



Provisioning Collections

Virtual Desktop Service

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Provisioning Collections

Overview

Provisioning Collections is a function of VDS related to the creation and management of VM images.

At a high level, the Provisioning Collection workflow is as follows:

1. A temporary VM (e.g. "CWT1") is built based on an existing image (either a stock image or a previously saved Provisioning Collection).
2. The VDS Administrator customizes the temporary VM to match their requirements using [Scripted Events](#), [Connect to Server](#) and/or 3rd party management tools.
3. Once customized, the VDS Admin click **Validate** and triggers a validation process that automates finalizing the image, running SysPrep, deleting the temporary VM and making the image available for deployment throughout VDS.

Video Demo - Managing VM images for VDI Session Hosts



Provisioning Collection Types

There are two distinct types of collection with specific use cases, **Shared** and **VDI**.

Shared

The **Shared** type is a collection of VM images(s) designed to deploy an entire environment with multiple, distinct VM images and VM roles.

VDI

The **VDI** type is a single VM image designed to be used and reused to deploy multiple identical VMs, typically used for hosting user sessions. For all types of AVD session hosts, the **VDI** type should be selected, even for hosts that run multiple sessions per VM.

Creating a new Provisioning Collection

Provisioning Collections are found in the VDS interface within each deployment, under the **Provisioning Collections** sub-tab.



To create a new collection

1. Click the **+ Add Collection** button.
2. Complete the following fields:
 - a. **Name**
 - b. **Description**(Optional)
 - c. **Type** - Shared or VDI
 - d. **Operating System**
 - e. **Share Drive** - If this VM will be used to host users profiles or company share data, pick the drive letter on which is will be hosted. If not, leave as "C"
 - f. **Minimum Cache** - IF you and VDS to create VMs to hold for instant deployment, specify the minimum number of cached VMs that should be maintained. If deploying new VMs can wait for as long as it takes the hypervisor to build a VM, this can be set to "0" to save costs.
 - g. **Add Servers**
 - i. **Role** (If "Shared" type is selected)
 - A. **TS** - This VM will act only as a session host
 - B. **Data** - This VM will not host any user sessions
 - C. **TSDData** - This VM will be both the session host and the storage host (Maximum: one TSDData per workspace)
 - ii. **VM Template** - Select from the available list, both stock hypervisor images and previously saved Provisioning Collections are available to select.
 - A. NOTE: Windows 7 images from the Azure Marketplace do not have PowerShell Remoting enabled. To use a Windows 7 image, you'll need to provide a custom image in your shared image gallery with powerShell Remoting enabled.
 - B. NOTE: By using an existing Provisioning Collection you can update and re-deploy existing images as part of a planned image upgrade process.
 - iii. **Storage Type** - Select the speed of the OS disk considering cost and performance
 - iv. **Data Drive** - Optionally enable a 2nd disk attached to this image, typically for the data storage layer referenced above in 2.e.
 - A. **Data Drive Type** - Select the speed of the 2nd (data) disk considering cost and performance

B. **Data Drive Size (GB)** - Define the size of the 2nd (data) disk considering capacity, cost and performance

h. **Add Applications** - Select any application from the Application Library that will be (1) installed on this image and (2) managed by VDS application entitlement. (This is only applicable to RDS deployments. It should remain empty for AVD workspaces)

Customizing the Temporary VM

VDS includes functionality that will allow remove VM access from within the VDS web interface. By default a local Windows admin account is created with a rotating password and passed through to the VM allowing the VDS admin local admin access without needing to know local admin credentials.



The Connect to Server function has an alternative setting where the VDS admin will be prompted for credentials with each connection. This setting can be enabled/disabled by editing the VDS admin account from within the "Admin" section of VDS. the functionality is called *Tech Account* and checking the box will require credential to be entered when using Connect to Server, unchecking this box will enable the automatic injection of local Windows admin credentials at each connection.

The VDS Admin simply needs to connect to the temporary VM using Connect to Server or another process and make the changes required to meet their requirements.

Validating the Collection

Once customization is complete, the VDS Admin can close the image and SysPrep it by clicking **Validate** from the Actions icon.

