Managing Windows-based Dell Wyse Thin Clients using System Center Configuration Manager 2016

Administrator's Guide

Notes, cautions, and warnings

ⓘ **NOTE: A NOTE indicates important information that helps you make better use of your product.**

⚠ **CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.**

⚠ **WARNING: A WARNING indicates a potential for property damage, personal injury, or death.**

Contents

Introduction

System Center Configuration Manager (SCCM) is a system management software by Microsoft for managing large groups of Windows-based computer systems. Dell Wyse supports SCCM 2012 R2 and SCCM 2016 to manage thin clients running the following operating systems:

- Windows 10 IoT Enterprise
- Windows Embedded 8 Standard
- Windows Embedded Standard 7 Enterprise
- Windows Embedded Standard 7 Professional

Topics:

- About this guide
- SCCM system requirements
- SCCM 2016 features
- SCCM 2016 pre-requisites

About this guide

This guide is intended for administrators and system engineers who work on SCCM.

This guide contains the following information:

- Features supported on the Dell Wyse Enhanced Windows Embedded builds
- Managing software on Dell Wyse thin clients
- Imaging and deploying operating systems on Dell Wyse thin clients

For more information about SCCM and Windows embedded operating system see:

- System Center Developer Documentation Library at https://msdn.microsoft.com

SCCM system requirements

The minimum system requirements for SCCM are:

- Additional storage space for the installation of Microsoft quick fix engineering (QFEs) on the client
- SCCM 2016 infrastructure to support Operating Systems Deployment (OSD)

SCCM 2016 features

The main features of SCCM 2016 are:

- Asset discovery
- Asset inventory
- Image capture
- Image deployment
- Software package advertisement with write-filter management
- Task sequence advertisement

SCCM 2016 pre-requisites

Before working on SCCM 2016, you must configure the following:

- Active Directory (AD)—You must create an AD to add a set of thin clients
- Dynamic Host Configuration Protocol (DHCP)—You need to configure DHCP that hosts the IP that you have created

- Domain Name System (DNS)—DNS helps in creating a unique IP which is the domain IP
- Windows Deployment Services (WDS)—If enabled, WDS helps to deploy any Windows-related updates
- Windows Server Update Services (WSUS)—WSUS is also used to enable the Windows-related updates
- Windows Assessment and Deployment Kit (Windows ADK 10)—This is a development kit and you must install this kit on the SCCM server
- System Center Configuration Manager 2016—This is the console to access SCCM
- SQL Server 2016—The SQL server helps to connect the SCCM 2016 console to the database

For more configuration settings, see **Introduction to Application Management in Configuration Manager** http://technet.microsoft.com

(i) **NOTE: For reference, SCCM 2016 and Windows 10 IoT Enterprise screen shots are used in this guide. However this guide can also be used for SCCM 2012 R2.**

Imaging Dell Wyse thin clients with System Center Configuration Manager (SCCM)

Topics:

- Creating driver packages for imaging
- Preparing the operating system image for capturing
- Creating capture media task sequence
- Capturing Windows image from reference system

Creating driver packages for imaging

Perform the following steps to create a driver package for imaging the thin client:

1. Click **Start** > **All Programs** > **Microsoft System Center** > **Configuration Manager Console**.
   The System Center Configuration Manger window is displayed.
2. Click **Software Library**.
3. Expand **Overview** > **Operating Systems** > **Drivers**, and right-click **Import Driver**.
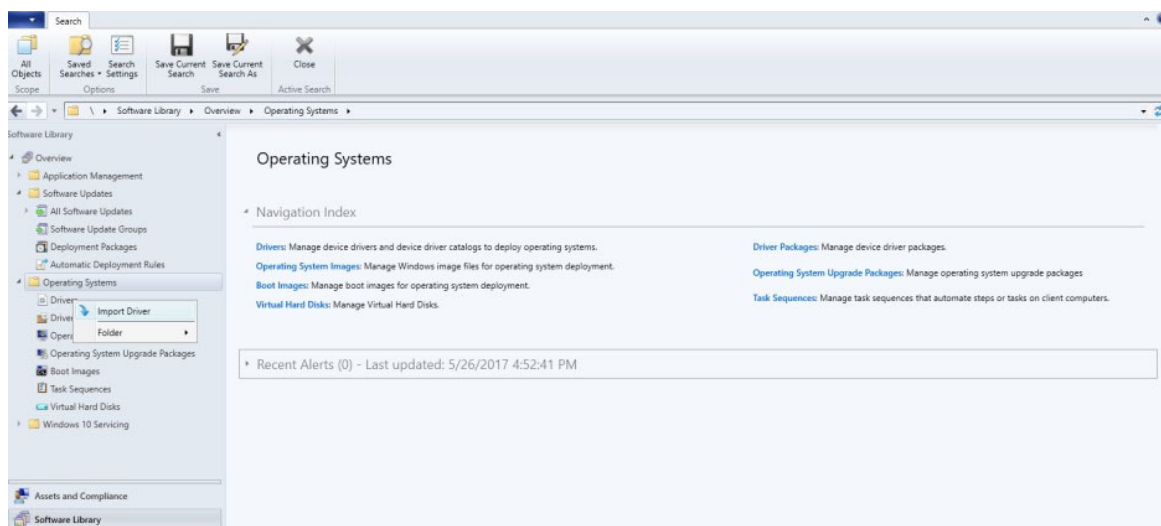

Figure 1. Import driver

The **Import New Driver Wizard** window is displayed.

4. On the **Locate Driver** page, do one of the following:

   - If you want to import all the drivers from a network path, click **Import all drivers in the following path (UNC)**, browse to the folder, and then click **Select Folder**.
   - If you want to import a specific driver from a network path, click the **Import a specific driver by specifying the network path (UNC) to its .inf or txtsetup.oem file** radio button, browse to the specific driver, and click **Open**.
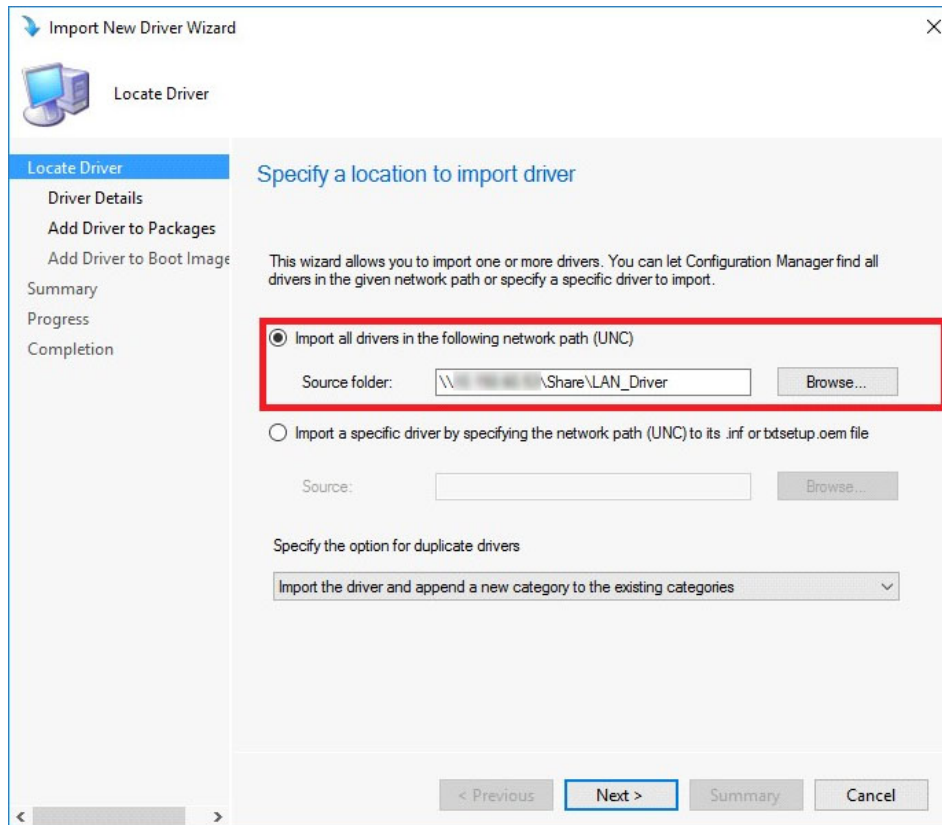
Figure 2. Locate driver

> (i) **NOTE: The driver must be available in the local share path of SCCM.**

5. Select the option for duplicate drivers from the **Specify the option for duplicate drivers** drop-down list.
6. Click **Next**.
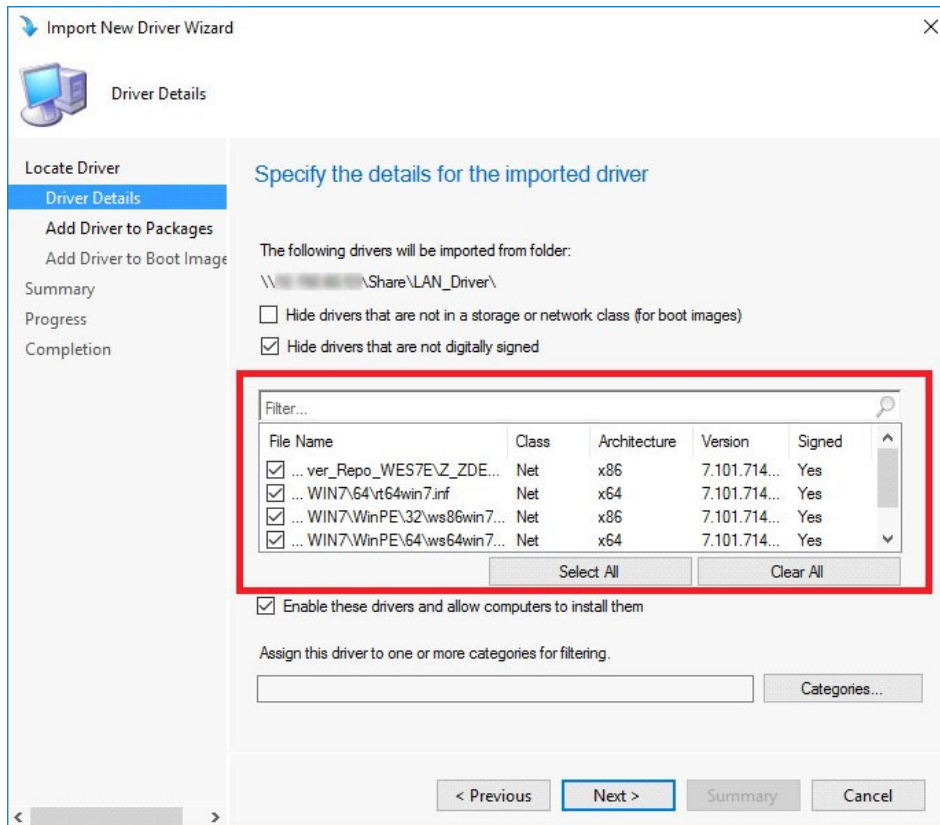7. On the **Driver Details** page, select the drivers you want to import.

Figure 3. Driver details

8. If you want to install the selected drivers on your system, select **Enable these drivers and allow computers to install them** check box.
9. Click **Next**.
10. On the **Add Driver to Packages** page, select **New Package**.
    The **Create Driver Package** window is displayed.
11. In the **Create Driver Package** window, enter the package name, and browse to the network UNC path where you want the Configuration Manager to store the drivers added to the package. Click **Ok**.
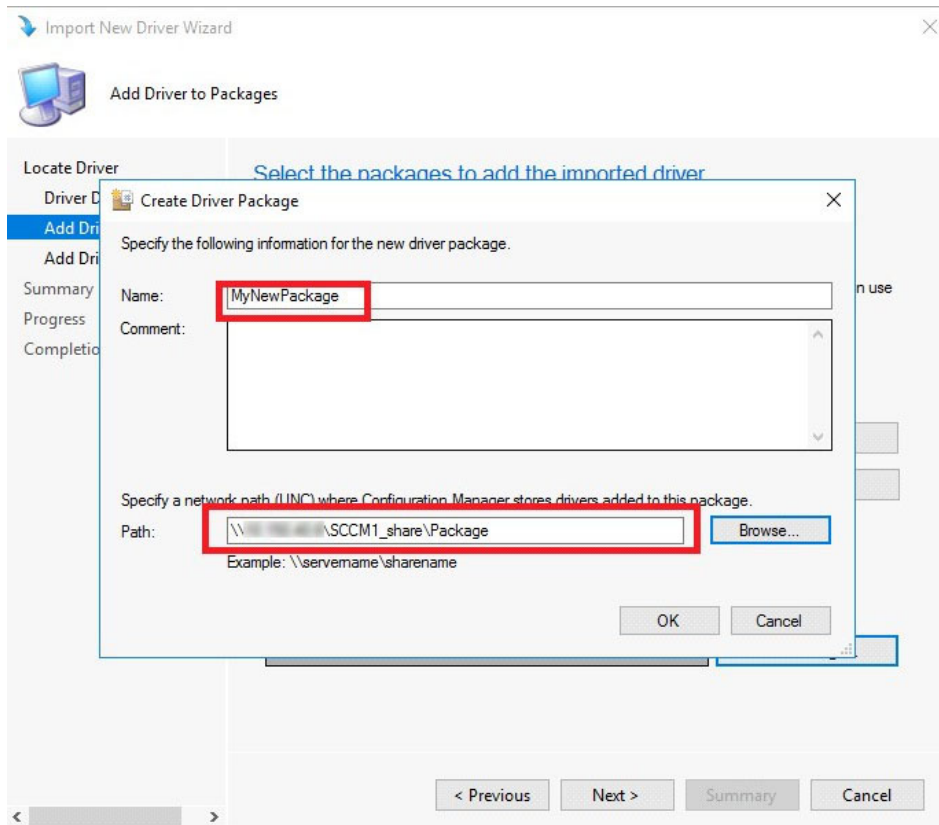
Figure 4. Create driver package

12. Select the packages to which you want to add the driver and click **Next**.
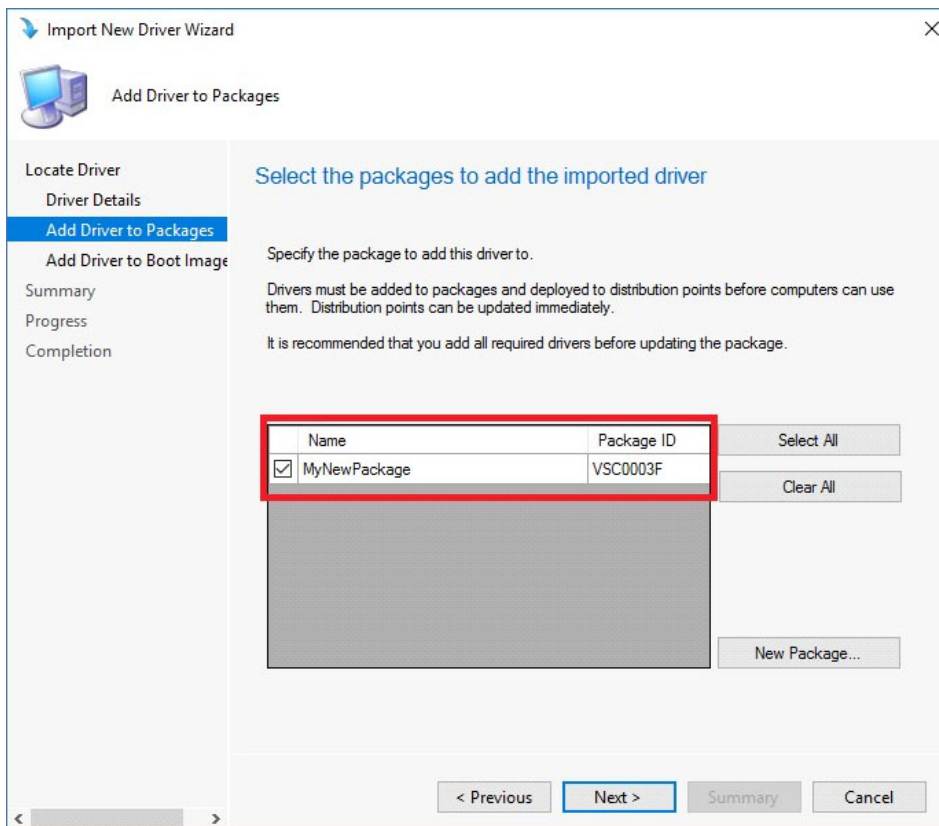

Figure 5. Select the packages

13. On the **Add Driver to Boot Images** page retain the default options and click **Next**.
14. On the **Summary** page, verify the details, and click **Next**.

15. After the configuration is complete, click **Close**.
16. Click **Software Library**.
17. Expand **Overview** > **Operating System** > **Driver Packages**.
18. Right-click the imported driver package, and select **Distribute Content**. The Distribute Content wizard window is displayed.
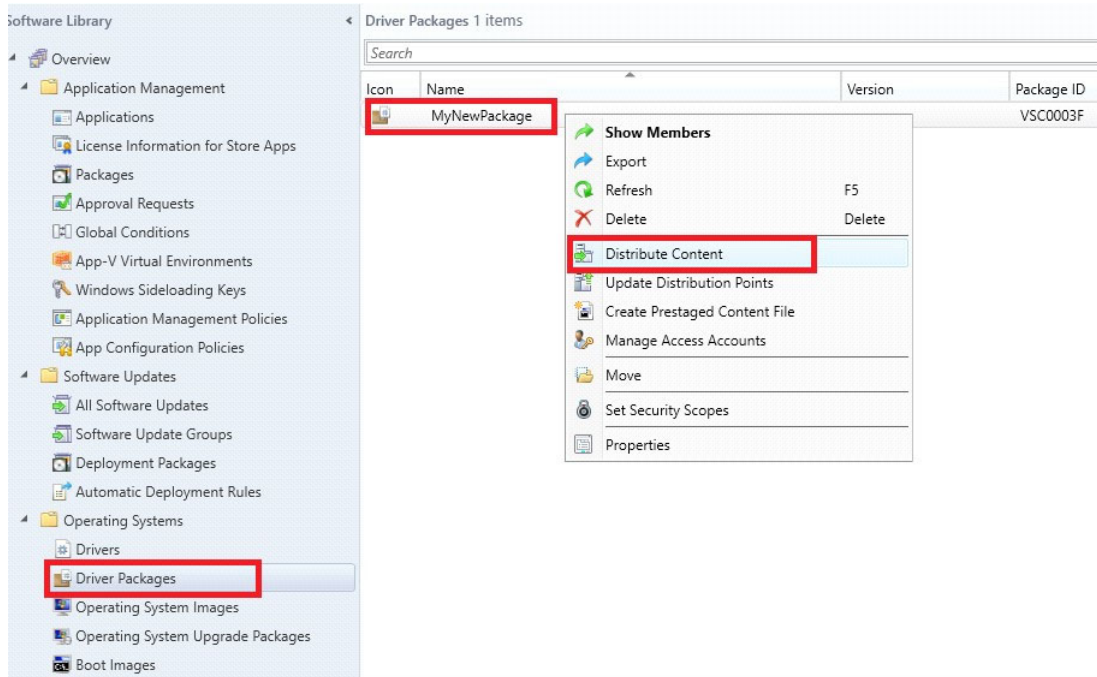

Figure 6. Distribute content
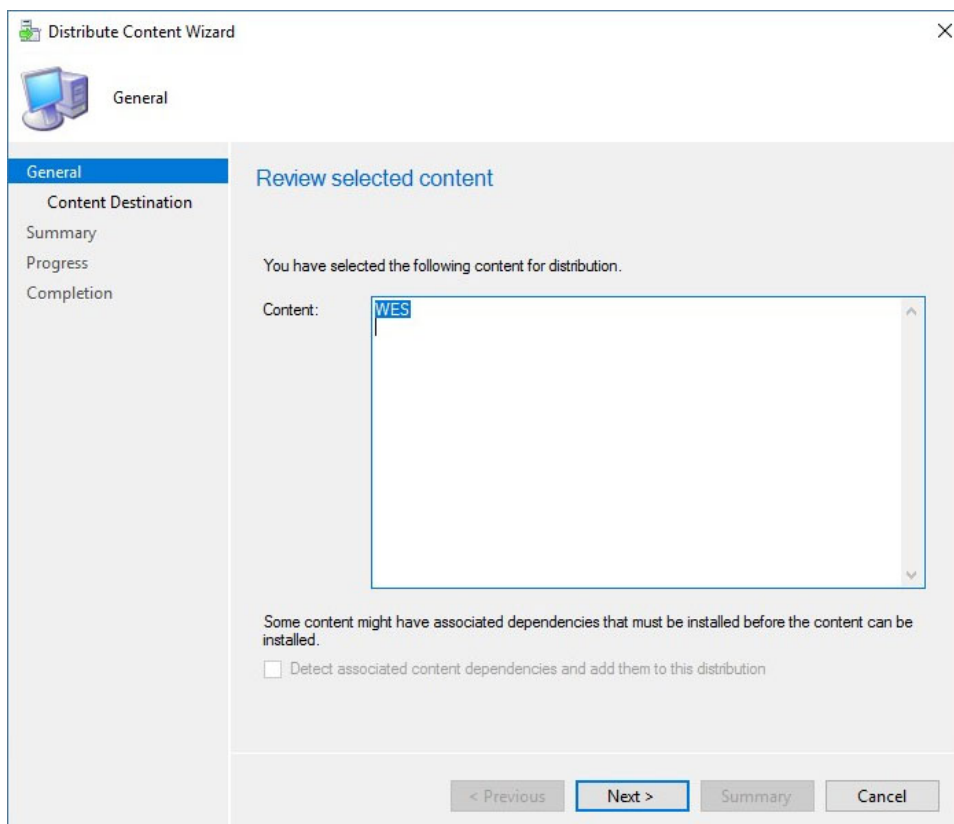
19. On the General page, click **Next**.

