



## **Scripted Events**

### Virtual Desktop Service

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# Scripted Events

## Overview

Scripted Events provides the advanced administrator with a mechanism to create custom automation for system maintenance, user alerts, group policy management, or other events. Scripts can be designated to run as an executable process with arguments, or can be used as arguments for a different executable program. This functionality allows for scripts to be combined and nested to support complex customization and integration needs.

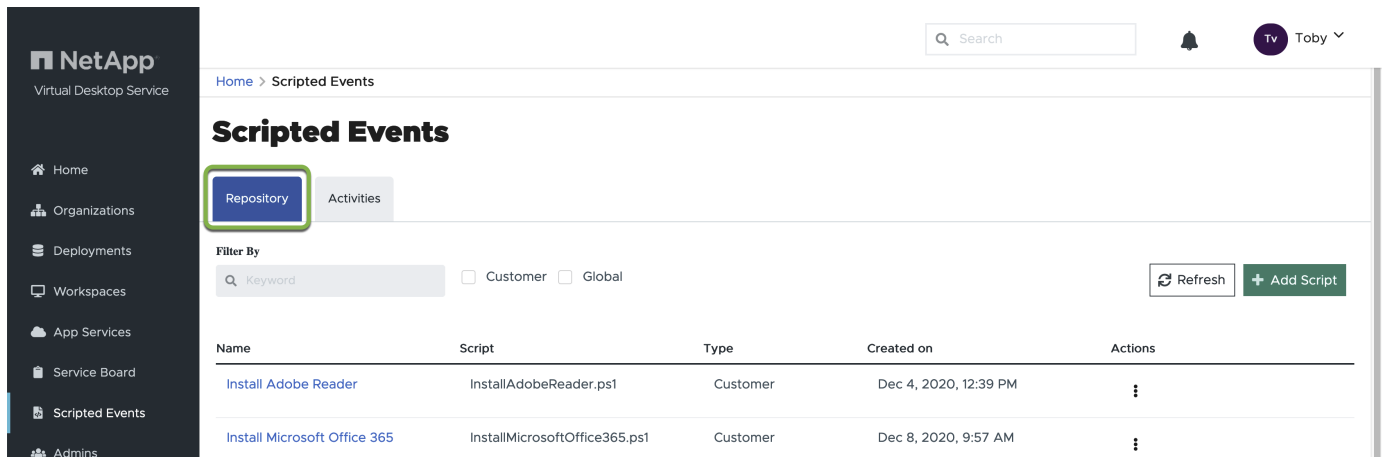
A detailed example of scripted events in action is found in the [Application Entitlement Guide](#).

Additionally, Scripted Events allows for the creation of automation that does not require a script to process, rather the automation flow is launched by a system trigger and runs an existing program or system utility with optional arguments.

Scripts Events contains both a **repository** of scripts and **activities**. Scripts contain the instructions on **what** to do while activities link the scripts with the appropriate trigger and target (**when and where**) for the script.

## Repository

The Repository Tab shows a list of all scripts available to be deployed from within your VDS account. This is a custom repository that is shared by all administrators in your VDS instance. Access to Scripted Events can be managed on the *VDS > Admins > Permissions* page.



The screenshot shows the NetApp Virtual Desktop Service interface. The left sidebar contains navigation links: Home, Organizations, Deployments, Workspaces, App Services, Service Board, Scripted Events (highlighted), and Admins. The main content area is titled 'Scripted Events' and has two tabs: 'Repository' (selected and highlighted with a green box) and 'Activities'. Below the tabs, there is a 'Filter By' section with a search bar and checkboxes for 'Customer' and 'Global'. To the right of the filters are 'Refresh' and 'Add Script' buttons. A table lists the scripts:

Name	Script	Type	Created on	Actions
<a href="#">Install Adobe Reader</a>	InstallAdobeReader.ps1	Customer	Dec 4, 2020, 12:39 PM	⋮
<a href="#">Install Microsoft Office 365</a>	InstallMicrosoftOffice365.ps1	Customer	Dec 8, 2020, 9:57 AM	⋮

