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

Administrator's Guide



#### Notes, cautions, and warnings

(i) 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.

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# Introduction

System Center Configuration Manager (SCCM) is a system management software by Microsoft for managing large groups of Windowsbased 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
- $\cdot$  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.

# 2

# 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:

- 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.

Search		A
All Objects Searches + Settings Scope Options Save Current Sa Search	Search As	
Software Update     Software     Software Update     Software     Software Update     Software     Software Update     Software     Softwa	Poperating Systems     Operating Systems     Navigation Index     Margadian Index     Divers Manage device driver catalogs to deploy operating systems.     Operating System Image: Manage Windows image files for operating system deployment.     Boot Image: Manage to device driver catalogs to deploy operating system.     Virtual Hard Disk: Manage Virtual Hard Disks.     Recent Alerts (0) - Last updated: 5/26/2017 4:52:41 PM	to the sequences of the sequences that automate steps or tasks on client computers.     Task Sequences: Manage task sequences that automate steps or tasks on client computers.
Assets and Compliance		

#### 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.

Import New Driver Wizard		×
Locate Driver		
Locate Driver Driver Details Add Driver to Packages Add Driver to Boot Image Summary Progress Completion	Specify a location to import driver This wizard allows you to import one or more drivers. You can let Configuration Manager find all drivers in the given network path or specify a specific driver to import.  Import all drivers in the following network path (UNC)	7
	Source folder: \\ \Share\LAN_Driver Browse	
	O Import a specific driver by specifying the network path (UNC) to its .inf or btsetup.oem file	
	Source: Browse	
	Specify the option for duplicate drivers	
	Import the driver and append a new category to the existing categories $\qquad \checkmark$	
< >	< Previous Next > Summary Cancel	

#### Figure 2. Locate driver

() 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.

Import New Driver Wizard						×
Driver Details						
Locate Driver Driver Details Add Driver to Packages	Specify the details for the	importe	ed driver			
Add Driver to Boot Image	The following drivers will be imported fr	om folder:				
Summary	\\ \Share\LAN_Driver\					
Progress	Hide drivers that are not in a stora	e or netw	ork class (for boot	images)		
Completion	Hide drivers that are not digitally si	aned		-		
	Filter File Name M ver_Repo_WES7E\Z_ZDE M WIN7\64\vt64win7.inf M WIN7\WinPE\32\vws86win7 M WIN7\WinPE\64\vws64win7	Net	Architecture x86 x64 x86 x64 x64	Version 7.101.714 7.101.714 7.101.714 7.101.714	Yes Yes	¢ •
		Se	elect All	Cle	ear All	
	Enable these drivers and allow con Assign this driver to one or more categ	ories for fil		Summary	Categorie	es
< >	< PIEVI		IVEAL			incer

#### 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**.

Import N	Jew Driver Wiz	zard				×
	Add Driver to	Packages				
Locate Driv			ackages to add the	imported drive	r	
Driver D Add Dri	Create Dr	river Package				×
Add Dri	Specify the fo	bllowing information for the	e new driver package.			
Summary	Name:	MyNewPackage				n use
Progress	Comment:				,	
Completio						
						-
	Canada a mat	under anthe (UNIC) under an of	onfiguration Manager stores (	a succession and a subject of the su		
	Path:		1_share\Package	invers added to this h	Browse	
		Example: \\servernam				-
				OK	Cancel	
-		L				
			< Previous	Next >	Summary	Cancel
<		>				

#### Figure 4. Create driver package

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

Import New Driver Wizard  Add Driver to Pac				×
	ind geo			
Locate Driver Driver Details	Select the packages to a	add the imported driver		
Add Driver to Packages Add Driver to Boot Image	Specify the package to add this dri	verto.		
Summary Progress	Drivers must be added to package: them. Distribution points can be up	dated immediately.		
Completion	It is recommended that you add all	required drivers before updating the	e package.	
	Name	Package ID	Select All	
	MyNewPackage	VSC0003F	Clear All	
			New Package	
< >	< Pre	vious Next > S	ummary Cancel	