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Home > Deployments > VDSazuredemo... > Provisioning Collections

VDSazuredemo.onmicros...
Deployment

Overview Sites Task History Resource Defaults Provisioning Collections

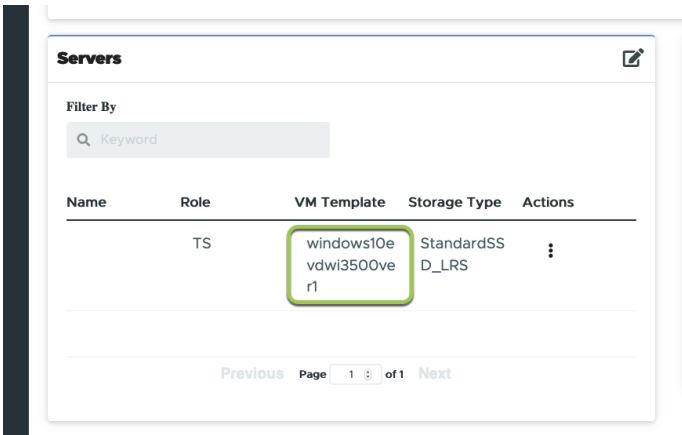
Filter By
Q Windows 10 WVD Notepad++ Refresh Add Collection

Name	Type	Operating System	Servers	Apps	Min. Cache	Current Cache	Status	Actions
Windows 10 WVD Notepad++	VDI		1	0	0	0	Pending	<ul style="list-style-type: none">EditDeleteValidateDelete Servers Cache

Previous Page 1 of 1 Next

Using the Collection

After validation has completed, the Status of the Provisioning Collection will change to **Available**. From within the Provisioning Collection the VDS Admin can identify the **VM Template** name which is used to identify this provisioning collection throughout VDS.



New Server

From the Workspace > Servers page, a new server can be created and the dialog box will prompt for the VM Template. The template name from above will be found on this list:



VDS provides for an easy way to update session hosts in an RDS environment by using Provisioning Collections and the **Add Server** functionality. This process can be done without impacting end users and repeated over and over with subsequent image updates, building on previous image iterations. For a detailed workflow on this process, see the [RDS Session Host Update Process](#) section below.

New AVD Host Pool

From the Workspace > AVD > Host Pools page, new AVD Host Pool can be created by clicking **+ Add Host Pool** and the dialog box will prompt for the VM Template. The template name from above will be found on this list:

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Toby

Home > Workspaces > Azure WVD > WVD > Host Pools > Add Host Pool

Add Host Pool

Basic Info

Name
Required

Name...

Friendly Name

Friendly Name...

Site
Required

Select a site...

Workspace
Required

Select a site first

Host Pool Type
Required

Select a host pool type...

Custom Profile Path

Custom Profile Path...

☐ Validation Environment

Included Session Hosts

OS Disk Type

☐ Ephemeral
☒ Persistent

VM Template
Required

Windows10

Windows10EVD3497ver1

Windows10EVDwi3500ver1

Machine Size Type
Required

Select machine size type...

Number of Instances

1

Cancel

Save

New AVD Session Host(s)

From the Workspace > AVD > Host Pool > Session Hosts page, new AVD session host(s) can be created by clicking **+ Add Session Host** and the dialog box will prompt for the VM Template. The template name from above will be found on this list:

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Toby

Home > Workspaces > Azure WVD > WVD > Host Pools > Shared WVD Pool > Session Hosts

Shared WVD Pool

Session Hosts

App Groups

Active Users

Filter By

Refresh

+ Add Session Host

Name	Status	Actions
5Z5WTS12.VDSazu	Online	
redemo.onmicroso	Available	
ft.com	Available	

Add Session Host

OS Disk Type

☐ Ephemeral
☒ Persistent

VM Template
Required

Windows10

Windows10EVD3497ver1

Windows10EVDwi3500ver1

Machine Size Type
Required

Standard_E2as_v4

Number of Instances

1

Cancel

Save

VDS provides for an easy way to update session hosts in a AVD Host Pool by using Provisioning Collections and the **Add Session Host** functionality. This process can be done without impacting end users and repeated over and over with subsequent image updates, building on previous image iterations. For a detailed workflow on this process, see the [AVD Session Host Update Process](#) section below.

New Workspace

From the Workspaces page, a new workspace can be created by clicking **+ New Workspace** and the dialog box will prompt for the Provisioning Collection. The Shared Provisioning Collection name will be found on this list.

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Home > Workspaces > Add Workspace

Add Workspace

Configure Users Applications Review

Is this a new client?
☒ Yes ☐ No

Company Name Required **Login Identifier** Required
Omega Fuel omegafuel

Notification Email Required **Phone Number** Required
notify@omegafuelabc 5555555555

Country Required
United States

Address 1 Required **Address 2**
555 Main St Address 2...

