

AZURE VIRTUAL DESKTOP (AVD)

Click-to-Run[™] Solution Deployment Guide



Azure Virtual Desktop (AVD) Click-to-Run™ Solution

Please note the Information below Includes a Pre-Deployment Checklist based on the Identity and Access Management method you will be utilizing for the Azure Virtual Desktop (AVD) Environment.

In addition to the Click-to-Run™ Solution a fully managed Azure Virtual Desktop Offering Is available upon request.

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Azure Virtual Desktop Pre-Requisites:

□ Verify that you have the Minimum acceptable licensing compatible for Azure Virtual Desktop Service.

Desired Operating System	License Requirements
Windows 10 Enterprise Multi-Session Windows 10 Enterprise	Microsoft 365 E3, E5, A3, A5 Microsoft 365 Business Premium Windows 10 E3, E5, A3, A5
Windows 11 Enterprise	
Multi-Session Windows 11 Enterprise	
Windows Server 2016, 2019	RDS Client Access License (CAL) with Software Insurance RDS CALS on Server Subscriptions through CSP

□ Infrastructure Requirements

- Azure AD Domain Services resource deployed in Azure TD SYNNEX Azure AD Domain Services Click-to-Run[™] Solution is a great accompaniment and can be deployed separately and should be deployed prior to AVD.
 - If you have already deployed Azure AD Domain Services, please verify that the resource health must be shown as 'Running'. Password hash synchronization must be enabled on the tenant admin account (for domain joins).
- OR Use an On-Prem Domain Controller The customer or partner has extended their onprem AD DS forest workloads to Azure. Resources are accessed via a VPN gateway connection to the DC's Vnet in Azure. AD Connect is configured and synced with their Azure AD identities.
- OR Choose to deploy a Domain Controller in Azure The customer or partner has a deployed domain controller in Azure with AD Connect configured and synced with their Azure AD identities. Please note TD SYNNEX offers a Click-to-Run[™] Solution capable of deploying and configuring a Domain Controller on your behalf.

Security Defaults: Ensure Security Defaults is disabled on your Azure AD tenant. User

□ Access

Remote Desktop Client – AVD users are expected to access published resources through the Remote Desktop client. This must be downloaded manually after deployment. Instructions for installation and setup will be included in this step-by-step guide.

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Pre-Deployment Checklist

Select and verify the appropriate Windows 10 Licensing is in place Choose your

□ Identity Management Infrastructure

- 1. Azure Active Directory Domain Services
- 2. Connect to existing Domain Controller in Microsoft Azure

□ Verify identity Management model is prepared for the AVD Deployment. (Additional Steps required.)

- Azure AD Domain Services Page # 4 7 Domain
- Controller in Azure Page # 8 12

Once the previous steps have been completed, please continue with the following tasks. Each will need to be completed prior to configuring and deploying Azure Virtual Desktop Click-to-Run Solution.

Ensure Security Defaults are turned off temporarily (If Applicable)

If Using AADDS:

Pre-Deployment Steps (partner must complete)

- □ Purchase and deploy the AADDS Solution.
- Ensure AADDS is returning a healthy 'Running' state. Deactivate Security
- Defaults on your tenant.
- Ensure Admin is a member of the AAD DC Administrators group. Reset Domain
- Admin password (for password hash sync).
- Ensure DNS is configured on the AADDS Subnet

AADDS Pre-Deployment Steps

- 1. Purchase the AADDS (Azure Active Directory Domain Services) solution
 - a. Configure solution in the digital locker
- 2. Follow AADDS step by step guide for configuration
 - a. If at any point you are unsure, please reach out to us
- 3. Partner must do the following after <u>the deployment completes AND returns a</u> <u>healthy status.</u>
 - a. Deactivate security defaults (Temporarily)i. This can be turned back on after deployment



Home > TO Solution Factory Sandbo		Enable Security defaults $\qquad imes$
TD Solution Facto	ry Sandbox Properties	
A Holes and administrators	° ₩ Save X Oscard	Security defaults is a set of basic identity security mechanisms recommended by Microsoft. When enabled, these recommendations will be advantile the only of the security of t
Administrative units		and users will be better protected from common identity related
Enterprise applications	Tenant properties	Learn more
Devices	norm: 10 Solution factory Sandbox	Enable Security defaults
App registrations	Country or region	
Identity Governance	United States	
Application proxy	Loaton	
Custom security attributes	United States datacenters	
Licenses	Notification language	
Arure AD Connect	Toront D	
Custom domain names	arrodo b	
Mobility (MDM and MAM)	Technical contact	
💡 Password reset	matthew.humilton@itchdata.com	
Company branding	Global privacy contact	
User settings	×	
1.1 Properties	Privacy statement URL	
Security	· · · · · · ·	
Monitoring	Access management for Azure resources	
Sign-in logs	william@tdsolxdionlactorysb.ormicrosoft.com (william@tdsolxdionlactorysb.ormicrosoft.com) can manage access	
Audit logs	U al nuare supergrades par management groups at this secare callent morte	
A Provisioning logs	Manage Service (dealts	
🧬 Log Analytics		

Step 3 continued from previous page

□ Identify admin user (This can be found in the group AAD DC Administrators.) Identifying the
 □ Domain Admin:

Home > TD Solution Factory Sandbox	Groups > AAD DC Administrators rators Members				×
Desire.	+ Add members 🗙 Remove 🙋 Refresh 🗋	Bulk operations 🤍 🗮 Columns 🧖 Got feedback?			
 Diagnose and solve problems 	Direct members All members				
Manage		7 Add filters			
Properties	Name	1. Туре	Email	User type	
Members	Administrator	User	admin@tdsolutionfactorysb.onmicrosoft.com	Member	
i Owners	Atrian Toro	User		Member	
Le Roles and administrators	🗌 🧑 Matt	User		Member	2
Administrative units	🔲 🎯 William	User		Member	
Group memberships Applications					

□ Make note of domain ex- aadds.partnerAVDtest2020.onmicrosoft.com (you will need this in the AVD Section)





- Reset domain admin password (temporarily)
 - i. Click on your admin profile and on "View Account"



ii.Select 'Change password.'

