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

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 to manage large groups of Windowsbased computers. Dell Wyse supports SCCM 2012 R2, SCCM 2016, and SCCM 2019 to manage thin clients that run the following operating systems:

- Windows 10 IoT Enterprise
- Windows Embedded 8 Standard
- · Windows Embedded Standard 7 Enterprise
- Windows Embedded Standard 7P

Topics:

- About this guide
- SCCM system requirements
- SCCM features
- SCCM prerequisites

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

Additional storage space for the installation of Microsoft quick fix engineering (QFEs) on the thin client is the minimum system requirement.

SCCM features

The main features of SCCM are the following:

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

SCCM prerequisites

Before working on SCCM, 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 (version)—This is the console to access SCCM.

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

(i) NOTE: For reference, SCCM 2016 and Windows 10 IoT Enterprise screenshots are used in this guide. However this guide can also be used for SCCM 2012 R2 or SCCM 2019.

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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		· •
All Saved Search	Current ch As Active Search	
Automatic Deployment Rules Device Deployment Rules Depl		Driver Packages: Manage device driver packages. Operating System Upgrade Packages: Manage operating system upgrade packages Task Sequences: Manage task sequences that automate steps or tasks on client computers.
Assets and Compliance		
Software Library		

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) Source folder:	٦
	Import a specific driver by specifying the network path (UNC) to its .inf or btsetup.cem file Source: Browse Specify the option for duplicate drivers	-
	Import the driver and append a new category to the existing categories	
< >	< 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	Specify the details for the	importe	ed driver			
Add Driver to Packages	The following drivers will be imported fr	om falder				
Add Driver to Boot Image	The following drivers will be imported in	on rolder.				
Summary	\\ \Share\LAN_Driver\					
Progress	Hide drivers that are not in a storage	ge or netw	ork class (for boot	images)		
Completion	Hide drivers that are not digitally si	gned				
	Filter					P
	File Name	Class	Architecture	Version	Signed	<u>^</u>
	ver_Repo_WES7E\Z_ZDE	Net	x86	7.101.714	Yes	
	WIN7\64\rt64win7.inf	Net	x64	7.101.714	Yes	
	WIN / WinPE\32\ws86win /	Net	x86	7.101./14	Yes	
	WIN/\WINPE\64\W\$64WIN/	Net	X64	7.101.714	tes	*
		Se	elect All	Cle	ear All	
	Enable these drivers and allow con Assign this driver to one or more categ	nputers to	install them tering.		Categorie	35
< >	< Previ	ous	Next >		Ca	incel

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	ew Driver Wiza	ard				×
	Add Driver to I	Packages				
Locate Drive	r	Select the nac	kades to add the	imported drive	r	_
Driver D	🔐 Create Dri	ver Package			×	
Add Dri Add Dri	Specify the fol	lowing information for the ne	ew driver package.			
Summary	Name:	MyNewPackage				n use
Progress	Comment:				^	
Completio						
					~	
	Specify a netw	North (UNC) where Con	figuration Manager stores of	rivers added to this p	Browee	
	raui.	Example: \\servemame\s	sharename		Diowac	
				ОК	Cancel	
L						
			< Previous	Next >	Summary	Cancel
<	3	>				

Figure 4. Create driver package

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

ocate Driver Driver Details	Select the packages to a	dd the imported driver	
Add Driver to Packages Add Driver to Boot Image ummary rogress	Specify the package to add this driv Drivers must be added to packages them. Distribution points can be upo	er to. and deployed to distribution poin lated immediately. equired drivers before updating th	ts before computers can use re package.
ompierion			
ompreuon	Name	Package ID VSC0003F	Select All Clear All

Figure 5. Select the packages

- 13. On the Add Driver to Boot Images page retain the default options and click $\ensuremath{\text{Next}}.$
- 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	< Drive	r Packages 1 items				
 Poverview 	Searc	:h				
 Application Management 	lcon	Name	30	*	Version	Package ID
 Application management Applications License Information for Store Apps Packages Approval Requests Global Conditions App-V Virtual Environments Windows Sideloading Keys Application Management Policies Application Management Policies App Configuration Policies App Configuration Policies Software Updates Software Updates Software Updates Software Update Groups Deployment Packages Automatic Deployment Rules Operating Systems Drivers Operating System Images Operating System Upgrade Packages Operating System Upgrade Packages Boot Images 		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 Wiza General	rd
General Content Destination Summary Progress Completion	You have selected the following content for distribution. Content:
	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

