# Creating Windows Servicing Assistant Deployment Applications

| Who can do this? | What is it used for? | How it is implemented? |
|---|---|---|
| Shopping administrators. | Preparing machines for OS deployment scenarios and executes Configuration Manager Task Sequences to automate In-place upgrades, Computer Replace and Computer Refresh scenarios. | As client-based wizard that is implemented with the Shopping module in the 1E Client (formerly Tachyon Agent) that utilizes a system tray tool for notifications. |

## What are Windows Servicing Assistant Deployment Applications?

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Windows Servicing Assistant Deployment Applications provide a much richer user self-service experience and a better success rate for IT admins compared with OS Deployment Applications. Similar to OS Deployment Applications, Windows Servicing Assistant Deployment applications are used to execute Configuration Manager Task Sequences to automate various OS deployment scenarios. The Windows Servicing Assistant (WSA) is a client-based wizard that is implemented with the Shopping module in the Tachyon 3.2 Agent and later. Although it is invoked by the user through the Shopping portal, once launched the process is managed by the Shopping module in the 1E Client. This approach enables the WSA to actively prepare the machine, for example:

- ensuring content is downloaded locally, using a USB drive if permitted for additional storage if necessary, delivering greater success when users are remote and connecting to the corporate network over a VPN connection
- ensuring certain prereqs are met, such as the machine is connected to a power source rather than running on battery
- optionally enabling the user to select folders to be included in the user state capture (the WSA dynamically creates a USMT configuration file based on the user's selections and stores this in the Shopping database. Custom steps in the task sequence then retrieves this file and adds it to the USMT state capture command line).

The Windows Servicing Assistant implements a system tray tool that notifies the user of the current status of the process and allows the user to minimize the wizard while their machine is prepared. They will be notified when the machine is ready for the selected deployment and can choose to run it immediately or come back later to run it when they are ready,

## Windows Servicing Assistant deployment types

The Windows Servicing Assistant can be used to support Computer Refresh (Wipe-and-load), Computer Replace and In-place Upgrade OS deployment scenarios. The options available to the administrator when creating the WSA Deployment application in Shopping and to the user when running the assistant on their machine are different for each scenario. There are a total of five different Windows Servicing Assistant deployment types to support the various deployment scenarios, as follows

### To support In-place Upgrades

In-place Upgrade deployments are used for Task Sequences that use the Upgrade Operating System step to upgrade the currently installed operating system. The In-place Upgrade scenario can only be used when upgrading to a version of Windows 10, but can be used to upgrade from Windows 7 or 8.1 to Windows 10, or from an older version of Windows 10 to the latest (for example upgrading from Windows 10 1607 to Windows 10 1703). There is one WSA deployment type to support the In-place Upgrade scenario

- **In-place Upgrade**. This deployment type is used to execute a Task Sequence that uses the Upgrade Operating System step to upgrade the currently installed operating system. For details on how to create an In-place Upgrade Windows Servicing Assistant Deployment, refer to Creating an In-place Upgrade WSA Deployment Application.

### To support Computer Replace

Computer Replace deployments require two Task Sequences to be executed. The first Task Sequence is executed on the old machine and captures user data and settings. The second Task Sequence is executed on the new computer, restoring the user data and settings and optionally installing, upgrading or replacing the applications that were being used on the old machine using 1E Application Migration. There are two corresponding WSA deployment types to support the Computer Replace scenario

- **Replace Capture**. This deployment type is used to execute the Task Sequence on the old machine that will capture the user data and settings. For details on how to create a Replace Capture Windows Servicing Assistant Deployment, refer to Creating a Capture Data and Settings WSA Deployment Application
- **Replace Restore**. This deployment type is used to execute the Task Sequence on the new machine that will restore the user data and settings and optionally migrate applications. For details on how to create a Replace Restore Windows Servicing Assistant Deployment, refer to Creating a Restore User Data and Applications WSA Deployment Application.

### To support Computer Refresh

Computer Refresh deployments generally involve wiping the disk and loading a new Operating System image. In most cases the user data will be captured from the machine before the disk is wiped and restored after the new Operating System image has been applied. Applications can optionally be migrated using 1E Application Migration. There are two WSA deployment types to support the Computer Refresh scenario

- **Wipe and Load Destructive**. This deployment type should be used if the Task Sequence includes steps to partition or format the hard disk. In this scenario, it is not possible to store content or user data on the disk as it would be destroyed when the disk is partitioned / formatted. In this scenario the Windows Servicing Assistant will ensure that there are either local peers that have the required content and storage space for the user data to be migrated, If no suitable local peers exist (for example if the user is working remotely), the assistant will invite the user to insert a USB disk which will be used to store the content and user data required to complete the deployment. For details on how to create a Wipe and Load Destructive Windows Servicing Assistant Deployment, refer to Creating a Wipe and Load (Destructive) WSA Deployment Application
- **Wipe and Load Non-destructive**. This deployment type can be used if the Task Sequence doesn't partition or format the disk. In this scenario, although the Task Sequence will wipe the old operating system from the disk, a special folder is preserved throughout the process. This folder is used to store user data (using USMT hard links) and can also store content required for the Task Sequence to complete. For details on how to create a Wipe and Load Non-destructive Windows Servicing Assistant Deployment, refer to Creating a Wipe and Load (Non-destructive) WSA Deployment Application.