William	Security info	Password	Settings & Privacy
william@tdsolutionfactorysb.onmicros oft.com	Keep your verification methods and security info up to date.	Make your password stronger, or change it if someone else knows it.	Personalize your account settings and see how your data is used.
Why can't I edit? ①	UPDATE INFO >	CHANGE PASSWORD >	VIEW SETTINGS AND PRIVACY >
	Devices	Organizations	My sign-ins
	旦	5	2
	Disable a lost device and review your connected devices.	See all the organizations that you're a part of.	See when and where you've signed in and check if anything looks unusual.
	MANAGE DEVICES >	MANAGE ORGANIZATIONS >	REVIEW RECENT ACTIVITY >
Sign out everywhere			

b. Log out and log back in as the domain admin. You must ensure the login and password are correct for the AVD Deployment.

4. Partner (If using AADDS) Verify DNS Configuration

- a. Verify custom DNS is configured on your AADDS VNet.
 - i. Locate your AADDS Vnet.

	US
aadds-b16cc18db94c492f9a477e36c3358b7d-lb Load balancer East	US
aadds-b16cc18db94c492f9a477e36c3358b7d-pip Public IP address East	US
aadds-ffe9ce32a6d44dd7bffe18efc77d9507-nic Network interface East	US
AADDS-NSG Network security group East	US
AADDS-VNet Virtual network East	US
aadds.tdsolutionfactorysb.onmicrosoft.com Azure AD Domain Services East	US
East AzureBastionHost Bastion East	US
Display bastionHost-pip Public IP address East	US



ii. Search for and select 'DNS Servers'

\equiv Microsoft Azure	
Home > Resource groups > TC-AADDS	-Test >
♦ AADDS-VNet Virtual network	
\wp dns \times «	🖒 Ref
Settings	∧ Esser
DNS servers	Resourc

iii. Ensure your DNS settings are set to 'Custom' and are pointing to the IP address of your domain controller.

Wirtual network	servers	
\bigcirc dns \times «	DNS servers (i)	
Settings	Default (Azure-provided)	
DNS servers	• Custom	
	IP Address	
	10.0.0.4	
	10.0.0.5	
	Add DNS server	

You may now proceed with the AVD Solution Deployment!

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If Using Domain Controller with AD Connect:

Pre-Deployment Steps (partner must complete)

- Ensure AD Connect is configured and syncing users Azure AD.
- 🔲 Make sure the Domain Admin you plan to use is in both Domain Admins & Administrators groups
- $\hfill\square$ Create the AVD-Admin & AVD-Users groups Deactivate
- □ Security Defaults on your tenant.
- □ Ensure custom DNS is configured on your Domain Controller Vnet.

Active Directory with AD Connect Deployment and Considerations

- **1. Partner (If using AD Connect or Hybrid)** must do the following. You must have AD Connect replicating and healthy before proceeding. Make note of domain from the Domain Controller (you will need this in the AVD Deployment Section).
 - a. Verify the Identities (notably your On-Prem users) from your domain controller are synced with Azure AD. Navigate to 'All Users' in Azure



Ad to verify:



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b. Make sure your Domain Admin is part of both the Administrators and Domain Admins groups.

During the deployment, we create a computer object to join the Azure File Share to the Domain. This is the main reason why we need the Domain Admin used during the deployment to be part of these two groups.



- c. We also need you to create two Groups in your local Domain Controller:
 - The AVD-Admin group
 - The AVD-Users group

) 🖄 🛅 🗎 🖾 🎯 🔒 📓 📷 🧏 📚 🐚 🍞 🖉	28		
ctive Directory Users and Computers [azuredc.williamtest.fr] Saved Queries williamtest.fr Guilliamtest.fr Computers	Name Suitin Computes Domain Controllers ForeignSecurityPrincipals ForeignSecurityPrincipals ForeignSecurityPrincipals Foreignam Data Foreignam Data Storage Accounts System Users FTM Devices FTM Devices Infrastructure RND-Admin RNND-Admin RNND-Lsers	Type builtinDomain Container Organizational Container IostAndFound Container Organizational Container Container mbD-GuotaC mtTPM-Indro infrastructureU Security Group	Description Default container for upgraded computer accounts Default container for domain controllers Default container for security identifiers (SIDa) ass Default container for key objects Default container for managed service accounts Default Container for managed service accounts Default Container for upgraded user accounts Builtin system settings Default container for upgraded user accounts Quota specifications container

The AVD-Admin group will be used for Azure Virtual Desktop Admins. The AVD-Users group will be used for Azure Virtual Desktop Users.

Please make sure these two groups are synchronized to your Azure AD using Azure AD Connect.

Broups All groups TD Solution Factory Sandbox - Azure Act	 Ve Directory					
* All groups	🞌 New group 🞍 Download groups 🍈 Delete 🕐 Refresh	📅 Columns 🔗 Got feedback?				
Deleted groups	AVD X Y	Filter \vee				
X Diagnose and solve problems	Search mode Contains					
Settings	2 groups found					
Ø General	Name	Object Id	Group Type	Membership Type	Email	Source
O Expiration		and and an an an and an and a state of the s				
③ Naming policy	AVD-Users	4413179e-ec3b-4cda-a64e-32184dd92368	Security	Assigned		Windows Server AD
Activity	AV AVD-Admin	cc536a10-2d5d-4fff-bf38-07fcd1661b61	Security	Assigned		Windows Server AD
Privileged access groups (Preview)						

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- d. Deactivate security defaults (temporarily)
 - i. This can be turned back on after deployment