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 Wizar Content Destin 	d ation				×
General Content Destination Summary Progress Completion	Specify the cor Content will be distrib distribution point grou Content destination:	Itent destination outed to the following distributic ups that are currently associate	on points, distribution point <u>c</u> ad with collections.	groups, and the	
	Filter		5	Add	7
	Name	Description 'here are no items to show in t	Associations his view.	Collectio Distributi Distributi	ns on Point on Point Group
		< Previous	Next > Summa	ary 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 ▼ Bemove
	OK Cancel	

Figure 9. Add distribution points

() NOTE: SCCM 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.

Soft	ware Library <	Boot I	mages 4 I	tems	F.			
	🗊 Overview	Search	h					
	Application Management	lcon	Name		*	Version		Comment
	Applications		Boot	imad	= (x64)	10.0.14393.0		
	🙀 License Information for Store Apps	-	Boot	G	Refresh		F5	
	🛐 Packages	C.V.	Boot	X	Delete		Delete	
	📝 Approval Requests		WES7	-	Distribute Content	t		
	[]‡[] Global Conditions			診	Update Distributio	on Points		
	🗮 App-V Virtual Environments			*	Create Prestaged	Content File		
	Ҡ Windows Sideloading Keys			20	Manage Access Ac	counts		
	💽 Application Management Policies			B	Move			
	Rep Configuration Policies			8	Set Security Scope	۰c		
- 24	Gan Software Updates			Ē	B			
	🛃 All Software Updates				Properties			
	🔄 Software Update Groups							
	🛐 Deployment Packages							
	📑 Automatic Deployment Rules							
- 24	Coperating Systems							
	# Drivers							
	📑 Driver Packages							
	🜉 Operating System Images							
	💐 Operating System Upgrade Packages							
	👼 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.
- 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.

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

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 Me	dia Wizard	×
Media Type		
Select Media Type Media Type Boot Image	Specify the media type	
Summary Progress	Specify whether the media for this image deployment will use CD/DVD media or removable USB drive.	
Completion	O Removable USB drive	
	Drive: v	
	CD/DVD set Media size:	1
	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.	
	Media file: \\ \SCCM1_share\Package\Win10is Browse	L
		1
	< 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.

🔁 Create Task Sequence I	Media Wizard		×
Select Media Type Media Type Boot Image	Select the boot in	nage for the media	download the content
Summary Progress Completion	used to create the media Boot image:	Boot image (x64)	Browse
	Distribution point:	СОМ	Browse
		< Previous Next > Sum	mary Cancel

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.
- 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 dick 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 destinatio	n and file name	e for the captured operatin	g system imag	e.
estination:	W	\Win 10Image.wim		Browse
For network paths, e	enter the accou	int and password used to a	ccess the path	n.
Password.				

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.

(i) 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



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
4 Overview	Search
🐍 Users	Icon Name
🔛 Devices	All Desktop and Server Clients
💰 User Collections	All Mobile Devices
Device Collections	🖉 🖉 All Systems
🌡 User State Migrat 🌮 Create Device Colle	ection nknown Computers
Asset Intelligence Import Collections	oy27
🖾 Software Meterin 🔚 Manage Device Ca	stegories spush
Compliance Settin Folder	•
Endpoint Protection	💣 wie
All Corporate-owned Devices	WIE Test
	♂ wie10
	WIENEW 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.

mbership Kules			
gress	Name:	WIE10 1	
Completion	Comment:		
	Last undate		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	5				
General Membership Rules	Define membersh	ip rules for this	collection		
Summary Progress Completion	Membership rules determ can use membership rule membership can also incl objects that are members Membership rules:	ine the resources that is to add a specific obj lude or exclude other o s of the limiting collectio	are included in th ect or a set of obj collections. Memb n.	ne collection when it u lects from a query. Th bership rules can add	updates. You le collection only those
	Rule Name	There are no iter	Type ns to show in this	Collection	ld
	Use incremental upda An incremental updat to this collection. This Schedule a full upd Occurs every 7 days effe	Ad ates for this collection te periodically evaluate s option does not requir date on this collection ective 5/17/2017 2:13	id Rule s new resources re you to schedul PM Next >	Edit and then adds resource a full update for this Sc Sc Summary	Delete rces that qualify s collection. hedule 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

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.