Figure 7. Review selected content

20. On the Content Destination page, click **Add**, and then select **Distribution Point** from the drop-down list.
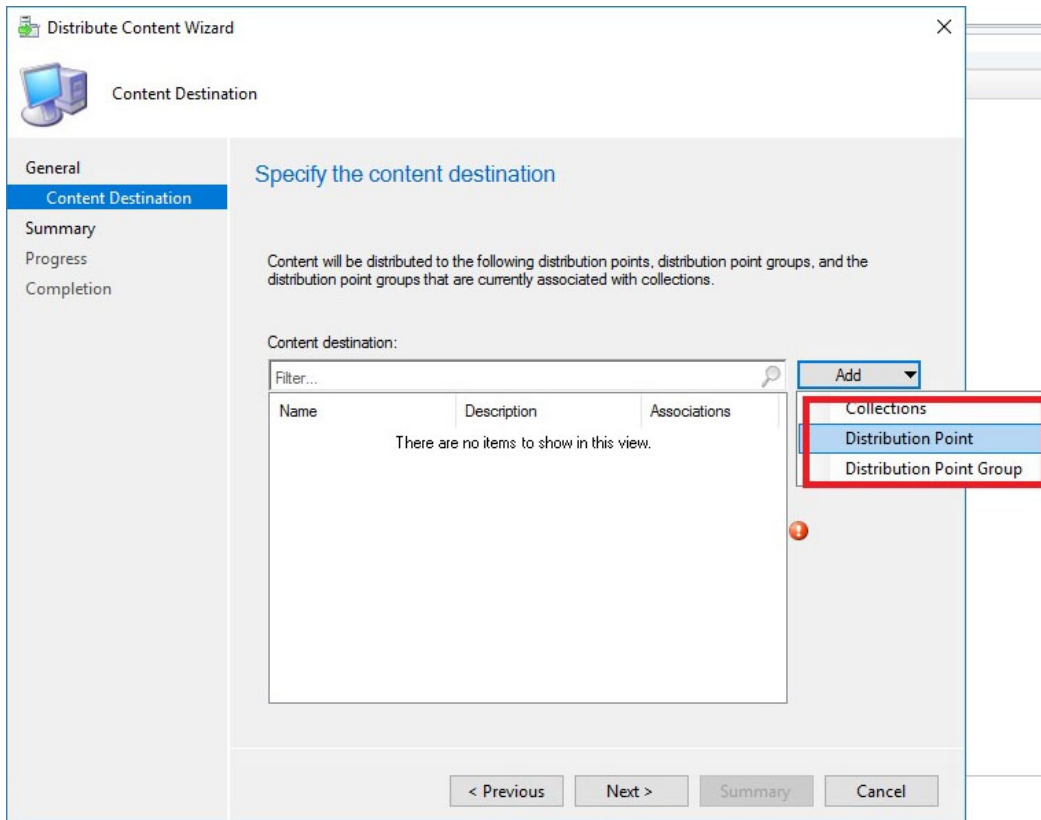
Figure 8. Content destination

The **Add Distribution Points** window is displayed.

21. Select the available distribution points, and click **Ok**. On the **Content Destination** page, click **Next**.
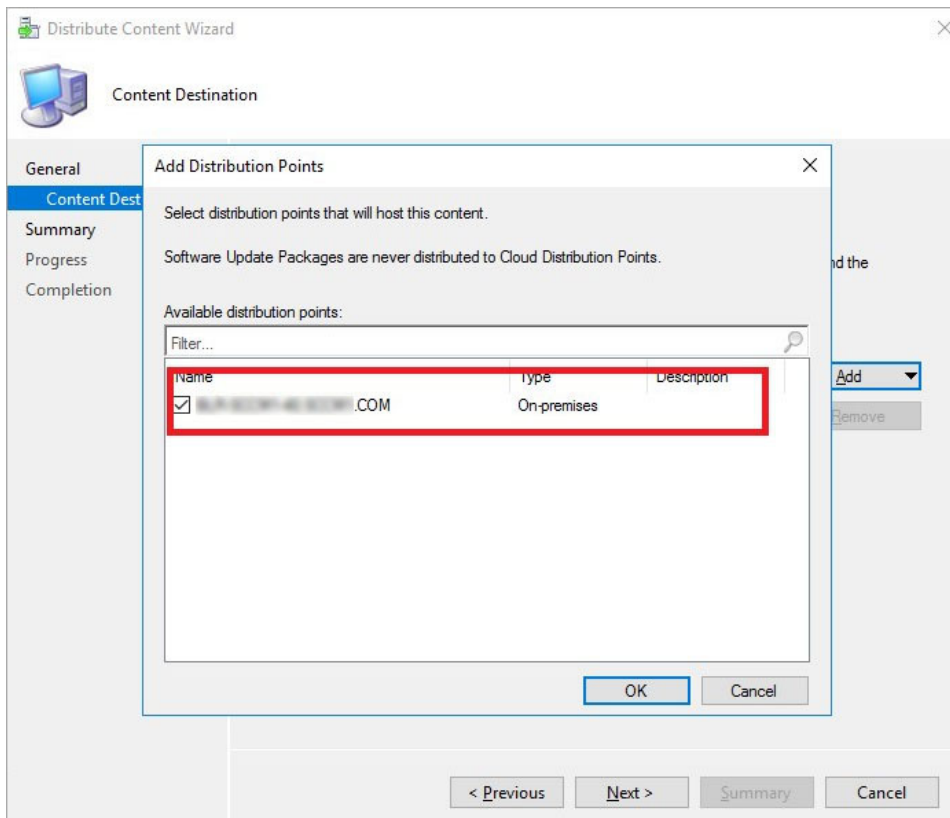

Figure 9. Add distribution points

> (i) **NOTE: SCCM 2016 uses distribution points to store files needed for packages to run on client computers. These distribution points function as distribution centers for the files used by the package and enable you to download and run files, programs, and scripts when a package is advertised.**

22. On the **Summary** page, verify the details, and click **Next**.
23. After the configuration is complete, click **Close**.
24. Refresh the **Driver Packages** screen, and ensure that the **Success** message is displayed on the Content Status page.

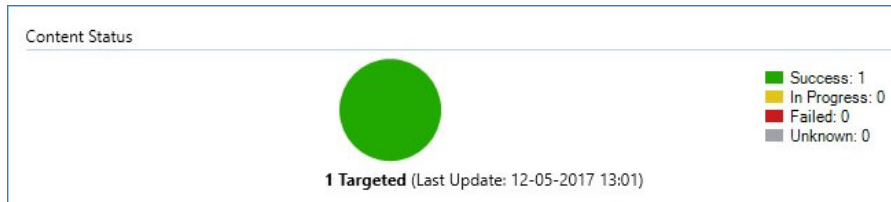**Figure 10. Content status**

25. Click **Software Library**.
26. Expand **Overview** > **Operating System** > **Boot Images**.
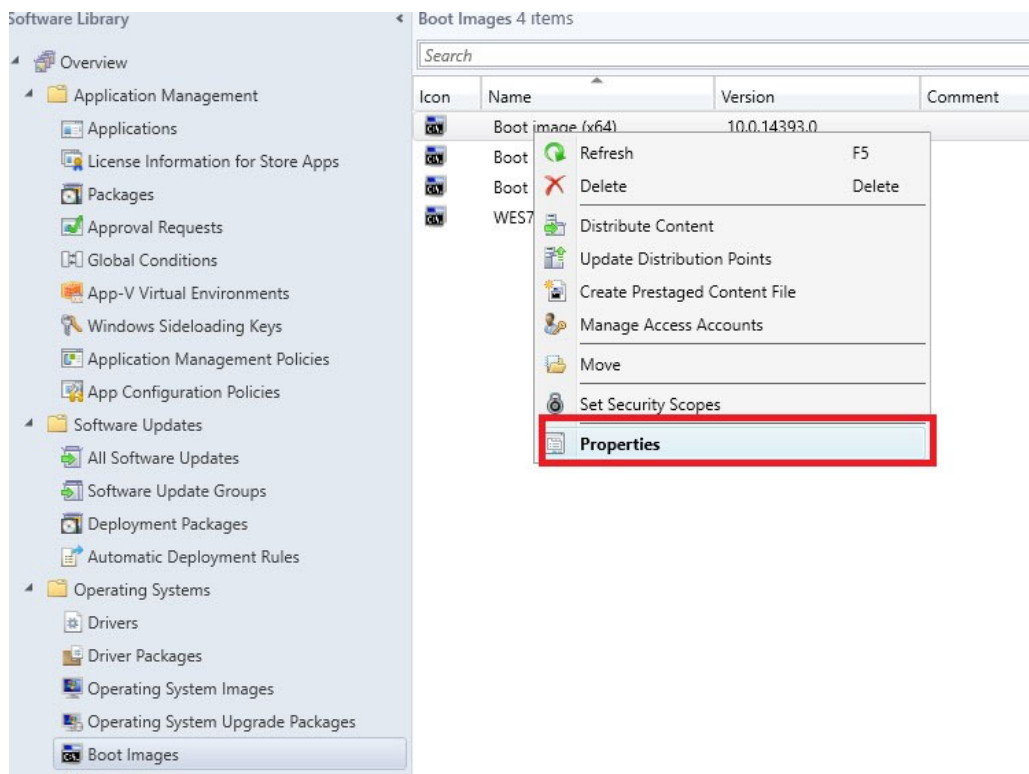27. Right-click the appropriate boot image, and select **Properties**.

Figure 11. Properties

28. In the Properties window, select **Drivers**, and add the relevant client driver.
29. Click **Apply**, and then click **Yes**.
30. Right-click the appropriate boot image, and select **Update Distribution Points**.
31. In the **Update Distribution Points** page, click **Next** and then click **Close**.
32. Refresh the Boot Images window, and ensure that the **Success** message is displayed on the Content Status page.

Preparing the operating system image for capturing

This section describes how to prepare an operating system image to capture, import, and deploy to the supported Wyse thin clients running Windows 10 IoT Enterprise operating system in a Configuration Manager environment. The reference image must be captured as a Windows Imaging (WIM) format file.

(i) **NOTE: To prepare a reference WIE10 image, Dell recommends that you start with a newly imaged thin client. Customize the build as required, and prepare the build for the Configuration Manager image capture.**

1. Click **Start** > **Log off**, and hold the Shift key until the login window is displayed.
2. Log in as an administrator.

   (i) **NOTE:**
   - **For WIE10 image, the default user name is Admin, and the default password is DellCCCvdi.**
   - **For WES7P/WES7E image, the default user name is Administrator, and the default password is DellCCCvdi.**

3. Double-click the green icon on the desktop to disable the write filter.
   The system restarts after the write filter is disabled.
4. Customize the drivers, application, wallpapers and so on.
5. Navigate to the `C:\windows\setup` folder, and run the `Build_Master.cmd` file.

   (i) **NOTE:**
   - **For legacy scripts, run the `WIE10_ConfigMgr_Capture.ps1` file as an administrator.**
   - **For Powershell ported scripts, run `Build_Master.cmd`.**

6. Select **Configmgr Sysprep** and press **Enter**.
7. To run the complete script, restart the thin client.
8. To open the **Services** window, press Windows+R, and type `services.msc` in the **Open** field.
9. Press **Enter**.
10. Ensure that the `SMS Agent Host` service is running. If the service is not active, right-click the service, and click **Start**.
    The image in the thin client is ready for capturing.

    (i) **NOTE: If you restart the thin client during capturing, all the Configuration Manager related customizations are reverted.**

Creating capture media task sequence

Capture media in the Configuration Manager allows you to capture an operating system image from a reference computer. To create a capture media task sequence, do the following:

1. Click **Start** > **All Programs** > **Microsoft System Center** > **Configuration Manager Console**
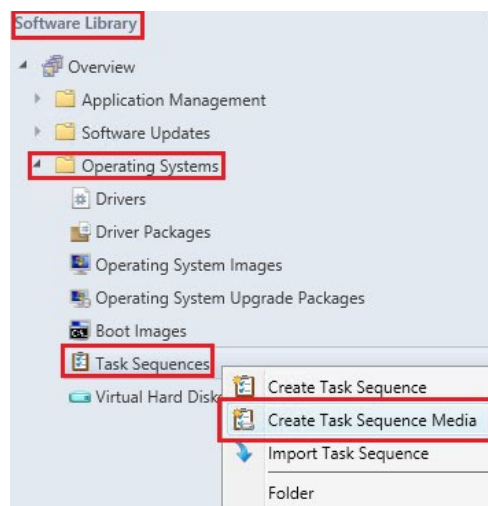

Figure 12. Software library

The **System Center Configuration Manger** window is displayed.
2. Click **Software Library**
3. Expand **Overview** > **Operating Systems** > **Task Sequences**, and right-click **Task Sequences**.
4. Select **Create Task Sequence Media**.
   The **Create Task Sequence Media Wizard** window is displayed.
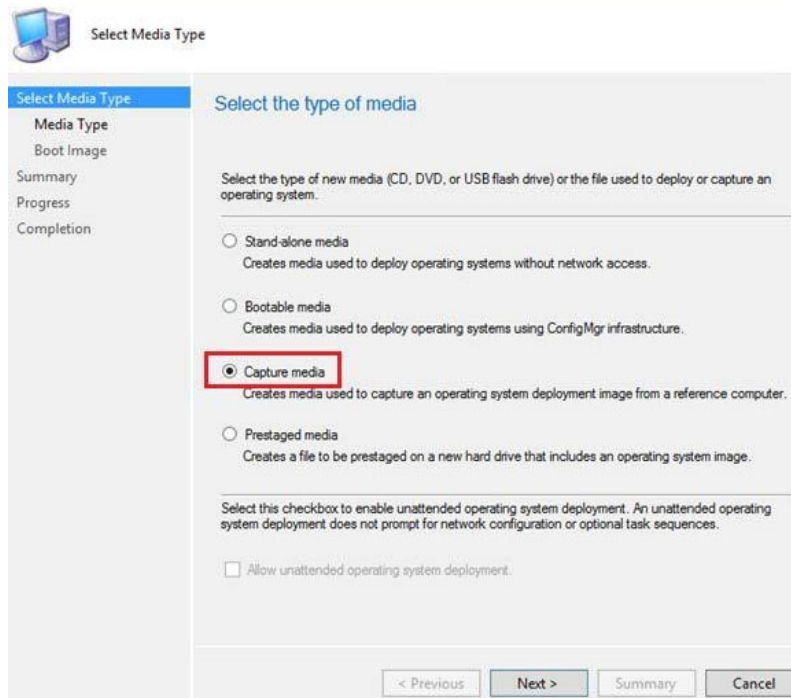5. Select the **Capture Media** radio button, and click **Next**.

Figure 13. Media type

6. On the **Media Type** page, select the media type which you want to use for capturing media.

   - To use a removable USB drive for the image deployment, select the **Removable USB drive** radio button, and from the drop-down list, select the drive.
   - To use a CD/DVD set for the image deployment, select the **CD/DVD set** radio button, and browse to the media file.
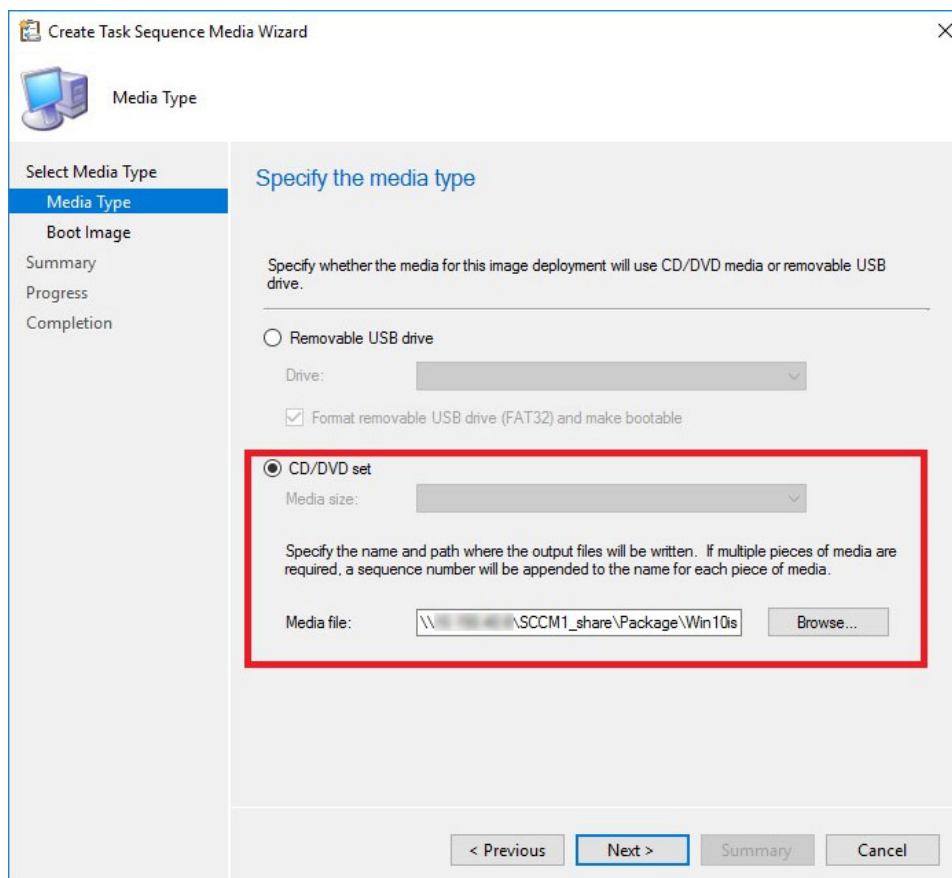

Figure 14. Create task sequence media wizard

7. Click **Next**.
8. On the **Boot Image** page, browse to the appropriate boot image and distribution point.
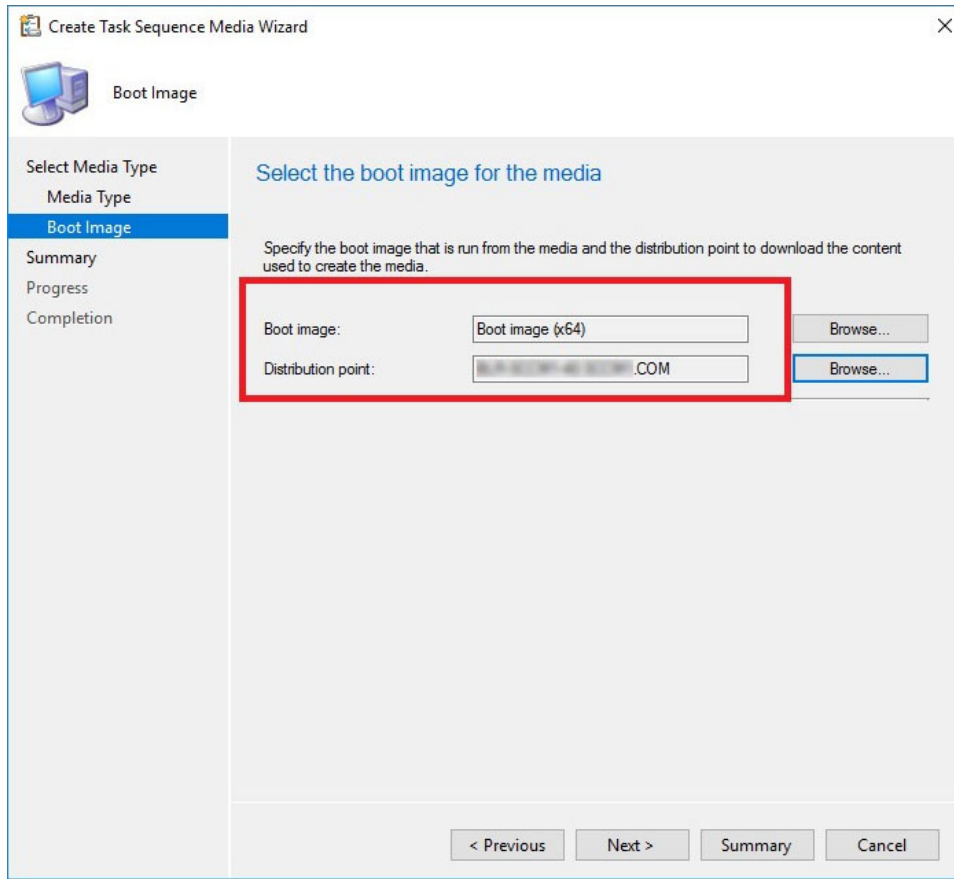

Figure 15. Boot image

ⓘ **NOTE: If necessary, you must include Ethernet/ SFP driver in the boot image. You can also contact the Dell Wyse support team for the respective driver.**

9. Click **Next**.
10. On the **Summary** page, verify the details, and click **Next**.
    The captured media or ISO is created.
11. After the installation is complete, click **Close**.
12. Extract and copy the ISO to a removable USB drive.

Capturing Windows image from reference system

To capture the Windows image from a reference system, do the following:

1. Plug in the prepared USB flash drive or CD/DVD to the reference thin client.
2. Open the USB pen drive or CD/DVD drive, and go to `D:\SMS\Bin\i386`.
3. Run the `D:\SMS\Bin\i386\TSMBAutoRun.exe` file.
   The **Image Capture Wizard** is displayed.
4. On the **Welcome to the Image Capture Wizard** page, click **Next**.

