

Creating a Wipe and Load (Destructive) WSA Deployment Application

Who can do this?

Shopping administrators with the privileges to create WSA applications in Shopping.

What is it for?

To enable users to self-service their OS deployments using the Windows Servicing Assistant.

Before you start

You must create the deployment task sequence in Configuration Manager – you'll need this for the General Details screen.

A Wipe and Load (Destructive) Deployment should be used when the task sequence includes steps to partition or format the disk (hence the deployment is destructive as all data and content on the disk is lost). For remote users, an NTFS format USB disk will be required to perform this type of deployment. The USB disk will be used to store all the content required for the task sequence to complete and will also store the captured user data and settings.

For an office based user with the default settings, if all required content is available on local peers it will be sourced from those peers when the task sequence runs. If there is any content required by the task sequence that is not available on any local peers at the time the WSA runs its readiness checks, the user will be required to insert an NTFS format USB disk. Alternatively, the option to download content if not available on the local network can be unchecked, in which case the machine will download the required content from the Distribution Point as required when the task sequence executes.

User data will always be stored on USB in a Wipe and Load (Destructive) Deployment if the user is remote. If the user is in the office, by default the WSA will attempt to find a local peer on which the user data can be stored. If no local peers are available, the user will be required to insert an NTFS format USB disk to store the content.

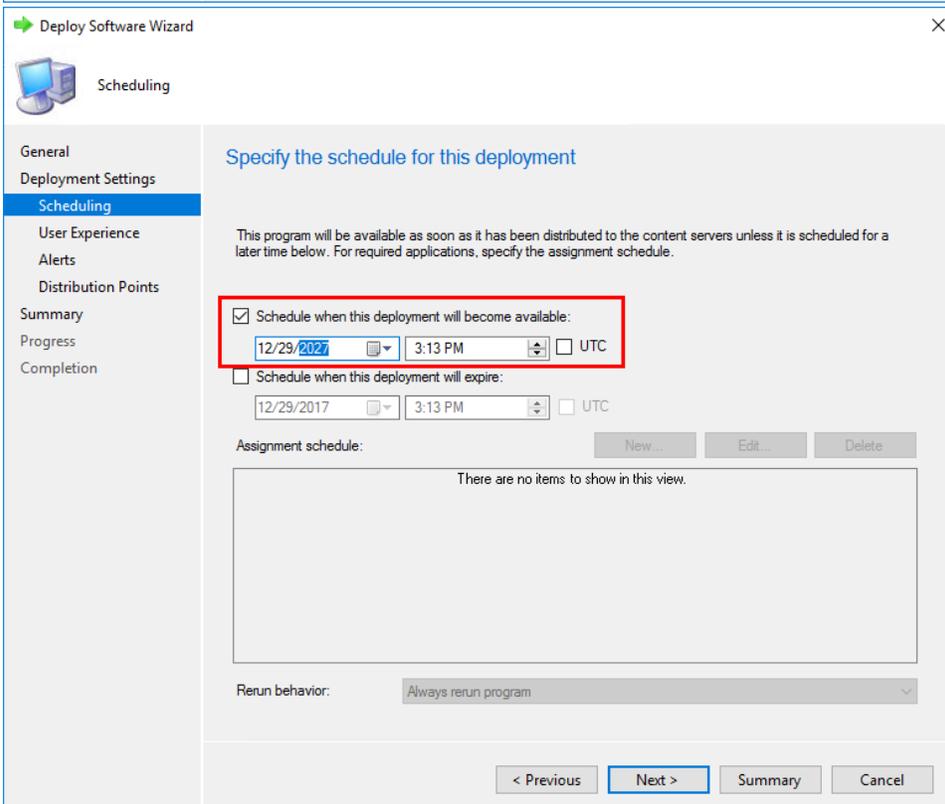
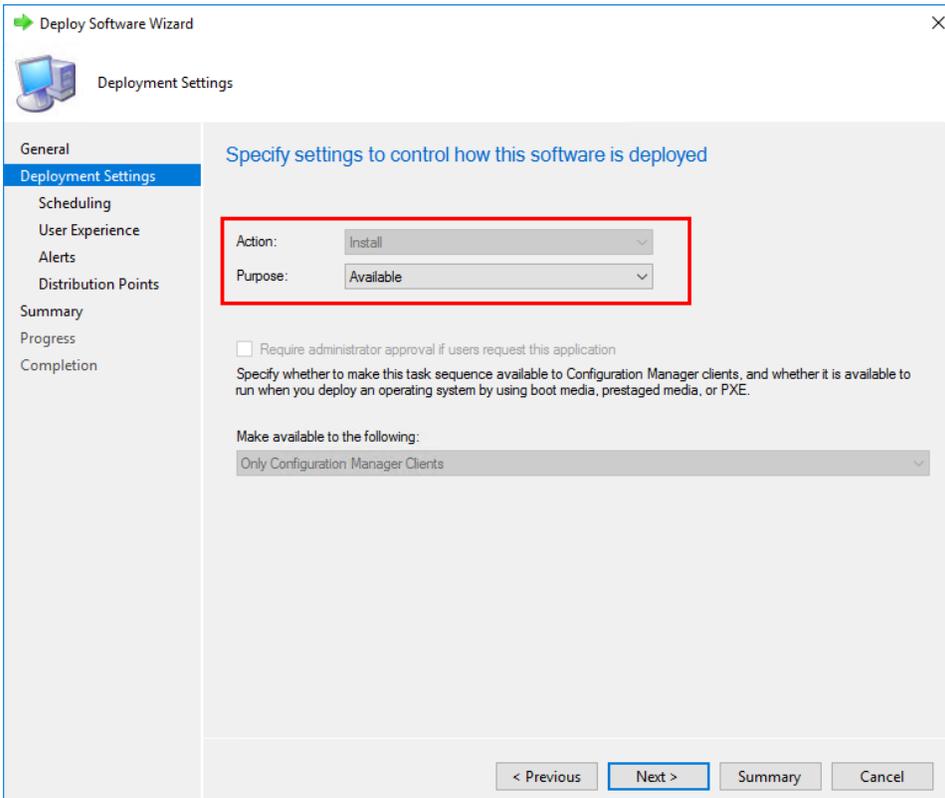
On this page:

- [Preparation](#)
- [Creating the Wipe and Load Destructive WSA Deployment Application](#)
- [Configuring the Wipe and Load \(Destructive\) WSA Deployment](#)
- [Masterclass video](#)