	Filter	
Root	Name Deploy27 Scc Wie WIE_Test Wie10 WIE10_1	Member Count 1 1 1 1 1 0 2 0 1 1 1

Figure 24. Select device collections

Assets and Compliance	< Device	Collections 13 items				
🔺 🗩 Overview	Search	2				
😤 Users	lcon	Name	Limiting Collection	Member Count	Members Visible on Site	Referenced Collection
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
💰 User Collections	0	All Systems		8	8	0
Provide Collections	0	All Unknown Computers	All Systems	2	2	0
Liter State Migration	0	Deploy27	All Systems	1	1	0
Accest latelling and	0	per segurati	All Systems	1	1	0
Asset Intelligence	0	scc	All Systems	1	1	0
Lea Software Metering	0	Winnam, Januar	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
	0	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	< Opera	ting System Images 19 items	
 Overview 	Searc	h	
 Application Management 	lcon	Name	Version
Applications		D90Q7P	1
license Information for Store Apps	3	DISM_ZX0D_1	test
Packages		DXOD_7046	DEV
Approval Requests	2	_7046	1
	-	OS_ZXOD	
Ann V Virtual Environments	-	testpull1	0A35
	-	WES7_DQPOC2	1
Windows Sideloading Keys	1	WES7_ZX0D7	1
E Application Management Policies	-	WES7P_ 7000	1
App Configuration Policies	1	WES7P7048	1
Software Updates		WES7	1
 Operating Systems 	2	WIE10_	1
Drivers		WIE10_	1
📴 Driver Packages	1	WIE10_Test	1
Operating System Image	141	Windows 10	2
Add Operating	ng System	Image erprise 2015 LTSB	1
Boot Images Folder		 terprise 2015 LTSB 	1.0
Task Sequences	-	ZX0DE7_	1
	1	ZXOQ7P	7045
Virtual Hard Disks			
 Windows 10 Servicing 			
🛃 All Windows 10 Updates			

Figure 26. Add operating system image

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

Data Source Browse to the data source for the operating system image General Summary Progress Completion Specify the path to the operating system image file. Path: Example: \\servemame\sharename\path\file.WIM Virtual Vi	Data Source	ie -
Specify the path to the operating system image file. Path: Example: \\servername\sharename\path\file.WIM \\	Data Source General Summary Progress Completion	Browse to the data source for the operating system image
Path: Example: \Servemame \sharename \path \file. WIM \\ \\Thin Client Image\Win10_Big.wim Brow		Specify the path to the operating system image file.
		Path: Example: \Servemame sharename (path viie, WIM \\ \Thin Client Image\Win10_Big.wim Browse

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.

TOVERVIEW			Search	7			
📔 Application Manager	nen	t	lcon	Name		Description	Package ID
Applications			(Deploy	WES7P	ZXOQ7P Pass1 Build	IND00056
🙀 License Information	n foi	r Store Apps	5	Wes7_	1000	7046 Image WES7	IND00035
Packages			1	TESTWE	ES7E_ZXOD		IND00033
Approval Requests			1	Testing	Transportage.		IND00059
[1] Global Conditions			1	TEST			IND00029
App-V Virtual Envir	000	nentr	8	Task Se	quence_test		IND00062
Windows Sideloadi	na l	Kors	1	Task Se	quence 11		IND00025
	ng i	neys	1	in and			IND00023
Application Manage	eme	ent Policies	1	Suste_V	VES7P_PASS1_deploy	PASS 1 Suste	IND0003E
App Configuration	Poli	icies	8	Suste_V	VES7p_oberon	PASS 1	IND0003A
Software Updates			1	70	DO_NEW		IND00028
Coperating Systems			1	WES7P	_D90Q		IND00030
Drivers			1	70	00		IND0005A
🔛 Driver Packages			8	Deploy	ZXOQ_WES7P-PASS4	ZXOQ7P Pass4 Build	IND00053
🜉 Operating System I	mag	ges	1	Deploy	ZXOQ_WES7P	ZXOQ7P Pass1 Build	IND0004D
System U	Jpq	rade Packages	8	Deploy	WES7DQ		IND00022
Boot Images		-	(E)	Deploy	WES7_Z_ZDE		IND0004B
Task Sequences	201			Deploy	WES7_Z		IND0002A
Virtual Hard Dick	5	Create Task Sequen	ce		XOD_WES7E-IND00047	For Deploying WE	IND00047
Windows 10 C	1	Create Task Sequen	ce Media		XOD_WES7E	For Deploying WE	IND00045
vindows to service	4	Import Task Sequen	ce		WIE10_s-IND0006D		IND0006D
All Windows 10 U		Folder		•	WIE10_s-IND0006C		IND0006C
Servicing Plans			_		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.