Figure 16. Image capture wizard

5. On the **Image Destination** page, browse to any of the following:

   - A shared location on the remote network—recommended
   - A local USB drive path along with the `.wim` file name extension
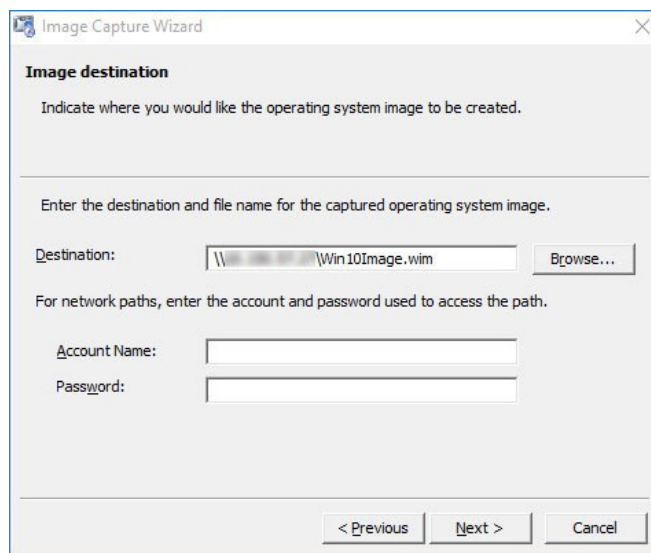

Figure 17. Image destination

6. Click **Next**.
7. On the **Image Information** page, click **Next**.
8. On the **Summary** page, click **Finish**.

   The installer takes 5–10 minutes to start the capture process. During the capture process, the machine completes the Sysprep and boots into the Windows Preinstallation Environment. In the Windows Preinstallation Environment session, the image is captured. After the image capture, the `.wim` file is generated and stored to the location specified in the **Capture Wizard** page.

   ⓘ **NOTE:**

After the image is captured, the reference thin client will not be in the same state as it was before the capture. To bring the reference thin client back to its original state, see msdn.microsoft.com/library/.

For a media creation standalone deployment, go to `C:\Program Files (x86)\Microsoft Configuration Manager\AdminConsole\bin\i386`**, and open the command prompt. Run the command. For example:**

```
CreateMedia.exe /K:full /p:"SCCM2016.cloud.com" /D:"SCCM2016.cloud.com" /S:"IND" /
L:"FullMediaLabel" /A:"IND0004A" /K:"False" /T:"CD" /M:"44482" /F:"C:\deployment.iso" /
X:"OSDComputerName=" /X:"OSTType=Enterprise"
```

Deploying operating system image by using Operating Systems Deployment (OSD)

Configuration Manager provides two default boot images. Capture an image of the operating system that you want to deploy by using a task sequence. Distribute the boot image, operating system image, and any related content to a distribution point.

Topics:

- Associating target thin clients with Configuration Manager server
- Importing a captured Windows reference image into Configuration Manager
- Creating task sequence to deploy Windows reference image
- Deploying Windows reference image

Associating target thin clients with Configuration Manager server

To associate a target thin client with the Configuration Manager server, do the following:

1. Add the thin client to the domain.
2. Go to **Control Panel** > **Configuration Manager** > **Site** > **Configuration Settings**.
3. In the **Configuration Manager service location** section, enter the site code.
4. In the **Actions** tab, select either **Machine Policy Retrieval and Evaluation Cycle** or **Policy Retrieval and Evaluation Cycle**, and click **Run Now**.
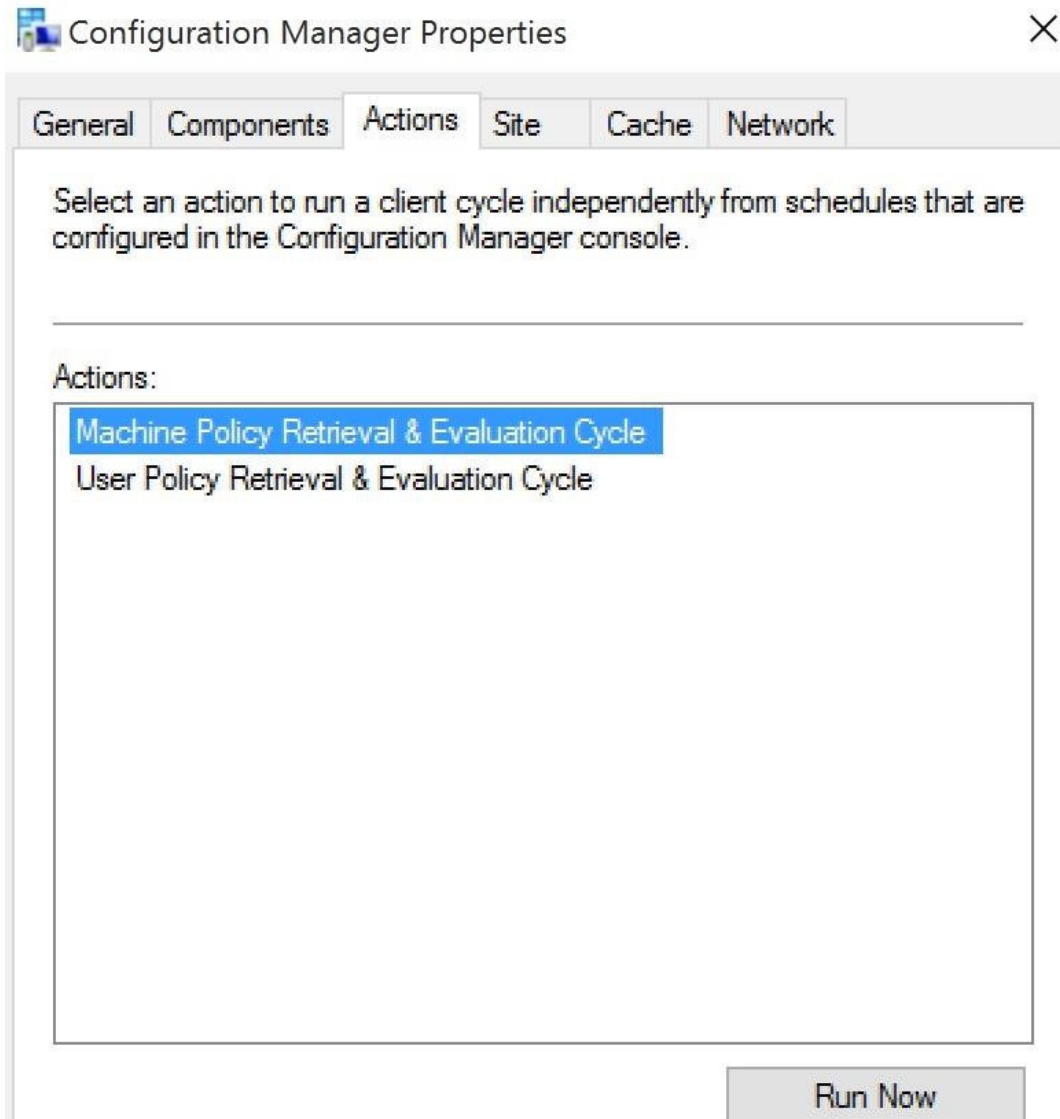
Figure 18. Configuration Manager Properties

The thin client is added to the Configuration Manager server.

5. On the Configuration Manager server side, go to **Asset and Compliance** > **Device Collections**.
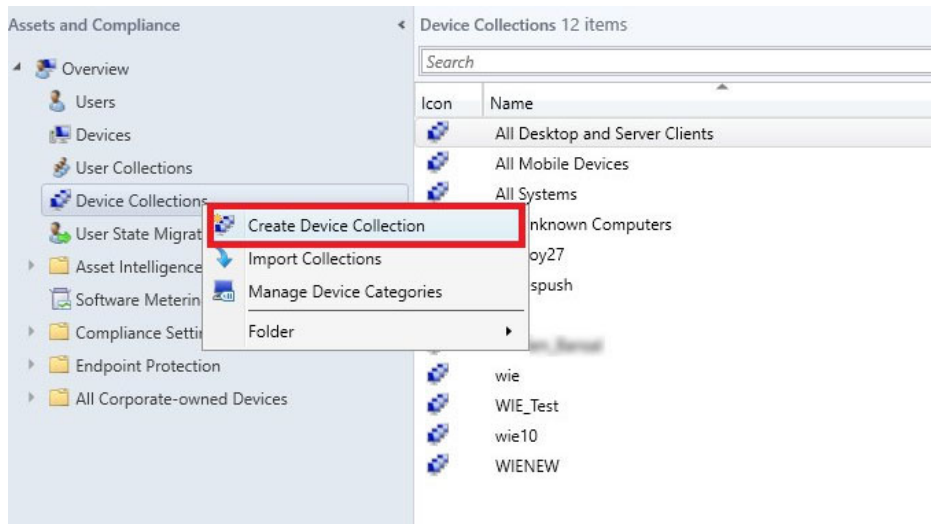6. Right-click **Device Collection** and select **Create Device Collection**.

Figure 19. Create Device Collection

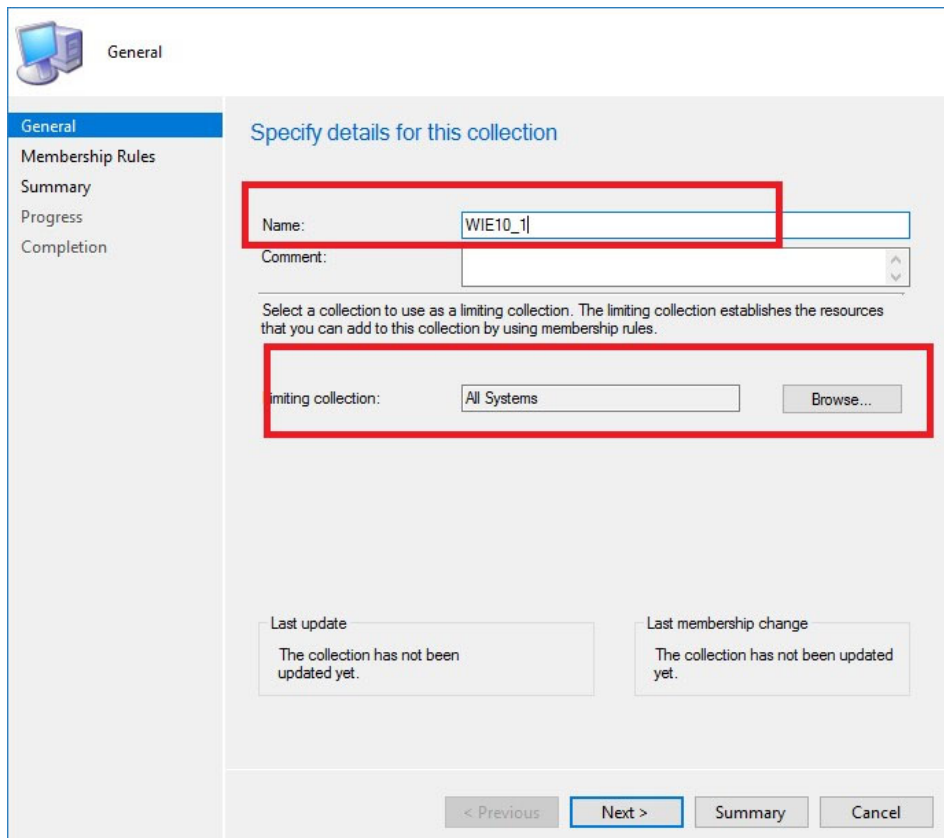7. In the General page, enter the name of the collection, and from the **Limiting collection** drop-down list, select **All Systems**.

Figure 20. General

8. Click **Next**.

> (i) **NOTE: Add a rule when multiple clients are available. For more information about rules, see how to create collections in configuration manager in https://technet.microsoft.com.**
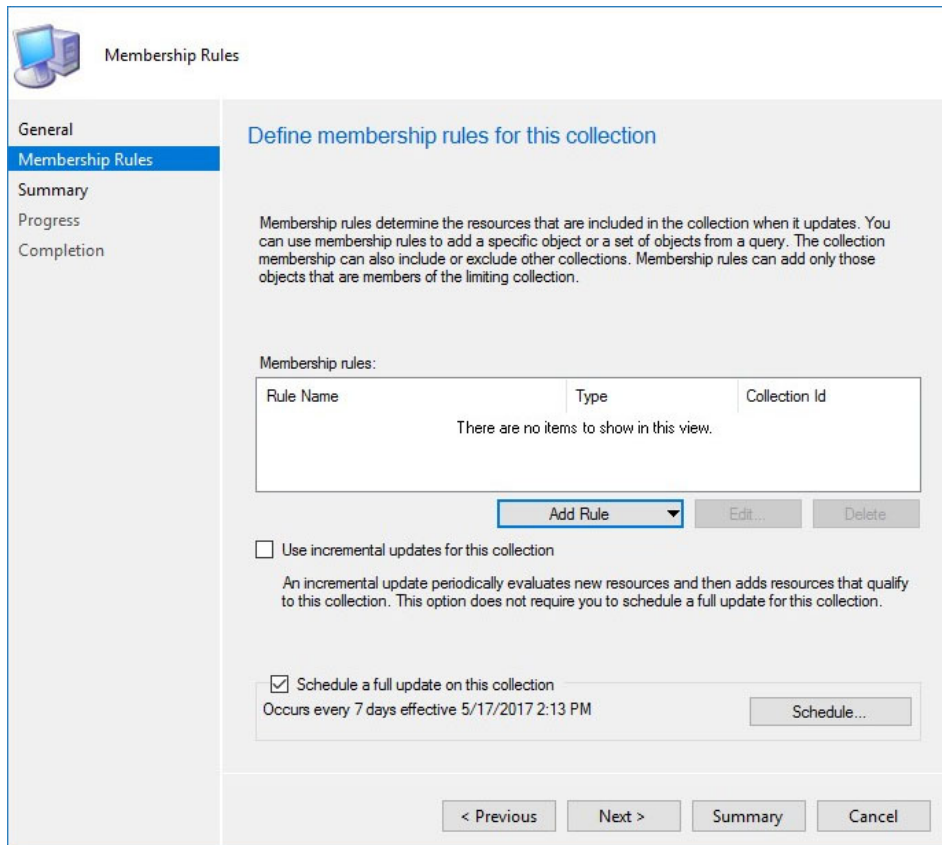
Figure 21. Membership Rules

9. On the **Summary** page, click **Next**. The selected settings are applied.
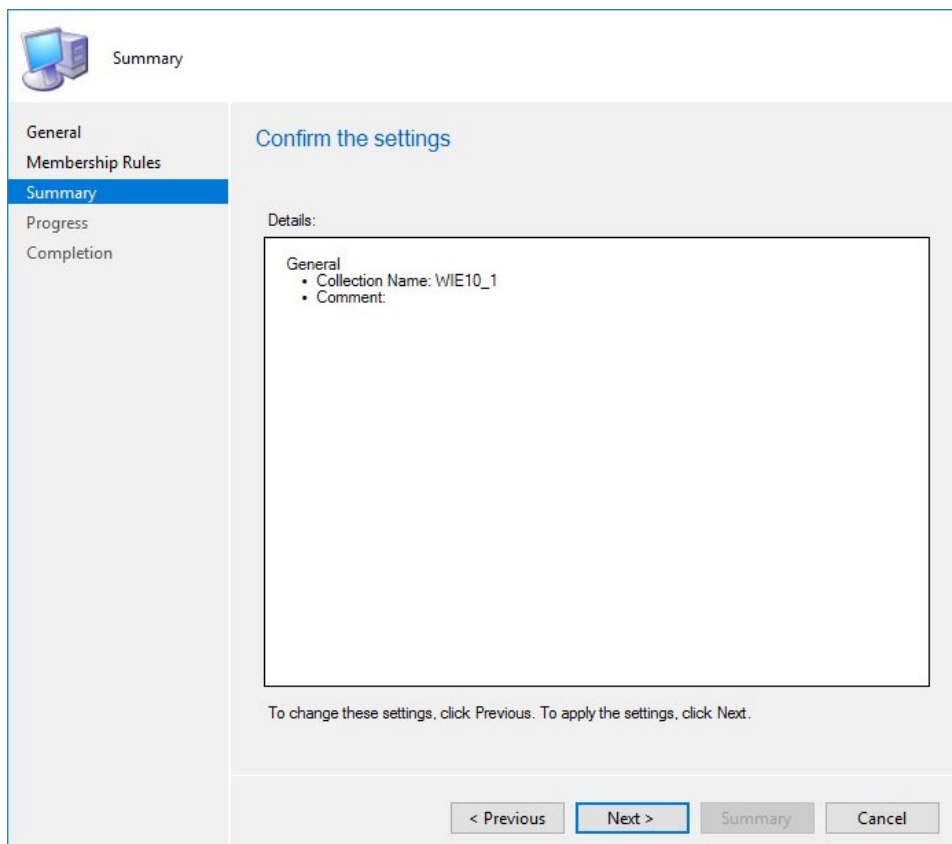

Figure 22. Summary page

10. Click **Close**.

11. In the Devices list, right-click a device, and click **Add Selected Items** > **Add Selected Items to Existing Device collection**.
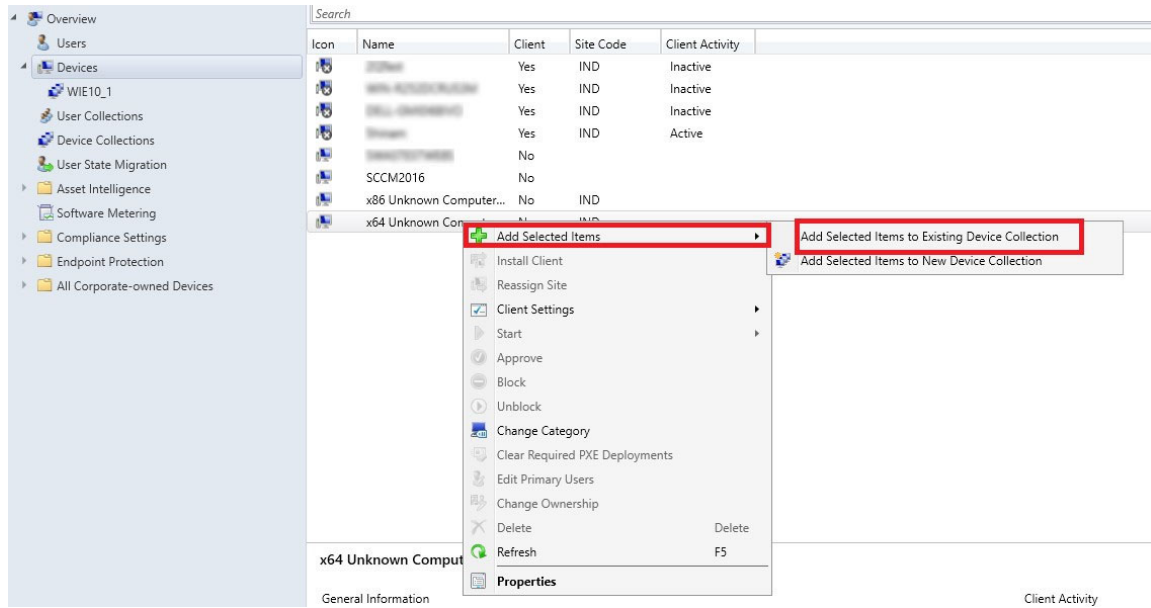

Figure 23. Devices

12. In the **Device Collections** window, select the device to add to the collection, and click **OK**.
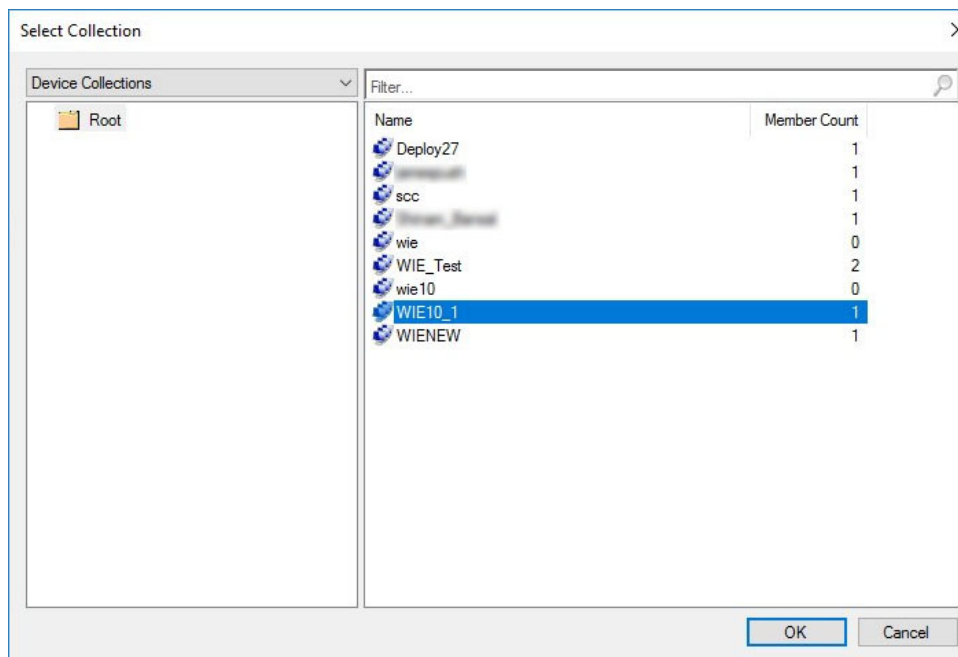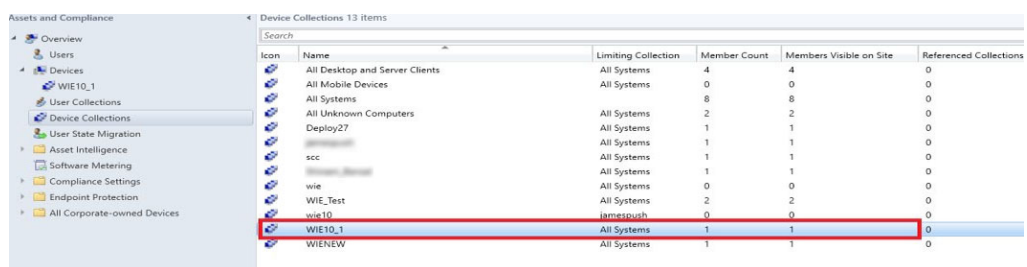

Figure 24. Select device collections

Figure 25. Device collections

In the **Asset and Compliance** section, click **Device Collections** and verify whether the device is added. The **Member count** is displayed as 1.