#### 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.

Software Library <	Driver	Packages 1 items			
<ul> <li></li></ul>	Search	2			
🔺 🚞 Application Management	lcon	Name	 A :	Version	Package ID
<ul> <li>Applications</li> <li>License Information for Store Apps</li> <li>Packages</li> <li>Approval Requests</li> <li>Global Conditions</li> <li>App-V Virtual Environments</li> <li>Windows Sideloading Keys</li> <li>Application Management Policies</li> <li>App Configuration Policies</li> <li>App Configuration Policies</li> <li>Software Updates</li> <li>Software Updates</li> <li>Software Updates</li> <li>Software Updates</li> <li>Software Updates</li> <li>Software Updates</li> <li>Deployment Packages</li> <li>Automatic Deployment Rules</li> <li>Operating Systems</li> <li>Drivers</li> <li>Operating System Images</li> <li>Operating System Upgrade Packages</li> <li>Software Upgrade Packages</li> <li>Soperating System Upgrade Packages</li> <li>Soperating System Upgrade Packages</li> <li>Boot Images</li> </ul>		MyNewPackage	Show Members Export Refresh Delete Distribute Content Update Distribution Points Create Prestaged Content File Manage Access Accounts Move Set Security Scopes Properties	F5 Delete	VSC0003F

#### Figure 6. Distribute content

**19.** On the **General** page, click **Next**.

Distribute Content Wizar           General	d
General Content Destination Summary Progress Completion	Review selected content         You have selected the following content for distribution.         Content:         WES
	Some content might have associated dependencies that must be installed before the content can be installed.  Detect associated content dependencies and add them to this distribution
	< Previous Next > Summary Cancel

#### Figure 7. Review selected content

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

Distribute Content Wiz          Content Desti	
General Content Destination Summary Progress Completion	Specify the content destination Content will be distributed to the following distribution points, distribution point groups, and the distribution point groups that are currently associated with collections. Content destination:
	Filter P Add 🔻
	Name     Description     Associations       There are no items to show in this view.     Distribution Point       Distribution Point Group
	< Previous Next > Summary Cancel

#### 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.

General	Add Distribution Points	×
Content Des Summary Progress Completion	Select distribution points that will host this content. Software Update Packages are never distributed to Cloud Distribution Points. Available distribution points:	nd the
	Filter  Ivame Iype Description  COM On-premises	<u>A</u> dd ▼ <u>R</u> emove
	OK Cancel	

Figure 9. Add distribution points

# () 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.



< Boot Images 4 items

#### Figure 10. Content status

#### 25. Click Software Library.

26. Expand Overview > Operating System > Boot Images.

Software Library

27. Right-click the appropriate boot image, and select Properties.

		-					
🗇 Overview	Search	Ь					
A 🧮 Application Management	lcon	Name		*	Version		Commen
Applications		Boot	imaq	e (x64)	10.0.14393.0	1	
🙀 License Information for Store Apps		Boot	a	Refresh		F5	
🛐 Packages		Boot	X	Delete		Delete	
📝 Approval Requests	100	WES7	-	Distribute Conte	nt		
[]#]] Global Conditions			2	Update Distribut	tion Points		
💐 App-V Virtual Environments			1	Create Prestage	d Content File		
Ҡ Windows Sideloading Keys			30	Manage Access	Accounts		
Application Management Policies			8	Move			
🙀 App Configuration Policies			8	Set Security Sco	nes		
Software Updates			Ē				
🛃 All Software Updates				Properties			
🖏 Software Update Groups							
🔂 Deployment Packages							
📄 Automatic Deployment Rules							
<ul> <li>Operating Systems</li> </ul>							
Drivers							
📑 Driver Packages							
騹 Operating System Images							
Notes and the second se							
👼 Boot Images							

#### 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.

# () 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.

#### () 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.
  - () 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.
  - 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.
- Select Create Task Sequence Media. The Create Task Sequence Media Wizard window is displayed.
- 5. Select the Capture Media radio button, and click Next.

Select the type of new media (CD, DVD, or USB flash drive) or the file used to deploy or capture an operating system.
<ul> <li>Stand-alone media Creates media used to deploy operating systems without network access.</li> </ul>
<ul> <li>Bootable media</li> <li>Creates media used to deploy operating systems using ConfigMgr infrastructure.</li> </ul>
Capture media     Creates media used to capture an operating system deployment image from a reference computer
<ul> <li>Prestaged media Creates a file to be prestaged on a new hard drive that includes an operating system image.</li> </ul>
Select this checkbox to enable unattended operating system deployment. An unattended operating system deployment does not prompt for network configuration or optional task sequences.
Allow unattended operating system deployment.