😰 Create Task Sequence Wizard



Task Sequence Information

Create New Task Sequence	Specify task seque	ence information	
Task Sequence Information			
Install Windows			
Configure Network			
Install Configuration Mar			
State Migration	<u>T</u> ask sequence name:	Task Sequence 5	5
Include Updates	Description:	WIE10	^
Install Applications			
Summary			
Progress			
Completion	B <u>o</u> ot image:	Boot image (x64) en-US	B <u>r</u> owse
		< Previous Next > Summary	Cancel
< >			

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.

😰 Create Task Sequence Wizard



Install Windows

Create New Task Sequence Task Sequence Informatic	Install the Windo	ows operating	g system		
Task Sequence Information Install Windows Configure Network Install Configuration Mare State Migration Include Updates Install Applications Summary	Specify the Windows of Image package: Image index: Partition and formation Configure task seq	Windows 10 en-u 2 - 2 t the target comput	age and installation info s Windows 10 en-us en er before installing the o BitLocker	mation. I-US vperating system.	Browse
Progress Completion	Specify the licensing in Product key: Server licensing mode: Maximum server conne Randomly generate platforms (recomme	formation for the W ections: e the local administ ended)	indows installation. Do not specify 5	able the account o	n all supported
<	C Enable the accour Password: Confirm password:	nt and specify the lo	Next >	Summary	Cancel

Figure 30. Install Windows

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

😢 Create Task Sequence Wiza	rd		×
Configure Networ	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	rreingroup.	- Cont	
Install Applications	O Join a domain		
Drogress	Domain:		Browse
Completion	Domain OU:		Browse
	Specify the account th	at has permission to join the domain.	
	Account:		Set
		Design Nets	Creat
< >		< Previous Next > Summar	y 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 Informatio Install Windows Configure Network Install Configuration Mar	Install the Configuration M Specify the Configuration M client configuration is done a	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	
		< Previous Next > Summary Canc	el

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	
Summany	USMT Package: Microsoft Corporation User State Migration Toc Browse	1
Progress	Save user settings and files on a State Migration Point	
Completion	 Save user settings and files locally 	
	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	
< >	s Previous INEXC2 Summary Cancer	

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.

😰 Create Task Sequence Wizard



Summary

Create New Task Sequence Confirm the settings Task Sequence Information Install Windows Details: Configure Network Install Configuration Mar Verify the following task sequence details. State Migration Create a new task sequence Include Updates Name: Task Sequence 5 Boot Image: Boot image (x64) en-US Install Applications Install the Windows operating system Summary Image package: Windows 10 en-us Windows 10 en-us en-US Image index: 2 - 2 Progress Partition and format target computer: No Completion Enable BitLocker: No Ξ · Server licensing mode: Do not specify Use random password: Yes Configure the network Join workgroup: Work Install the Configuration Manager client Package: Configuration Manager Client Package Configure state migration Capture user settings: No Capture network settings: No Capture Windows settings: No To change these settings, click Previous. To apply the settings, click Next. < Previous Next > Cancel <



The selected settings are applied.

12. Click Close.

😰 Create Task Sequence Wizard



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 🕴 🚯 📢	Properties Options		
Capture Files and Settings	Type:	Run Command Line	
Mapping DEW	Name:	Mapping_DEW	
DEW_Directory	Description:		~
Invoke_DEW_Script			~
Restart in Windows PE Mapping	Command line:		
Format Apply Operating System Apply Windows Settings Apply Network Settings Setup Operating System	net use L: \\UPAddr DomainPassword	ess of SCCM Server\Share\dew /USER:domain\U	semame
Setup Windows and Configuration Enable BitLocker	n Disabl <u>e</u> 64-bit	file system redirection	
	Start in:		Browse
	Start in: Package:		Browse
	Start in:	utes):	Browse
	Start in:	utes): 15 🚫	Browse
	Start in:	utes): 15 🔗	Browse Browse
	Start in: Package: Time-out (min Run this step a Agecount	utes): 15 🔿	Browse Browse
	Start in:	utes): 15 🚫	Browse Browse