Home > TO Solution Factory Sandbo	ry Sandhoy I Properties	Enable Security defaults $\qquad \qquad \qquad$
Azure Active Directory		
A Holes and administrators	E See X Diszed	Security defaults is a set of basic identity security mechanisms recommended by Microsoft. When enabled, these recommendations
Administrative units		will be automatically enforced in your organization. Administrations and users will be better protected from common identity related
Streppise applications	Tenant properties	Lean more
Devices	nami	Enable Security defaults
App registrations	Country or region	
3 Identity Governance	United States	
Application proxy	Losdon	
 Custom security attributes (Preview) 	Weiters same search weiters	
🛔 Lornes	ingish V	
Azure AD Connect	Tenant ID	
Custom domain names	4070068	
C Mobility (MDM and MAM)	Technical contact	
Password reset	matthew.hamilton@techdata.com	
Company branding	Global privacy contact	
User settings		
II Properties	Prinacy statement Unit	
Security		
Monitoring	Access management for Azure resources	
Sign-in logs	william@ctionulisolate.torps.com/conditions@ctionulisolate.torps.com/conditions/com/com/conditions/com/com/conditions/com/com/conditions/com/com/conditions/com/com/com/com/com/com/com/com/com/com	
Audit logs		
Provisioning logs	Manage Security defaults	
🧬 log Analytics		

e. IMPORTANT NOTE: **Do not proceed unless your domain is replicating and returns a healthy status in Azure.**

2. Partner (If using AD Connect) Verify DNS Configuration

- a. Verify custom DNS is configured on your Domain Controller VNet.
 - i. Locate your AD Vnet.

ADVNETTC-DomainController Virtual network East US ADVNETTC-DomainController-bastion Bastion East US ADVNETTC-DomainController-ip Public IP address East US azuredc Virtual machine East US azuredc-addtIDataDrive Disk East US sazuredc-dcDataDrive Disk East US Network interface Network interface East US	■ Name ↑↓	Туре ↑↓	Location \uparrow_{\downarrow}
ADVNETTC-DomainController-bastion Bastion East US ADVNETTC-DomainController-ip Public IP address East US azuredc Virtual machine East US azuredc-addtIDataDrive Disk East US azuredc-dcDataDrive Disk East US	ADVNETTC-DomainController	Virtual network	East US
Image: ADVNETTC-DomainController-ip Public IP address East US Image: ADVNETTC-DomainController-ip Virtual machine East US Image: ADVNETTC-DomainController-ip Virtual machine East US Image: ADVNETTC-DomainController-ip Disk East US	ADVNETTC-DomainController-bastion	Bastion	East US
Image: sauredc Virtual machine East US Image: sauredc-addtIDataDrive Disk East US Image: sauredc-dcDataDrive Disk East US Image: sauredc-dcDataDrive Disk East US	ADVNETTC-DomainController-ip	Public IP address	East US
Sazuredc-addtlDataDrive Disk East US Disk Disk East US Disk East US East US	azuredc	Virtual machine	East US
Sazuredc-dcDataDrive Disk East US Disk Network interface Fast US	azuredc-addtlDataDrive	Disk	East US
Resource Network interface East US	azuredc-dcDataDrive	Disk	East US
	azuredc-nic	Network interface	East US

ii. Search for and select 'DNS Servers'





iii. Ensure your DNS settings are set to 'Custom' and are pointing to the IP address of your domain controller.

ADVNETTC-Domai	nController DNS servers
\bigcirc DNS \times «	DNS servers ①
Settings	() Default (Azure-provided)
DNS servers	Custom
	IP Address
	10.0.0.4
	Add DNS server

You may now proceed with the AVD Solution Deployment!



Solution Overview:

"Azure Virtual Desktop, or AVD in short – is a born in the cloud Desktop-As-a-Service platform service offering on top of the Microsoft Azure Cloud. All the infrastructure services, such as brokering, web access, load-balancing, management, and monitoring is all setup for you as part of the control plane offering."

Deployment Architecture: General Workloads & Optional High Powered Apps Deployment



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AVD Deployment and Considerations

Purchase the Azure Virtual Desktop Click-to-Run[™] Solution through StreamOne and proceed to configure and deploy the solution.

Existing environment 2. 3. 4. 5.	Hel
ing environment - Domain's virtual network integration	_
Select an existing Virtual Network	
Select an existing Virtual Network from your subscription	~
Select an existing subnet	
Select an existing subnet	~
ing environment - Domain integration	
ing environment - Domain integration e Virtual Desktop - Location	
e Virtual Desktop - Location Data center location (based on selected virtual network)	_
e Virtual Desktop - Location Data center location (based on selected virtual network) Picking an existing vnet above will also select your Azure region	~
e Virtual Desktop - Location Data center location (based on selected virtual network) Picking an existing vnet above will also select your Azure region Resource group name (new)	~
e Virtual Desktop - Location Data center location (based on selected virtual network) Picking an existing vnet above will also select your Azure region Resource group name (new)	~
e Virtual Desktop - Location Data center location (based on selected virtual network) Picking an existing vnet above will also select your Azure region Resource group name (new)	· ·
e Virtual Desktop - Location Data center location (based on selected virtual network) Picking an existing vnet above will also select your Azure region Resource group name (new)	· · ·
e Virtual Desktop - Location Data center location (based on selected virtual network) Picking an existing vnet above will also select your Azure region Resource group name (new)	~

Let's get started with the User Interface!

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Please select the existing Virtual Network where your Identity Solution is located and select the Subnet where you plan to deploy your Azure Virtual Desktop Infrastructure:

Select an existing Virtual Network	
AADDS-VNet (Location: westeurope)	~
Select an existing subnet	
Workloads (IP Subnet: 10.0.1.0/24)	~

You will then be able to select your Domain Type between:

- a. Azure Active Directory Domain Services (AADDS)
- b. Active Directory (AD)

_			
	I am using an existing AADDS in my Azure tenant	I am using an existing Active Directory	

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a. Azure Active Directory Domain Services (AADDS)

To facilitate the deployment process, we have set up queries to retrieve the AADDS Domain Name and a drop-down menu with the list of the Admin Users from the AAD DC Administrators Group.

Please select the Admin username you plan to use and enter the Administrative Password tied to the user selected.