Importing a captured Windows reference image into Configuration Manager

To import a captured Windows reference image into Configuration Manager, do the following:

1. Expand **Software Library** > **Overview** > **Operating Systems**.
2. Right-click **Operating System Images**, and click **Add Operating System Image**.
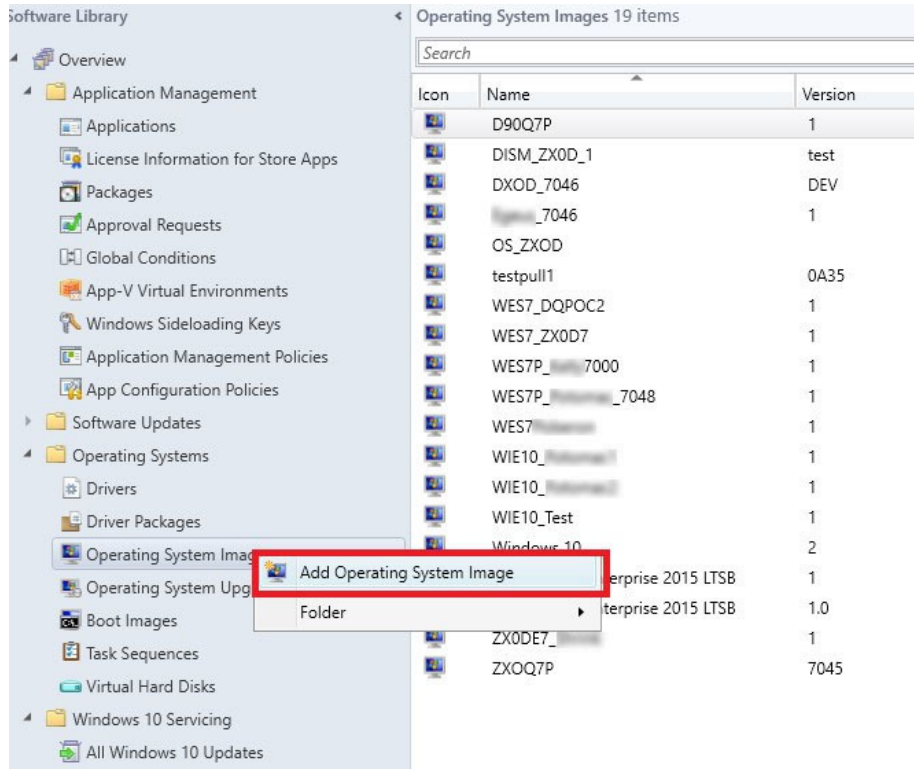

Figure 26. Add operating system image

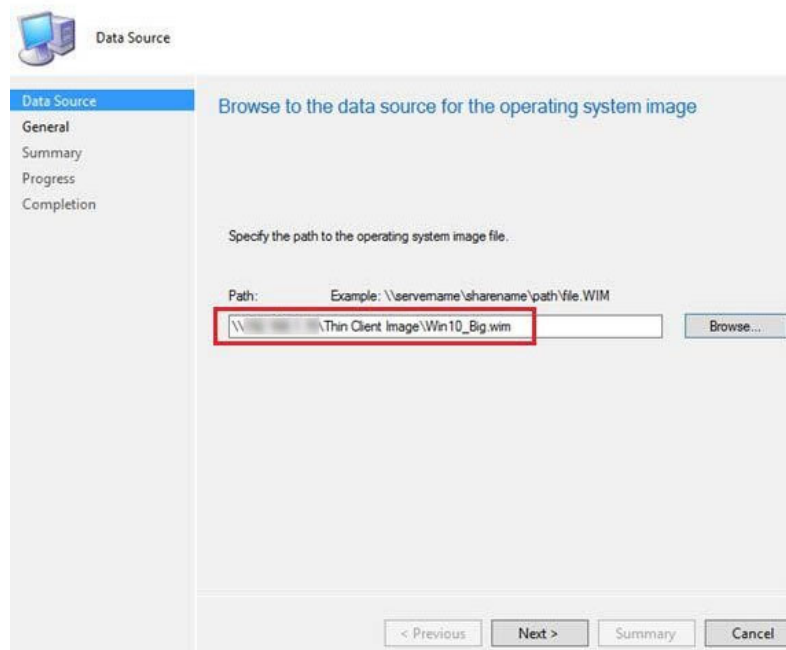3. Enter the network path (UNC), and click **Next**.

Figure 27. Data source

4. Enter the necessary information, and click **Next**.
5. Verify the information that you have provided and click **Next**.
   The settings are applied.
6. Click **Close**.
7. Expand **Software Library** > **Overview** > **Operating Systems**, and select an operating system image.
8. Right-click **Distribute Content**, and click **Next**.
9. In the **Content Destination** section, add a **Distribution Point**.
10. Select your destination point, and click **Next**.
11. When the wizard installation is complete, click **Close**.
12. Refresh the **Operating System** screen. Ensure that the content status displays **Success** before proceeding to the next task.

Creating task sequence to deploy Windows reference image

To create a task sequence, do the following:

1. Expand **Software Library** > **Overview** > **Operating Systems**.
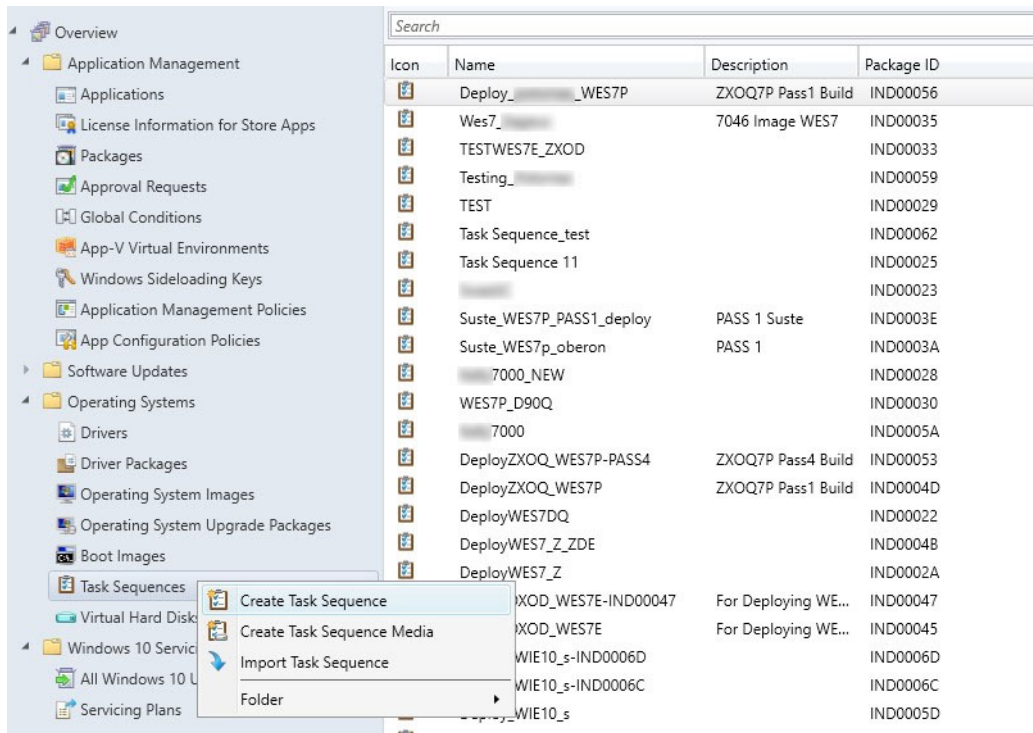2. Right-click **Task Sequence**, and click **Create Task Sequence**.

Figure 28. Create task sequence

3. In the **New Task Sequence** wizard, select **Install an existing image package**, and click **Next**.
4. Enter the **Task sequence name**, select the appropriate boot image, and then click **Next**.
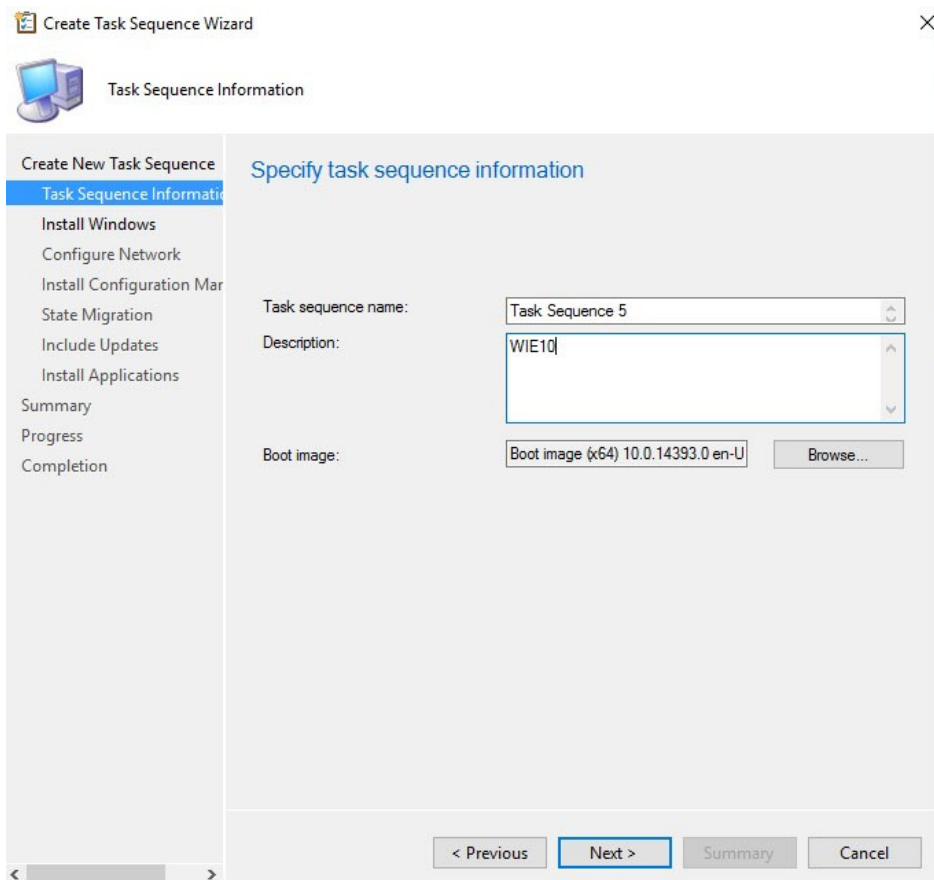

Figure 29. Task sequence information

5. Enter the package name and image index and click **Next**. The Index number may vary depending on the configuration of your thin client.
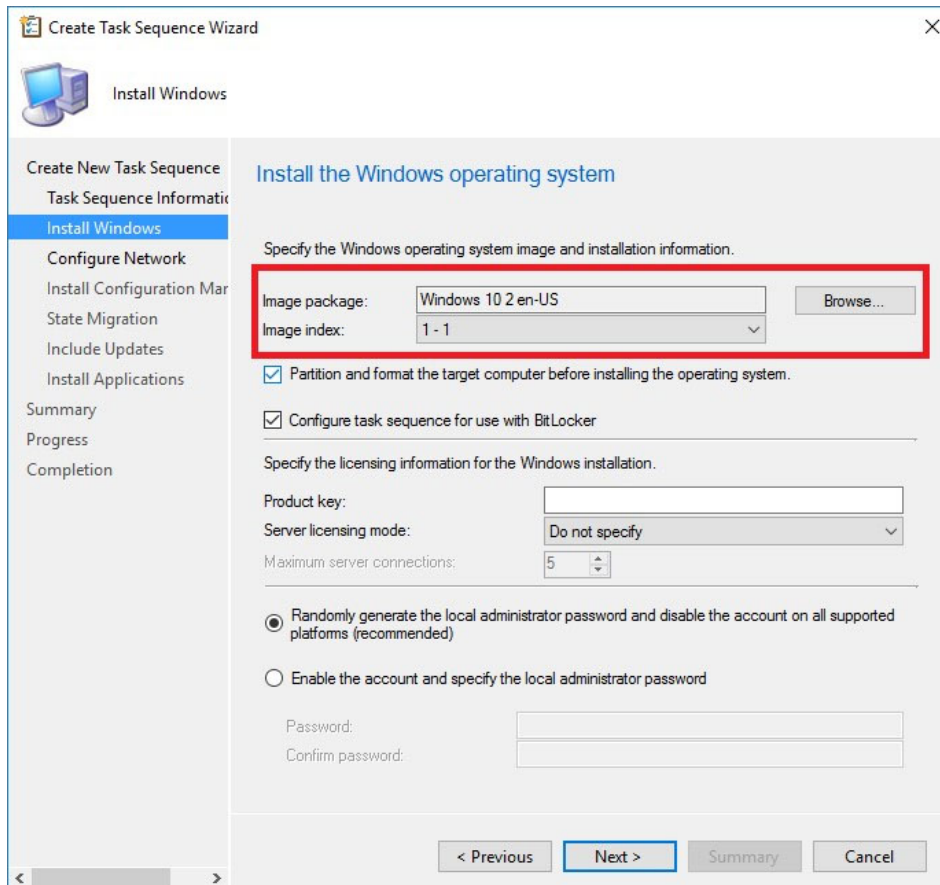
Figure 30. Install Windows

6. On the **Configure the network** page, specify your preferred configuration, and click **Next**.
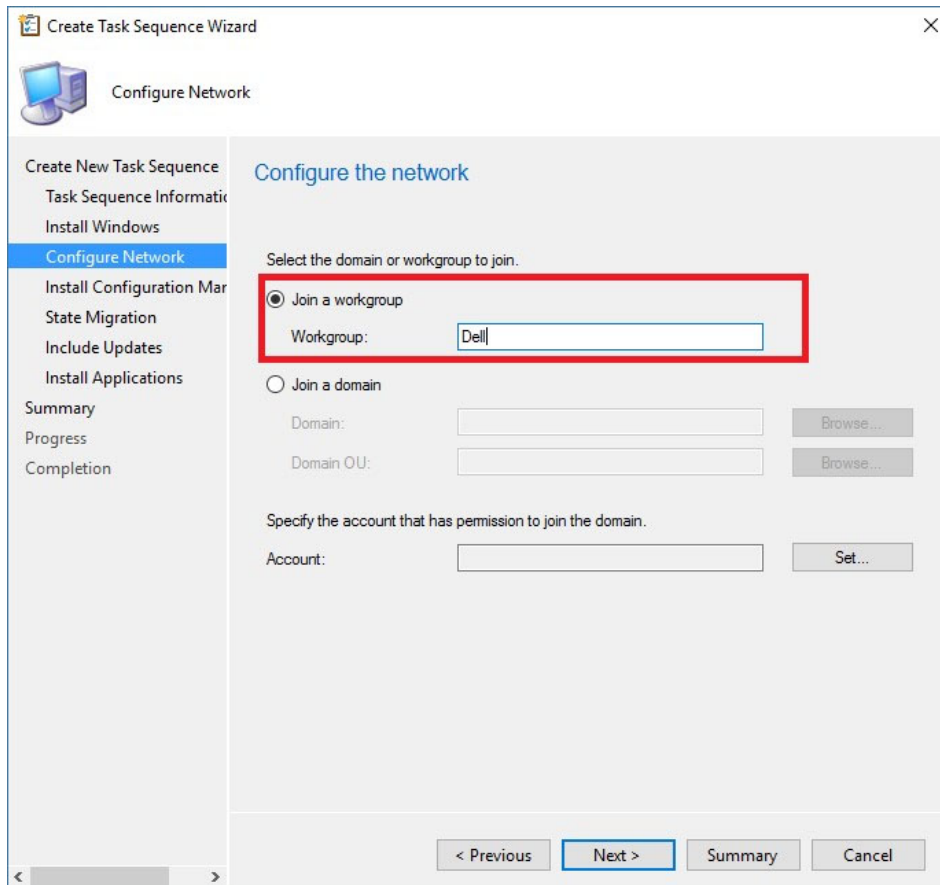
Figure 31. Configure network

7. On the **Install the Configuration Manager Client** page, click **Browse**, and select **Configuration Manager Client Package** and then click **Next**.
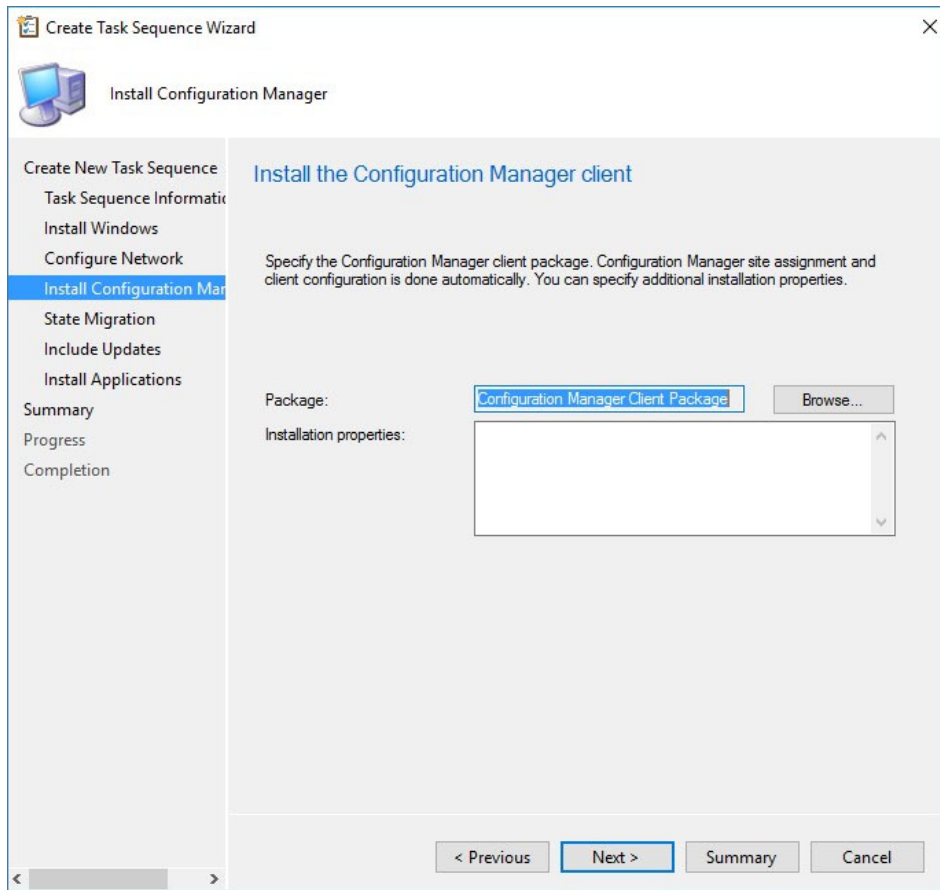
Figure 32. Install configuration manager

8. Clear the following check boxes and click **Next**:

   - Capture user settings and files
   - Capture network settings
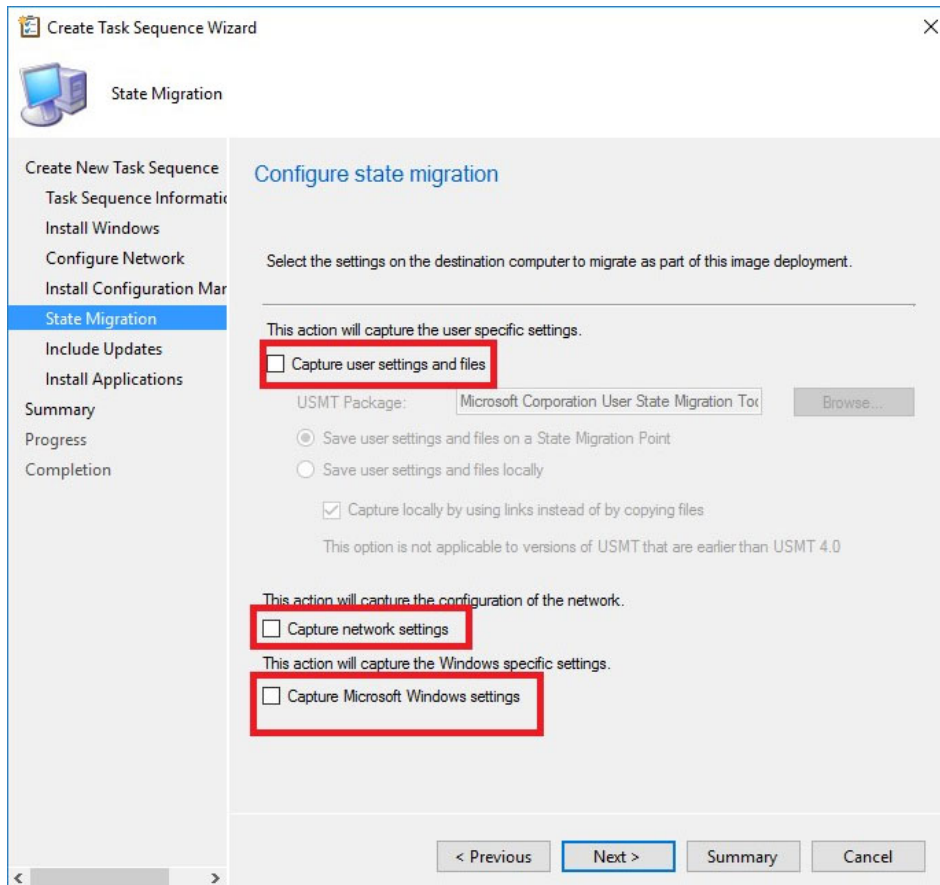   - Capture Microsoft Windows settings

Figure 33. State migration

9. On the **Include Software Updates** page, select **Do not install any software updates** check box, and click **Next**.
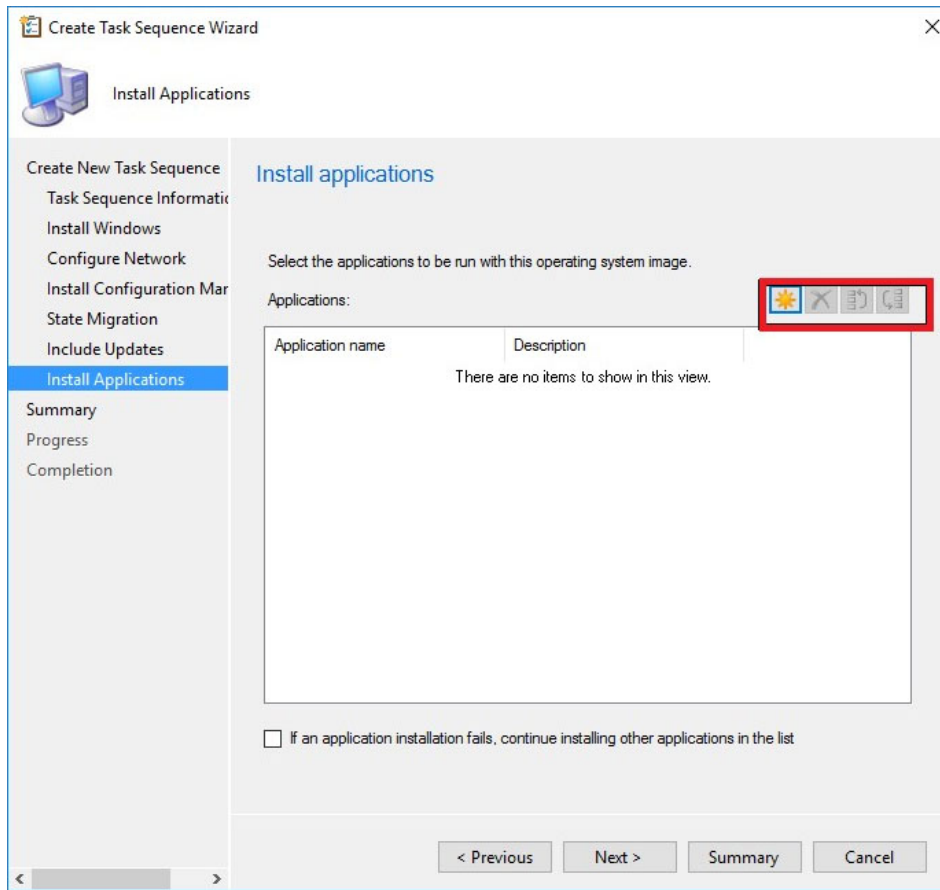10. On the **Install applications** page click **Next**.