City Required **State** Required **Zip Code** Required
Olympia Washington x 98501

Website **Internal Customer Number**
Website... Customer number...

Provisioning Info

Deployment Required **Operating System** Required
VDSGCCPDemo (kok) x Windows Server 2019 x

Provisioning Collection Required
Default PC x
Default PC

Application Settings

☐ Enable Remote App
☐ Enable App Locker
☐ Enable Application Usage Tracking

Device Settings

☐ Disable Printing Access
☐ Enable User Profile Disk
☒ Enable User Workspace Data Storage
☐ Permit Access to Task Manager

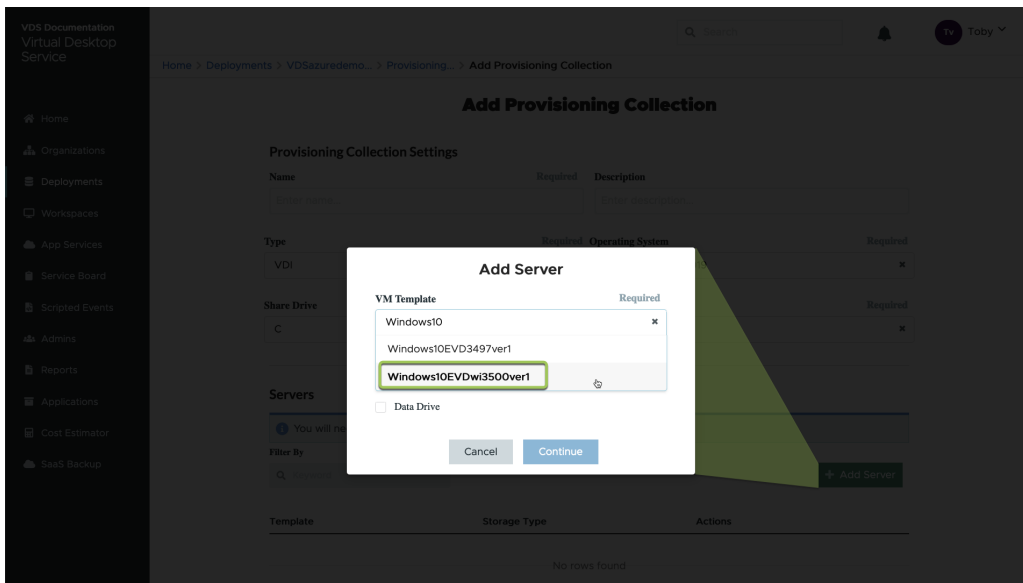
Security Settings

☐ Require Complex User Password
☐ File Auditing Enabled
☐ Migration Mode Enabled
☐ Enable MFA for All Users

Cancel Next

New Provisioning Collection

From the Deployment > Provisioning Collection page, a new Provisioning Collection can be created by clicking **+ Add Collection**. When adding servers to this collection the dialog box will prompt for the VM Template. The template name from above will be found on this list:



Addendum 1 - RDS Session Hosts

RDS Session Host Update Process

VDS provides for an easy way to update session hosts in a RDS environment by using Provisioning Collections and the **Add Server** functionality. This process can be done without impacting end users and repeated over and over with subsequent image updates, building on previous image iterations.

The RDS Session Host update process is as follows:

1. Build a new VDI Provisioning Collection, customize and validate the collection per the instructions above.
 - a. Generally this Provisioning Collection will be built on the previous VM Template, emulating an "Open, Save As" process.
2. Once the Provisioning Collection has validated, navigate to the *Workspace > Servers* page, click **+ Add Server**