AADDS Domain Name: aadds.tdsolutio	nfactorysb.onmicrosoft.com		~
AAD DC Administrators Group for this AADD	0		
AAD DC Administrators (GroupID: b266	o75f-e3a3-4fbc-9e8f-591ff00	a44d1)	~
Administrative vegenerate for the evicting AA	NDC Domoin		
Administrative username for the existing AA	DS Domain		
william@tdsolutionfactorysb.onmicros	oft.com (ObjectID: c2361407	-b0a7-4f77-a066-e02495224e49) ~
Administrative password for the existing do	ain		
(
 Note: we will not be able to validate to 	e credentials entered during b	undle configuration. Make sure all i	information



We have also added up a logic to verify the DNS Server has been set up properly. Please verify and acknowledge domain credentials:

0	AADDS Provisioning State Succeeded
0	DNS Check Validation We detected a DNS Server has been set in your existing Azure Virtual Network.
♪	Verify and acknowledge domain credentials ✓ Yes, I have entered valid administrative domain credentials.



a. Active Directory (AD) First, please enter the Existing Domain Name you plan to join:

I am using an existing AADDS in my Azure tenant	I am using an existing Active Directory
Existing domain to join 🌒	
williamtest.fr	

Then Select the location of the Active Directory Computer Location.

i. If it is located on-premises connected through a VPN Gateway, please enter the exact Computer name:

Active Directory Computer Location	
 Active Directory located in Azure 	
Active Directory located On-Premises, connected with a VPN Gateway	
Name of the Local Domain Controller	
Name of the Local Domain Controller	

ii. If it is located in Azure, please select the Virtual Machine through the drop-down menu:

Active Directory Computer Location	
Active Directory located in Azure	
 Active Directory located On-Premises, connected with a VPN Gateway 	
Select the Name of the Domain Controller you plan to use for the deployment.	



Then, please enter the Domain Admin Username in the UPN format and acknowledge that the admin User you provided in both the Domain Admin and Administrators group. (Reminder: During the deployment, we create a computer object to join the Azure File Share to the Domain. This is the main reason why we need the Domain Admin used during the deployment to be part of these two groups.)

 Note: During the deployment we create a computer object for the Azure File Share in the Domain. To perform this action, the Domain Admin provided needs to be in both the "Domain Admin" group and the "Administrators" group Verify and acknowledge that the Domain Admin User provided is in both Domain Admin and 	/illiam	m@williamtest.fr
\wedge Verify and acknowledge that the Domain Admin User provided is in both Domain Admin and	i No ac	ote: During the deployment we create a computer object for the Azure File Share in the Domain. To perform this tion, the Domain Admin provided needs to be in both the "Domain Admin" group and the "Administrators" group
Administrators groups	∧ V A	erify and acknowledge that the Domain Admin User provided is in both Domain Admin and Iministrators groups

Then enter the administrative password for the selected user:

••••	
D	Note: we will not be able to validate the credentials entered during bundle configuration. Make sure all information is entered correctly and confirm below before proceeding. Invalid domain credentials will result in failed deployments.



We have added up a logic to verify that the AVD-Admin and AVD-Users groups have been created and synced beforehand. We are also verifying that the DNS Server has been set up properly. Please verify and acknowledge domain credentials:

 Existing AVD-Users Group Validation DNS Check Validation 	
DNS Check Validation	
 Verify and acknowledge domain credentials Yes, I have entered valid administrative domain credentials. 	

Moving on to the Azure Virtual Desktop configuration, please enter a Resource Group Name: (Data Center Location is based upon the location of the AADDS / AD you've previously deployed).

Data center location (based on selected virtual network) 1	
West Europe	
Resource group name (new)	
wm-avd	
	Next

Click on Next



Then enter a Host Pool Name and a Workspace Name for the Azure Virtual Desktop:

1. 2. Gene	eral information	3.	4.	5.	Help
re Virtual Desktop	- Basic Inform	ation			_
Host Pool Name					
Hostpool-Demo					
Workspace Name					

Please select the AVD Objects Location. This is where you will deploy your AVD Services (Host Pool, Workspace, Application Groups...). This does not define the location of your Session Hosts.

Objects Location	
West Europe	~

By default, we create a Default Application Group (DAG). You can also create an additional Application Group that would be dedicated for RemoteApp.

Create an Application Group for RemoteApp	0	



Moving on to Session Hosts Configuration. Please define a Session Hosts prefix. It will be limited to 8 characters as we append -host1, -host2... to the Virtual Machines and the Computer Name is limited to 15 characters.

Virtual Desktop Session Ho	ost prefix 🕕	

Then enter the local admin credentials you plan to use for the Session Hosts:

williamm			
Administrator Password			
•••••			
Confirm Password			

Select the Session Host Image Sku you plan to use and the number of Session Hosts you plan to deploy:

Windows 10 Enterprise Multi-Session	Windows 11 Enterprise Multi-Session with Office 365 Professional Plus	Windows Server 2019 Datacenter Edition	Windows Server 2022 Datacenter Edition
Select 💙	Selected	Select 💙	Select 💙
Windows 10 Enterprise Multi-Session with Office 365 Professional Plus	Windows 11 Enterprise Multi-Session		
Select 💙	Select 💙		
imber of Session Hosts t	to deploy 🕕		

You will then be able to select your VM Profile Type and the VM Size.

DSv5 Family (Gener	al Purpose)	¥
ze of Compute Instan	ce for the Session Host(s)	

We have added up a logic to validate VM Cores Quota validation. The number in the VM Size represents the number of cores each VM uses.

DSv5 Family (General Purpose)	~
Size of Compute Instance for the Session Host(s)	
D4s_v5	~
/M Cores Quota Validation	
Available VM Cores Quota: 0 in use /50 available	

Warning! Please bear in mind to multiply the number of cores a VM Size would use by the number of Session you plan to deploy!

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Then please select the OS Disk size you plan to use:

256 GB		~

Enable Accelerated Networking		l
Please select if you plan to deploy a Base VM for Golden	Image creation:	

Deploy VM for Golden Image	0	

And finally, please enter a name for your Diagnostics Storage Account:

diagdemo13215	
Prov	Next
	next

Then click on Next.

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Now that we are done with the Session Hosts configuration, let's move on to the Azure File Share configuration.

