Windows 11 IoT Enterprise LTSC 2024

Administrator's Guide

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DELL Technologies

Notes, cautions, and warnings

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

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

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

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Introduction

Devices with Windows 11 IoT Enterprise LTSC 2024 provide a secure and reliable way to access applications, files, and network resources. This operating system enables remote management and administration, using the familiar Windows interface to ensure a secure environment for users.

You can also install additional add-ons from the **Drivers and Downloads** page of the specific hardware platforms at Dell | Support to support a wide range of peripherals and features.

Document purpose

This guide provides information and outlines detailed device configurations for administrators to manage and run devices running Windows 11 IoT Enterprise LTSC 2024. For more information about the new features specific to the operating system version, see *Windows 11 IoT Enterprise LTSC 2024 Release notes* at Dell | Support.

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What's new in Windows 11 IoT Enterprise LTSC 2024

This chapter describes the new and and enhanced features in Windows 11 IoT Enterprise LTSC 2024.

What's new in 2605 release

Windows 11 IoTE configuration policy support from WMS

Windows 11 IoTE policy is a new WMS configuration policy that is designed exclusively for Windows 11 IoT Enterprise LTSC 2024 for Dell thin clients. It provides enhanced capabilities, improved security, and better management features compared to the previous WinIoT 2.x policy. The following are benefits of Windows 11 IoTE Policy:

- Access to latest Windows 11 IoT Enterprise LTSC 2024: Get the latest features and configurations.
- Enhanced security and improved input validation checks from both device agent and Windows 11 IoTE policy.
- Exclusive for Windows 11 IoT Enterprise LTSC 2024 Devices: Dedicated policy exclusively for Windows 11 IoT Enterprise LTSC 2024.
- Instant migration and Child Group migration support: Quick migration with support for child groups.
- Supports device level exception migration: Capability to migrate device-level exceptions as well.
- Multi-language/Unicode support for string input fields: Added Unicode support for string input fields that are used for display purposes, such as Connection Name, Application Name, Alert Message, and others.

For more information, see Windows 11 IoTE policy in Wyse Management Suite.

NOTE: It is recommended to migrate to Windows 11 IoTE from WinIoT 2.x policy.

Set Passwordless Login for User account

You can set passwordless login for User account through the new Windows 11 IoTE policy. For more information, see Set Passwordless Login for User account.

Dell Application Control Center (DACC)

Introduced Dell Application Control Center (DACC), a unified management application for Windows 11 IoT Enterprise LTSC 2024 that streamlines device administration through a single interface.

It enables centralized monitoring, UWF configuration, WMS integration, simplified user and kiosk setup, and access to utilities for managing system settings, logs, and application behavior by improving overall efficiency, control, and security. For more information, see Dell Application Control Center (DACC) .

Overlay type configuration

A **Disk Based Overlay** option has been introduced alongside the existing RAM-based overlay. The RAM-based overlay continues to be the default for factory and e-support images, while customers now have the flexibility to optionally configure and switch to the disk-based overlay based on their specific requirements. This feature is available in both the Dell Application Control Center and WMS. For more information, see RAM based and Disk-based overlay type configuration from WMS.

What's new in 2602 release

Configuration policy to suppress the UWF Disabled popup

Added configuration policy to suppress the Write Filter Disabled popup notification locally through DACC or remotely through WMS WinIoT 2.x policy. For more information, see Configure Write Filter notification settings from WMS .

Enabling Hotkey Filter policy support in WMS

Provided support for Hotkey Filter through WinIoT 2.x policy in WMS for Remote Desktop Connection (RDP), Citrix, and Omnissa VDI brokers. For more information, see Configure Hotkey Filter from WMS.

Additional Power Settings support in WMS

Added support to configure Power button, Sleep button, and Lid close actions. For more information, see Configure Power Settings from WMS .

USB binary update for Dell Imaging Manager

Added support to automatically detect and prompt for USB binary updates when a Dell Imaging USB is inserted. This enhancement eliminates the need to release a new image for binary updates. These updates are enabled using Dell Application Store version 2602 or later and do not require an Internet connection. For more information, see Deploy an image using USB.