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	Editor		- 0	X
Add • Remove	Properties Options					
Capture Files and Settings	Type:	Run Command Line				
Mapping_DEW	Name:	DEW_Directory				
DEW_Directory CopyFiles_DEW Invoke_DEW_Script	Description:					<u>^</u>
Restart in Windows PE Mapping	Command line:					
Format Apply Operating System Apply Windows Settings Apply Network Settings Setup Operating System	cmd.exe /c md C:\DE	EW_Temp				~
Setup Windows and Configuration Enable BtLocker	Disable 64-bit fi	le system redirection			Browse.	
	Package:				Proven	
	Time-out (minu	tes): the following accoun	[15 t	Ð	UT UT UT UT UT	
	Account:				Set	
< III >						
		0	к	Cancel	Ap	ply

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.

Task	Sequence 5 1	ask Sequence Ec	ditor _	_ 🗆 🗙
Add Remove Capture Files and Settings Install Operating System Mapping_DEW DEW_Directory CopyFiles_DEW Invoke_DEW_Script Restart in Windows PE Mapping Format Apply Operating System Apply Network Settings Setup Operating System Setup Operating System Setup Detail System Setup Detail System Enable BitLocker	Sequence 5 1 Properties Options Type: Name: Description: Command line: Command line: Xcopy L:\C:\DEW_ Disable 64-bit Start in: L:\ Package: Time-out (minute) Run this step a Account: [Temp /c /d /e /h /i /k /q /r /	ditor	Browse
< III >		OK	- Court	

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	_ D X
Add • Remove	Properties Options			
Capture Files and Settings	Type:	Run Command Line		
Mapping_DEW	Name:	Invoke_DEW_Script		
CopyFiles_DEW	Description:			<u>^</u>
Restart in Windows PE Mapping	Command line:			
Format 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 BitLocker	Disable 64-bit fi	le system redirection		Provens
	Package:	-m_renp		growse
				Browse
	Time-out (minu Run this step as	tes): the following acc <u>o</u> unt	210	
	Account			Sej
		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	Name:	Restart in Windows PE
DEW_Directory CopyFiles_DEW Invoke_DEW_Script	Description:	<u>^</u>
Restart in Windows PE Mapping Format Apply Operating System Apply Windows Settings Apply Network Settings Setup Operating System Setup Windows and Configuration Setup Bit polyse	Specify what to run The boot imag The currently in Notify the user	after restart: e assigned to this task sequence astalled default operating system before restarting
Criable BitLocker	A new Microsoft Wind	dows operating system is being installed. The computer must
<	message cispiay (me-	
		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 $\ensuremath{\text{Properties}}$ tab, enter $\ensuremath{\text{Mapping}}$ in the $\ensuremath{\text{Name}}$ field.