The Azure File Share will be used to store User Profiles. Please enter a name for your File Share Storage Account and select if you want to use Premium Storage or not:

1.	2. 3. File Share configuration 4. 5.	Help
Azure	Virtual Desktop - File Share Configuration	1
F	File Share Storage Account Name	
[sharedemo12315	
ι	Jse premium storage for the Azure File Share 🕚	

Then define the File Share Quota (Standard storage is Pay as you Go, but Premium Storage is provisioned):

	ne quota in s									
0	0									
0	512	1024	1536	2048	2560	3072	3584	4096	4608	5120

And select if you want to use Azure Backup for your Azure File Share and the redundancy of your Azure Backup Account Type. Then click on next!

*
Novt
Next

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Moving on to extra Azure Virtual Desktop features, you can select if you want to use the AVD Optimizer:

1.	> 2.	3.	4. AVD features	5.	Help
zure Virtua	al Desko	p - Features			-

If you plan to enable the "Start Virtual Machine On Connect" feature:

Enable Start Virtual Machine on Connect	0	

And if your AVD Location supports it, you can use the AVD Scaling Plan feature:

Coloct a Time Zona	Ar your AVD Seeling Blan	
Select a Time Zone		•
Schedule of your work da	/S	
🔿 5 Days a week (Mon,	ue, Wed, Thu, Fri)	
🔿 7 Days a week (Mon,	ue, Wed, Thu, Fri, Sat, Sun)	
Ramp Up Start Time		
08:00	©	
Peak Start Time 🛛 🕕		
09:00	0	
Ramp Down Start Time	0	
18:00	0	
Off Peak Start Time		
20:00	0	

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To configure it, please select the adequate Time Zone, your Workdays Schedule, the different Start Times and if you plan to directly Enable the newly created Scaling Plan:

Time Zone for your AVD Scalin	g Plan	
(UTC+01:00) Brussels, Co	penhagen, Madrid, Paris	
Schedule of your work days		
● 5 Days a week (Mon, Tue, W	Ved, Thu, Fri)	
🔿 7 Days a week (Mon, Tue, W	Ved, Thu, Fri, Sat, Sun)	
Ramp Up Start Time 08:00	0	
Peak Start Time 🛛 🕕		
09:00	0	
Ramp Down Start Time 🌒		
18:00	©	
Off Peak Start Time 🛛 🕕		
20:00	0	
Enable Scaling Plan 🏾 🌒		

By default, the Ramp Up Load Balancing Algorithm is Breadth First and the Ramp Down Load Balancing Algorithm is Depth First. The Peak Load Balancing Algorithm is Depth First and the Off Peak Load Balancing Algorithm is Depth First.

The Ramp Up Minimum Hosts Percentage is 20% and the Ramp Up Capacity Threshold is 60% while the Ramp Down Minimum Hosts Percentage is 10% and the Ramp Down Capacity Threshold is 90%.

The Ramp Down force logs off Users 30 minutes after they receive the notification message "You will be logged off in 30 min. Make sure to save your work."

Finally, please select if you plan to deploy Log Analytics:

Deploy Log Analytics 🌒	
Prov	Nevt

Then click on next.

1. 2. 3. 4. 5. Deploy	н
ully Managed Services for Azure Virtual Desktop - Optional Service	
Our Fully Managed Services can help deliver a consistent & reliable environment with 24 x 7 managed services that can continuously manage the environment for your end users. Please complete the form below to be contacted and learn more about this service.	
Prev	Deploy

You can then click on Deploy Now!



Post-Deployment Checklist for Azure AD Domain Services (partner must complete)

Assign users to AVD Users / AVD Admin group.

Adding users to 'AVD Users' AAD Group

For AADDS Scenarios, we automate the creation of a custom security group called 'AVD-Users.' Any users or groups who you would like to grant access to your environment should be added to 'AVD-Users.'

1. Go to your Azure AD and select 'Groups' you should see the 'AVD-Users' group in the listing. Select the group.



2. Select 'Members,' then 'Add Members.' Add any Azure AD users or custom groups that you wish to provide access to your AVD environment.



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Post-Deployment Checklist for Domain Controller Deployments (partner must complete)

Add users to the Local AD Group.

AVD (Domain Controller with AD Connect): Post Deployment Steps

Go to your local AD and add up users to the 'AVD-Users' group.





AVD Error Deployment Log

Azure Error:

"VM has reported a failure when processing extension 'joindomain'. Error message: \\\"Exception(s) occurred while joining Domain <Domain Name>\\\"\\r\\n\\r\\nMore information on troubleshooting is available at https://aka.ms/vmextensionwindowstroubleshoot \"

Description: Domain Join Failure Potential

Causes (if Using AADDS):

- AADDS is not returning a healthy 'running' state.
- The domain admin account password has not been reset after deploying AADDS (password hash sync step).
- An invalid domain name was supplied. This needs to be the AADDS Resource name.
- Invalid administrator credentials were supplied.
- The domain admin user supplied is not a member of the AAD DC Administrators security group.
- The VM name supplied at deployment already exists in AADDS, causing a duplicate naming conflict.
- Multifactor authentication is enabled on the domain administrator account in Azure AD.
- AADDS is not configured to be your primary DNS source.

Potential Causes (if Using Domain Controller with ADConnect):

- An invalid domain name was supplied. This must be the forest name of your current Active Directory.
- Invalid administrator credentials were supplied. This must be a domain admin on your domain controller.
- Username supplied at deployment is not a Domain Administrator on your AD server.
- The domain admin name supplied has not been synced up to Azure AD with ADConnect.
- The VM name supplied at deployment already exists in AD, causing a duplicate naming conflict.
- Multifactor authentication is enabled on the domain admin account supplied.
- Your domain controller is not configured to be your primary DNS source.
- Your Domain Controller Vnet does not have DNS configured.



Azure Error:

"code": "NetworkAclsValidationFailure", "message": "Validation of network acls failure: SubnetsHaveNoServiceEndpointsConfigured:Subnets workloads of virtual network <Vnet Resource ID here> do not have ServiceEndpoints for Microsoft.Storage resources configured. Add Microsoft.Storage to subnet's ServiceEndpoints collection before trying to ACL Microsoft.Storage resources to these subnets.."