Preparation

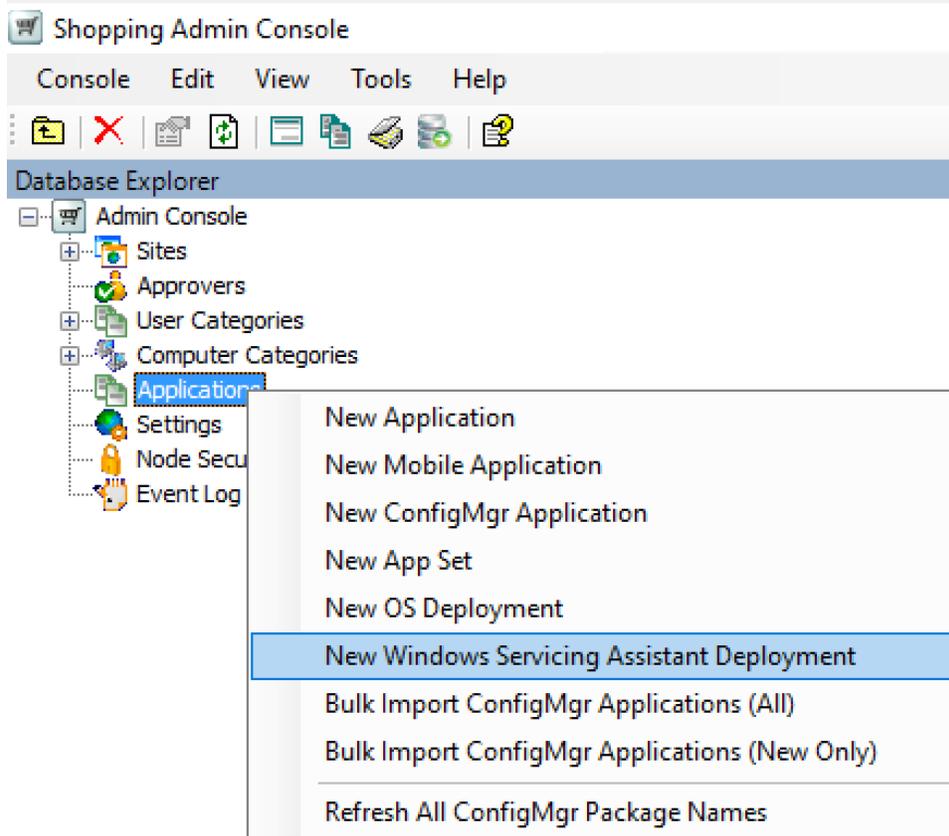
Before creating a Wipe and Load (Destructive) Windows Servicing Assistant Deployment Application in Shopping, ensure you have completed the following in Configuration Manager

1. Create a Task Sequence following the guidelines for [creating a WSA Wipe and Load Destructive Task Sequence](#).
2. Create an empty Collection that will be targeted with a deployment of the WSA Wipe and Load Destructive Task Sequence.
3. Deploy the WSA Wipe and Load Destructive Task Sequence created in step 1 to the empty Collection created in step 2. The deployment should be configured as **Available** (not Required), and scheduled to become available **10 years in the future** as indicated below. This prevents the deployment from appearing in Software Center until the available date, thereby preventing the user from executing the task sequence outside of the Windows Servicing Assistant.



Creating the Wipe and Load Destructive WSA Deployment Application

1. In the **Shopping Admin Console**, right-click the **Applications** node and from its context menu, choose **New Windows Servicing Assistant Deployment**.



2. On the **Welcome** screen, click **Next**.
3. On the **General Details** screen:

Shopping Admin - New Windows Servicing Assistant Deployment Wizard

General Details
Enter a name for the Windows Servicing Assistant Deployment and define Properties

Select an icon and define the properties of the Windows Servicing deployment.

Type of Windows Servicing Deployment:

Name:

Description:

Cost:

Change Icon...

Properties
Application Ref:

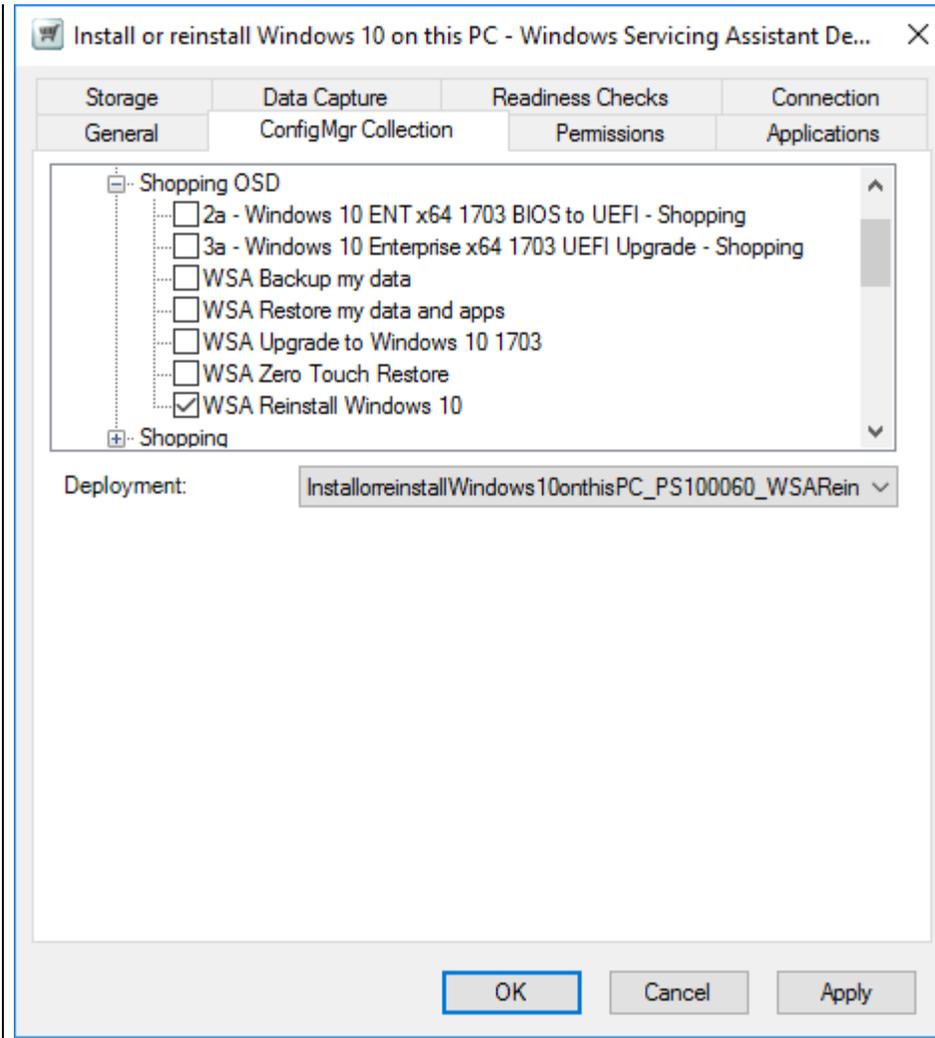
Help < Back **Next >** Cancel

- a. Select **Wipe and Load Destructive** from the Type of Windows Servicing Deployment drop-down.
- b. In the Name field, enter the name of this application as you want it to appear to the end-user in the wizard.
- c. Optionally enter a brief description in the Description field (note that the description, cost and icon are never displayed to the end-user for WSA Deployment Applications).
- d. Click **Next**.