Figure 34. Install applications

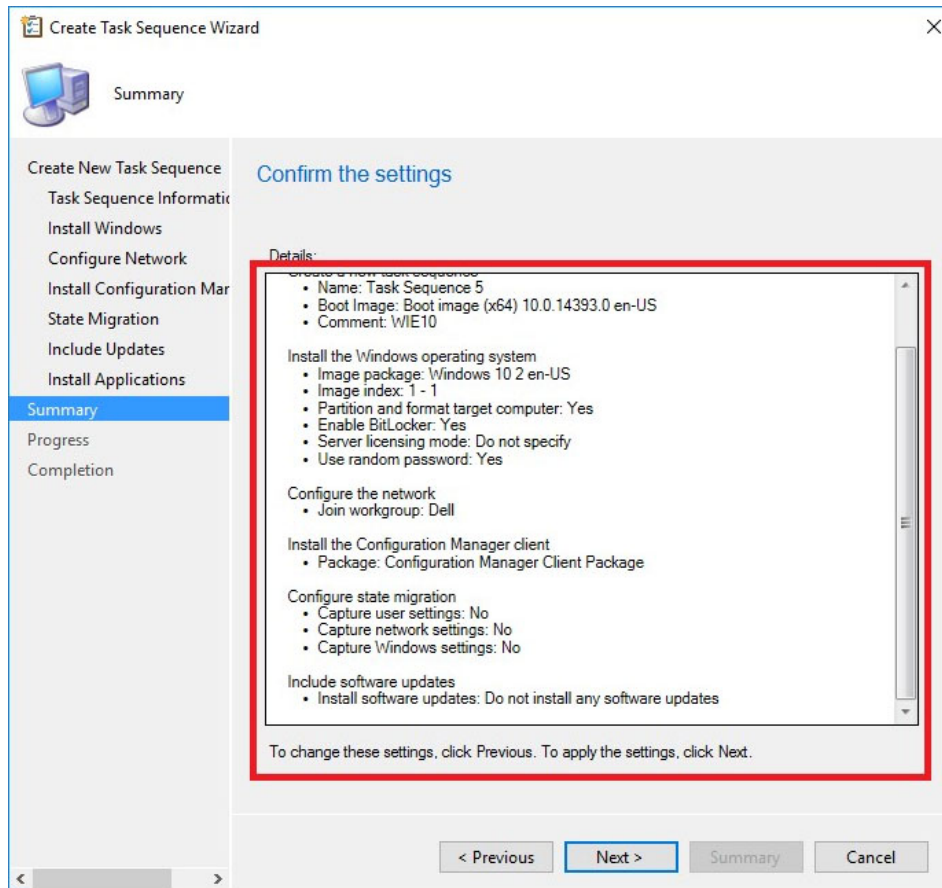11. On the **Summary** page, verify the information that you have provided, and click **Next**.

Figure 35. Summary page

The selected settings are applied.

12. Click **Close**.
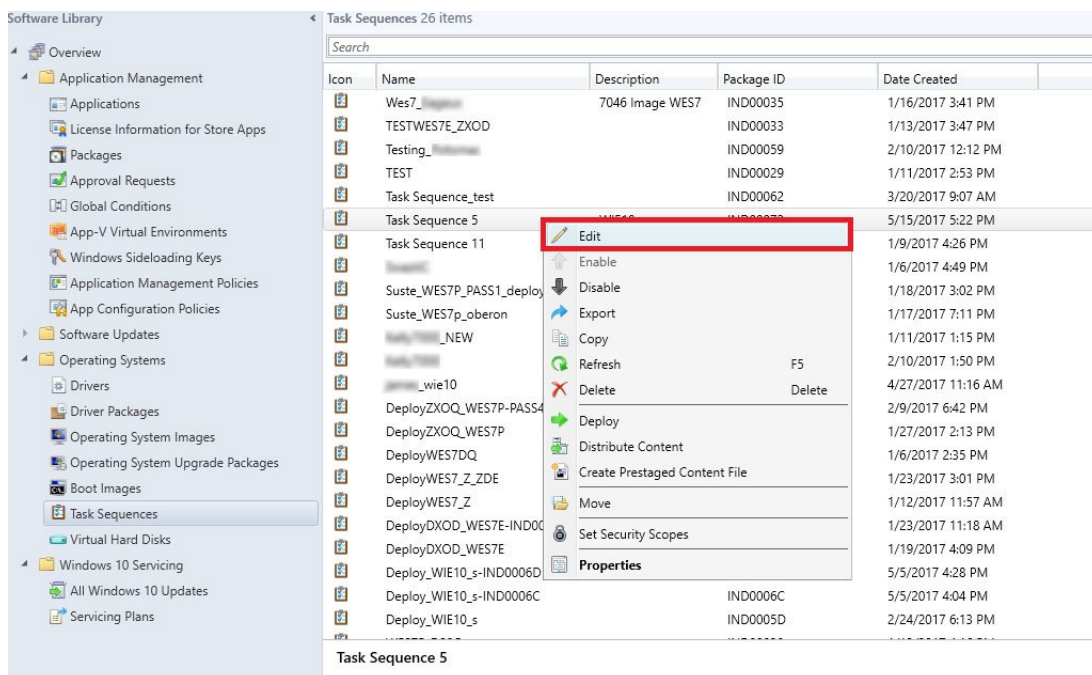13. Right-click the deployment task sequence, and click **Edit**.

Figure 36. Task sequence

14. In the Task Sequence Editor window, click **Capture Files and Settings**.

15. In the **Options** tab, select the **Disable this Step** check box and click **Apply**.
16. Click **Install Operating System**, and do the following:
17. Click the **Properties** tab, and add the following command line for mapping the network drive:

    ```
    net use \\IPAddress\share\PrepareOS_WIE10 password /user: domainname\User name
    ```

    > ⓘ **NOTE: Copy the `PrepareOSPartition.wss` file available in the `C:\windows\setup` folder to the Configuration Manager server's shared folder. The operating system partition file is used to format the operating system partition before deployment. For PowerShell ported images, the path is `C:\windows\setup\tools`.**

18. Click **Install Operating System**, and click **Add**.
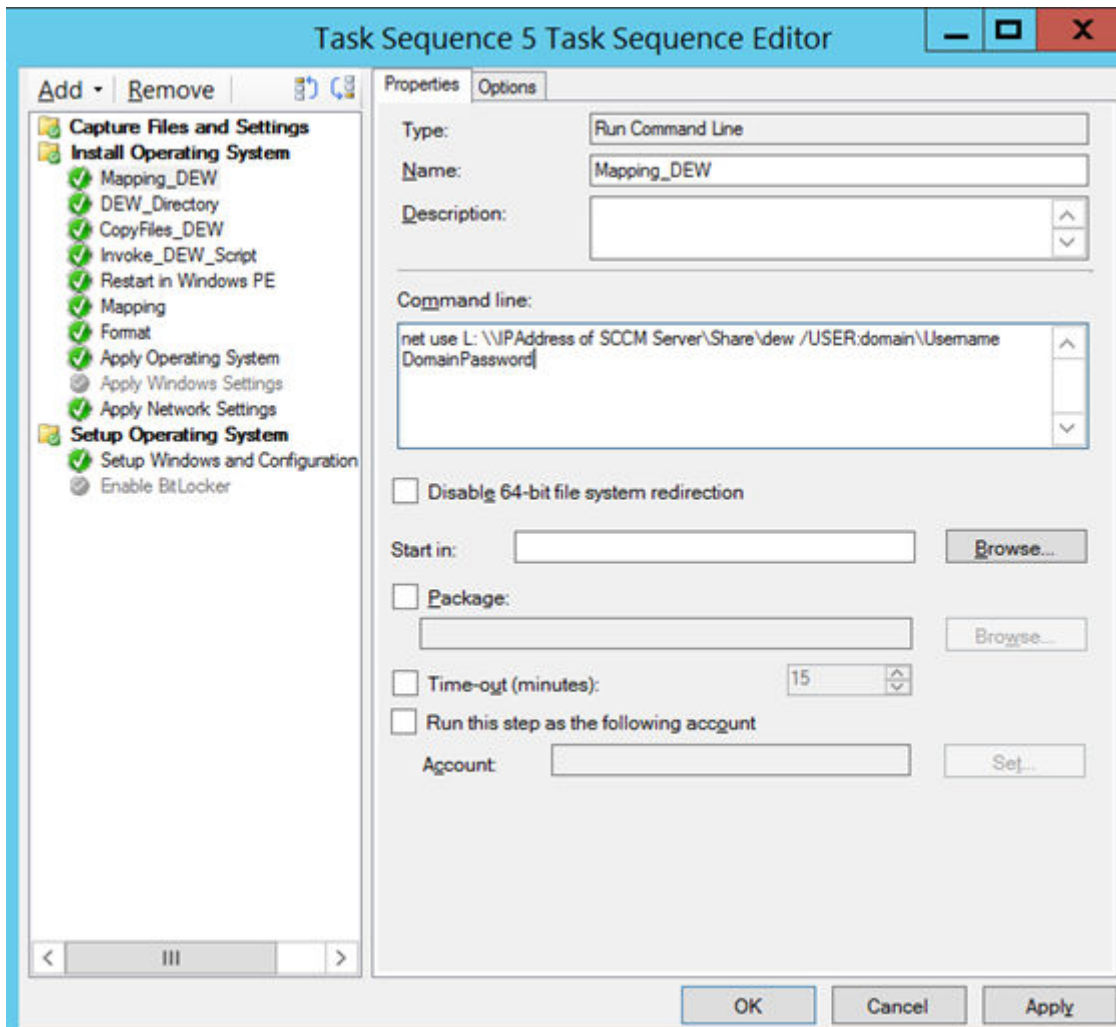19. In the **Properties** tab, enter `Mapping_DEW` in the **Name** field.

Figure 37. Mapping DEW

20. Enter the command line to map the network drive of the SCCM Server share where the DEW files are copied.
21. Create cmd scripts `execute-DEW-script.cmd` and `Task-sequence-dew-script.ps1`, and copy to the DEW folder in share path. For more information, see Pre-requisites to capture and deploy an operating system.
22. Click **Apply** and then click **OK**.
23. Click **Install Operating System**, and click **Add**.
24. In the **Properties** tab, enter `DEW_Directory` in the **Name** field.
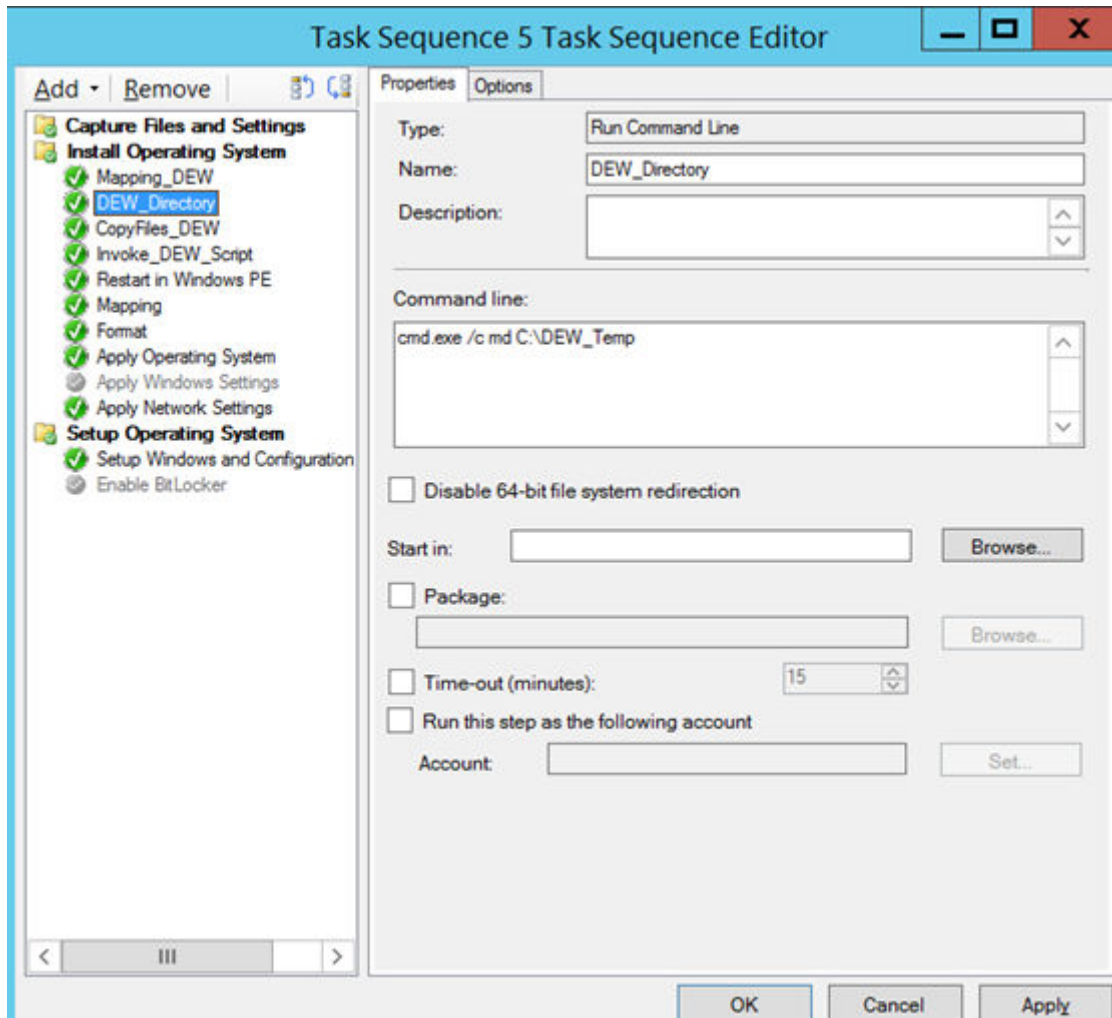
Figure 38. DEW_Directory

25. Enter `cmd.exe /c md C:\DEW\Temp` in the **Command line** field.

26. Click **Apply** and then click **OK**.

27. Click **Install Operating System**, and click **Add**.

28. In the **Properties** tab, enter `CopyFiles_DEW` in the **Name** field.
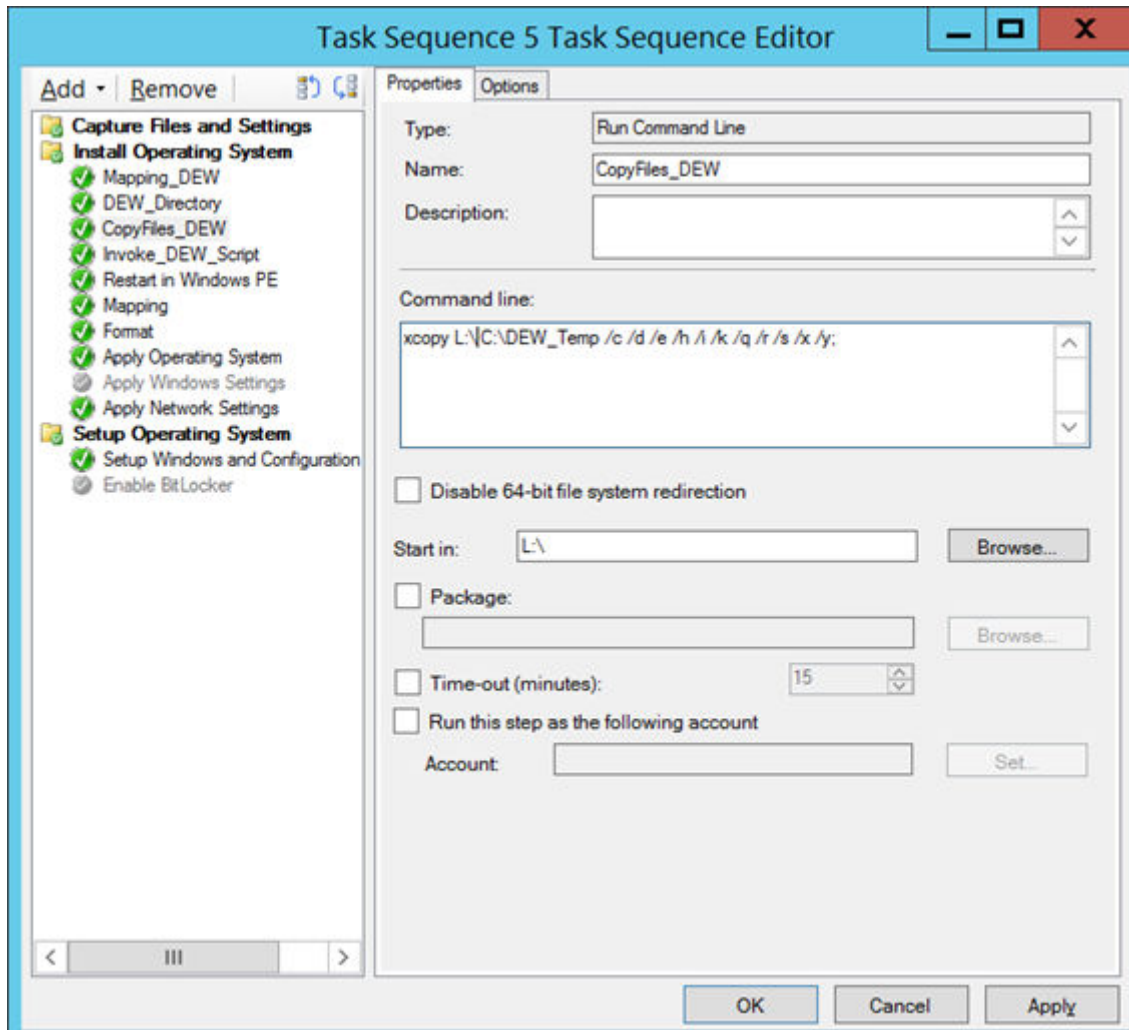
Figure 39. Copyfiles_DEW

29. Enter `xcopy L:\ C:\DEW_Temp /c /d /e /h /i /k /q /r /s /x /y` in the **Command line** field.
30. Click **Apply** and then click **OK**.
31. Click **Install Operating System**, and click **Add**.
32. In the **Properties** tab, enter `Invoke_DEW_Script` in the **Name** field.
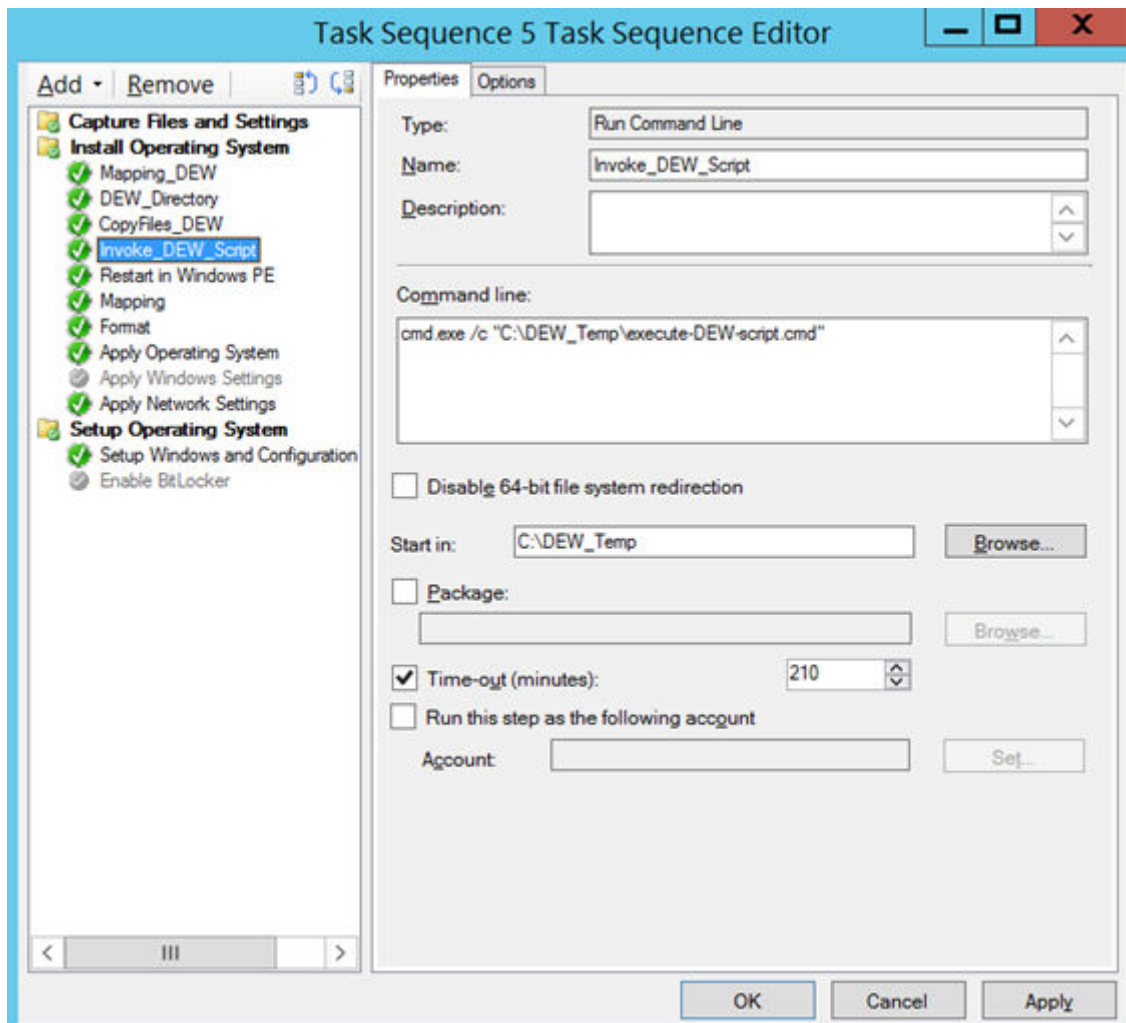
Figure 40. Invoke_DEW_Script