#### 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.

Create Task Sequence           Media Type		
Select Media Type Media Type	Specify the media type	
Boot Image Summary Progress	Specify whether the media for this image deployment will use CD/DVD media or removable USB drive.	
Completion	O Removable USB drive	
	Format removable USB drive (FAT32) and make bootable	
	CD/DVD set     Media size:	l
	Specify the name and path where the output files will be written. If multiple pieces of media are required, a sequence number will be appended to the name for each piece of media.	l
	Media file: \\ \SCCM1_share\Package\Win10is Browse	
	< Previous Next > Summary: Cancel	

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.

Boot Image			
Gelect Media Type Media Type	Select the boot in	nage for the media	
Boot Image Summary Progress	Specify the boot image t used to create the media	hat is run from the media and the distribution point to a.	download the content
Completion	Boot image:	Boot image (x64)	Browse
	Distribution point:	.COM	Browse

#### 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.

🆏 Image Capture Wizard	×
	Welcome to the Image Capture Wizard This wizard guides you through capturing a snapshot of one or more of the hard disk drives of this computer. Ensure that this machine is not a member of a domain and then click next to continue.
	< Previous Next > Cancel

#### 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  $\ensuremath{.wim}$  file name extension

Enter the destination	on and file nam	e for the captured operating sys	tem image
estination:	//	\Win 10Image.wim	Browse
or network paths, e	enter the accou	unt and password used to access	s the path.
Account Name			
Account Name:			

#### 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.

#### Configuration Manager Properties



X

#### 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.

Assets and Compliance	<	Device	Collections 12 items
🔺 🍧 Overview		Search	1
🔏 Users		lcon	Name
🚇 Devices		4	All Desktop and Server Clients
💰 User Collections		ø	All Mobile Devices
Device Collections		ø	All Systems
🌡 User State Migrat 🖉 🤇	Create Device Collectio	on	nknown Computers
🕨 🚞 Asset Intelligence 🔖 I	mport Collections		oy27
🗒 Software Meterin 👼 🛚	Vlanage Device Catego	ories	spush
🕨 🚞 Compliance Settin	Folder		•
Endpoint Protection		0	wie
🕨 🚞 All Corporate-owned De	vices	0	WIE Test
		0	wie10
		0	WIENEW

#### 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.

embership Rules mmary	Specily details in	or this collection	
ogress	Name:	WIE10_1	
Completion	Comment:	WILTUIT	0
	Last update		Last membership change

#### 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.

Membership Rules	1				
General Membership Rules Summary	Define membershi	ip rules for this	collection		
Progress Completion	Membership rules determi can use membership ruler membership can also incl objects that are members Membership rules:	s to add a specific obje ude or exclude other c	ect or a set of object ollections. Members	cts from a query. The	e collection
	Rule Name	There are no item	Type ns to show in this vi	Collection	ld
		tes for this collection e periodically evaluates option does not requir ate on this collection	e you to schedule a	a full update for this	
		< Previous	Next >	Summary	Cancel

#### Figure 21. Membership Rules

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

Summary General Membership Rules	Confirm the settings
Summary Progress	Details:
Completion	General • Collection Name: WIE10_1 • Comment:
	To change these settings, click Previous. To apply the settings, click Next.
	< Previous Next > Summary Cancel

#### Figure 22. Summary page

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.

Device Collections	∽ Filter	
Root	Name Deploy27 Soc WIE_Test WIE10_1 WIENEW	Member Count 1 1 1 0 2 0 1 1

#### Figure 24. Select device collections

🗩 Overview	Search	h				
🙎 Users	lcon	Name	Limiting Collection	Member Count	Members Visible on Site	Referenced Collectio
4 😥 Devices	0	All Desktop and Server Clients	All Systems	4	4	0
2 WIE10_1	0	All Mobile Devices	All Systems	0	0	0
A User Collections	0	All Systems		8	8	0
Device Collections	0	All Unknown Computers	All Systems	2	2	0
Subser State Migration	0	Deploy27	All Systems	1	1	0
Asset Intelligence	0	percentation of the second sec	All Systems	1	1	0
Software Metering	ø	scc	All Systems	1	1	0
	0	Bronger, Barroad	All Systems	1	1	0
Compliance Settings	0	wie	All Systems	0	0	0
Endpoint Protection	0	WIE_Test	All Systems	2	2	0
All Corporate-owned Devices	0	wie10	jamespush	0	0	0
	0	WIE10_1	All Systems	1	1	0
	ø	WIENEW	All Systems	1	1	0