4. On the **Config Mgr collection** screen:

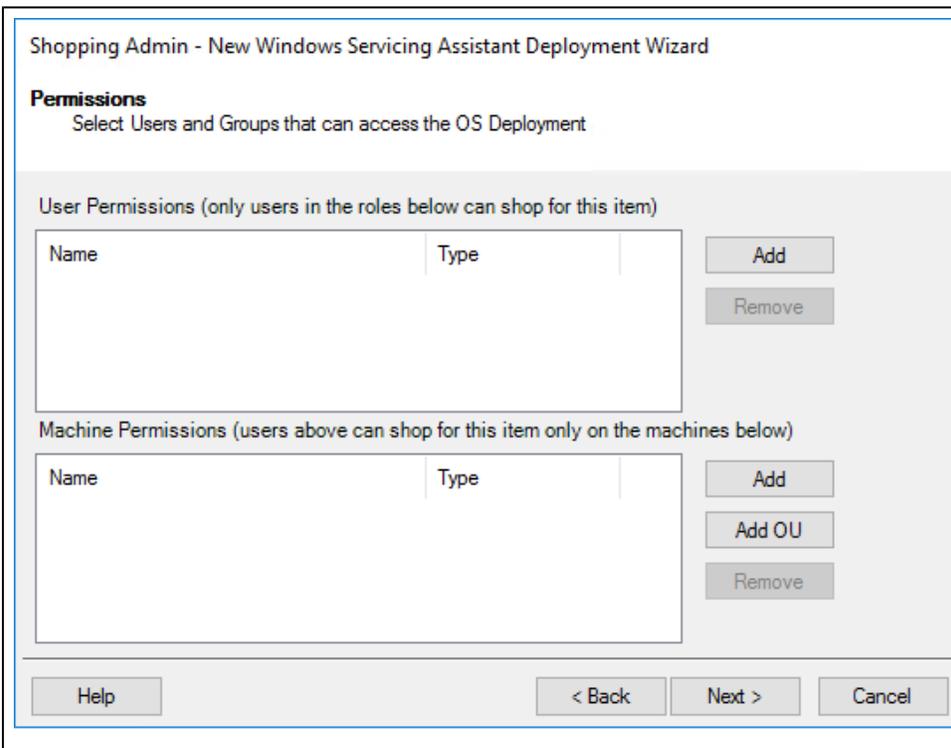


- a. Select the Collection that the Wipe and Load Task Sequence was deployed



- to (see [Preparation](#) above).
- b. From the Deployment drop-down, select the deployment that was created to deploy the Wipe and Load Task Sequence to the Collection selected previously.
 - c. Click **Next**.

5. On the **Permissions** screen:

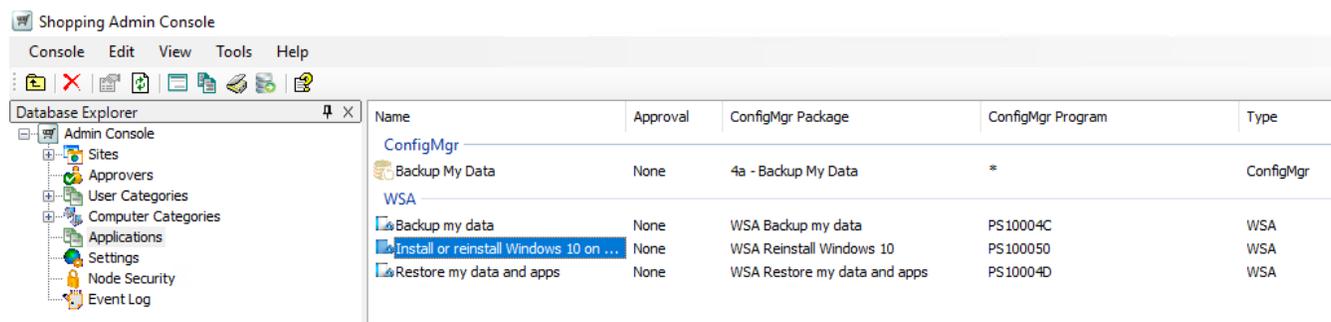


- If you want this Wipe and Load Deployment to be available to everyone, click **Next** (i.e. do not restrict the deployment to any users or computers).
- If you want to restrict this Wipe and Load Deployment to specific users, click **Add** to the right of the User Permissions list and add the user or group that you want to restrict access to. Repeat to add multiple users or groups.
- If you want to restrict this Wipe and Load Deployment to specific computers, click **Add OU** to the right of the Machine Permissions list and add the computer or group that you want to restrict access to. Alternatively, click the **Add OU** button to add an OU that contains

the computers that you want to restrict access to. Repeat as appropriate to add multiple computers, groups or OUs.

6. On the **Completing the Windows Servicing Assistant Deployment Wizard** screen, click **Finish**.

Configuring the Wipe and Load (Destructive) WSA Deployment



In the Shopping Admin Console, select the Applications node and double-click the Wipe and Load (Destructive) WSA application you just created (it will be listed under WSA as illustrated – use the search feature if necessary) to open the Properties dialog box.

We are going to walk you through the each of the tabs in the Properties dialog for the Wipe and Load (Destructive) Deployment and show you what the respective settings do and how they impact the behavior of the deployment in terms of the user experience. There is [a masterclass on how to create the deployment](#) at the end of this section.

The General tab

The **General tab** is populated with the settings defined when the application was created. It controls what is displayed on the WSA Start screen. You can change the name of the deployment (changing the description, cost and icon has no effect as these are never displayed to the end-user). However, **Type** cannot be changed.

For example, if you change the name of the deployment from Install or reinstall Windows on this PC to Reinstall Windows on My PC (Change Disk Format), users see this on the Start screen.