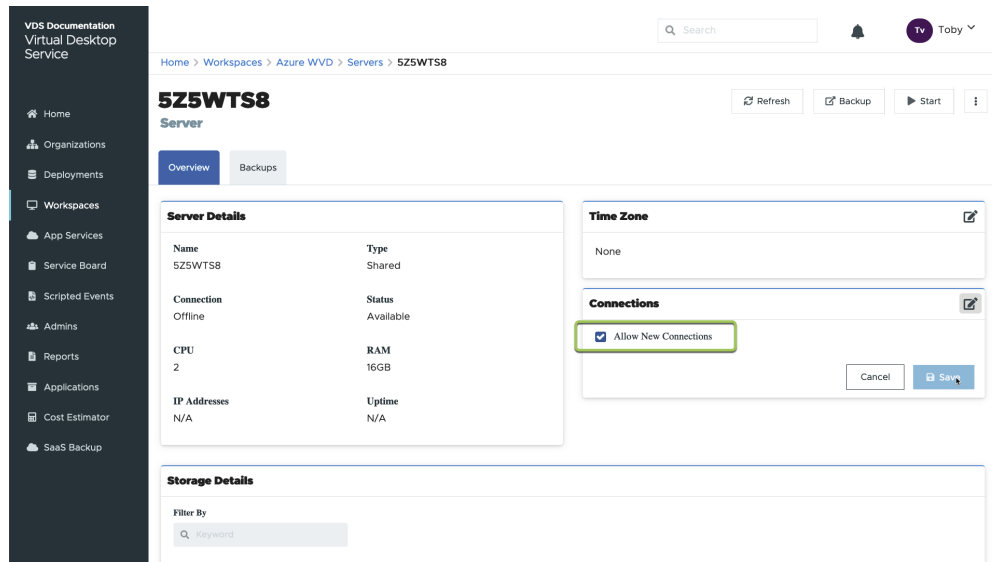
Add Server

Server Role	Required	VM Template
TS	✕	Windows10EVDwi3500ver1
Machine Size Type	Required	Storage Type
Standard_E8as_v4	✕	StandardSSD_LRS
<input type="checkbox"/> Data Drive		
		<div style="display: flex; justify-content: flex-end; gap: 10px;"> <div style="border: 1px solid #ccc; padding: 5px 10px; background-color: #f0f0f0;">Cancel</div> <div style="background-color: #007bff; color: white; padding: 5px 10px; border-radius: 4px; cursor: pointer;">Add Server</div> </div>

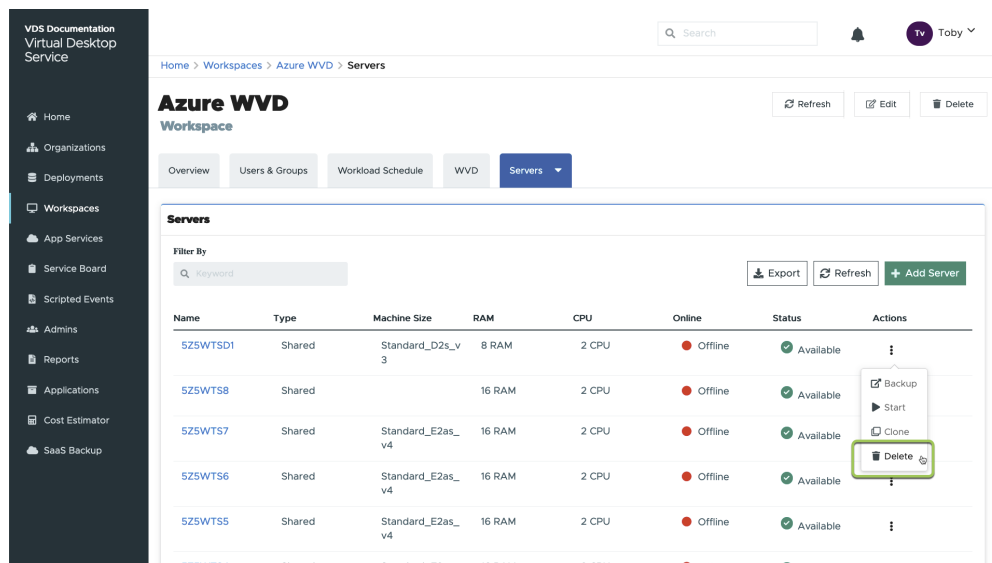
3. Select **TS** as the **Server Role**
4. Select the latest **VM Template**. Make the appropriate **Machine Size** and **Storage Type** selections based on your requirements. Leave **Data Drive** unchecked.
5. Repeat this for the total number of Session Hosts required for the environment.
6. Click **Add Server**, the session hosts will build based on the selected VM Template and starting coming online in as soon as 10-15 minutes (depending on the hypervisor).

a. Note that the Session Hosts currently in the environment will ultimately be decommissioned after these new host come online. Plan to build enough new hosts to be sufficient to support the entire workload in this environment.