#### 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.

Software Library <		Operating System Images 19 items				
<ul> <li>Overview</li> </ul>	Search	Search				
<ul> <li>Application Management</li> </ul>	lcon	Name	Version			
Applications	-	D90Q7P	1			
kicense Information for Store Apps	-	DISM_ZX0D_1	test			
Rackages	-	DXOD_7046	DEV			
Approval Requests	-	_7046	1			
「#」 Global Conditions	4	OS_ZXOD				
	4	testpull1	0A35			
App-V Virtual Environments		WES7_DQPOC2	1			
Windows Sideloading Keys	-	WES7_ZX0D7	1			
Application Management Policies		WES7P_ 7000	1			
App Configuration Policies	-	WES7P7048	1			
Software Updates	-	WES7	1			
Operating Systems	-	WIE10_	1			
Drivers	4	WIE10_	1			
📴 Driver Packages	-	WIE10_Test	1			
System Image	70	Windows 10	2			
Add Operating	g System	Image erprise 2015 LTSB	1			
Boot Images Folder		<ul> <li>terprise 2015 LTSB</li> </ul>	1.0			
Task Sequences	-	ZX0DE7_	1			
	-	ZXOQ7P	7045			
📼 Virtual Hard Disks						
<ul> <li>Windows 10 Servicing</li> </ul>						
🗟 All Windows 10 Updates						

Figure 26. Add operating system image

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

Data Source	ie -
Data Source General Summary Progress Completion	Browse to the data source for the operating system image
	Specify the path to the operating system image file.
	Path: Example:\\servemame\sharename\path\file.WIM \\\\Thin Client Image\Win10_Big.wim Browse Browse
	< Previous Next > Summary Cance

#### 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.

<ul> <li>Application Management</li> </ul>		lcon	Name		Description	Package ID	
Applications			Deploy	_WES7P	ZXOQ7P Pass1 Build	IND00056	
License Information for Store Apps		<b>S</b>	Wes7_		7046 Image WES7	IND00035	
Packages		2	TESTWE	TESTWES7E_ZXOD		IND00033	
Approval Requests		2	Testing_	The second s		IND00059	
		<b>1</b>	TEST			IND00029	
App-V Virtual Env		nents	8	Task See	quence_test		IND00062 IND00025
Windows Sideload			<b>E</b>	Task See	quence 11		
- <u></u>			1	in section of the sec			IND00023
Application Mana			8	Suste_WES7P_PASS1_deploy PASS 1 S		PASS 1 Suste	IND0003E
App Configuration Policies		<b>\$</b>	Suste_WES7p_oberon PASS 1		IND0003A		
📔 Software Updates		1	700	00_NEW		IND00028	
Cperating Systems		2	B WES7P_D90Q		IND00030		
Drivers			5	7000			IND0005A
📑 Driver Packages			S.	Deploy	XOQ_WES7P-PASS4	ZXOQ7P Pass4 Build	IND00053
🜉 Operating System	Ima	ges	<b>1</b>	Deploy2	ZXOQ_WES7P	ZXOQ7P Pass1 Build	IND0004D
Solution System	Upa	rade Packages	<b>\$</b>	Deploy	WES7DQ		IND00022
Boot Images			1	Deploy	WES7_Z_ZDE		IND0004B
Task Sequences				Deploy	WES7_Z		IND0002A
	1	Create Task Seque	nce		XOD_WES7E-IND00047	For Deploying WE	IND00047
📼 Virtual Hard Disk	1	Create Task Seque	nce Media		IXOD_WES7E	For Deploying WE	IND00045
Windows 10 Servici	>	Import Task Seque	nce		WIE10_s-IND0006D		IND0006D
All Windows 10 L		Folder			WIE10_s-IND0006C		IND0006C
Servicing Plans		roider			WIE10_s		IND0005D

#### 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.

Treate New Task Sequence Task Sequence Informatic Install Windows Configure Network	Specify task sequenc	e information	
Install Configuration Mar State Migration	Task sequence name:	Task Sequence 5	ć
Include Updates	Description:	WIE10	1
Install Applications			
ummary			4
rogress	Boot image:	Boot image (x64) 10.0.14393.0 en-U Brov	vse
Completion			