33. Enter `cmd.exe /c "C:\DEW_Temp\execute-DEW-script.cmd"` in the **Command line** field.

34. Type `C:\DEW_Temp` in the **Start** field.

35. Click **Apply** and then click **OK**.

36. Click **Install Operating System**, and click **Add**.

37. In the **Properties** tab, enter `Restart in Windows PE` in the **Name** field.
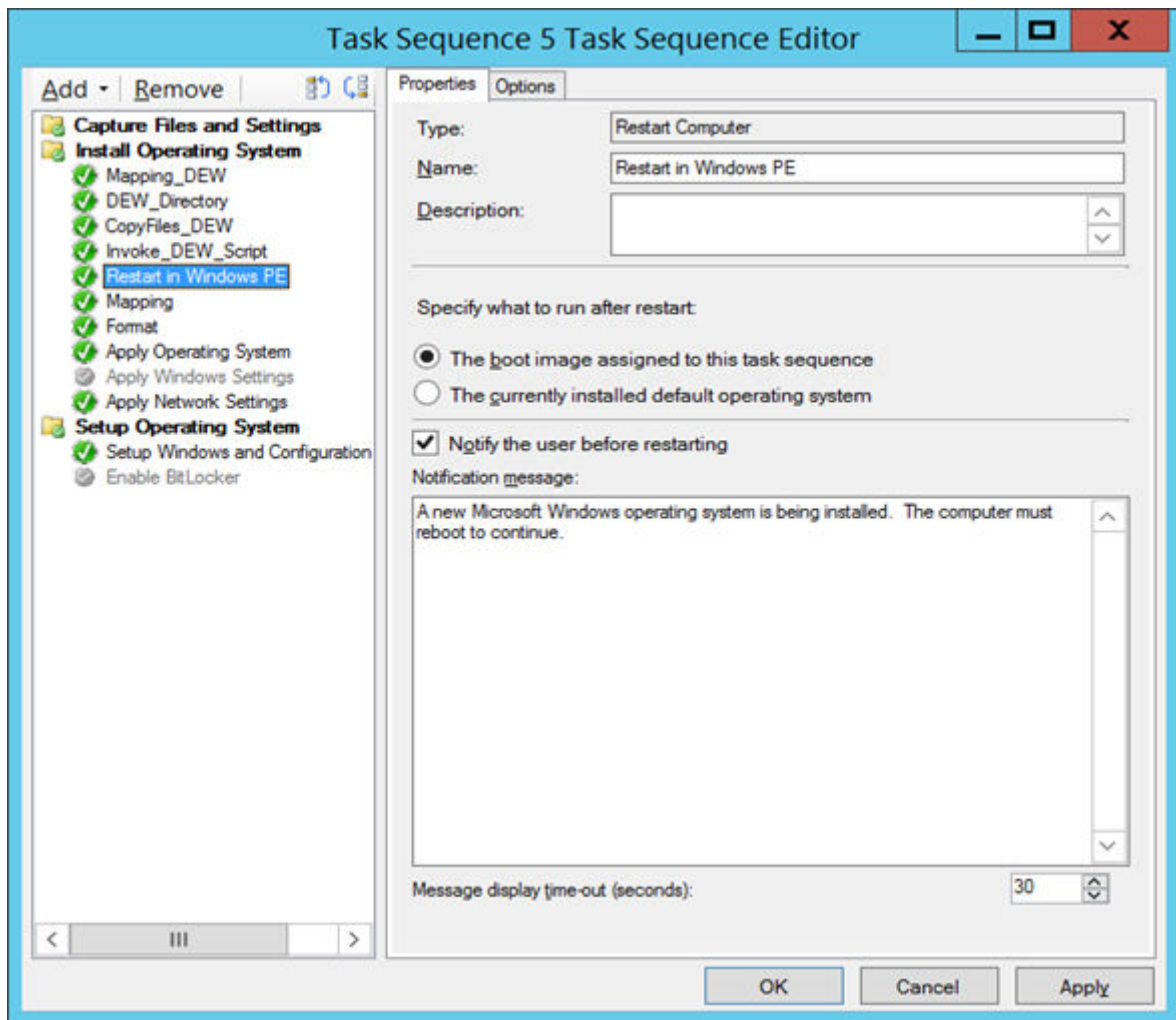
Figure 41. Restart in Windows PE

38. Click **Apply** and then click **OK**.

39. Click **Install Operating System**, and click **Add**.

40. In the **Properties** tab, enter `Mapping` in the **Name** field.
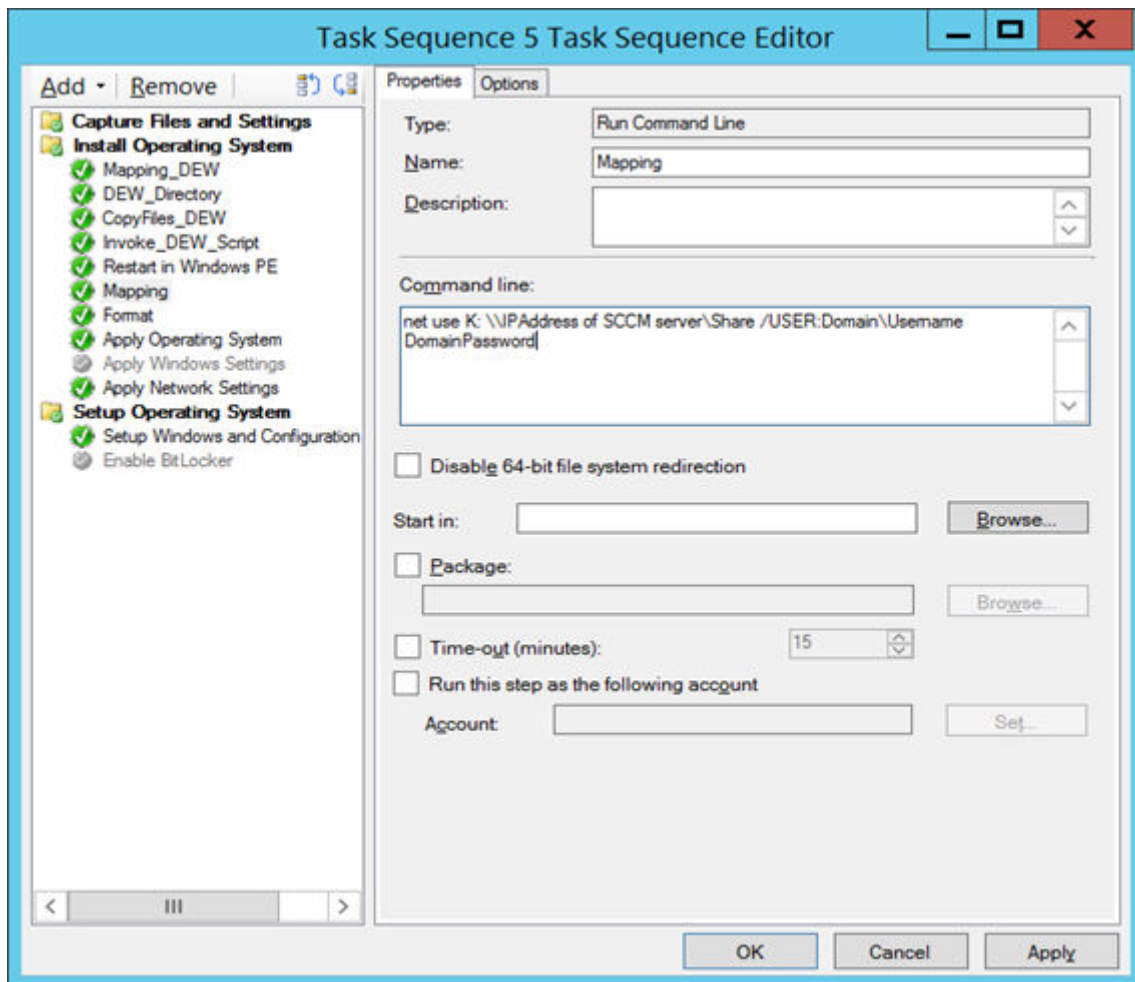
Figure 42. Mapping

41. Enter the command line to map the network drive of the SCCM Server share where the DEW files are copied.

42. Click **Apply** and then click **OK**.

43. Click **Install Operating System**, and click **Add**.

44. In the **Properties** tab, enter `Format` in the **Name** field.
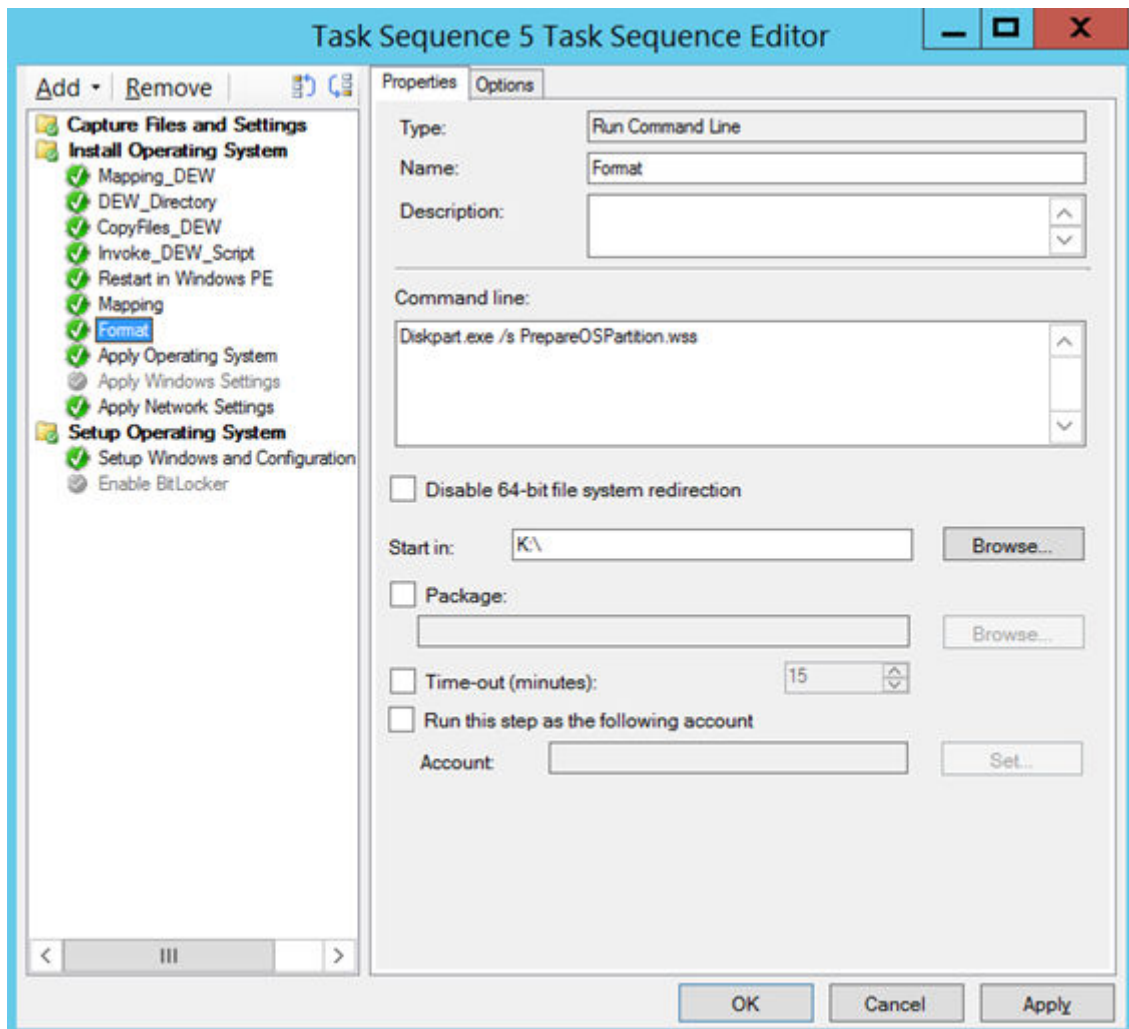
Figure 43. Format

45. Enter `Diskpart.exe /s PrepareOSPartition.wss` in the **Command line** field.

46. Enter `K:\` in the **Start in** field.

47. Click **Apply** and then click **OK**.

48. Click **Install Operating System**, and click **Add**.

49. Click the **Properties** tab, and do the following:

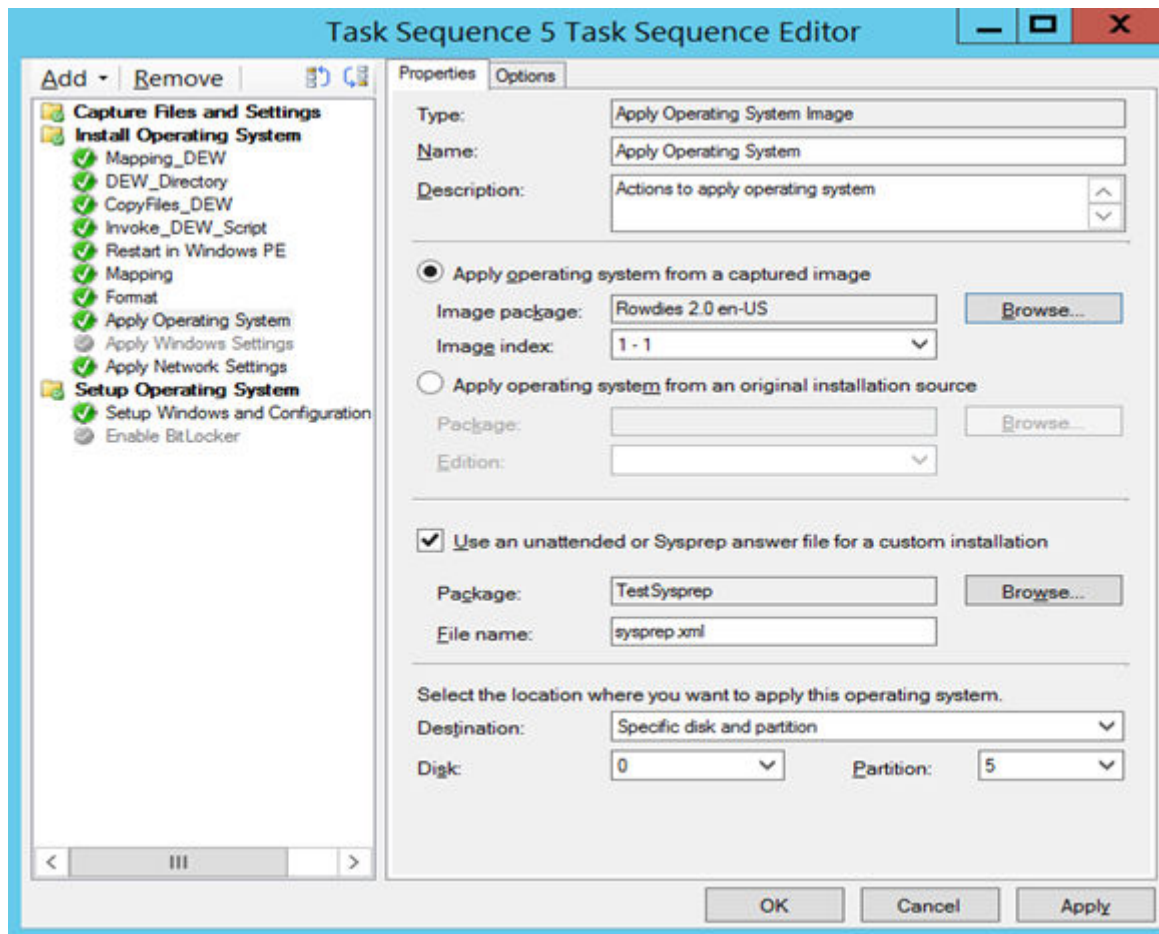   a) Click the **Apply an operating system from a captured image** radio button.

Figure 44. Apply Operating System

b) Browse to the location where you have placed the image package.

c) From the **Image index** drop-down list, select a value of the image. Ensure that the value is the highest of 1-1, 2-2, 3-3.

> (i) **NOTE: If only a single image exists, then by default the value is displayed as 1-1.**

d) Select the **Use an Unattended or Sysprep answer file for a custom installation** check box.

e) Browse to the location where you have placed the unattended installation software package created in step b.

f) In the **File name** field, enter the file name of the unattended installation software package.

g) From the **Destination folder** drop-down menu, select **Specific disk and partition for destination**.

h) From the **Disk** drop-down menu, select **0**.

i) From the **Partition** drop-down menu, select **5**.

j) Click **Apply** and then click **OK**.

50. Click **Install Operating System**, and click **Add**.

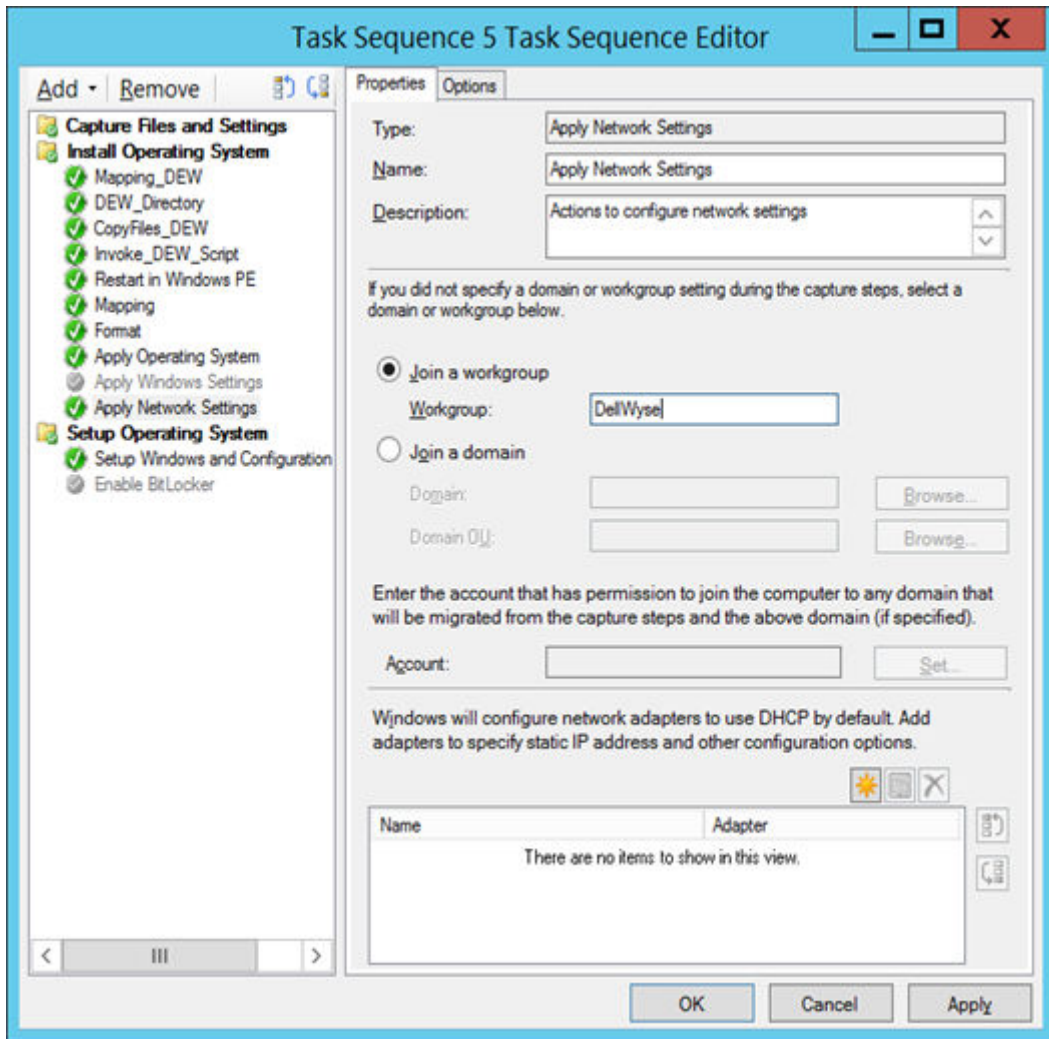51. In the **Properties** tab, enter Apply Network Settings in the **Name** field.