Your browser does not support the HTML5 video element

Install or reinstall Windows 10 on this PC - Windows Servicing Assistant De... X

Data Capture	Readiness Checks	Connection	Location	
General	ConfigMgr Collection	Permissions	Applications	Storage

Type:

Name:

Description:

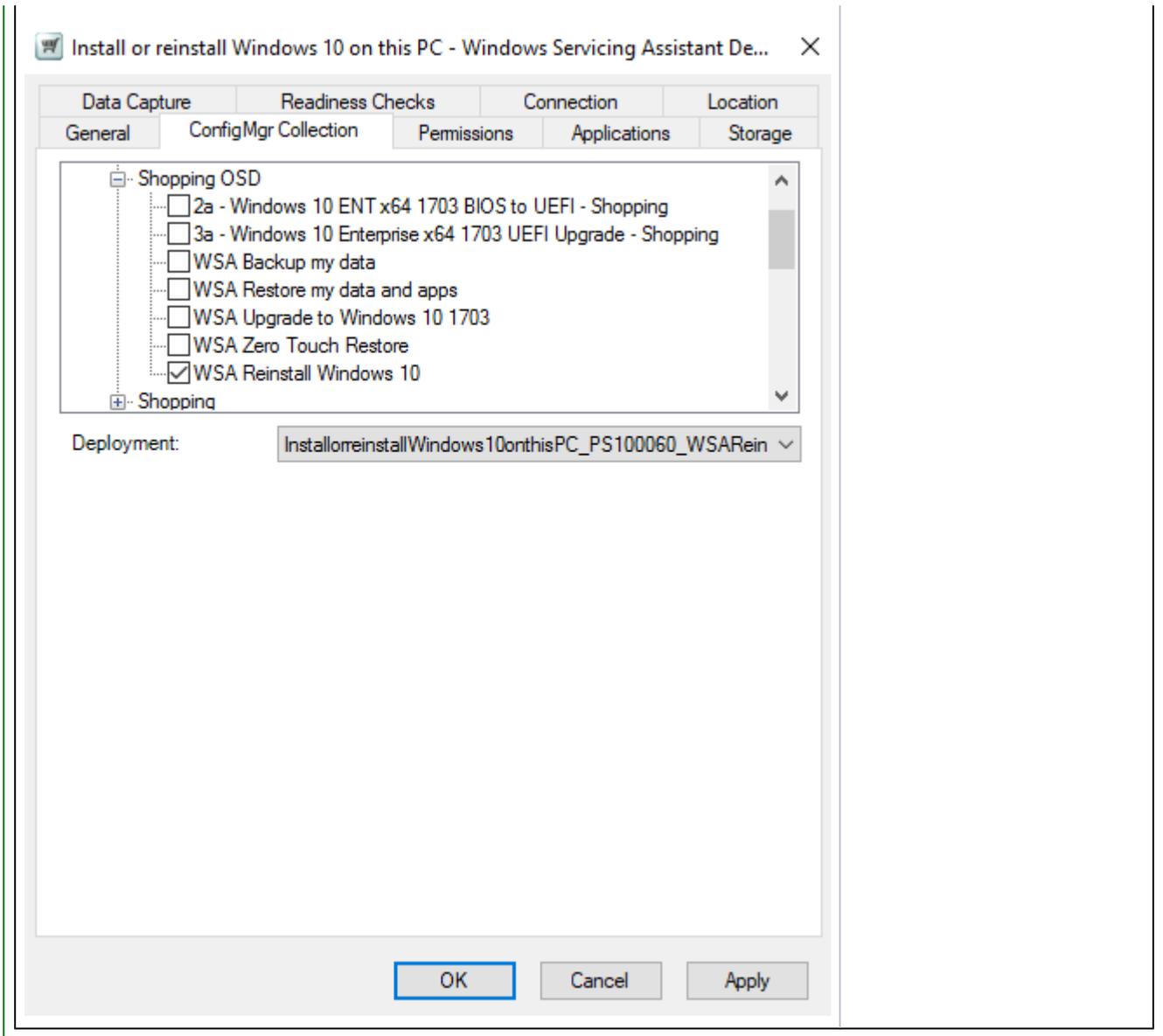
Icon: 

Cost:

Application Ref:

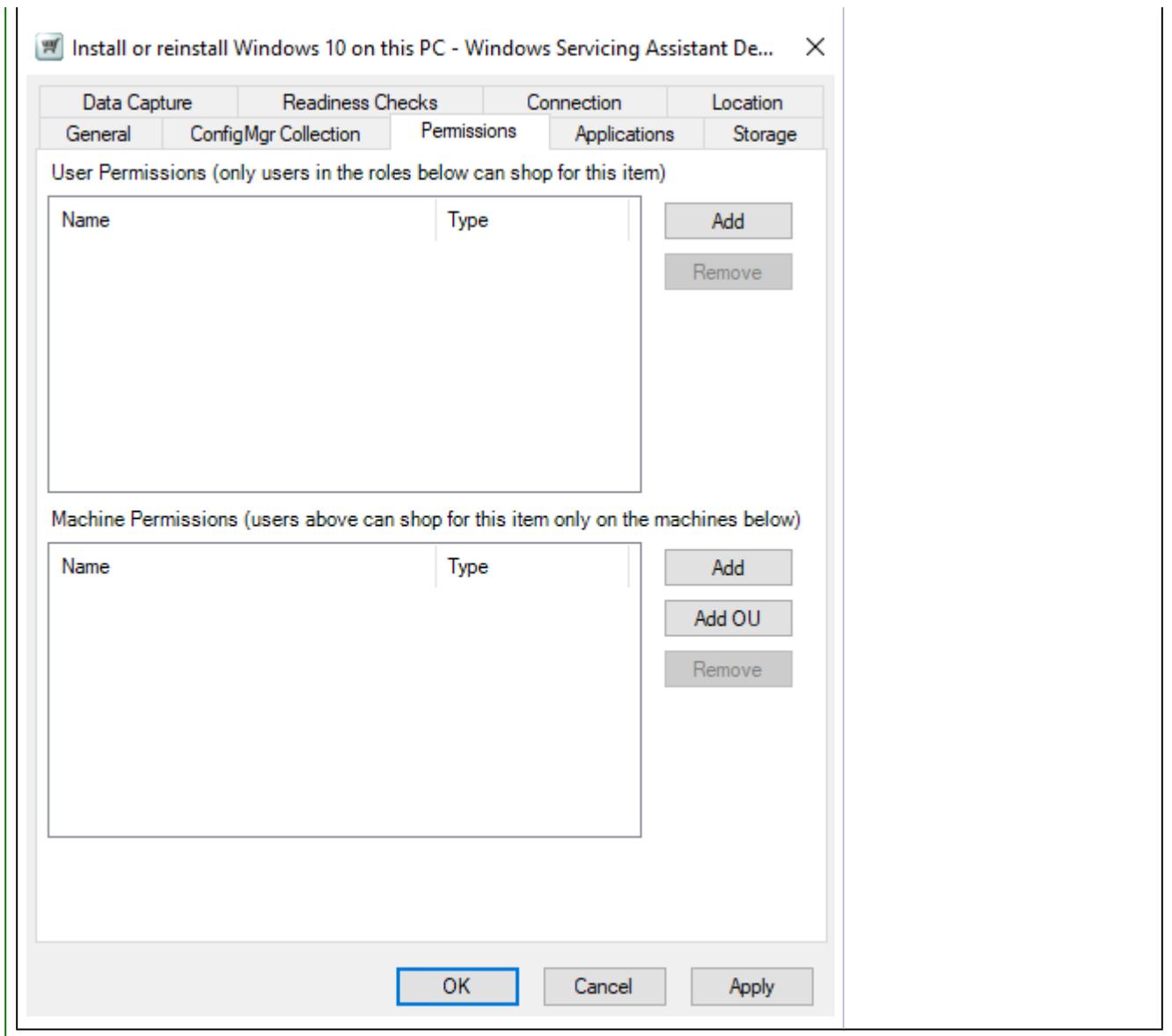
The ConfigMgr Collection tab

The **ConfigMgr Collection** tab is populated with the selections made when the application was created. These can be modified if necessary, but not recommended unless it is to correct an error. If you do modify these, ensure you select a deployment of a Wipe and Load (Destructive) Task Sequence.



The Permissions tab

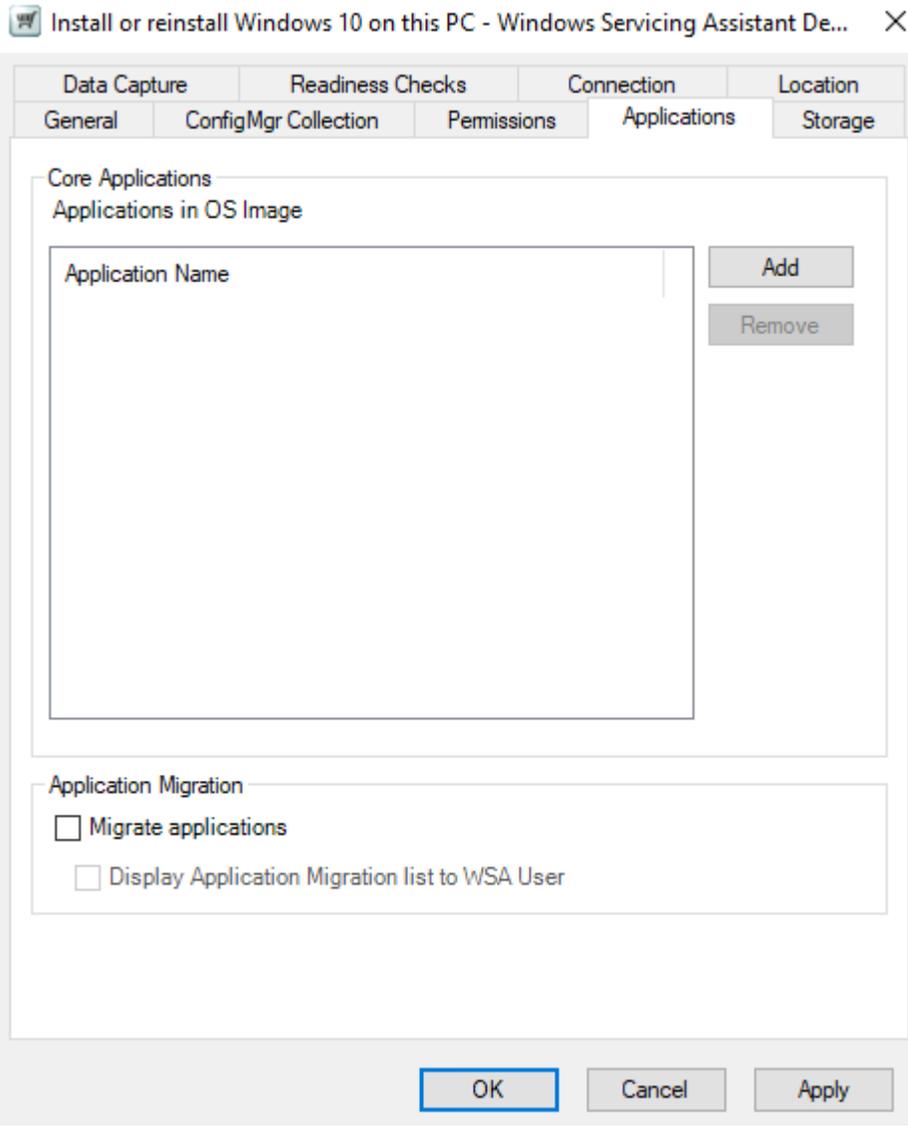
The **Permissions tab** is populated with the selections made when the application was created. You can modify the permissions from this tab to restrict access to specific users and /or computers.



The Application tab

The **Applications** tab controls what users see on the **Applications** screen. The list of applications you add to the Applications in OS Image list is displayed on the left of the **Applications** screen.

Your browser does not support the HTML5 video element



- If there are standard applications that are included in the OS image or installed by the task sequence, you can let the user know which applications are included by adding them to the Applications in OS Image list.

This is simply a list of free text strings entered by the administrator. The user is shown the list as it appears in this dialog.

- If 1E Application Migration is being used (specifically, if the Wipe and Load Task Sequence includes the 1E Application Migration steps):
 1. check the Migrate Applications check box.
 2. optionally, check the Display Application Migration list to WSA User option. When this option is selected, the user will see the applications that will be migrated on the Applications screen of the Windows Servicing Assistant.

If Migrate Applications is unchecked, when the Task Sequence runs the WSA Initialize step will set the `1EWSA_AppMigrationEnabled` task sequence variable to `False`. This variable should therefore be used in a condition on the Migrate Applications group in the task sequence so the group does not execute if `1EWSA_AppMigrationEnabled=False`. If this condition is not applied to the Migrate Applications group in the task sequence, Application Migration steps will be executed even though the Migrate applications option was unchecked in the WSA Deployment properties.