#### 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.

Task Sequence Informatic Install Windows Configure Network Install Configuration Mar State Migration Include Updates Install Applications Summary Progress State Sequence Informatic Summary Progress State Sequence Informatic Se	Windows operating system         indows operating system image and installation information.         e:       Windows 10 2 en-US         1 - 1       ✓         Ind format the target computer before installing the operating system.	
Task Sequence Informatic         Install Windows         Configure Network         Install Configuration Mar         State Migration         Include Updates         Install Applications         Summary         Progress         Completion         Product key:         Server licensing m	indows operating system image and installation information. e: Windows 10 2 en-US 1 - 1	
State Migration Include Updates Install Applications Summary Progress Completion Mage package: Image index: Image index: I	1-1 ~	
State Migration Include Updates Install Applications Summary Progress Completion Product key: Server licensing m	1-1 ~	
Install Applications Partition and from Summary Configure task Progress Specify the licensi Product key: Server licensing models of the server licensing mo	nd format the target computer before installing the operating system.	
<ul> <li>platforms (record</li> </ul>	er connections: 5 + generate the local administrator password and disable the account on all supported recommended)	

#### Figure 30. Install Windows

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

🔁 Create Task Sequence Wiza	rd		×
Configure Network	k		
Create New Task Sequence Task Sequence Informatic Install Windows	Configure the ne	twork	
Configure Network	Select the domain or w	orkgroup to join.	
Install Configuration Mar	Join a workgroup		
State Migration	Workgroup:	Dell	
Include Updates	workgroup.	Deil	
Install Applications	🔘 Join a domain		
Summary	Domain:		Browse
Progress	Domain OU:		Browse
Completion	Domain 00.		Lionse
	Specify the account the	at has permission to join the domain.	
	Account:		Set
	Account.		
< >		< Previous Next > Sun	nmary Cancel

#### 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.

😢 Create Task Sequence Wiza	ard		×
Install Configurat	ion Manager		
Create New Task Sequence Task Sequence Informatic Install Windows Configure Network Install Configuration Mar		tion Manager client anager client package. Configuration Manager site assignment and automatically. You can specify additional installation properties.	
State Migration Include Updates Install Applications Summary Progress Completion	Package: Installation properties:	Configuration Manager Client Package Browse	
	Γ	< Previous Next > Summary Cance	

#### 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

😢 Create Task Sequence Wiza	ard	×
State Migration		
Create New Task Sequence Task Sequence Informatic Install Windows Configure Network Install Configuration Mar	Configure state migration Select the settings on the destination computer to migrate as part of this image deployment.	
State Migration	This action will capture the user specific settings.	
Include Updates	Capture user settings and files	
Install Applications Summary	USMT Package: Microsoft Corporation User State Migration Toc Browse	1
Progress	Save user settings and files on a State Migration Point	
Completion	<ul> <li>Save user settings and files locally</li> </ul>	
	Capture locally by using links instead of by copying files	
	This option is not applicable to versions of USMT that are earlier than USMT 4.0	
	This action will canture the configuration of the network.         Capture network settings         This action will capture the Windows specific settings.         Capture Microsoft Windows settings	
< >	Carcel	_

#### 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.

Add - Remove 3 🕄	Properties Options			
Capture Files and Settings Install Operating System	Туре:	Run Command Line		
Install Operating System Mapping_DEW DEW_Directory CopyFiles_DEW CopyFi	Name: Description: Command line:	Mapping_DEW		~ ~
	DomainPassword	is of SCCM Server\Share\dew /l	JSER:domain\Us	emame
	Package:			Browse
	Time-out (minu	tes): 15	¢	
	Agcount [			Sej

#### 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.

Task	Sequence 5 T	ask Sequence E	ditor	_ 🗆 🗙			
Add • Remove	Properties Options						
Capture Files and Settings	Type:	Run Command Line					
Mapping_DEW	Name:	DEW_Directory					
CopyFies_DEW Invoke_DEW_Script	Description:			<u>^</u>			
Restart in Windows PE	Command line:						
Format     Apply Operating System     Apply Windows Settings     Apply Network Settings     Setup Operating System	cmd.exe /c md C:\D	EW_Temp		~			
Setup Windows and Configuration Enable BtLocker	Disable 64-bit fi	le system redirection		Browse			
	Package:						
				Browse			
	Time-out (minu	tes):	15 🔤				
	Run this step as	the following account					
	Account:			Set			
< III >							
		OK	Cancel	Apply			

#### 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  $\ensuremath{\texttt{Properties}}$  tab, enter  $\ensuremath{\texttt{CopyFiles}}$  DEW in the  $\ensuremath{\texttt{Name}}$  field.