Description: Service Endpoint Not configured

Cause: The Microsoft. Storage service endpoint has not been configured on your Doman VNet.

Steps to resolve:

- Resolve this by going to your AADDS or DC Vnet
- Select the subnet you are deploying to (i.e., your 'Workloads' subnet)
- Select the dropdown under 'Services'
- Ensure the 'Microsoft.Storage' service endpoint has been added
- Consult the AVD Click-to-Run step-by-step guide for more information

Azure Error:

\"VM has reported a failure when processing extension 'installcustomscript'. Error message: \\\"Command execution finished, but failed because it returned a non-zero exit code of: '1

Description: Custom Script Extension Failure

Cause: The custom script extension failed to execute. This could be due to your tenant configuration, User account, or conditional access policy. **More information about this issue may be viewed on the deployed session host under C:\DeploymentLogs.**

Steps to resolve:

- Ensure your domain admin user does not have MFA enabled.
- Ensure Security Defaults is Disabled on your tenant.
- Verify that you do not have an azure policy that could conflict with running custom scripts.
- Check your conditional access policies for anything that may be preventing 3rd party scripts from running within your tenant.
- If these policies exist and cannot be modified, ensure that an appropriate exception has been created for the domain admin user supplied for the AVD deployment.
- For scenarios where a new admin user was created for the AVD deployment, ensure you do not have an enforced MFA/multi device setup for new users upon first login.
- Ensure there are not any Azure Firewall configurations in place that may interfere with custom scripts from being run in your subscription and selected VNet.



AVD V1 Click-to-Run: Creating Your custom Image

The AVD Click-to-Run solution provides the option to deploy a partially configured Windows 10 Multisession VM from which you may create a custom image for your AVD deployment. Follow the steps below to create a golden image from the deployed VM and update your Host Pool. Please note the custom image that is being created will be unique to this AVD deployment.

1. If you have enabled the deployment of 'a base VM for Golden Image' from the UI, the solution will provision a VM called 'imageVM' that will be used to build your golden image.

□ Name ↑	Туре ↑↓	Location \uparrow_{\downarrow}
autodeskHP	Host pool	East US
autodeskHP-DAG	Application group	East US
autodeskWS	Workspace	East US
🗌 🖳 firstVM-0	Virtual machine	East US
🗌 🔚 firstVM-0-nic	Network interface	East US
FirstVM-0_OsDisk_1_5d8cd50b1be849e885afe737783633cb	Disk	East US
🔲 🐚 firstVM-availabilitySet-eastus	Availability set	East US
🗌 🖳 imageVM	Virtual machine	East US
imageVM-nic	Network interface	East US
imageVM-PIP	Public IP address	East US
🗌 😂 imageVM_OsDisk_1_d460a7327def4dadac6b2cfddbf17da1	Disk	East US
🗌 🚍 p3op2kxbpukcousers	Storage account	East US
WVDMonitor-p3op2kxbpukco	Log Analytics workspace	East US

2. Sign in to imageVM with local admin credentials. For your convenience, the Image VM has been configured to allow connections via RDP.

▲ To improve security, enable just-in-time access on	this VM. \rightarrow		
RDP SSH BASTION			
Connect with RDP To connect to your virtual machine via RDP, select	Windows Security	>	×
IP address * Public IP address (13.92.39.241)	These credentials will be used to	connect to 13.92.39.241.	
Port number * 3389	tony2		
Download RDP File	••••••	©	
Can't connect?	ОК	Cancel	

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3. Configure the virtual machine with any LOB applications, Group Policy Settings, or other configurations.

Note: the FSLogix Agent has been configured for you already, and the VHD locations have been mapped to the Click-to-Run storage account. If you enabled the teams install during deployment, this will be configured on imageVM as well.

4. When finished Making your configurations, you must run sysprep on imageVM. This can be done by selecting start->Run->Sysprep. Open the Sysprep application and select 'Enter System Out-of-Box-Experience (OOBE)' and select 'Generalize'. Under shutdown options select 'Shutdown'. After clicking 'Ok' the sysprep process will begin. Important: This will generalize the imageVM and you will not be able to access it again after the sysprep process begins!

		Manage Manage	Syloreo		16.55		- L ×
		This PC > Windows (C) > Win	idows > System32 > Sysprep >			× 0	Q
	+ Christ array	Name Name	Date modified	Туре	Size		
	Desider	ActionFiles	6/8/2021 1:45 PM	File folder			
	1 Dented	📜 📕 en-US	12/7/2019 9:49 AM	File folder			
	- Downoads	Banther	6/8/2021 2:16 PM	File folder			
	Le Documents	Sistered The systemes	6/8/2021 1:02 PM	Application	1,545 88		
)	ConeDrive		System Proparation Tool 3.14	×			
6 19	5 This PC		System Preparation Tool (Sysprep) pre hardwore independence and cleanup.	ares the machine for			
	Metwork						
2.			Enter: System Out-of-Box Experience	- 1900t			
aut:			[∞] Generalize				
			Shutdown Options				
			Shubbevin	× .			
10				Cancel			
							-
28							
23							
.0	- 21						
		ed 1.81 M8					10 H
Type the name of a progra	im, folder, document, or						
Internet resource, and Win	davs will open it for you.						
	1						
au: sysbieb	*						
This task will be created	id with administrative priviloges.						
CK.	Cancel Browne						

5. Once the sysprep process has completed, the image VM will be in the 'Stopped' state in Azure. To create the custom image select 'Capture'.