Add • Bernove Broperties Options Capture Files and Settings Mapping_DEW Mapping_DEW Developerating System CopyFiles_DEW Properties CopyFiles_DEW Encode Mapping Format Apply Vendows PE Description: Apply Vendows Settings Apply Windows Settings Apply Windows Settings Apply Windows Settings Setup Operating System V Setup Status V DensinPaseword V Disable 64-bit file system redirection Start in: Package: Brogree Time-ogt (minutes): 15 Run this step as the following accgunt Agount Agount Set	Tas	k Sequence 5 1	Fask Sequence	Editor	-	. 🗆 X
Capture Files and Settings Install Operating System Mapping_DEW Operating System Description: Apply Windows PE Mapping Format Apply Operating System Apply Windows Settings Apply Windows Settings Setup Operating System Enable BitLocker Image:	Add - Remove	Properties Options				
Install Operating System Mapping_DEW Mapping_DEW Decorptice CopyFiles_DEW Decorptice Mapping Format Apply Volverating System Apply Volverating System Apply Numdows Settings Setup Operating System Setup Operating System Disable 64-bit file system redirection Setup Operating System Disable 64-bit file system redirection Start in: Package: Time-out (minutes): 15 Time-out (minutes): 15 Run this step as the following accgunt Aget_	Capture Files and Settings	Туре:	Run Command Line			
V DEW_Directory V CopyFiles_DEW V Mapping V Restart in Windows PE V Mapping V Apply Operating System V Apply Network Settings V Setup Operating System V Disable 64-bit file system redirection Start in:	Macoing DEW	Name:	Mapping			
CopyHeat_DEW Woke_DEW_Script Provke_DEW_Script Restart in Windows PE Mapping Format Apply Operating System Apply Network Settings Setup Operating System Setup Windows and Configuration Enable BtLocker Disablg 64-bit file system redirection Start in: Package: Imme-out (minutes): Time-out (minutes): Time-out (minutes): Time-out (minutes): Run this step as the following accgunt Ageount	DEW_Directory	Description:				
Image: Setup Windows PE Command line: Command line: Image: Personal Configuration Papely Windows Settings Apply Network Settings Setup Windows and Configuration Setup Windows and Configuration Enable BtLocker Disablg 64-bit file system redirection Start in: Browse Package: Browse Time-out (minutes): 15 Run this step as the following account Agcount:	V CopyFiles_DEW					~
Image: Construction of the system redirection Image: Construction of the system of the system redirection Image: Construction of the system redirection Image: Cons	Restart in Windows PE Mapping	Command line:				
Setup Windows and Configuration Enable BtLocker Disablg 64-bit file system redirection Start in: Package: Package: Time-out (minutes): Time-out (minutes): Run this step as the following accgunt Agcount: Set_	 Format Apply Operating System Apply Windows Settings Apply Network Settings Setup Operating System 	net use K: \\\PAddn DomainPassword	ess of SCCM server\Share	/USER:Domain	\Usemame	~
III >	Setup Windows and Configuration Enable BitLocker	Disabl <u>e</u> 64-bit Start in:	file system redirection			Browse
Run this step as the following account Agcount Set.		Time-out (min	utes):	15	\$	
Agcount Set		Run this step a	as the following account		_	
< III >		Account				Seţ
	< III >					
OK Cancel Apply			OF	(C	ancel	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.

r L-	- 🗆 🗙
	<u>^</u>
	Browse
	Browse
	
	Set
	Cancel

Figure 43. Format

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

aga • Remove 31 rs	Properties Options					
Capture Files and Settings	Туре:	Apply Operating System Image				
Mapping_DEW	<u>N</u> ame:	Apply Operating System				
 DEW_Drectory CopyFiles_DEW Invoke_DEW_Script Restart in Windows PE Mapping Format Apply Operating System Apply Network Settings Setup Operating System Setup Operating System Setup Operating System Setup Operating System Enable BitLocker 	Description:	Actions to apply operating system	~ ~			
	Apply operating	system from a captured image				
	Image package:	Rowdies 2.0 en-US	Browse			
	Image index:	1-1 🗸				
	O Apply operating	system from an original installation sou	urce			
	Package:		Browse			
	Edition:	~				
	Use an unattene Pa <u>c</u> kage: <u>F</u> ile name:	ded or Sysprep answer file for a custom TestSysprep sysprep xml	n installation Bro <u>w</u> se			
	✓ Use an unattend Pagkage:	ded or Sysprep answer file for a custom TestSysprep sysprep.xml where you want to apply this operating s Specific disk and partition	n installation Bro <u>w</u> se system.			
	✓ Use an unattend Pagkage: Eile name: Select the location v Destination: Digk:	ded or Sysprep answer file for a custom TestSysprep sysprep xml where you want to apply this operating s Specific disk and partition 0 Partition:	n installation Browse system.			

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				
Mapping_DEW	Name:	Apply Network Settings				
DEW_Directory CopyFiles_DEW CopyFiles_DEW Invoke_DEW_Script Restart in Windows PE Mapping Format Apply Operating System Apply Windows Settings Setup Operating System Setup Operating System Setup Windows and Configuration Enable BtLocker	Description:	Actions to configure network settings	< >			
	Join a workg <u>Workgroup</u>	a domain or workgroup setting during the capture steps, below. roup DelWyse	select a			
	Dogain:		Browse			
	Domain O <u>U</u> :		Brows <u>e</u>			
	Enter the account will be migrated f	t that has permission to join the computer to any d rom the capture steps and the above domain (if s	omain that pecified).			
	Agcount:		Set			
	Windows will con adapters to speci	figure network adapters to use DHCP by default. A fy static IP address and other configuration options	Ndd s.			
	Name	Adapter	80			
		There are no items to show in this view.	Ça			
/			_			