Task	Sequence 5 T	ask Sequence Edito	or L	_ 🗆 🗙
Add       Remove       S       Call         Capture Files and Settings       Install Operating System         Install Operating System       Mapping_DEW         Mapping_DEW       Dew_Directory         CopyFiles_DEW       Invoke_DEW_Script         Restart in Windows PE       Mapping	Sequence 5 T         Properties       Options         Type:       Name:         Description:       Command line:	Run Command Line         CopyFiles_DEW	)r [-	
<ul> <li>Format</li> <li>Apply Operating System</li> <li>Apply Windows Settings</li> <li>Apply Network Settings</li> <li>Setup Operating System</li> <li>Setup Windows and Configuration</li> <li>Enable BtLocker</li> </ul>		Temp /c /d /e /h /i /k /q /r /s /x . file system redirection	/y:	A V
	Time-out (minu	utes): 15 s the following account		Browse
		ОК	Cancel	Apply

#### 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.

Task	Sequence 5 T	ask Sequence Ec	litor	_ 🗆 🗙		
Add • Remove	Properties Options					
Capture Files and Settings	Туре:	Run Command Line				
Install Operating System Mapping_DEW	Name:	Invoke_DEW_Script				
CopyFiles_DEW	Description:			~		
Invoke_DEW_Script     Restart in Windows PE     Mapping	Command line:					
Format     Apply Operating System     Apply Windows Settings     Apply Network Settings     Setup Operating System	cmd.exe /c "C:\DEW_Temp\execute-DEW-script.cmd"					
Setup Windows and Configuration Enable BtLocker		ile system redirection		Browse		
	Package:					
	Time-out (minu	tes):	210	Browse		
	Run this step as	the following account				
	Account			Set		
< 111 >						
		ОК	Cancel	Apply		

#### 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.

Task	Sequence 5 T	ask Sequence Editor 🛛 🗕 🗖 🗙			
Add • Remove	Properties Options				
Capture Files and Settings	Туре:	Restart Computer			
Mapping_DEW	<u>N</u> ame:	Restart in Windows PE			
DEW_Directory     CopyFiles_DEW     Invoke_DEW_Script	Description:				
Restart in Windows PE     Mapping     Format     Apply Operating System     Apply Windows Settings     Apply Network Settings     Setup Operating System     Setup Windows and Configuration     Enable BitLocker	Specify what to run after restart:   The boot image assigned to this task sequence  The gurrently installed default operating system  Notification message:				
	A new Microsoft Windows operating system is being installed. The computer must reboot to continue.				
	Message display time-	out (seconds):			
< III >					
		OK Cancel Apply			

#### 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.
| Task         | sequence 5 T                   | ask Sequence Editor 🛛 🗕 🗖 🗙 |  |  |  |  |
|--------------|--------------------------------|-----------------------------|--|--|--|--|
| Add - Remove | Properties Options Type: Name: | Run Command Line Mapping    |  |  |  |  |
|              | Description:                   |                             |  |  |  |  |
|              | Command line:                  |                             |  |  |  |  |
|              | Disabl <u>e</u> 64-bit         | file system redirection     |  |  |  |  |
|              | Time-out (mine                 | sthe following account      |  |  |  |  |
|              | Agcount: [                     | Set                         |  |  |  |  |
| < III >      |                                | OK Cancel Apply             |  |  |  |  |

# 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.

s Run Command Line Format
repareOSPartition.wss
bit file system redirection
inutes): 15 🗇
Set

### Figure 43. Format

- 45. Enter Diskpart.exe /s PrepareOSPartition.wss in the Command line field.
- **46.** Enter  $\kappa$  :  $\setminus$  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.

Add • Remove	Properties Options					
Capture Files and Settings	Type:	Apply Operating System Image				
Install Operating System Mapping_DEW	<u>N</u> ame:	Apply Operating System				
DEW_Directory     CopyFiles_DEW     Invoke_DEW_Script	Description:	Actions to apply operating system	< >			
Restart in Windows PE Mapping	Apply operating system from a captured image					
<ul> <li>Format</li> <li>Apply Operating System</li> <li>Apply Windows Settings</li> <li>Apply Network Settings</li> <li>Setup Operating System</li> <li>Setup Undows and Configuration</li> <li>Enable BitLocker</li> </ul>	Image package:	Rowdies 2.0 en-US	Browse			
	Image index:	1·1 ×				
	O Apply operating	system from an original installation sou	irce			
	Package:		Browse			
	Edition:	×				
	✓ Use an unattene Pa <u>c</u> kage: <u>E</u> ile name:	ded or Sysprep answer file for a custom TestSysprep sysprep xml	installation Bro <u>w</u> se			
	Pagkage: <u>E</u> ile name:	TestSysprep	Browse			
< III >	Package: Eile name: Select the location v Destination:	TestSysprep sysprep.xml where you want to apply this operating s Specific disk and partition	Browse			