Home > Resource groups > TC-Aut	odeskV3-Lab >			
imageVM 🖉 …				
	: 💋 Connect Þ Slart 🖓 F	estart 🔲 Stop 🕱 Capture ı Delete 🕓 Refresh 📋	Open in mobile	
Overview	^ Essentials			
Activity log	Resource group (change) : 70-4		Operating system : Windo	ANT:
Access control (IAM)	Status : Stop	ped	Size : Standa	ard NV6 (6 vcpus, 56 GiB memory)
-	Location : East			
e lags	Subscription (change) : Micr			
Diagnose and solve problems	Subscription ID : 8011	Sbe8-23dd-4136-918F-965b0b078853		
lettings	Teos (change) : Click			
Networking				
Connect	Properties Monitoring	Capabilities (7) Recommendations Tutorials		
Daks	Virtual machine		2 Networking	
Stre	Computer name	imageVM		
Country .	Operating system	Windows		
	Publisher	MicrosoftWindowsDesktop		
Advisor recommendations	Offer	office-365		
Litensions	Plan	20h2-evd-c065pp		
Continuous delivery	VM generation			
Availability + scaling	Agent status	Ready		
Configuration	Agent version	2.7.41491.1010	Stre	
Identity	Host group			standard NV6
Basentier	Host		vcP0s	
in rispens	Proximity placement grou			20.08
Locks	Colocation status		Cink Disk	
Operations	Statement and a second			imageVM_OsDisk_1_6460a7327def4dadac6b2cfddbf17da1
S Bastion	Availability - scaling			Not enabled
Auto-shutrinen	Finite Cet			
			Data distr	

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6. Follow the prompts to create the image. We recommend creating a Shared Image Galley during this step to simplify Image management and updates. Make sure the OS state selected is set to 'Generalized.' When you have finished specifying your inputs, select 'Review and Create' to begin the image creation process. This will also create the Shared Image Gallery and definitions.

Home > Resource groups > TC-Autode	skV3-Lab > imageVM >		
Create an image			
Instance details			
Region			
Share image to Shared image gallery ①	 Yes, share it to a gallery as an image version. No, capture only a managed image. 		
Automatically delete this virtual machine after creating the image ①			
Gallery details			
Target image gallery * 🛈	(new) autodeskSIG		
	Create new		
Operating system state ①	Generalized: VMs created from this image require hostname, admin use other VM related setup to be completed on first boot	er, and	
Capturing a virtual machine image will	Specialized: VMs created from this image are completely configured and not require parameters such as hostname and admin user/password I make the virtual machine unusable. This action cannot be undone.		
Target image definition * ①	(new) autodeskIMG		
larget image definition	Create new		
Version details			
Varcian number *	61521		
version number * O			
Exclude from latest ①			
End of life date ①	MM/DD/YYYY		
Review + create < Prev	ious Next : Tags >		

7. You will then see the Shared Image Gallery and associated Image versions appear in your AVD resource group! This managed image may be used to update your existing AVD Host Pool.

autodeskIMG (autodeskSIG/autodeskIMG)	Image definition
autodeskSIG	Shared image gallery
autodeskWS	Workspace

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AVD V1 Click-to-Run: Updating your =Host Pool with Custom Image

1. To update your AVD Host Pool with your newly created custom image, navigate to your Host Pool resource and select 'Total Machines'.

Home > Microsoft.Compute-CaptureVM-2	0210615142129 > TC-Au	todeskV3-Lab >			
autodeskHP & … Host pool					
	🖉 Registration key 💍	Refresh 📋 Delete			
Overview Activity log Access control (IAM) Tage	 Essentials Resource group (change Location 	e) : TC-AutodeskV3-Lab : East US		Host pool type Assignment type	: Pooled
Diagnose and solve problems	Subscription (change) Subscription ID	: Microsoft Azure : 80115be8-23dd-4136	-918f-965b0b078853	Size OS disk type	:- :
Settings	Tags (change)	: Click here to add tags			
RDP Properties Properties Locke	Virtual machine	S Unavailable			
Manage	🖳 1	0 1			
Application groups MSIX packages Session hosts	Total sessions O	Active sessions 0	Disconnected sessions 0		
Monitoring Image: magnetic settings	Applications				
Automation	Application groups	Applications			

Select 'Add' from your Host Pool settings:

Home > Microsoft.Compute-CaptureVM-2 autodeskHP - Session Host pool	0210615142129 > TC-AutodeskV3-Lab > autoo hosts	leskHP >				
+ Add 🖒 Refresh 🔍 Assign 🞍 Ex	port to CSV 🗸 Turn drain mode on 🗌 Tur		🗓 Remove			
	Status: 12 selected V	Drain mode: 2	selected	\sim		
□ Name ↑↓			Status ↑↓	Drain mode \uparrow_{\downarrow}	Assigned User	^↓ Acti
firstVM-0.aadds.tdsolutionfactorysb.onm	crosoft.com		🕕 Unavailable	Off		0

2. Specify your session host name, AD domain credentials, Region ETC. To use your newly created Image, select 'See All Images' from the 'Image' parameter.



lome⇒ Add ∖	Microsoft.Compute-C virtual machi	apture\ nes	M-20210615142129 > TC-AutodeskV3-Lab > autodeskHP > to a host pool …	autodeskHP - Session hos	
Basics	Virtual Machines	Tags	Review + create		
Host poc you give	ols are a collection of on details to create a resou	e or mo urce gro	re identical virtual machines within Azure Virtual Desktop environme up with virtual machines in an Azure subscription. Learn more ර	ents. Here	
Add virtu	ual machines				
Resource	group		TC-AutodeskV3-Lab		
Name pr	efix *		gpuHost		
			 Session host name must be unique within the Resource Group. 		
Virtual m	achine location ①		East US		
Availability options ①			Availability zone		
Availabili	ity zone * 🛈		Select an availability zone		
Image type			Gallery	~	
Image * ①			Select an image <u>See all images</u>		
Virtual m	achine size * ①		Standard NV12s v3 12 vCPU's, 112 GiB memory Change size		
Number	of VMs *		1		
OS disk type * ①			Standard SSD		
Use managed disks ①					
Review	v + create < P	revious	Next: Tags >		

3. Select your custom image under 'My Items', you may now proceed with the session host deployment!

Home > Microsoft.Compute-CaptureVM	II-20210615142129 > TC-AutodeskV3-Lab > a	utodeskHP > autodeskHP - Session hosts	> Add virtual machines to a host pool >
Select an image			
Marketplace My Items			
My Images	Publisher	Shared Image Gallery	
Shared Images	All	All	
Shared mages	P Search		
		1	
	autodeskIMG MicrosoftWindowsDesktop autodeskSIG		
		1	