Additional display language and keyboard layout policy support in WMS

Added the following display language and keyboard layout support:

- Thai:
  - Display Language: Thai (Thailand)
  - Keyboard layout:
    - Thai Kedmanee
    - Thai Pattachote
    - Thai Kedmanee (non-ShiftLock)
    - Thai Pattachote (non-ShiftLock)
- French (France) Keyboard Layouts:
  - French (Legacy, AZERTY)
  - French (Standard, AZERTY)
  - French(Standard, BEPO)

Enhanced Remote Shadow (P2P)

Enhanced the existing capabilities of remote shadow (P2P) as follows:

- Significantly reduced the connection time.
- Account switching capability in the same session.
- Initiate a connection when the client is in a locked, signed out or screen saver state.
- Initiate the connection for WMS on-premises–managed devices and WMS Cloud devices when the client is in a sleep or shutdown state, only if a remote repository is configured.

> **NOTE:** This functionality is enabled through the Wake on LAN (WoL) feature running in the background. Ensure that your device is connected to a LAN network for it to operate correctly.

For more information, see Remote Shadow (P2P).

Citrix Default Workflow support

Introduced a unified Citrix Default Workflow that lets administrators configure Citrix Workspace using generic parameters such as Store URL without selecting a connection type. WMS applies the correct settings and automatically resolves the connection types. This streamlines the policy management, aligns with native Citrix behavior, and improves sign-in experience. For more information, see Configure Citrix Workspace app in Kiosk mode from WMS.

Updated third-party applications

Third-party applications have been updated and are available on the Dell e-support site and in the App Inventory in the WMS cloud environment.

What's new in 2511 release

SHA-512 cryptographic upgrade

The cryptographic hashing algorithm used for communication between Wyse Management Suite (WMS) and the device has been upgraded from SHA-256 to SHA-512.

To enable this enhancement, the device must have Dell Application Store version 2511 and WMS version 5.4 installed. If either component is not updated, the system will automatically revert to SHA-256.

EULA acceptance in WMS

For WMS Cloud version 5.4 and later, IT administrators are required to accept the End User License Agreement (EULA) when creating or modifying application policies for devices running Windows IoT Enterprise. This requirement does not apply to WMS On-Premises deployments.

Citrix Workspace app enhancement

StoreFront configuration for application sessions is now enabled. The enhancement includes the following capabilities:

- View only published application—StoreFront can now be configured to display only the applications published to the user.
- Session logout upon zero open connections—The system now automatically logs the user off based on the configured Citrix settings.

Updated third-party applications

Third-party applications have been updated and are available on the Dell Support site and in the **App Inventory** under **Apps & Data** in the WMS cloud environment. For more information about the version details, see Windows 10 IoT Enterprise LTSC 2024 Release Notes available at Dell | Support.

What's new in 2508 release

Dell Imaging Manager

Dell Imaging Manager has been enhanced with a modern and intuitive user interface, reducing the need for documentation and improving the overall user experience. It also supports a Multilingual User Interface (MUI) with 17 different languages.

Display of End User License Agreements (EULAs) on initial boot and image deployment

End User License Agreements (EULAs) for Dell, Microsoft, and third-party partner components are displayed in the following scenarios:

- End User License Agreements (EULAs) for Dell, Microsoft, and third-party partner components are displayed in the following scenarios:
  - When a device is powered on for the first time.
  - When an image is deployed using Dell Imaging Manager or Wyse Management Suite (WMS).

  IT administrators must review and accept these EULAs on behalf of their organization to proceed with the setup. The system will not allow further configuration or deployment steps until all applicable license agreements have been accepted, ensuring compliance with licensing terms and organizational policies.

OS Validation for Dell value-added applications

The installation process for Dell value-added applications validates the operating system (OS) version to ensure compatibility with Windows 11 IoT Enterprise LTSC 2024 devices. If the installer detects an incompatible OS, it displays a descriptive error message, stops the installation, and prompts the user to correct the issue. This validation helps protect system integrity and prevents unsupported installations.

Omnissa Horizon Client Integration with WMS and Dell value-added applications

The Omnissa Horizon Client (2503) is a replacement of the existing VMware Horizon Client integrates with Wyse Management Suite (WMS) and Dell value-added applications, such as Wyse Easy Setup. This integration allows for deployment of the Omnissa Horizon Client, supporting either silent deployment using WMS or manual installation. To use this feature, ensure that you have the following prerequisites installed:

- Dell Application Store 2508
- Wyse Management Suite 5.3
- Configuration UI package 1.10.643 or above is required for Omnissa Horizon Client (2503).