#### 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.

Add - Remove	Properties Options					
Capture Files and Settings	Type:	Apply Network Settings				
Install Operating System Mapping_DEW	Name:	Apply Network Settings				
<ul> <li>DEW_Directory</li> <li>CopyFiles_DEW</li> <li>Invoke_DEW_Script</li> <li>Restart in Windows PE</li> <li>Mapping</li> <li>Format</li> <li>Apply Operating System</li> <li>Apply Network Settings</li> <li>Setup Operating System</li> <li>Setup Operating System</li> <li>Setup Windows and Configuration</li> <li>Enable BtLocker</li> </ul>	Description:	Actions to configure network settings	< >			
	domain or workgroup	roup DelWyse	select a			
	Domain:	· · · · · · · · · · · · · · · · · · ·	Browse			
	Domain O <u>U</u> :		Browse			
	Contraction of the second state of the seco	that has permission to join the computer to any d rom the capture steps and the above domain (if sp				
		figure network adapters to use DHCP by default. A y static IP address and other configuration options				
	Name	Adapter	30			
		There are no items to show in this view.	(Ç.B			
< 111 >						

### 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.

 $\mathbf{55.}$  In the  $\mathbf{Properties}$  tab, enter <code>Setup Windows</code> and <code>Configuration Manager</code> in the  $\mathbf{Name}$  field.

Add • Remove	Properties Options					
Capture Files and Settings	Type:	Setup Windows and ConfigMgr				
Install Operating System Mapping_DEW	Name:	Setup Windows and Configuration Manager				
<ul> <li>DEW_Directory</li> <li>CopyFiles_DEW</li> <li>Invoke_DEW_Script</li> <li>Restart in Windows PE</li> <li>Mapping</li> <li>Format</li> <li>Apply Operating System</li> <li>Apply Windows Settings</li> <li>Apply Network Settings</li> <li>Setup Operating System</li> <li>Setup Windows and Configuration</li> <li>Enable BtLocker</li> </ul>	Description:	Actions to setup Windows and Configuration	Manager client			
	additional installat Manager client. Client pa <u>c</u> kage:	nd configuration will be automatically spection properties to use when installing the C Configuration Manager Client Package				
	Pre-production cl	ient package:	Browse			
	Installation properties:		^			

### Figure 46. Setup Windows and Configuration Manager

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

 $\ensuremath{\textbf{57.}}$  Click  $\ensuremath{\textbf{Apply}}$  and then click  $\ensuremath{\textbf{OK}}.$ 

# **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.

🔶 Deploy Software Wizard			×
General			
General Deployment Settings Scheduling User Experience	Specify general	information for this deployment	
Alerts	Task sequence:	Win10_Task Sequence	Browse
Distribution Points	Collection:	Win10_1	Browse
Summary Progress Completion		bution point groups associated to this collection tribute content for dependencies	*
		Auto Commence	Cancel
		< Previous Next > Summary	Cancel

### 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**.

Deploy Software Wizard		×
Deployment Sett	ings	
General Deployment Settings Scheduling User Experience Alerts Distribution Points Summary Progress Completion	Action: Purpose: Pre-deploy s Send wake+ Allow clients installation d Specify whether	on a metered Internet connection to download content after the eadline, which might incur additional costs to make this task sequence available to Configuration Manager clients, and whether it is available to ploy an operating system by using boot media, prestaged media, or PXE.
	Configuration M	anager clients, media and PXE  

# Figure 48. Deployment settings

5. On the Specify the schedule for this deployment page, click  $\ensuremath{\text{New}}.$ 

Deploy	Software Wizard						×
8	Scheduling						
General Deployme Schedu	ent Settings	Specify the schedu	le for this de	ployment			
5	perience	<b>T</b>				1	
24 March 1997	gnment Schedule	This program will be availab	X X according to the			ers unless it is sc	heduled for a
Sun Pro Cor	Assign to the following curs on 5/16/2017 2:5 Assign immediately afte	O PM	Schedule	available:			
As	soon as possible	~	/		New	Edit	Delete
		OK Rerun behavior:	Cancel Rerun if failed pr	revious attempt			~
				< Previous	Next >	Summary	Cancel