7. When a new host comes online, the default setting is to stay in **Disallow New Sessions**. For each session host, the **Allow New Sessions** toggle can be used to manage which hosts can receive new user sessions. This setting is accessed by editing the settings of each individual session host server. Once sufficient new hosts have been built and functionality has been confirmed, this setting can be managed on both the new and old hosts to route all new sessions to the new hosts. The old hosts, with **Allow New Sessions** set to **disabled**, can continue to run and host existing user sessions.



8. As users log off of the old host(s), and with no new user sessions joining the old host(s), the old host(s) where **Sessions = 0** can be deleted by clicking the **Actions** icon and selecting **delete**.



Addendum 2 - AVD Session Hosts

AVD Session Host Update Process

VDS provides for an easy way to update session hosts in a AVD Host Pool by using Provisioning Collections

and the **Add Session Host** functionality. This process can be done without impacting end users and repeated over and over with subsequent image updates, building on previous image iterations.

The AVD Session Host update process is as follows:

1. Build a new VDI Provisioning Collection, customize and validate the collection per the instructions above.
 - a. Generally this Provisioning Collection will be built on the previous VM Template, emulating an "Open, Save As" process.
2. Once the Provisioning Collection has validated, navigate to the *Workspace > AVD > Host Pools* page and click the name of the Host Pool
3. From within the *Host Pool > Session Hosts* page, click **+ Add Session Host**

Add Session Host

OS Disk Type
☐ Ephemeral ☒ Persistent

VM Template Required
Windows10EVDwi3500ver1 ✕

Machine Size Type Required
Standard_E8as_v4 ✕

Machine Storage Type Required
StandardSSD_LRS ✕

Number of Instances
12

Cancel Save

4. Select the latest **VM Template**. Make the appropriate **Machine Size** and **Storage Type** selections based on your requirements.
5. Enter the **Number of Instances** equal to the total number of required Session Hosts. Typically this will be the same number as are currently in the Host Pool but it can be any number.
 - a. Note that the Session Hosts currently in the Host pool will ultimately be decommissioned after these new host come online. Plan for the **Number of Instances** entered to be sufficient to support the entire workload in this Host Pool.
6. Click **Save**, the session hosts will build based on the selected VM Template and starting coming online in as soon as 10-15 minutes (depending on the hypervisor).
7. When a new host comes online, the default setting is to stay in **Disallow New Sessions**. For each session host, the **Allow New Sessions** toggle can be used to manage which hosts can receive new user sessions. Once sufficient new hosts have been built and functionality has been confirmed, this setting can be managed on both the new and old hosts to route all new sessions to the new hosts. The old hosts, with **Allow New Sessions** set to **disabled**, can continue to run and host existing user sessions.

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Shared WVD Pool

Host Pool

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Session Hosts

Filter By

Keyword

Bulk Actions

Refresh

Add Session Host

	Name	Allow New Session	Sessions	Online	Managed	Entity Status	Actions
<input type="checkbox"/>	5Z5WTS1.VDSazur edemo.onmicrosof t.com	✓	0	Online	✓	Available	⋮
<input type="checkbox"/>	5Z5WTS10.VDSazu redemo.onmicroso ft.com	✓	0	Online	✓	Available	⋮
<input type="checkbox"/>	5Z5WTS11.VDSazu redemo.onmicroso ft.com	✓	0	Online	✓	Available	⋮
<input type="checkbox"/>	5Z5WTS12.VDSazu redemo.onmicroso ft.com	✓	0	Online	✓	Available	⋮

Backup

Clone

Connect

Delete

Disallow New Session

Stop

8. As users log off of the old host(s), and with no new user sessions joining the old host(s), the old host(s) where **Sessions = 0** can be deleted by clicking the **Actions** icon and selecting **delete**.

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Bulk Actions

Refresh

Add Session Host

	Name	Allow New Session	Sessions	Online	Managed	Entity Status	Actions
<input type="checkbox"/>	5Z5WTS1.VDSazur edemo.onmicrosof t.com	✗	0	Online	✓	Available	⋮
<input type="checkbox"/>	5Z5WTS10.VDSazu redemo.onmicroso ft.com	✓	0	Online	✓	Available	⋮
<input type="checkbox"/>	5Z5WTS11.VDSazu redemo.onmicroso ft.com	✓	0	Online	✓	Available	⋮
<input type="checkbox"/>	5Z5WTS12.VDSazu redemo.onmicroso ft.com	✓	0	Online	✓	Available	⋮

Allow New Session

Backup

Clone

Connect

Delete

Stop

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