Figure 45. Apply Network Settings

52. Select the **Join a workgroup** radio button and specify the workgroup name.
53. Click **Apply** and then click **OK**.
54. Click **Setup Operating System**, and click **Add**.
55. In the **Properties** tab, enter `Setup Windows and Configuration Manager` in the **Name** field.
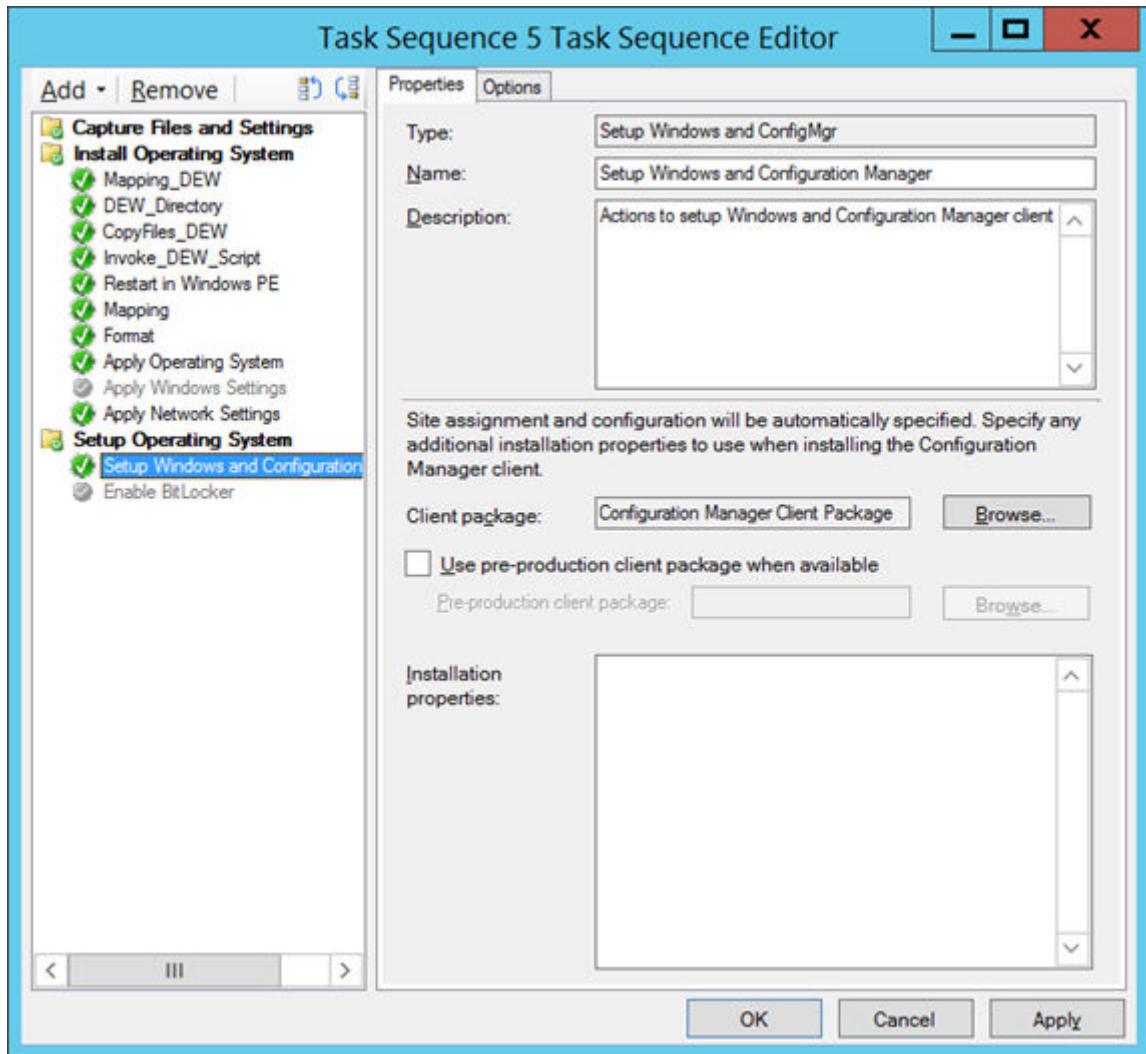
Figure 46. Setup Windows and Configuration Manager

56. In the **Client Package** field, browse and select Configuration Manager Client Package.

57. Click **Apply** and then click **OK**.

Deploying Windows reference image

To deploy the Windows reference image, do the following:

1. Right-click the created task sequence, and click **Deploy**.
2. Specify the collection to which you want to deploy the task sequence, and click **Next**.
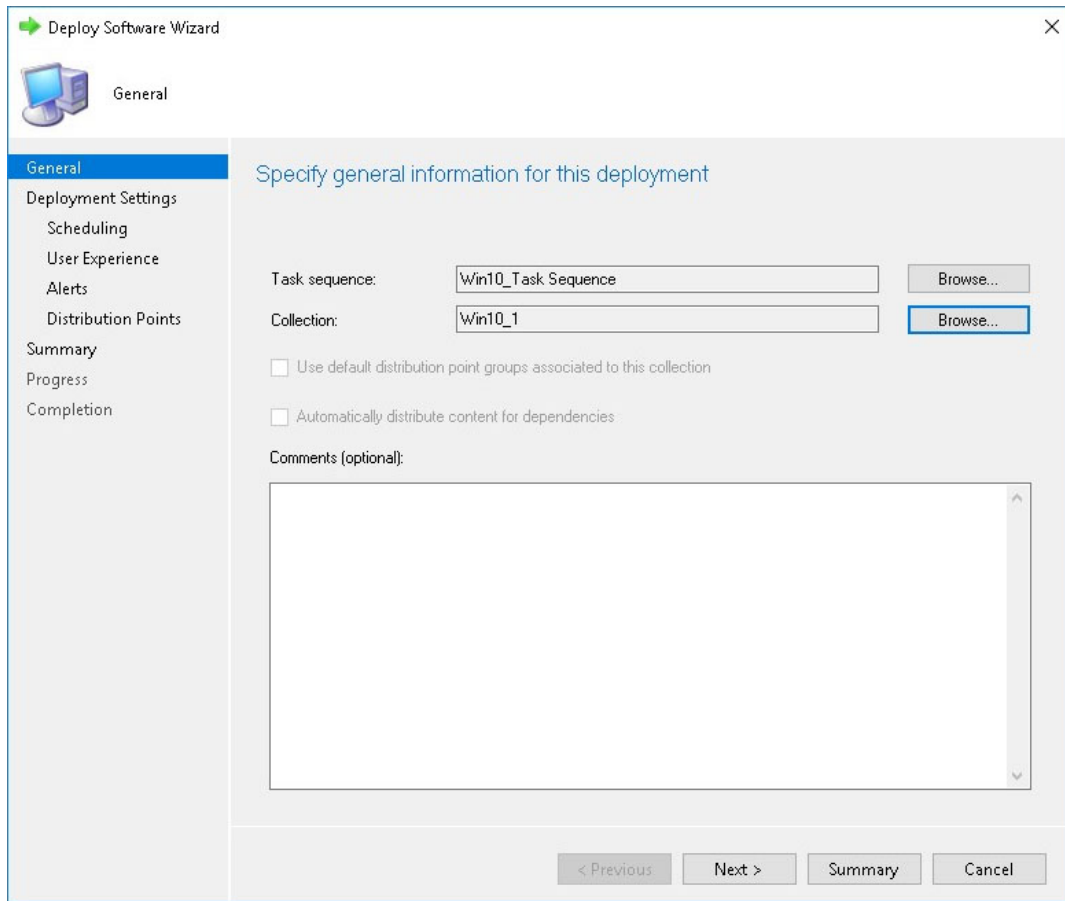
Figure 47. Deploy software wizard

3. On the **Specify settings to control how this software is deployed** page, select **Required** from the **Purpose** drop-down list.
4. To make this task sequence available for software deployment, select **Configuration Manager Clients, media and PXE** from the drop-down list and click **Next**.
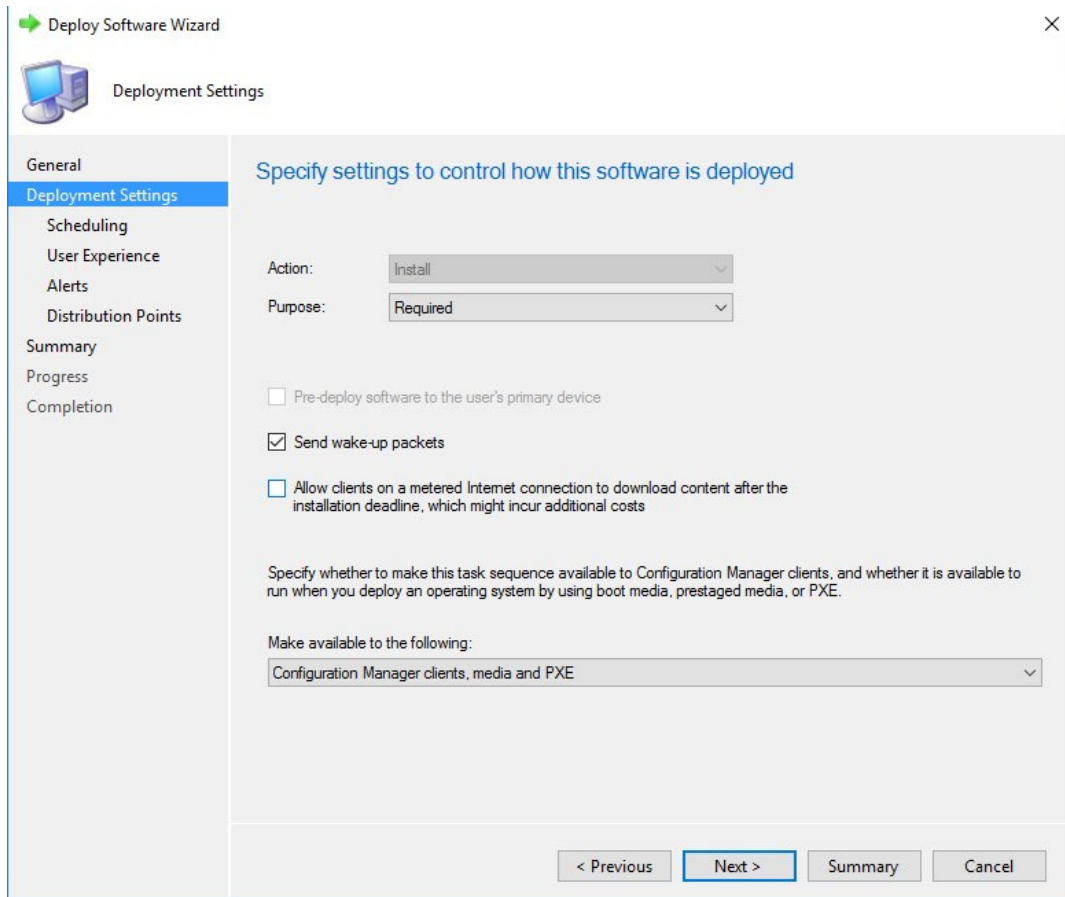
Figure 48. Deployment settings

5. On the **Specify the schedule for this deployment** page, click **New**.
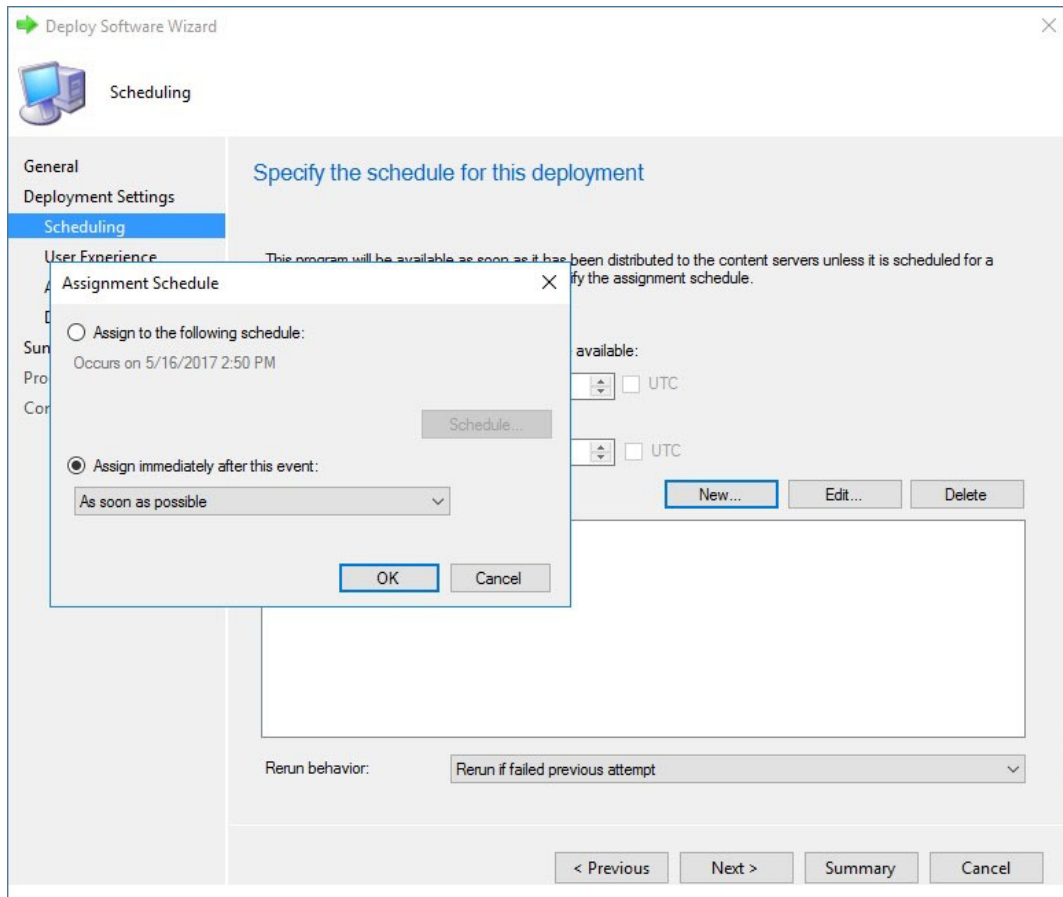
Figure 49. Assignment schedule

The **Assignment Schedule** window is displayed.

6. On the **Assignment Schedule** window, do one of the following:
   - Select the specific time to start the deployment.
   - Select the **As soon as possible** option to deploy the software after you complete the configuration.
7. In **Assignment Schedule** click **OK**.
8. On the **User Experience** page, retain the default options and click **Next**.
9. On the **Alert** page, retain the default options and click **Next**.

Figure 50. User experience

10. On the Distribution Points page, select the **Download content locally when needed by running task sequence** deployment opti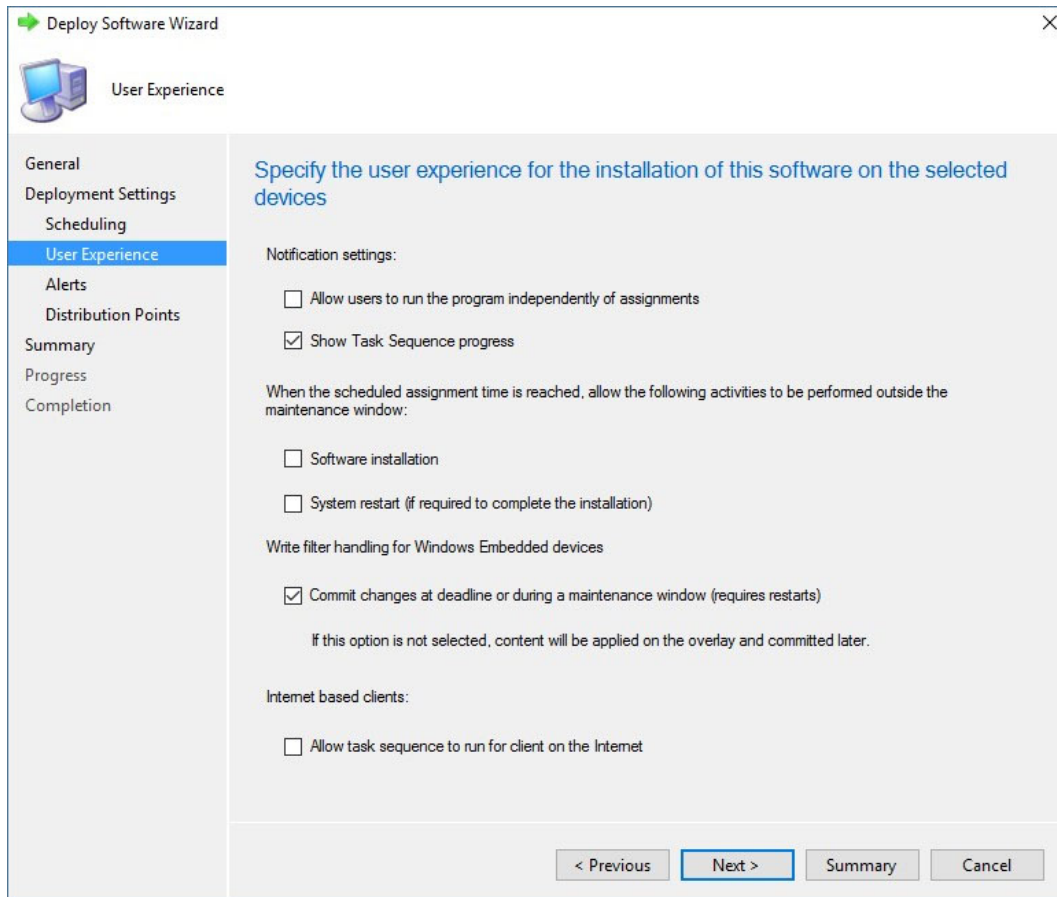on, and then select the **When no local distribution point is available, use a remote distribution point** option and then click **Next**.

11. On the Summary page, verify the details, and click **Next**, and then click **Close**.

    After the task sequence is complete, the thin client restarts in the Windows pre-installation environment.

    (i) **NOTE: Time for the advertisement to appear at the client side depends on the thin client and the user policy refresh interval time. It also depends on the server and network parameters such as server capacity to handle the clients and network traffic. If you do not receive an advertisement, go to Control Panel > Configuration Manager > Actions > Machine Policy Retrieval & Evaluation Cycle, and click Run Now.**
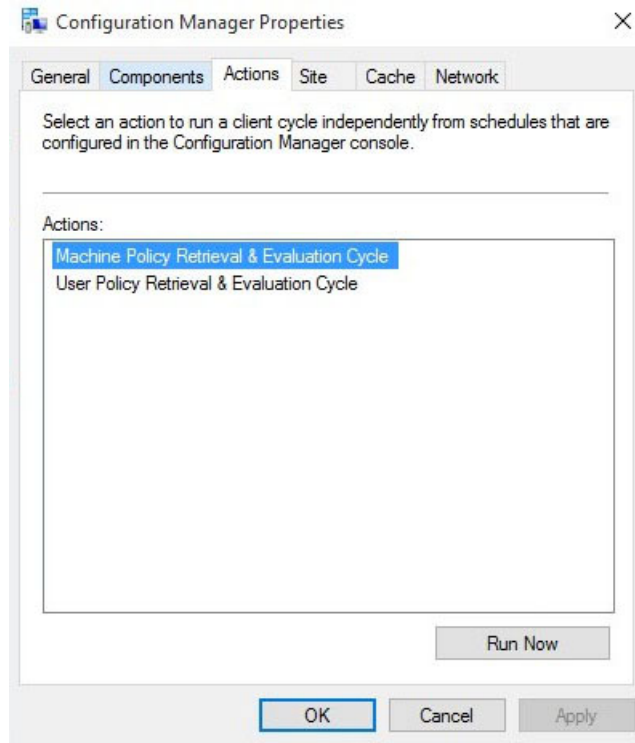
Figure 51. Configuration manager properties

12. Deploy the Windows 10 IoT Enterprise reference image.
    After successful deployment, the thin client automatically logs in using the local user account, and the Dell Wyse scripts run on the destination thin client. The scripts enable the Unified Write Filter, and restarts the thin client.

Pre-requisites to deploy software applications

The following are the pre-requisites to deploy the third party software applications:

- The device should be discovered in the Configuration Manager server.
- Disable the write filter.
- Obtain the latest application, and copy it to the local drive on the Configmgr site server's shared location `C:\ConfigMgr_packages\apps\`.
- The device should be a member of a collection that has a configured maintenance window. This configured maintenance window allows you to manage the device when the write filter is disabled and enabled, and when the device restarts.
- For more information about the application deployment with System Center 2016 Configuration Manager, see Deploy applications with System Center Configuration Manager at https://docs.microsoft.com/.

(i) **NOTE:**

- **When you deploy applications to the devices running Windows 10, that are write-filter-enabled, you can specify whether to disable the write filter on the device during the deployment. After you disable the write filter, restart the device. If the write filter is not disabled, the software is deployed to a temporary overlay, and the software is not installed when you restart the device.**
- **In the Deploy Software Wizard, the user experience setting that controls the write filter behavior is a check box named Commit changes at deadline or during a maintenance window.**

For more information on managing Windows Embedded devices that are write-filer enabled, see blogs.technet.microsoft.com and Planning for client deployment to Windows Embedded devices in System Center Configuration Manager at https://docs.microsoft.com/.

Prerequisites to capture and deploy an operating system

- When capturing an operating system image by using capture media task sequence, ensure that the `FODPacks` folder is not present in the C drive. If there is any `FODPacks` folder, delete the folder.
- When you deploy an operating system image to the client by using a task sequence, the size of the wim file that is captured using the capture media and the size of the used space of drive C in the reference device put together must be less than the capacity of drive C.

  For example, if the size of the wim file that is captured from reference device is 8 GB, the size of the used space in the drive C is 17 GB, then you can deploy the wim file only if the capacity of operating system drive is greater than 25 GB.

