



Applications

Virtual Desktop Service

NetApp
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Applications

Application Entitlement

Overview

VDS has a robust application automation and entitlement functionality built-in. This functionality allows users to have access to different applications while connecting to the same session host(s). This is accomplished by some custom GPOs hiding shortcuts along with automation selectively placing shortcuts on the users' desktops.



This workflow only applies to RDS deployments. For AVD application entitlement documentation, please see [Application Entitlement Workflow for AVD](#)

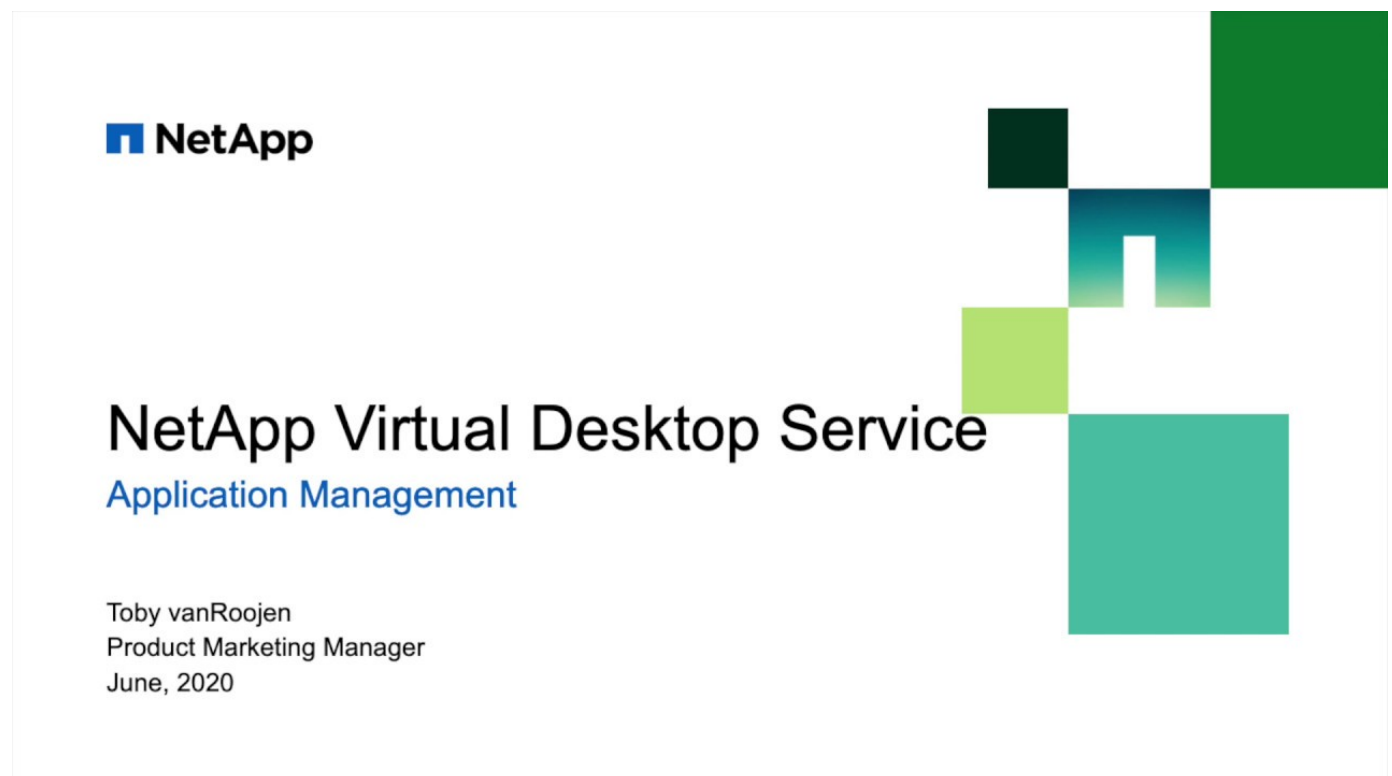
Applications can be assigned to users directly or via Security groups managed in VDS.

At a high level, the application provisioning process follows these steps.

1. Add App(s) to App Catalog
2. Add App(s) to the workspace
3. Install the Application on all Session Hosts
4. Select the Shortcut path
5. Assign apps to users and/or groups



Steps 3 & 4 can be fully automated with Scripted Events as illustrated below



Video Walkthrough

Add applications to the App Catalog

VDS Application Entitlement starts with the App Catalog, this is a listing of all the applications available for deployment to end user environments.