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 30 🕼	Properties Options					
Capture Files and Settings	Туре:	Setup Windows and ConfigMgr Setup Windows and Configuration Manager				
Mapping_DEW	Name:					
Papping_DEW DEW_Directory DEW_Directory CopyFiles_DEW Invoke_DEW_Script Restart in Windows PE Mapping Format Apply Operating System Apply Windows Settings Apply Network Settings Setup Operating System Setup Operating System Setup Windows and Configuration Enable BitLocker	Description:	Actions to setup Windows and Configuration	Manager client			
	Site assignment ar 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 ction client package when available	ified. Specify any onfiguration			
	Ere-production cl	ent 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	Use default distrib	oution point groups associated to this collection ribute content for dependencies	
			~
		< Previous Next > Summar	y 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 Set	ings	
General Deployment Settings	Specify settings to control how this software is deployed	
User Experience Alerts Distribution Points	Action: Install Purpose: Required	
Summary Progress Completion	 Pre-deploy software to the user's primary device Send wake-up packets Allow clients on a metered Internet connection to download content after the installation deadline, which might incur additional costs Specify whether to make this task sequence available to Configuration Manager clients, and whether it is available to no when you deploy an operation system by using boot media, prestanced media, or PXE 	0
	Make available to the following: Configuration Manager clients, media and PXE Previous Next > Summary Cancel	~

Figure 48. Deployment settings

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

+ De	eploy Software Wizard						×
3	Scheduling						
Gene Deplo	ral oyment Settings	Specify the schedu	le for this dep	oloyment			
JL-	neduling Superior of						
A	Assignment Schedule	This program will be availab	X	fy the assignment	the content serve schedule.	ers unless it is sc	heduled for a
[Sun Pro Cor	Assign to the following Occurs on 5/16/2017 2:	schedule: 50 PM	Schedule	available:			
	As soon as possible	· · · · · · · · · · · · · · · · · · ·	~		New	Edit	Delete
		OK Rerun behavior:	Cancel Rerun if failed pr	evious 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 Completion	When the scheduled assignment time is reached, allow the following activities to be performed outside the 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 red in the Confi	a client c guration N	ycle ind lanager	ependently console.	y from schedules	that are
Actions	: ine Policy Retri	eval & Eva	aluation	Cvcle		
User	Policy Retrieval	& Evaluat	ion Cyc	le		
					Rup Nov	v
					Hun 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 Configuration Manager, see Deploy applications with System Center Configuration Manager at https://docs.microsoft.com/.

() 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 '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	 Packa 	ges 11	items
 Overview 	Searc	:h	
 Application Management 	lcon	Na	me
Applications		Co	onfiguratio
License Information for Store Apps		Di	sable_WF_
Create Package	ition	•	sr State N 8S_Disab 8S_enabl S7E_SYSF
Windows	0	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	ram Wizard		×
Package			
Package	Specify infor	mation about this package	
Program Type	opoony mioi		
Standard Program			
Summan	Enter a name and Application Catal	l other details for the new package. To take full advantage of new features that include the og, use an application instead.	
Progress			
Completion	Name:	sysprep_wie10	
	Description:	sysprep	~
			0
	Manufacturer:	Dell	=
	Language:	English Version: 1.0	
	This package	contains source files	-
	Source folder	Charry WIE10 CVCDDED	-
	_w	Share WIE IU_STSPREP 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	Estimated disk space:	10	MB		~
Summary Progress	Download program:	As soon as possible			~
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: 10 • 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	4			×
Content Destina	tion			
General Content Destination Summary	Specify the co	ontent destination		
Progress Completion	Content will be dis distribution point g Content destinatio	tributed to the following distributio roups that are currently associate	n points, distribution point group d with collections.	is, and the
	Filter		2	Add 🔻
	Name	Description	Associations	Collections
	11 12 13 14 18 19 11	There are no items to show in th	nis view.	Distribution Point
			2007-00-0000 B	Distribution Point Group
		< Previous	Next > Summary	Cancel

Figure 57. Content destination

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

Add Distribution Points				>
Select distribution points that will host this content. Available distribution points:				
Filter				Q
Name	Туре	Descript	tion	
SCCM1902.SUSDV60.COM	On-premises			
-			ОК	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 Statu In Progress: 0 Failed: 0 Unknown: 0
1 Targeted (Las	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.