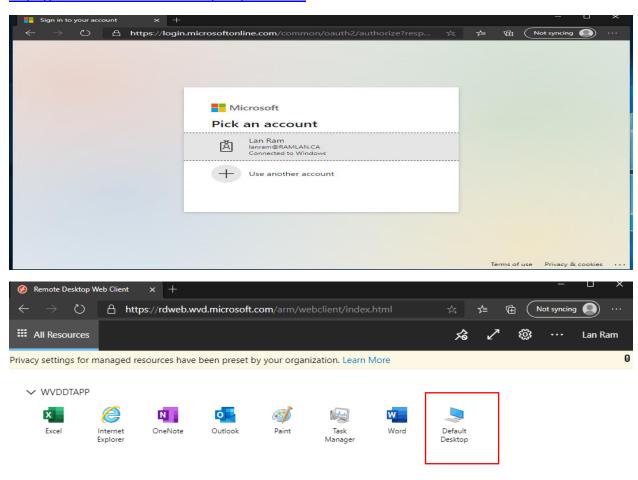


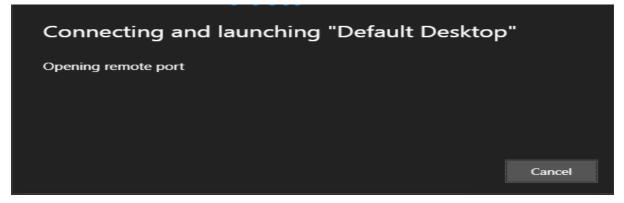
I added few users to default pool which is desktop app group.



Now we will test through web browser

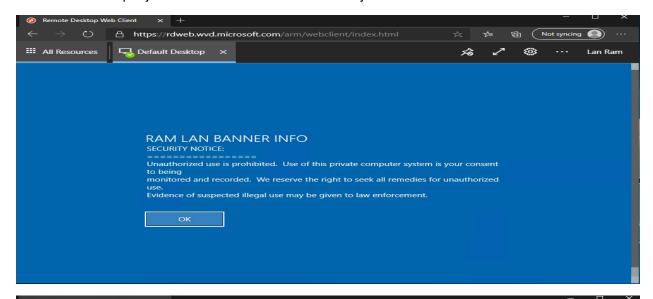
https://rdweb.wvd.microsoft.com/arm/webclient





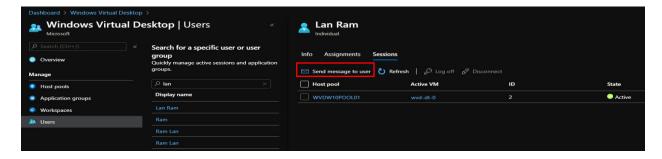


The virtual desktop is joined to the domain as well. Good job Microsoft!





Here you can send message to user, if required for logoff, restart, shutdown, release the session.



With this we have completed Windows Virtual Desktop in the Azure cloud. More to explore later.

Thanks

Ram Lan 24<sup>th</sup> Sep 2020 You can also try these methods for creating and deploying Host Pool. This one, I did above

Choose the create a Windows Virtual Desktop – Provision a host pool option from the Azure Marketplace

Use PowerShell

Use the Azure Resource Manager template for provisioning a new host pool.

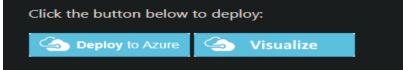
In my opinion, the third option is the best, so I will focus on it and explain how to deploy WVD VMs using the Azure Resource

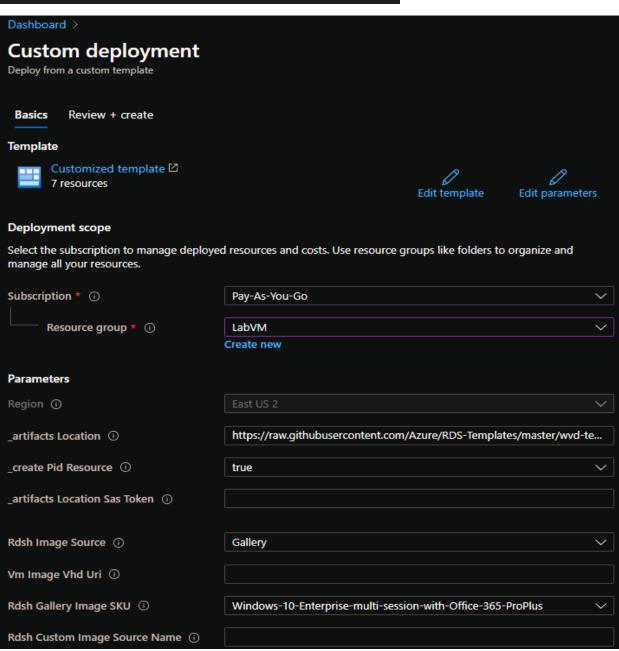
# Visit below link

Manager template.

 $\underline{https://github.com/Azure/RDS-Templates/tree/master/wvd-templates/Create\%20 and \%20 provision\%20 WVD\%20 host\%20 pooleting the provided by t$ 

Click Deploy Azure and fill in the fields market with RED \*





Dashboard >		
Custom deployment Deploy from a custom template		
Rdsh Custom Image Source Resource		
Group ①		
Rdsh Name Prefix * ①	wvd-w10	~
Rdsh Number Of Instances * i	1	~
Rdsh VM Disk Type ①	Standard_LRS	~
Rdsh Vm Size ①	Standard_DS1_v2	
Enable Accelerated Networking ①	false	~
Rdsh Use Managed Disks ①	true	~
Storage Account Resource Group Name		~
Domain To Join * ①	RAMLAN.CA	~
Existing Domain UPN * ①	wvdadmin@ramlan.ca	~
Existing Domain Password * ①		~
Ou Path ①	OU=Pooled,OU=W10DT,OU=WVDAZURE,DC=RAMLAN,DC=CA	
Existing Vnet Name * (i)	labvm-vnet1	~
New Or Existing Vnet (i)	existing	~
Existing Subnet Name * ①	default	~
Virtual Network Resource Group Name *	labvm	~
Rd Broker URL ①	https://rdbroker.wvd.microsoft.com	
Existing Tenant Group Name ①	Default Tenant Group	
Existing Tenant Name * ①	RAMLAN.CA	~
Host Pool Name * ①	WVD-HOST-POOL01	~
Service Metadata Location ①	United-States	~
Enable Persistent Desktop (i)	false	~
Default Desktop Users (i)		
Tenant Admin Upn Or Application Id * ①	ram@ramlan.ca	~
Tenant Admin Password * ①		~
Is Service Principal ①	false	~
Aad Tenant Id ①		
Location ①	[resourceGroup().location]	
Create Availability Set ①	false	~
Enable Verbose Msi Logging ①	false	~
Review + create < Previous	Next · Review + create >	