## Customer Filter

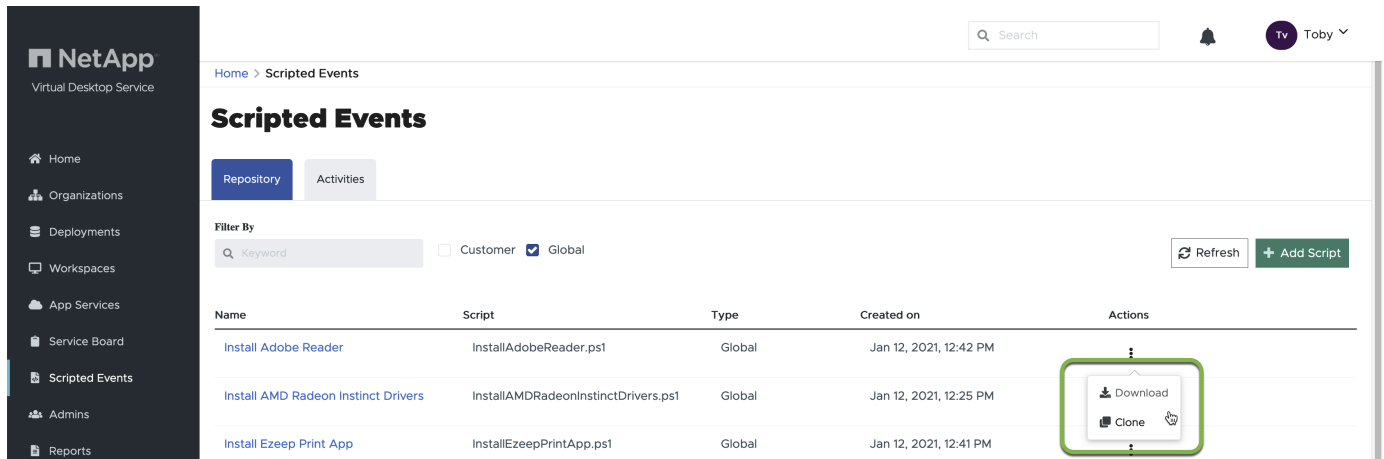
Each VDS administrator organization has a private library of scripts created and/or customized by their organization. These scripts are defined as Script Type "Customer." Customer scripts can be deleted and edited by any VDS administrator with appropriate admin permissions to the Scripted Events section.

## Global Filter

NetApp also publishes and maintains a library of "Global" scripts that is the same across all VDS administrator organizations. These scripts are defined as Script type "Global." Global scripts can not be edited or deleted by any VDS administrator. Rather, Global scripts can be "Cloned" and the resulting script is a "Customer" script that can be edited and used.

## Download Script

The ability to download the script file associated with a Scripted Event allows the VDS Administrator to review and edit the underlying script file prior to deployment. Running a script that you don't fully understand is never advisable.