  1. Create a text file with name `execute-DEW-script` and copy the following content to the file:

     ```
     %Windir%\System32\WindowsPowerShell\v1.0\powershell.exe -command Set-ExecutionPolicy
     Unrestricted

     %Windir%\System32\WindowsPowerShell\v1.0\powershell.exe  "C:\DEW_Temp\Task-sequence-dew-
     script.ps1"
     ```

  2. Save the text file in the `SCCM Share DEW` folder with name `execute-DEW-script.cmd`.
  3. Create a text file with name `Task-sequence-dew-script` and copy the following content to the file:

     ```
     #C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe Set-ExecutionPolicy -
     ExecutionPolicy Unrestricted
     #Get GUID
     $id = Get-WmiObject -Class Win32_Volume |Where-Object {$_.Name -like "C:\DEW\"} | Select-
     Object -property "DeviceID"
     #Set-Volume -UniqueId $test.DeviceID -NewFileSystemLabel DEW_VOLUME`

     #formatting DEW volume
     Format-Volume -Path $id.DeviceID -FileSystem NTFS -Force -Full
     $service = "DEWSERVICE"
     Set-Service -Name $service -StartupType Disabled
     New-Item -path 'C:\DEW\DEW_VOLUME' -ItemType Directory
     New-Item C:\DEW\DEW_VOLUME\DEW.txt
     Set-Content C:\DEW\DEW_VOLUME\DEW.txt 'DEW_PARTITION'
     ```

  4. Save the text file in the `SCCM Share DEW` folder with name `Task-sequence-dew-script.ps1`.

(i) **NOTE:**

It is recommended that the size of the wim file and the used space put together is 1 GB less than the size of drive C for better performance during imaging.

Creating software package for unattended installation

You must create a software package for unattended installation. Unattended installation is an automated installation technology that you can use to install or upgrade an operating system with minimal user intervention.

(i) **NOTE: Copy the `C:\windows\setup\sysprep.xml` file (for legacy scripts) and `C:\windows\setup\tools\sysprep.xml` file (for PowerShell ported scripts) with supported images to the `\SCCMserver\share-folder` location on the Configuration Manager server. The .xml file must be accessible by the Configuration Manager server.**

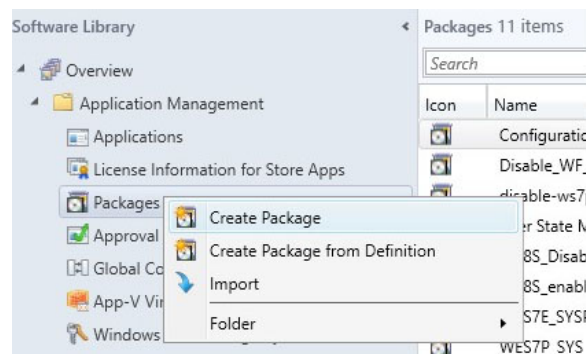1. Expand **Software Library** > **Overview** > **Application management** > **Packages**.

Figure 52. Packages

2. Right-click **Packages** and click **Create Package**.
3. Enter the package name, description, manufacturer name, language, and version.
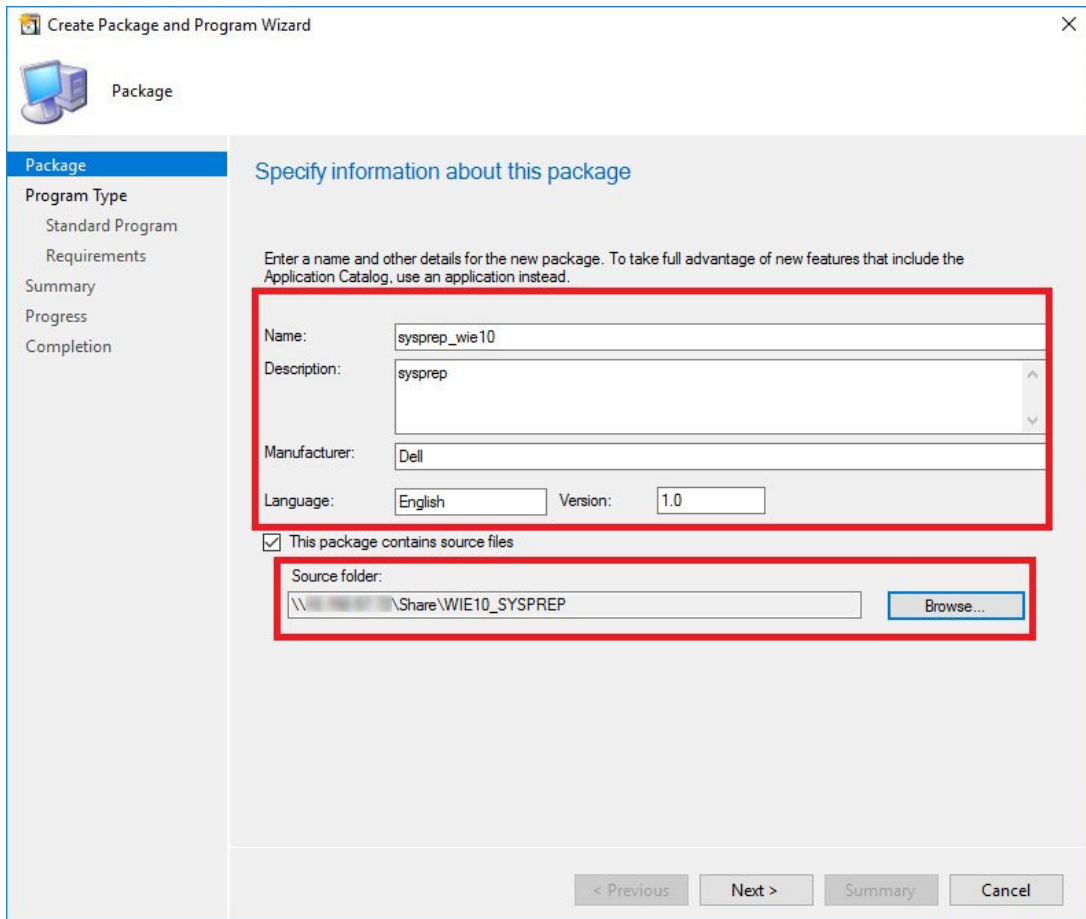
Figure 53. Information about package

4. Browse to the source folder where you have copied the sysprep files.

5. Click **Next**.

6. Select **Program for device** radio button, and then click **Next**.

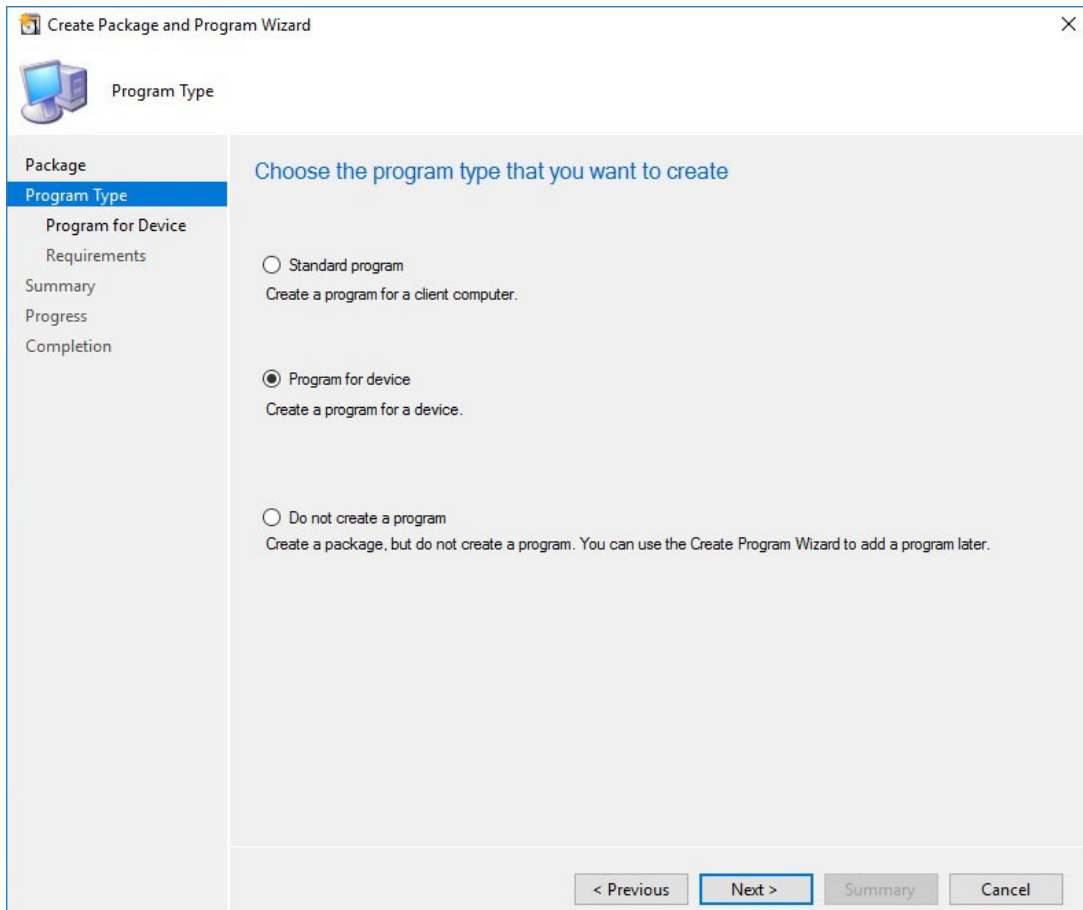   ⓘ **NOTE: Based on your requirement, you can select any one of the options available on the Program type page.**

Figure 54. Program type

7. Enter the package device information, and click **Next**.
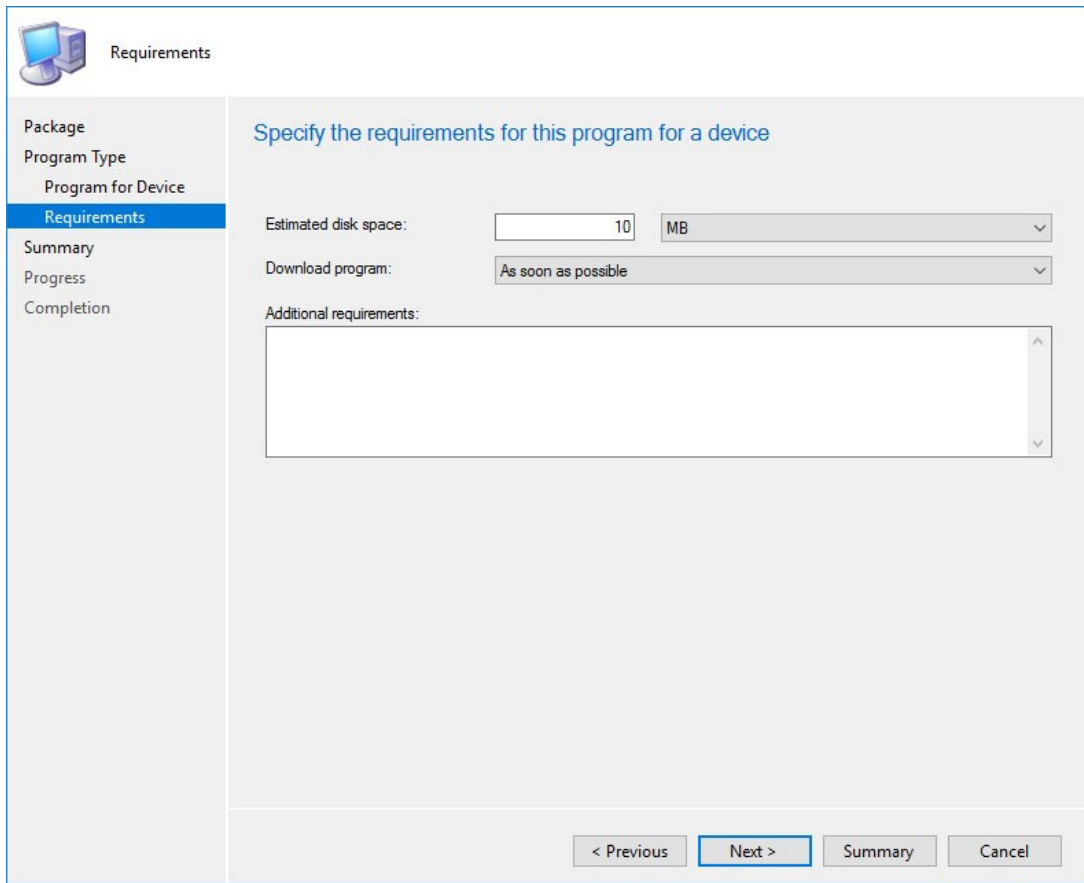8. Enter the estimated disk space, and click **Next**.

Figure 55. Estimated disk space

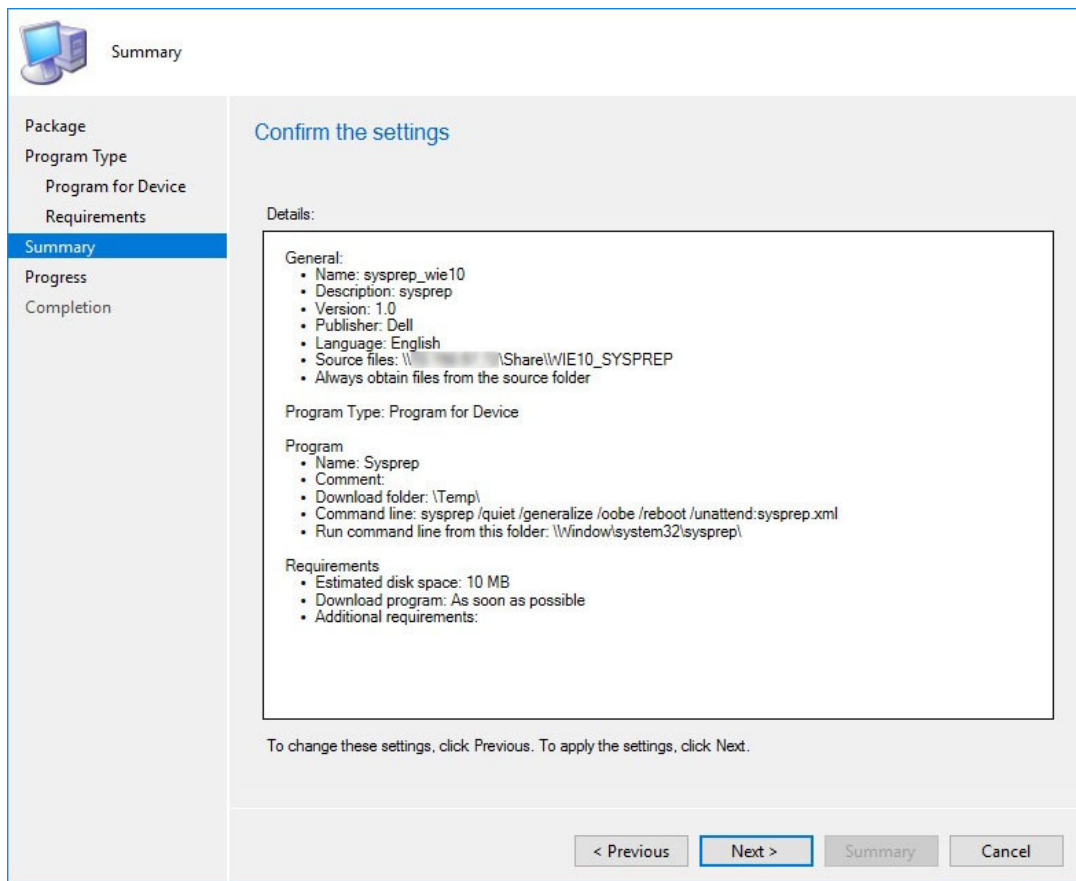9. Verify the information that you have provided and click **Next**.

Figure 56. Summary page

The settings are applied.

10. Click **Close**.
11. In the **Distribute Content** wizard, right-click the software package which you have created, and click **Distribute content**.
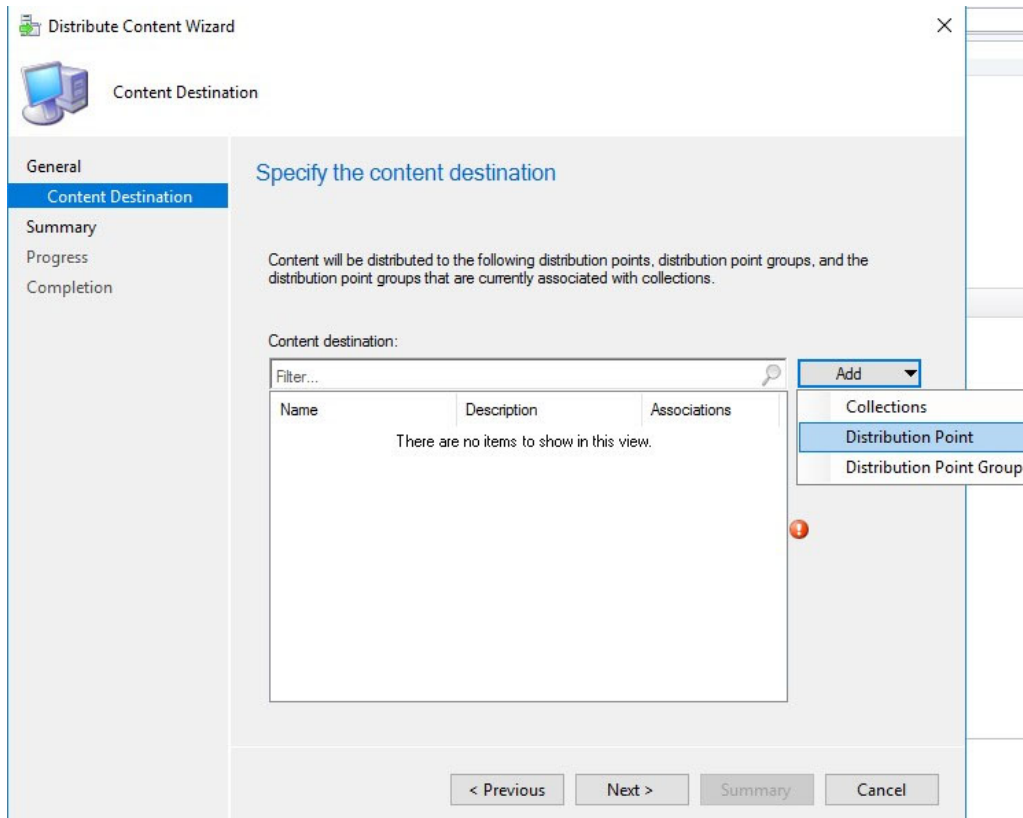
Figure 57. Content destination

12. From the **Add** drop-down list, select **Distribution Point**.
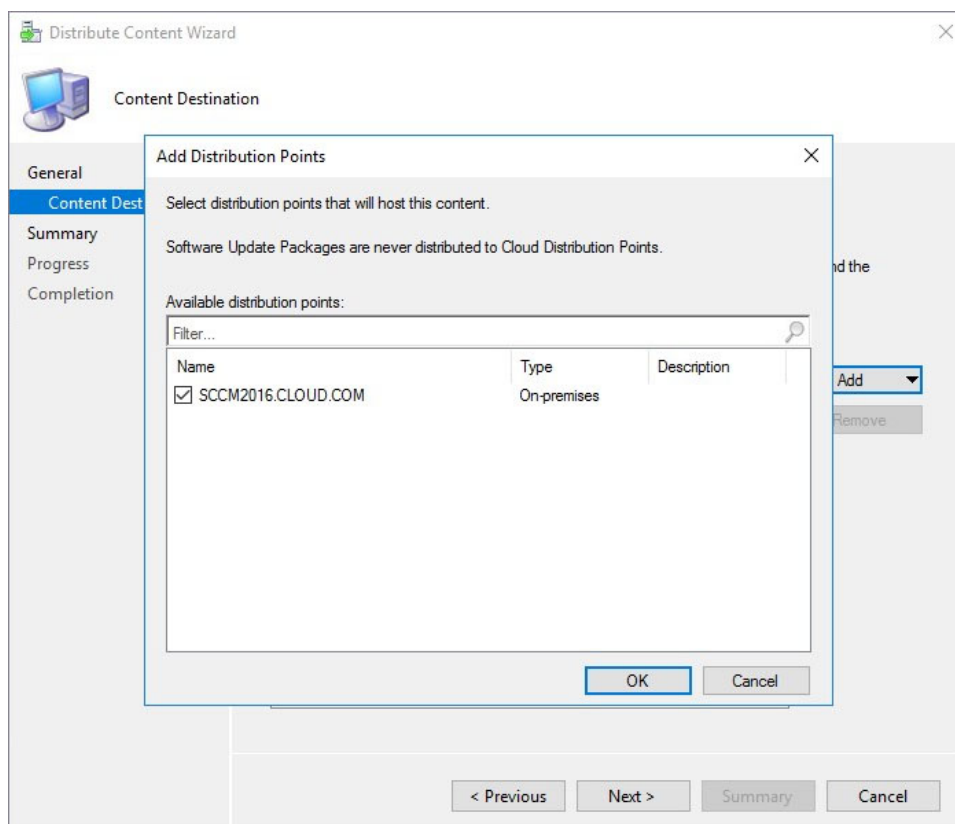

Figure 58. Add distribution points

13. In **Available distribution points**, select the check boxes applicable to the distribution points that host your content, and click **OK**.
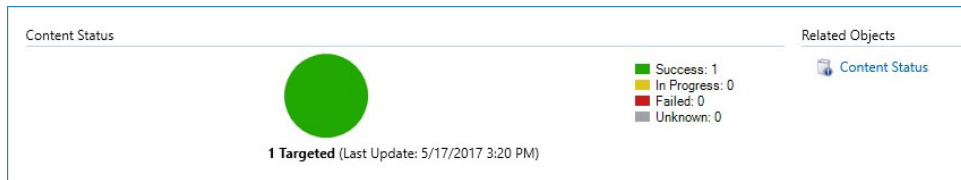14. Click **Next**.

Figure 59. Content status

The content status is displayed in green. It may take a few minutes to complete the distribution process.