To add applications to the catalog, follow these steps

1. Log in to VDS at <https://manage.cloudworkspace.com> using your primary admin credentials.
2. In the upper right, click the arrow icon next to your User Name and select Settings.
3. Click the App Catalog tab.
4. Click the Add App option in the Application Catalog title bar.
5. To add a group of applications, choose the Import Apps option.
 - a. A dialog will appear that provides an Excel template to download that creates the correct format for the application list.
 - b. For this evaluation NetApp VDS has created a sample application list for import it can be found here.
 - c. Click on the Upload area and choose the application template file, click the Import button.
6. To add individual applications, choose the Add App button and a dialog box will appear.
 - a. Enter the name of the application.
 - b. External ID can be used to enter an internal tracking identifier such as a product SKU or billing tracking code (optional).
 - c. Check the Subscription box if you want to report on the applications as a Subscription product (optional).
 - d. If the product does not install by version (for example Chrome) check the Version Not Required checkbox. This allows “continuous update” products to be installed without tracking their versions.
 - e. Conversely, if a product supports multiple named versions (ex: Quickbooks) you need to check this box so that you can install multiple versions and have VDS specific each available version in the list of applications that can be entitled for and end user.
 - f. Check “No User Desktop Icon” if you don’t want VDS to provision a desktop icon for this product. This is used for “backend” products like SQL Server since end users don’t have an application to access.
 - g. “App Must be Associated” enforces the need for an associated app to be installed. For example, a client server application may require SQL Server or mySQL to be installed as well.
 - h. Checking the License Required box indicates that VDS should request a license file to be uploaded for an installation of this application before it sets the application status to active. This step is performed on the Application detail page of VDS.
 - i. Visible to All – application entitlement can be limited to specific subpartners in a multi-channel hierarchy. For evaluation purposes, click the Check Box so that all users can see it in their available application list.

Add the application to the Workspace

To start the deployment process you’ll add the app to the workspace.

To do this, follow these steps

1. Click Workspaces
2. Scroll down to Apps
3. Click Add

4. Check box the application(s), enter required information, click Add Application, click Add Apps.

Manually install the application

Once the application has been added to the Workspace you'll need to get that application installed on all session hosts. This can be done manually and/or it can be automated.

To manually install applications on session hosts, follow these steps

1. Navigate to Service Board.
2. Click on the Service Board Task.
3. Click on the Server Name(s) to connect as a local admin.
4. Install the app(s), confirm the shortcut to this app is found in the Start Menu path.
 - a. For Server 2016 and Windows 10: C:\ProgramData\Microsoft\Windows\Start Menu\Programs.
5. Go back to the Service Board Task, click Browse and choose either the shortcut or a folder containing shortcuts.
6. Whichever you select is what will be displayed on the end user desktop when assigned the app.
7. Folders are great when an app is actually multiple applications. e.g "Microsoft Office" is easier to deploy as a folder with each app as a shortcut inside the folder.
8. Click Complete Installation.
9. If required, open the created Icon Add Service Board Task and confirm the icon has been added.

Assign applications to users

Application entitlement is handled by VDS and application can be assigned to users in three ways

Assign Applications to Users

1. Navigate to the User Detail page.
2. Navigate to the Applications section.
3. Check the box next to all applications required by this user.

Assign users to an application

1. Navigate to the Applications section on the Workspace Detail page.
2. Click on the name of the application.
3. Check the box next to the users the application.

Assign applications and users to user groups

1. Navigate to the Users and Groups Detail.
2. Add a new group or edit an existing group.
3. Assign user(s) and application(s) to the group.

Application Entitlement Workflow for AVD

Overview

In a Azure Virtual Desktop (AVD) environment, application access is managed by app group membership.



This workflow only applies to AVD deployments. For RDS application entitlement documentation, please see [Application Entitlement Workflow for RDS](#)



AVD is a well documented service and there are many [public resources for information](#). VDS does not supersede the standard way that AVD operates. Rather, this article is designed to illustrate how VDS approaches the standard concept found across all AVD deployments.



Reviewing the [VDS Logical Hierarchy Overview](#) article may be useful before or while reviewing this article.