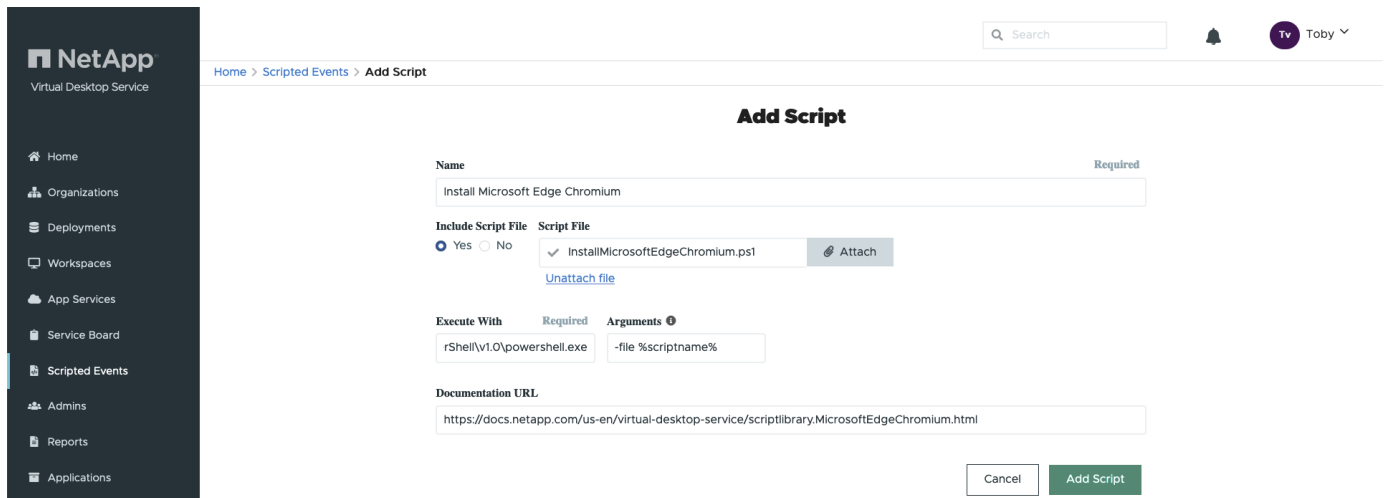


The screenshot shows the NetApp Virtual Desktop Service interface. On the left is a dark sidebar with navigation links: Home, Organizations, Deployments, Workspaces, App Services, Service Board, Scripted Events (highlighted), Admins, and Reports. The main content area is titled 'Scripted Events' and has tabs for 'Repository' and 'Activities'. Below the tabs is a 'Filter By' section with a search bar and radio buttons for 'Customer' and 'Global' (selected). There are 'Refresh' and '+ Add Script' buttons. A table lists three scripted events:

Name	Script	Type	Created on	Actions
<a href="#">Install Adobe Reader</a>	InstallAdobeReader.ps1	Global	Jan 12, 2021, 12:42 PM	<a href="#">Download</a> <a href="#">Clone</a>
<a href="#">Install AMD Radeon Instinct Drivers</a>	InstallAMDRadeonInstinctDrivers.ps1	Global	Jan 12, 2021, 12:25 PM	
<a href="#">Install Ezeep Print App</a>	InstallEzeepPrintApp.ps1	Global	Jan 12, 2021, 12:41 PM	

## Add Script

Clicking on the + *Add Script* button opens a new page for creating a script and saving it to the repository.



The screenshot shows the 'Add Script' page in the NetApp Virtual Desktop Service interface. The page has a title 'Add Script' and a breadcrumb 'Home > Scripted Events > Add Script'. The form contains the following fields:

- Name** (Required): A text input field containing 'Install Microsoft Edge Chromium'.
- Include Script File**: A section with a radio button for 'Yes' (selected) and 'No'. Below it is a file selection area showing 'InstallMicrosoftEdgeChromium.ps1' with an 'Attach' button and an 'Unattach file' link.
- Execute With** (Required): A text input field containing 'rShell\v1.0\powershell.exe'.
- Arguments**: A text input field containing '-file %scriptname%'.
- Documentation URL**: A text input field containing 'https://docs.netapp.com/us-en/virtual-desktop-service/scriptlibrary.MicrosoftEdgeChromium.html'.

At the bottom right are 'Cancel' and 'Add Script' buttons.

The following fields need to be completed to create a new script:

- **Name**
- **Include Script File**
  - Yes - Allows for a script file (e.g. a .ps1 file) to be uploaded and run by the "Execute With" executable.
  - No - Removes the "Script File" field (below) and simply runs the "Execute With" and "Arguments" command
- **Script File**
  - If *Include Script File* = Yes this field is visible and allows for the upload of a script file.
- **Execute With**
  - Defines the path of the executable that is used to run the script file or the the command that is run.

- For example, to run with PowerShell the "Execute With" value would be `C:\Windows\system32\WindowsPowerShell\v1.0\powershell.exe`

## • Arguments

- Defines any additional arguments that are run against the "Executes With" command.
- VDS offers some context aware variables that can be used including:
  - `%companycode%` - Company code at runtime
  - `%servername%` - VM name at runtime
  - `%samaccountname%` - `<username>.<companycode>`
  - `%applicationname%` - Requested application name at runtime
  - `%scriptname%` - Script name at runtime
  - `%username%` - `username@loginidentifier` at runtime

## • Documentation URL

- This field allows the writer of the script to link it to documentation found outside of VDS such as a Knowledge Base system used by the VDS admins' organization.