### 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.

Deploy Software Wizard		×					
User Experience							
General Deployment Settings Scheduling	Specify the user experience for the installation of this software on the selected devices						
User Experience	Notification settings:						
Alerts Distribution Points	Allow users to run the program independently of assignments						
Summary	Show Task Sequence progress						
Progress	When the scheduled assignment time is reached, allow the following activities to be performed outside the						
Completion	maintenance window:						
	Software installation						
	System restart (if required to complete the installation)						
	Write filter handling for Windows Embedded devices						
	Commit changes at deadline or during a maintenance window (requires restarts)						
	If this option is not selected, content will be applied on the overlay and committed later.						
	Internet based clients:						
	Allow task sequence to run for client on the Internet						
	< Previous Next > Summary Cancel						

#### Figure 50. User experience

- 10. On the Distribution Points page, select the Download content locally when needed by running task sequence deployment option, 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.

() 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.

General	Components	Actions	Site	Cache	Network	
Select a configu	an action to run ired in the Confi	a client c guration N	ycle ind Ianager	ependently console.	y from schedules t	that are
Actions	: ine Policy Retri	aval 8 Eur	Justian	Circle		_
	Policy Retrieval			CONTRACTOR OF A DESCRIPTION OF A DESCRIP		
					Bun Nov	
					Run Nov	V

# 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 <a href="https://docs.microsoft.com/">https://docs.microsoft.com/</a>.

# () 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.

### () 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.

Software Library 🗸				Packages 11 item		
<ul> <li>Øverview</li> </ul>			Search	7		
🔺 🚞 Application	Man	agement	lcon	Na	ime	
💽 Applicatio	ns		Cor		onfiguratio	
(	form	ation for Store Apps				
C Packages Approval C Global Cc App-V Vir N Windows	5 5 2	Create Package Create Package from Definit Import Folder		•	r State N 8S_Disab 8S_enab S7E_SYS	
			8	W	ES7P_SYS	

#### Figure 52. Packages

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

🛐 Create Package and Prog	gram Wizard		×				
Package							
Package	Specify infor	mation about this package					
Program Type	opeony mici						
Standard Program	_						
Requirements Summary	Enter a name and Application Catal	d other details for the new package. To take full advantage of new features that include the og, use an application instead.					
Progress							
Completion	Name:	Name: sysprep_wie10					
	Description:	sysprep	^				
			v.				
	Manufacturer:	Dell	-				
	Language:	English Version: 1.0					
		e contains source files					
	Source folde		-				
	\\\	Share\WIE10_SYSPREP Browse	1				
			_				
		< Previous Next > Summary Can	cel				

## 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**.

(i) 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.

Requirements					
Package Program Type Program for Device	Specify the requirem	ents for this program	n for a device		
Requirements Summary	Estimated disk space: Download program:	As soon as possible	MB		~
Progress Completion	Additional requirements:				^
					~
		< Previo	ous Next >	Summary	Cancel

# Figure 55. Estimated disk space

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

Summary	
Package Program Type Program for Device Requirements	Confirm the settings Details:
Summary Progress Completion	General:         • Name: sysprep_wie10         • Description: sysprep         • Version: 1.0         • Publisher: Dell         • Language: English         • Source files: \\
	< Previous Next > Summary Cancel

## 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.

Distribute Content Wizard	ł			×
Content Destinat	tion			
General Content Destination	Specify the co	ontent destination		
Summary Progress Completion		tributed to the following distribution roups that are currently associated n:		os, and the
	Filter		Q	Add 🔻
	Name	Description There are no items to show in th		Collections Distribution Point Distribution Point Group
		< Previous	Next > Summary	Cancel

### Figure 57. Content destination

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

Cor	itent Destination			
General	Add Distribution Points		0	×
Content Dest Summary Progress Completion	Select distribution points that will host this of Software Update Packages are never distr Available distribution points:		pints.	nd the
	Filter		P	
	Name	Type On-premises	Description	Add
		(	DK Cancel	

### 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.

Content Status	Related Objects
	Success: 1 Content Status In Progress: 0 Failed: 0 Unknown: 0
1 Targete	(Last Update: 5/17/2017 3:20 PM)

# Figure 59. Content status

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