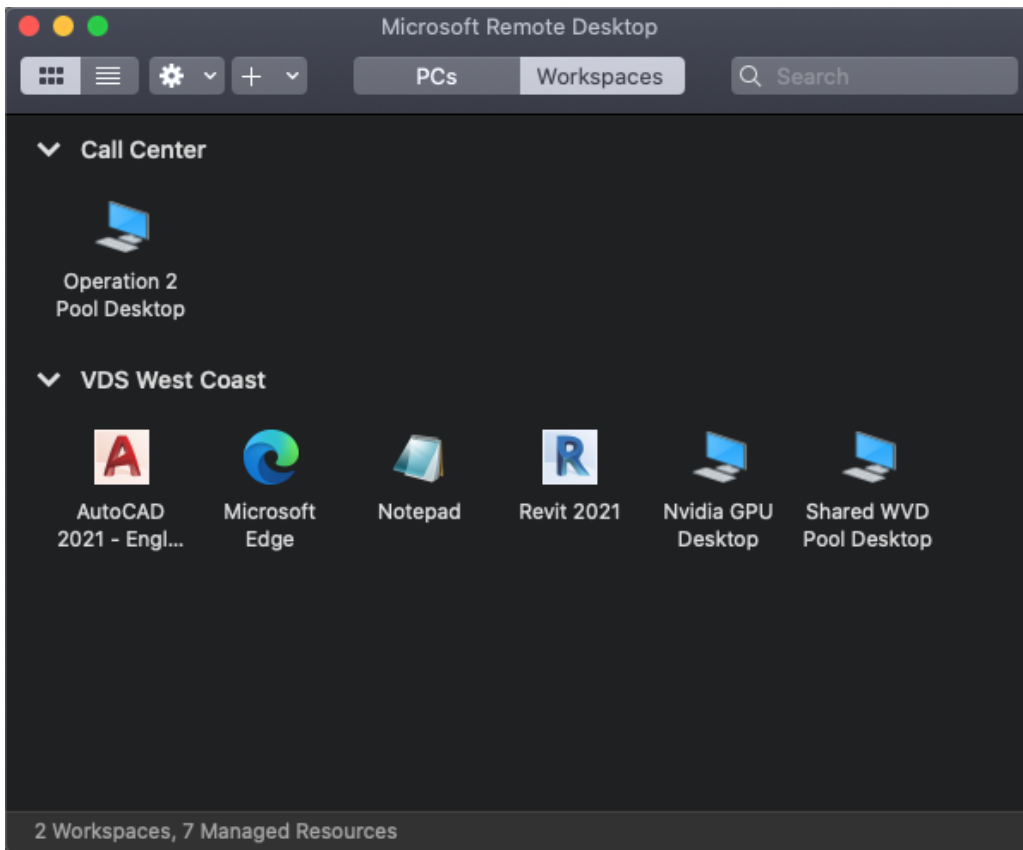
The End User View

In Azure Virtual Desktop, each end user is assigned access to RemoteApp(s) and/or Desktop(s) by their AVD administrator. This is accomplished via App Group assignment in VDS.

RemoteApp refers to an application that runs remotely on the session host but is presented on the local device without the desktop context. Commonly referred to as a "streaming app", these application look like a local application on the local device but run in the security context, and on the storage and compute layer of the session host.

Desktop refers to the full Windows experience running on the session host and presented on the local device, typically in a full screen window. Commonly referred to as "remote desktop", this desktop itself will contain any applications installed on that session host which can be launched by the user from within the desktop session window.

At login, the end user is presented with the resources assigned to them by their administrator. Below is an example of the view an end user may see when logging in with their AVD client. This is a more complex example, often an end user will only have a dingle desktop or RemoteApp assigned to them. The end user can double click on any of these resources to launch that application/desktop.



In this more complex example, this user has access to two different desktop sessions and 4 different streaming applications:

- **Available Desktops**

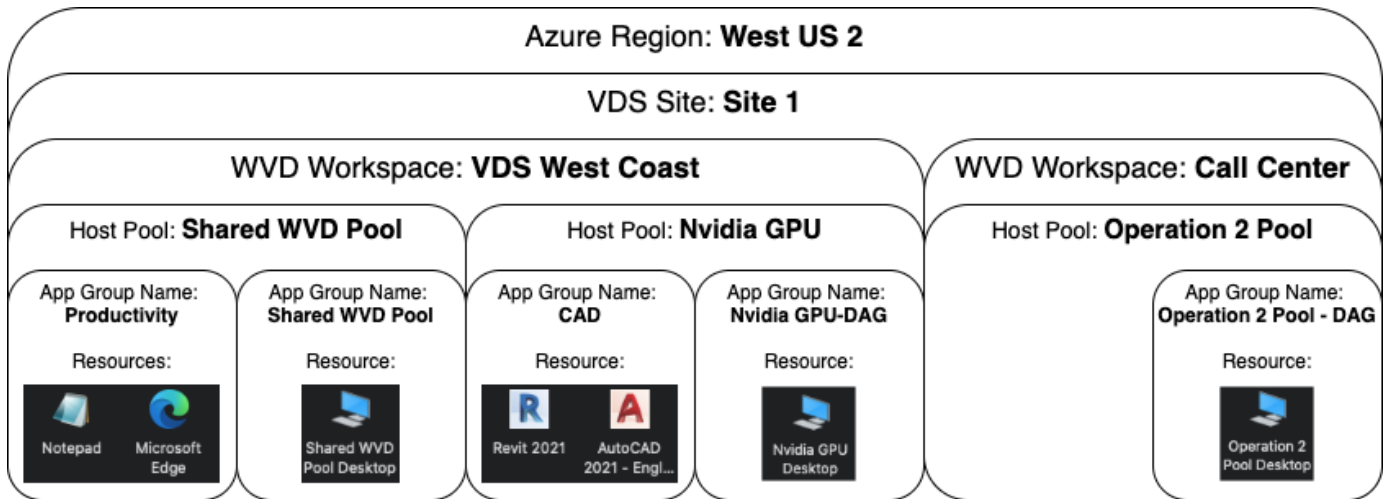
- Nvidia GPU Desktop
- Shared AVD Pool Desktop
- Operation 2 Pool Desktop

- **Available RemoteApps**

- AutoCAD 2021
- Revit 2021
- Microsoft Edge
- Notepad

Behind the scenes these applications and desktops are hosted across a variety of session hosts, AVD workspaces and could even be hosted in different Azure regions.

Here is a diagram illustrating where each of these resources are hosted and how they got assigned to this end user.



As shown above, the various resources available to this end user are hosted in different session hosts, in different host pools, and potentially managed by different IT organizations in different AVD Workspaces. While not showing in this example, these resources could also be hosted in different Azure regions and/or subscriptions using the VDS Sites feature.

Providing Desktop Access

By default every host pool starts with a single app group, used to assign access to the Windows desktop experience. All applications installed on these session hosts will be accessible to the end users assigned to this app group.

To enable the Desktop resource for users in VDS:

1. Navigate to the Workspaces > AVD > Host Pool > App Groups page and click on the App group for the "Desktop" resource.

[Management.Applications.AVD application entitlement workflow 349fe] |

Management.Applications.AVD_application_entitlement_workflow-349fe.png

2. Once inside the App Group, click Edit

[Management.Applications.AVD application entitlement workflow 3bcfc] |

Management.Applications.AVD_application_entitlement_workflow-3bcfc.png

3. From the edit dialog, you can add or remove users to this App Group by User and/or by Groups.

[Management.Applications.AVD application entitlement workflow 07ff0] |

Providing RemoteApp Access

In order to provision access to RemoteApps, a new app group needs to be created within the host pool. Once created, the appropriate apps need to be assigned to this app group.



Any applications on these sessions hosts will already be available to any users assigned to this host pool's "Desktop" AppGroup. It is not necessary to also provision access via a RemoteApp app group simply to provide access to apps. A RemoteApp app group is only necessary to enable access to apps that run as-if on the local device as a streaming app.

Create a New App Group

1. Navigate to the Workspaces > AVD > Host Pool > App Groups page and click on the + *Add App Group* button

[Management.Applications.AVD application entitlement workflow d33da] |

Management.Applications.AVD_application_entitlement_workflow-d33da.png

2. Enter the Name, Workspace and Friendly Name for this app group. Select the users and/or groups that should be assigned and click *Save*

[Management.Applications.AVD application entitlement workflow 242eb] |

Add Applications to the App Group

1. Navigate to the Workspaces > AVD > Host Pool > App Groups page and click on the App group for the "RemoteApp" resource.

[Management.Applications.AVD application entitlement workflow 3dcde] |

Management.Applications.AVD_application_entitlement_workflow-3dcde.png

2. Once inside the App Group, click Edit

[Management.Applications.AVD application entitlement workflow 27a41] |

Management.Applications.AVD_application_entitlement_workflow-27a41.png

3. Scroll down to the "Remote Apps" section. This section may take a moment to populate as VDS is directly querying the session hosts to show available apps for streaming.

[Management.Applications.AVD application entitlement workflow 1e9f2] |

4. Search and select any apps that the users in this app groups should have access to as a RemoteApp resource.

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