## Edit Script

Clicking the name of a script in the repository opens a new page with details about the script and an action button to **edit**.

When editing a script the same fields are editable as documented above in the [Add Script](#) section.

On this script detail page, you can also **delete** the script and **download** any uploaded script file.

The screenshot shows the NetApp Virtual Desktop Service interface. The sidebar on the left contains links for Home, Organizations, Deployments, Workspaces, App Services, Service Board, Scripted Events (highlighted), Admins, Reports, Applications, Cost Estimator, and SaaS Backup. The top navigation bar includes a search bar, a notification bell, and a user profile for Toby. The main content area displays the details for the 'Install Microsoft Office 365' script. At the top right of the main content area, there are buttons for Refresh, Download, Edit, and a menu icon. The 'Script Details' section includes the following information:

Script Details	
<b>Name</b>	Install Microsoft Office 365
<b>Type</b>	Customer Script
<b>Script</b>	InstallMicrosoftOffice365.ps1
<b>Execute With</b>	C:\Windows\system32\WindowsPowerShell\v1.0\powershell.exe
<b>Arguments</b>	-file %scriptname%
<b>Created By</b>	toby.vanrooijen@vdsdocsdemo
<b>Created On</b>	Dec 8, 2020, 9:57 AM
<b>Updated By</b>	None
<b>Updated On</b>	None
<b>Documentation URL</b>	<a href="https://docs.netapp.com/us-en/virtual-desktop-service/scriptlibrary/MicrosoftOffice365.html">https://docs.netapp.com/us-en/virtual-desktop-service/scriptlibrary/MicrosoftOffice365.html</a>

## Activities

Activities link a script from the repository to a Deployment, a subset of VMs and a trigger event.

NetApp Virtual Desktop Service

Home > Scripted Events > Activities

## Scripted Events

Repository Activities

Filter By  
Keyword

Refresh + Add Activity

Name	Script	Deployment	Event	Clients	App Services	Enabled	Actions
<a href="#">InstallAdobeReader</a>	InstallAdobeReader.ps1	kokk	Applicati onInstall			✓	⋮
<a href="#">UninstallAdobeReader</a>	UninstallAdobeReader.ps1	kokk	Applicati onUninst all			✓	⋮

## Add Activity

Clicking on the + *Add Activity* button opens a new page for creating an Activity.

NetApp Virtual Desktop Service

Home > Scripted Events > Activities > Add Activity

## Add Activity

**Activity Settings**

Name Required Description

Install Chrome Install Chrome

**Deployment** Required **Script** Required **Arguments**

VDSGCPDemo (kokk) × InstallGoogleChrome × Enter arguments...