Data Capture	Readiness Checks	Connection	Location
General	ConfigMgr Collection	Permissions	Applications
Storage			

Office based user

Download content if not available in local network

Download content if not available in local cache

USB media required

Clean USB when finished

If the deployment is over WiFi, the above settings will be overridden. Content will be downloaded locally to USB

Remote user

Content will always be downloaded if not in local cache

USB media required

Clean USB when finished

Download only applicable driver packages

Fail readiness check if no applicable driver package is found

Do not repeat hash check within minutes

The **Storage tab** controls the options available for installing Windows 10 (e.g. VPN with no local peers).

1E Windows Servicing Assistant - Reinstall Windows on My P...

Start Location Applications User

We'll need some more space to install Windows 10.

We need to use USB media as there is insufficient space on the local drive.

The USB Memory stick will need at least 10 GB of free space.



[Refresh](#)

For Office based users:

- Check the **Download content if not available in local network** option (default) to ensure the WSA downloads any reference content for the workgroup. If you are prevented from using USB media you will need to uncheck this option.



In a Destructive Wipe and Load Deployment where the disk is repartitioned or formatted before the OS image is applied, the WSA does not have a local drive to store the content, so the **USB media required** option will be checked and disabled (so it can't be changed). This enables the local drive.

If the **Download content if not available in local network** option is unchecked, no content will be downloaded when the WSA prepares the machine, if the required content is not available on local peers from the Distribution Point.



If **Download content if not available in local network** option is checked, **USB media required** option will also be checked and if it is unchecked, **Download content if not available in local cache** will be unchecked and disabled. **Clean USB when finished** option will be enabled only when **USB media required** is checked.

- Check the **Clean USB when finished** option to have the WSA remove any content it added to the USB media when the task sequence has completed.

For remote users:

Content will always be downloaded to the local Nomad cache as the assumption is there will be no local peers:

- The **USB media required** option is checked and cannot be changed.



In a Destructive Wipe and Load Deployment, where the disk is repartitioned or formatted before the OS image is applied, if the user is running the task sequence on a local disk (if there is sufficient space on the local disk to store it). This enables the local disk to be repartitioned and formatted while the content remains on the disk.

- Check the **Clean USB when finished** option to have the WSA remove any content it added to the USB media when the task sequence has finished.

Driver Packages:

- Check the **Download only applicable driver packages** if the task sequence includes any Install Driver Package or Download Driver Package step. With **Download only applicable driver packages** enabled, the WSA will only download all driver packages referenced in the task sequence. If unchecked, the WSA will download all referenced driver packages and may therefore require more space on the local disk.



WSA is only able to evaluate single WMI conditions in the Install Driver Package steps. If multiple conditions are defined, only the first will be evaluated.

- Check the **Fail readiness check if no applicable driver package is found option** to fail the readiness checks if the Task Sequence does not find any applicable driver packages.



Typically, virtual machines will not have any applicable drivers, so ensure the **Fail readiness check if no applicable driver package is found option** is checked.

Hash checking:

WSA will perform a content hash check on all downloaded content as part of the readiness checks. As the readiness checks may be run a second time, the hash check may be repeated within the time period defined in the **Do not repeat hash check within** option. The value is defined in minutes between 0 and 480 minutes.

The Data Capture tab

The **Data Capture** tab controls the options available to the user on the **User Backup** screen.

Your browser does not support the HTML5 video element

Install or reinstall Windows 10 on this PC - Windows Servicing Assistant De... X

General ConfigMgr Collection Permissions Applications Storage
Data Capture Readiness Checks Connection Location

Do not capture user files and settings

The following message will be displayed to users

Select the folders and files you want backed up

Allow user to backup folders

Enter excluded folder path (below folders will be excluded by default)

%ONEDRIVE%|%PROGRAMFILES%|%PROGRAMFILES(X86)%|
%PROGRAMW6432%|%PUBLIC%|%SYSTEMROOT%|

Encrypt user data

Office Location

Nomad PBA only
 USB media only
 Use USB if PBA poll unsuccessful

Remote Location

USB media only
 Use USB if PBA poll unsuccessful

OK Cancel Apply

Check **Do not capture user files and settings** if the users do not have local files or settings that must be preserved. If this option is checked the other options are disabled and the following documentation does not apply.

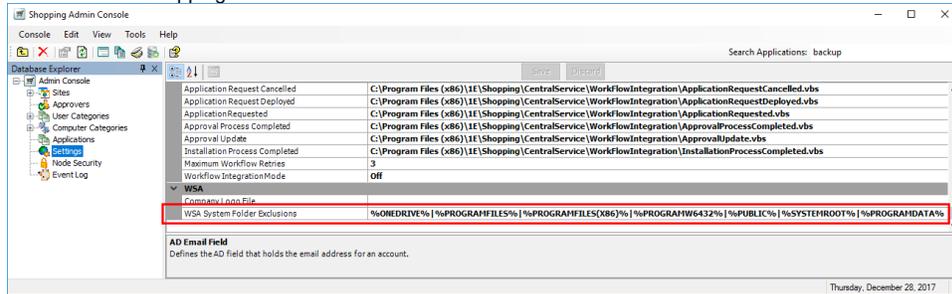
⚠ When you select this option, WSA will not attempt to calculate space required for user data. When the WSA Actions - Initialize step runs in the task sequence, a variable named 1ESkipUserStateCapture will be created and set to true. If the task sequence includes steps to capture data, these should be conditioned to only execute if 1ESkipUserStateCapture is not true.

The message the user sees on the WSA User Backup screen (the default is Select the folders and files you want backed up) can be customized by modifying the contents in the text box under The following message will be displayed to users heading.

⚠ If you are not allowing users to select folders to be backed up (see Allow user to backup folders below), you will need to modify this message as the user will not be prompted to select folders and the wizard screen will be blank other than this message. It may also be useful to warn the user in this message that when they click Next, the wizard will calculate space required, which could take several minutes.

- Check the **Allow user to backup folders** option to allow users to select which folders they want to be included in the capture. To prevent them from selecting certain folders, enter the name of the folders, separated with the pipe (|) character, in the text box under the Enter excluded folder path heading.

The greyed-out text box lists the global folder exclusions defined in the WSA System Folder Exclusions setting in Shopping. These can be modified in the Shopping Admin Console as illustrated below.



- Check the **Encrypt user data** option if you want the captured user data to be encrypted.



In a Wipe and Load Deployment, if this option is enabled an encryption key is generated locally by the 1E custom Get Migration Settings Task Sequence step and stored in a task sequence variable.

For the office location

For machines in the office (Office Location), select one of the following:

- Nomad PBA only – user data will only be stored on a local peer using Nomad Peer Backup Assistant. If no local peers are available to store the user data, the WSA will prevent the user from executing the deployment.
- USB Media only – user data will only be stored on USB media. The user will be required to insert NTFS format USB media to store the captured data and keep it connected for the duration of the deployment. If the user is unable to insert an NTFS format USB drive with sufficient space, the WSA will prevent the user from executing the deployment.
- Use USB if PBA poll unsuccessful (default) – the WSA will attempt to find an available peer to store user data on. If that is unsuccessful the user will be required to insert NTFS format USB media.