4. Select 'Create' to add your session host to the AVD Host Pool.

Home > Microsoft.Compute-CaptureVM-20210615142129 > TC-AutodeskV3-Lab > autodeskHP > autodeskHP - Session hosts > Add virtual machines to a host pool …				
Validation passed.				
Basics Virtual Machines Tags	Review + create			
Basics				
Subscription	Microsoft Azure			
Resource group	TC-AutodeskV3-Lab			
Host pool name	autodeskHP			
Location	East US			
Host pool type	Pooled			
Max session limit	20			
Load balancing algorithm	Breadth-first			
Virtual Machines				
Resource group	TC-AutodeskV3-Lab			
Name prefix	gpuHost			
Virtual machine location	East US			
Availability options	No infrastructure redundancy required			
Image type	Gallery			
Image	autodeski MG			
Virtual machine size	Standard NV12s v3			
Number of VMs				
OS disk type	Premium SSD			
Use managed disks	Yes			
Virtual network	AADDS-VNet			
Solvest				
Subnet	Domainservices(10.0.0.0/24)			
Create	Download a template for automation			



AVD Click-to-Run: Enabling Insights for your AVD Deployment

The AVD Click-to-Run solution gives you the option to provision a log analytics workspace to work with the Insights feature in the AVD management portal. The workspace has been pre-configured with the necessary performance counters and diagnostic settings. To complete the configuration, follow the steps below:

1. Navigate to the AVD management portal within Azure. This can be found by searching for 'Azure Virtual Desktop in the portal.

				\times	>_
ser	Services	See all	Marketplace		
	🔗 Azure Virtual Desktop		NetApp Virtual Desktop Service		
	Application groups		Teradici CAS License for Azure Virtual Desktops		
	Host pools		Documentation		ee all o
irce	Workspaces				

 Select Insights. From here select your AVD Host Pool and Resource Group from the drop-down. You should see an alert that there are session hosts that need to be configured. Select 'Open Configuration Workbook'.

Home > Azure Virtual Desktop			
Azure Virtual Deskto	p Insights 🛷 …		
	🎽 Workbooks 🖉 Customize 🜔 👶 🖈 🙄 🤉 🕲 Auto refresh: Off		
🙆 Overview	Subscription: Microsoft Azure V Resource Group: tc-avdv2-uat-lab V Host Pool: avdHP V TimeRange: Last 48 hours V		
Manage			
Host pools	A There are session bosts not sending data to the expected Log Analytics workspace. Number of session bosts needding atention: 1		
Application groups			
Workspaces	See the Configuration workbook to renair the issue		
🐣 Users			
Monitoring	Azure Monitor is not configured for session hosts.		
🔋 Insights	Open Docs		
	Open Configuration Workbook		

3. Select 'Session host data settings' and the Log analytics workspace that was provisioned by the Click-to-Run. Click 'Add Hosts to Workspace'. When prompted, click 'Deploy'.



Home > Azure Virtual Desktop >
Check Configuration 🖈 … Microsoft,Azure,WVD
🎽 Workbooks 🖉 Edit 层 🜔 👶 🖈 🐵 ? Help 🕚 Auto refresh: Off
Subscription: Microsoft Azure V Resource Group: tc-avdv2-uat-lab V Host Pook avdHP V
To use the configuration workbook, follow the setup instructions in our How-To guide. For additional resources, see our glossary and troubleshooting documents.
Resources diagnostic settings
Log Analytics Workspace () : WVDMonitor-auabjukzetijau V
Session hosts
Some hosts on the host pool are not sending data to the selected Log Analytics workspace. Select Add hosts to workspace to add those hosts to the workspace.
After the deployment is completed, refresh the worbook by selecting the refresh button on the top.
10 î.
🐙 avdsh-0
Add hosts to workspace

4. You can now view diagnostic data and dashboards of your AVD deployment from the insights section of the AVD management portal.

Home > Azure Virtual Desktop	
P Azure Virtual Deskto	pp Insights * ··· ×
	🍯 Workbooks 🖉 Customize Ů 🍰 🖈 🙄 斉 🖏 Auto refresh Off
Ø Overview	Subscription: Microsoft Azure V Resource Group: tc-avdv2-uat-lab V Host Pool: avdHP V TimeRange Last 48 hours V
Manage	
Host pools	Overview Cannection Diagnostics Cannection Performance Host Diagnostics Host Performance Users Utilization Clients Alerts
Application groups	
Workspaces	
A Users	
Monitoring	There are no WVD host agents reporting errors or warnings to the event log in the selected time range.
📍 Insights	
	Host pool defails
	Host pool 🕆 Host Name † Status † Status changed † New sessions † Stack version † Sessions† Available sessio… † 24h ut
	vavdHP (1) 0
	Available 6/28/2021, 1:06:57 PM @ Allowed rdp=ss:210329001 0 20 0
	Host pool type Load balancer type Max sessions of Please select a host to display current sessions here.
	i Pooled i BreadthFirst i 20



AVD Click-to-Run: Additional Considerations

MSIX App Attach:

Please note that the current updates to configuring MSIX Applications via the Azure portal are not compatible with hosts joined to Azure AD Domain Services. Because of this, configuration options around MSIX App Attach are not included for the current Click-to-Run solution. However, if you are using an Active Directory server for the AVD resources, MSIX may be configured manually.

Host Pool Type:

This solution was scoped and authored to deploy a pooled host pool with breadth first load balancing. Personal host pools may be configured manually after deploying the Click-to-Run.

App Group Type:

This solution deploys a default 'Remote Desktop Group' to assign your AVD Users. However, you may set up a 'Remote Application Group' manually, post deployment, to work with the Click-to-Run.

AVD Optimization Script:

This is a community-driven tool intended to optimize your AVD session host performance. It disables services and features in windows that are not required for using AVD. This can be run on existing AVD session hosts. This should not be built into a custom image- the sysprep process will conflict with some of the configurations the tool performs.

Please note, this is not officially supported by Microsoft or TD SYNNEX!