☒ Enabled

**Event Settings**

Event Type Required

Application Install ×

**Target Settings**

Application Required

Google Chrome ×

Shortcut Path Required

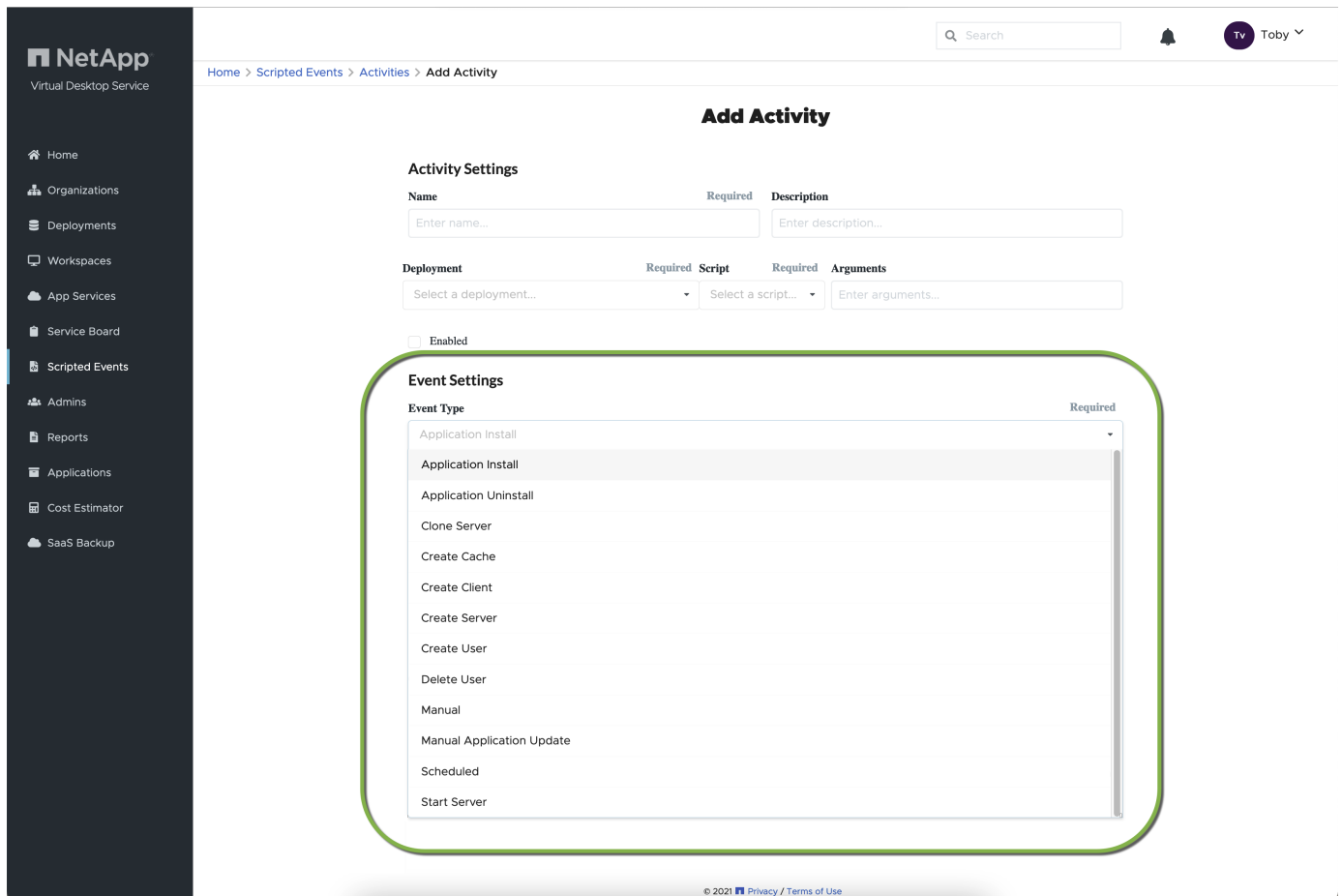
\\shortcuts\Google Chrome.lnk

Cancel Add Activity

The following fields need to be completed to create a new activity:

- **Name**
- **Description** (Optional)
- **Deployment**
- **Script**
- **Arguments**
- **Enabled** checkbox
- **Event Settings**

## Activity Triggers



- **Application Install**

- This is triggered when the VDS Admin clicks "+ Add..." from the *Workspace > Applications* page.
- This selection allows you to select an application from the Application Library and to pre-define the shortcut of the application.
- Detailed instructions for this trigger are highlighted in the [Install Adobe Reader DC script documentation](#).

- **Application Uninstall**

- This is triggered when the VDS Admin clicks **Actions > Uninstall** from the *Workspace > Applications* page.
- This selection allows you to select an application from the Application Library and to pre-define the shortcut of the application.
- Detailed instructions for this trigger are highlighted in the [Uninstall Adobe Reader DC script documentation](#).

- **Clone Server**

- This is triggered when the Clone function is performed against an existing VM

- **Create Cache**

- This is triggered anytime a new VM is built by VDS for a provisioning collection cache

- **Create Client**

- This is triggered anytime a new Client organization is added to VDS

- **Create Server**

- This is triggered anytime a new VM is built by VDS
- **Create User**
  - This is triggered anytime a new user is added via VDS
- **Delete User**
  - This is triggered anytime a new user is deleted via VDS
- **Manual**
  - This is triggered by a VDS admin manually from within the **Scripted Events › Activity** page
- **Manual Application Update**
- **Scheduled**
  - This is triggered when the defined date/time is reached
- **Start Server**
  - This is triggered on a VM each time it boots up

Clicking on the *Name* opens a dialog box where the activity can be edited.



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