For the remote location

For machines in that are remote (Remote Location), select one of the following:

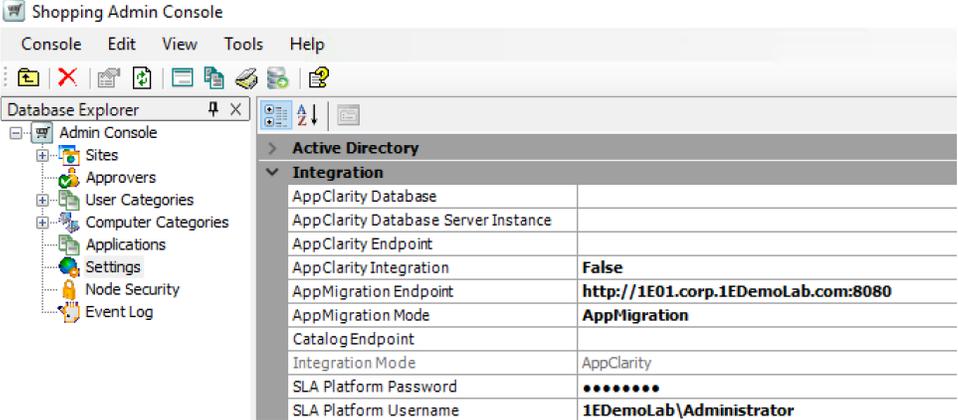
- USB Media only – user data will only be stored on USB media. The user will be required to insert an NTFS format USB disk to store the captured data and keep it connected for the duration of the deployment. If the user is unable to insert an NTFS format USB drive with sufficient space, the WSA will prevent the user from executing the deployment.
- Use USB if PBA poll unsuccessful (default) – the WSA will attempt to find an available peer to store user data on. If that is unsuccessful the user will be required to insert NTFS format USB media.

User Backup exceptions and how to fix them

These must be resolved before the deployment can continue:

- We've found something that prevents us from continuing at this time. Please retry later, or contact your administrator if the issue continues to occur.

Error code	Likely causes	Remedial action
0x00001001	Communication error – failure to send a size estimation message to the Tachyon service.	Ensure the Tachyon service is up and running.
0x00001002	Timeout duration exceeded – the Tachyon service was not able to	

	send a size estimation message for over the 1 minute timeout duration.																									
-1	Task is cancelled.																									
0x0100	Failure to get task sequence references from the Shopping API	<ol style="list-style-type: none"> 1. Ensure that the Shopping Web is up and running. 2. In Configuration Manager, ensure that the Shopping AppPool user is granted the Read-only Analyst role. 																								
0x0101	<ol style="list-style-type: none"> 1. Source machine does not exist in SLA platform. 2. Missing or invalid SLA platform credentials under Settings in the Shopping Admin Console. 	<ol style="list-style-type: none"> 1. Ensure that the source machine exists in the SLA platform. If it does not, run a synchronization to refresh the data. 2. Ensure that the SLA platform credentials are correct under Settings in the Shopping Admin Console.  <table border="1" data-bbox="755 871 1458 1150"> <thead> <tr> <th colspan="2">Active Directory</th> </tr> <tr> <th colspan="2">Integration</th> </tr> </thead> <tbody> <tr> <td>AppClarity Database</td> <td></td> </tr> <tr> <td>AppClarity Database Server Instance</td> <td></td> </tr> <tr> <td>AppClarity Endpoint</td> <td></td> </tr> <tr> <td>AppClarity Integration</td> <td>False</td> </tr> <tr> <td>AppMigration Endpoint</td> <td>http://1E01.corp.1EDemoLab.com:8080</td> </tr> <tr> <td>AppMigration Mode</td> <td>AppMigration</td> </tr> <tr> <td>Catalog Endpoint</td> <td></td> </tr> <tr> <td>Integration Mode</td> <td>AppClarity</td> </tr> <tr> <td>SLA Platform Password</td> <td>●●●●●●</td> </tr> <tr> <td>SLA Platform Username</td> <td>1EDemoLab\Administrator</td> </tr> </tbody> </table>	Active Directory		Integration		AppClarity Database		AppClarity Database Server Instance		AppClarity Endpoint		AppClarity Integration	False	AppMigration Endpoint	http://1E01.corp.1EDemoLab.com:8080	AppMigration Mode	AppMigration	Catalog Endpoint		Integration Mode	AppClarity	SLA Platform Password	●●●●●●	SLA Platform Username	1EDemoLab\Administrator
Active Directory																										
Integration																										
AppClarity Database																										
AppClarity Database Server Instance																										
AppClarity Endpoint																										
AppClarity Integration	False																									
AppMigration Endpoint	http://1E01.corp.1EDemoLab.com:8080																									
AppMigration Mode	AppMigration																									
Catalog Endpoint																										
Integration Mode	AppClarity																									
SLA Platform Password	●●●●●●																									
SLA Platform Username	1EDemoLab\Administrator																									
0x0102	Unable to get USMT Capture step configuration.	Ensure that the task sequence contains a Capture step.																								
0x0103	Unable to get the task sequence XML as: <ol style="list-style-type: none"> 1. The Shopping server is 	<ol style="list-style-type: none"> 1. Ensure that the Shopping Web is up and running. 2. In Configuration Manager, ensure that the Shopping AppPool user is granted the Read-only Analyst role. 																								

	<p>unavailable.</p> <p>2. The Shopping App Pool user has not been granted the Read-only Analyst role in Configuration Manager.</p>	
0x0204	Missing details in the WSA order.	Contact 1E Support for assistance.
0x0300	Unable to fetch Nomad cache size details.	Ensure that the Nomad service is running and get the user to retry.
0x0301	Unable to get content location.	Ensure that Nomad service is running and the client machine is present in the required boundary groups and get the
0x0302	Unable to find PBA host.	Ensure that the PBA hosts are responsive by running a ping, check the PBA configuration and get the user to retry.
0x0400	Unable to locate applicable driver package in the task sequence for this machine.	Ensure that the task sequence contains driver package valid for that machine. Otherwise, modify the WSA application that it does not fail when drivers are not available.
0x0406	Unable to locate USMT Package in the task sequence references.	Ensure that the USMT package is referenced in the task sequence.
0x0602	ScanState.exe unable to estimate user state data size.	Ensure that the Tachyon service is up and running. If it is running, check scanstate.log (its location is found in Tachy

0x0603	Unable to locate a compatible version of Nomad.	Ensure that you have Nomad 6.3.200 or later installed.
--------	---	--

The Readiness Checks tab

The **Readiness Checks** tab controls what readiness.