The Cisco Jabber VDI plugin 15.1.0.59856 is not compatible with the Omnissa Horizon Client (2503). The following plugins are supported by Omnissa Horizon Client (2503):

- Zoom VDI (Virtual Desktop Infrastructure) Plugin 6.4.26350
- Cisco Webex App VDI Plugin (Bundled Webex Meetings VDI plugin) 45.6.1.32593

Third-party applications

The suite of third-party applications has been updated and is now available for access through two primary channels: The Dell | Support website and the **App Inventory** section, which is located under **Apps & Data** within the WMS cloud environment. For detailed information regarding version specifics and other relevant details, see *Third-party applications* section in Windows 10 IoT Enterprise LTSC 2024 Release Notes available at Dell | Support.

NOTE: The following applications are now supported for silent installation using WMS, without requiring any installation parameters: Citrix Workspace app, Omnissa Horizon Client, and Amazon WorkSpaces. This functionality is enabled when **Wyse Device Agent** version 14.8.0.3 or later is installed on the device, allowing for seamless and automated deployment of these applications.

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Getting started with Windows 11 IoT Enterprise LTSC 2024

When you first connect your device running Windows 11 IoT Enterprise LTSC 2024 to the Internet, the automatic activation feature ensures the operating system is licensed and ready for secure operation immediately.

For effective device management, it is recommended to use Wyse Management Suite (WMS). WMS offers a centralized approach, allowing you to:

- Configure, monitor, manage, and optimize all devices from a single location.
- Automate tasks, saving IT time and resources as deployments grow.
- Reduce management costs for large deployments.
- Secure device connections with HTTPS-based communication, two-factor authentication, and role-based provisioning.
- View alerts, receive notifications, and send remote commands to devices.

The pre-installed Wyse Device Agent (WDA) runs on the device to establish communication with WMS, enabling immediate enrollment, configuration deployment, and ongoing management without additional setup.

NOTE: Devices can also be managed using other solutions such as Microsoft Endpoint Configuration Manager or Omnissa Workspace ONE.

Logging in to the device

Upon startup, the device automatically logs in to the User desktop. To sign in with a different account, sign out of the current account and select the preferred user account from the login screen.

The default credentials for different user types are:

- **Administrators**
  - Username—**`Admin`**
  - Password—**`Admin#<Service Tag of the device>`**. Replace <Service Tag of the device> with the Service Tag for your device. For example, if the Service Tag of the device is 1X630C1, the password is **`Admin#1X630C1`**.
- **Users**
  - Username—**`User`**
  - Password—**`User#<Service Tag of the device>`**. Replace <Service Tag of the device> with the Service Tag for your device. For example, if the Service Tag of the device is 1X630C1, the password is **`User#1X630C1`**.

NOTE: For information about how to find the Service Tag of the device, see Find your Service Tag or Serial Number.

Before configuring your device

Before configuring your device, it is important to manage the Unified Write Filter (UWF). The UWF prevents changes that are made to the device from persisting across reboots. To apply permanent configuration changes, you must disable the UWF before making modifications. Once the configuration is complete, enable the UWF. For information, see Unified Write Filter.

NOTE: Use the information in this section when configuring the device locally. For remote configuration, WMS automatically handles Unified Write Filter (UWF).

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Dell Application Store

After completing activation and management setup, you can further enhance and customize devices using Dell Application Store. This store includes value-added applications that help you customize, secure, and optimize devices for different use cases. Dell Application Store comes with following Dell value-added applications:

NOTE: Starting with Dell Application Control Center (DACC) version 2605 and later on Windows 11 IoT Enterprise LTSC 2024 devices, Dell value-added applications such as Wyse Easy Setup and Wyse Device Agent are integrated into the modern Dell Application Control Center. For more information, see Dell Application Control Center (DACC) .

Wyse Device Agent (WDA) 

Description—Enables quick configuration deployment and WMS management. To register a device using **Wyse Device Agent (WDA)**  , see Register devices using Wyse Device Agent.

Benefits—Allows you to manage devices using WMS.

Wyse Easy Setup

Description—Enables you to quickly and easily deploy configurations on devices. To deploy **Wyse Easy Setup** configurations remotely, see Configure Wyse Easy Setup from WMS. To use **Wyse Easy Setup** locally on the device, see Wyse Easy Setup.

Benefits—Create a kiosk mode to lock down a Windows device, preventing users from accessing any features outside of the kiosk mode. Customize the kiosk interface to control user access to specific features.

Dell Application Control Center 

Description—Offers a user interface to manage device configurations, embedded applications, and utilities.

Benefits—Administrators can use the interface to locally manage device configurations, Dell value-added applications, and utility tools, providing enhanced control and flexibility.