1E Windows Servicing Assistant - Reinstall Windows on My P

Start Location Applications User

Getting things ready

This may take some time

I'm done. Go ahead and Reinstall Windows c

I want to continue working. Let me know wh

Cancel

OK Cancel Apply

- Check **Do not start the task sequence if this device is currently storing data captured from another device** if you want the WSA to prevent the local machine from currently storing user data from one or more peers.
- Check **Do not start the task sequence if this device is currently serving a boot image to another device** if you want the WSA to prevent the local machine from currently serving a boot image to a peer.
- Check **Do not start the task sequence if this device is currently running on battery** if you want the WSA to prevent the task sequence from running on a battery-powered device.

The Connection tab

Install or reinstall Windows 10 on this PC - Windows Servicing Assistant De...

General ConfigMgr Collection Permissions Applications Storage
Data Capture Readiness Checks Connection Location

In order for the deployment task sequence to complete, it may require that local WiFi details and VPN connection credentials are provided. WSA can be configured to gather connection information from the user for later use in the task sequence

Require user enter VPN credentials

Allow deployments over WiFi

Wipe and load destructive deployments over WiFi require all content to be downloaded locally to USB. Options defined on the storage tab will be overridden.

Require user enter SSID and password

OK Cancel Apply

The Connection tab controls whether users need to provide their VPN or wireless

1E Windows Servicing Assistant - Reinstall Windows on My P

Start Location Applications User

We'll need help connecting

In order for the migration to complete, it will need to reconnect your WiFi, so please enter these details.

VPN Credentials

Username
joe

Password
••••••

Cancel

i From Shopping 6.0, WSA will attempt to connect to the network profile. If the password cannot be re-entered, the user will need to enter the password manually.

- Check **Require user enter VPN credentials** if the task sequence includes a step to establish a VPN connection that requires user credentials.



If this option is enabled, when the WSA runs, if the user selects remote location (i.e. not in the office) they will be required to enter their VPN credentials. In the Initialize step, these credentials are stored in the `1EWSA_VpnUserName` and `1EWSA_VpnPassword` Task Sequence Variables.

- Check **Allow deployments over WiFi** if you want users to be able to execute the deployment over a wireless connection. This option requires users to be connected remotely over WiFi or are in the office and connected to the network over WiFi.
- The **Require user enter SSID and password** option is only enabled if Allow deployments over WiFi is checked. Check this option if the task sequence requires the SSID and password to be provided.

If this option is enabled, when the WSA runs it will prompt the user to select a WiFi SSID (from those currently available) and enter the password. These credentials are stored in the `1EWSA_WifiSsid` and `1EWSA_WifiPassword` Task Sequence variables.

Install or reinstall Windows 10 on this PC - Windows Servicing Assistant De... X

General ConfigMgr Collection Permissions Applications Storage

Data Capture Readiness Checks Connection Location

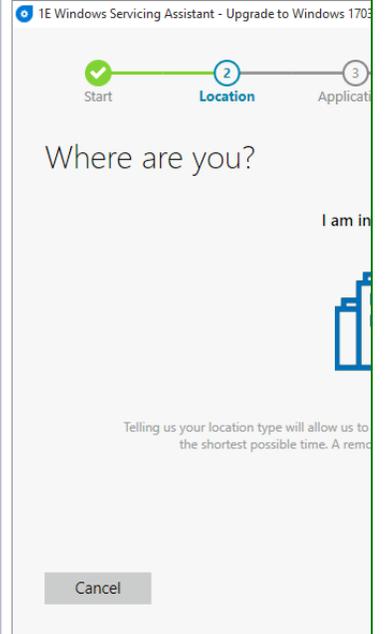
Hide Location Page

Use below location when Location Page is hidden

Office Remote

OK Cancel Apply

The **Location** tab controls is displayed for you to choose to hide the Location page you may want to hide.



Why can't I see the Location page?

You will not see this screen if:

- You asked for data to be moved from the old PC and Apps to a New PC option on the Location page.
- The Location page has been set to Hidden for Office or Remote.

Other operational errors

Exceptions on Completion screen and how to fix them

Error code	Likely causes	Remedial action
0xA0070700	The task sequence failed to start.	This is not likely to happen unless the Windows Management Instrumentation (WMI) is corrupted. If this happens, get the user to rerun the deployment. Error is displayed on the Completion screen as follows: <ul style="list-style-type: none"> • Something went wrong with the deployment. Please contact your local administrator.
0xA0070701	SCCM execution history is missing.	Check the status messages in Configuration Manager for the task sequence deployment as well as the ExitCode in the WSA execution history for the Task Sequence package id (HKEY_LOCAL_MACHINE\SOFTWARE\1E\WSA\TSExecutionHistory\TSPkgID)

		<p>Error is displayed on the Completion screen as follows:</p> <ul style="list-style-type: none"> • Something went wrong with the deployment. Please contact your local administrator.
0xA0070702	WSA execution history is missing – most likely cause is that the task sequence failed in WinPE.	<p>Check the status messages in Configuration Manager.</p> <p>Error displayed on the Completion screen as follows:</p> <ul style="list-style-type: none"> • Something went wrong with the deployment. Please contact your local administrator.
0xA0070703	Unable to establish a WIFI connection.	<p>Get the user to run the deployment again with the emphasis on providing their correct connection credentials – on the Connection screen, click Reveal to check the accuracy of the password they entered.</p> <p>Error displayed on the Completion screen:</p> <p>There was a problem connecting to the WiFi network. Please rerun the Assistant and ensure that the WiFi connection details are entered correctly</p>
0xA0070704	Unable to establish a VPN connection.	<p>Get the user to run the deployment again with the emphasis on providing their correct connection credentials – on the Connection screen, click Reveal to check the accuracy of the password they entered.</p> <p>Error displayed on the Completion screen:</p> <p>There was a problem connecting to the VPN. Please rerun the Assistant and ensure that the VPN connection details are entered correctly</p>
0xA0070705	WSA execution history is invalid.	<p>Contact 1E Support for assistance for assistance.</p> <p>Error displayed on the Completion screen as follows:</p> <ul style="list-style-type: none"> • Something went wrong with the deployment. Please contact your local administrator.

Masterclass video

A masterclass in creating a Wipe and Load (Destructive) WSA Deployment Application

Your browser does not support the HTML5 video element