- **Application Launch Manager**
  - Description—Enables you to start any application based on predefined events (service startup, user logoff, or device shutdown). Application Launch Manager is configurable only using the Dell Application Control Center user interface. To locally manage **Application Launch Manager (ALM)** configurations on a device, see Application Launch Manager.
  - Benefits—Configure multilevel logs essential for troubleshooting.
- **Extra Data Cleanup Manager**
  - Description—Keeps extraneous information from being stored on the local disk. Extra Data Cleanup Manager (xDCM) is configurable only using the Dell Application Control Center user interface. To locally manage Extra Data Cleanup Manager (xDCM) configurations on a device, see xData Cleanup Manager.
  - Benefits—Automatically cleans up directories that are used for temporary caching of information, triggered by service startup, user logoff, or device shutdown. This clean-up is invisible to the user.

NOTE: **Application Launch Manager** and **Extra Data Cleanup Manager** can only be configured from **Dell Application Control Center**.

To deploy the software bundle to the devices using WMS, see Deploy applications using WMS.

If you are using the WMS cloud, the latest Dell Application Store can be deployed directly from the cloud. To view the packages in WMS cloud, go to **Apps & Data** > **App Inventory** and select **Operator Cloud WMS** from the **File respository** drop-down menu.

If you are using the Wyse Management Suite on-premises environment, you must download the latest Dell Application Store package (DellApplicationStore_xx.xx.x.x.exe) from the respective hardware landing page on Dell Support and upload to the repository. To upload the files to the repository, see How to add an application package to the WMS repository?.

After the successful deployment of the package, to verify the version details of the Dell Application Store and the installed components of Dell Application Store such as Dell Application Control Center (DACC), Wyse Device Agent (WDA), Application Launch Manager (ALM), and so on, do any of the following:

- On the device, open **Dell Application Control Center** and verify the version details.

- Log in to Wyse Management Suite and go to **Devices** > **<Device Details page of the individual device>** > **Installed Apps**.

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Using Wyse Management Suite

Wyse Management Suite (WMS) provides a centralized platform for managing your devices. Leveraging the Wyse Device Agent (WDA), WMS offers efficient device management features.

NOTE:

- WMS 5.0 or later is required to manage Windows 11 IoT Enterprise LTSC 2024 devices.
- WinIoT 2.x policy manages Windows 11 IoT Enterprise LTSC 2024 devices by default.

Wyse Management Suite versions

Wyse Management Suite (WMS) is available in two editions: Standard and Pro.

- **Standard (Free)**—Ideal for small and medium businesses with on-premises deployments, WMS Standard provides basic functionalities. To activate it, you require a license key that is generated from the Wyse Management Suite trials page. Support for this edition is limited to manuals and videos available on Dell | Support.
- **Pro (Paid)**—Ideal for both cloud and on-premises environments, WMS Pro provides advanced management functionalities. It uses subscription-based licenses and allows for hybrid cloud deployment with floating licenses between cloud and on-premises infrastructure. Also, WMS Pro provides technical support for troubleshooting any issues that you encounter.

Create device policy group in Wyse Management Suite

You can create groups in Wyse Management Suite (WMS) to define the policies that are required to configure your devices. You can create subgroups to further categorize devices based on their function or type. If the configuration policies are not defined for the subgroup, then the configurations of the parent group are inherited by the subgroup.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and click **Default Device Policy Group**.
3. Click the + icon (Add Group) to add a new group.
4. In the **Add New Group** dialog box, enter the group name and description.
5. In the **Registration** tab, select the **Enabled** checkbox under **Group Token** to create a group token.

   NOTE: A random group token is generated when the **Enabled** checkbox under the **Group Token** is cleared.

6. Enter a group token. For example, **`defa-Acme@123`**.

   A group token is a unique identifier that is required to register the devices to a group.
7. Click **Save**.

   The group is added to the list of available groups on the **Groups & Configs** page.

Register devices to Wyse Management Suite

You can register the devices to Wyse Management Suite (WMS) using any of the following methods:

- Manually using the Wyse Management Suite application on the device (applies to Dell Application Store 2605 or later). For more information, see Manually register a device with WMS.
- Manually using the Wyse Device Agent application on the device. For more information, see Register devices using Wyse Device Agent .

- Using DNS record fields or DHCP scope options. For more information, see Registering devices by using DHCP option tags, and Registering devices by using DNS SRV record.
- Using secure DNS record fields or DHCP scope options. For more information, see Register devices using secure DNS record fields or secure DHCP scope options.

Register devices using Wyse Device Agent

Prerequisites

Create a group and a group token in Wyse Management Suite (WMS). For information about how to create a group, see Create device policy group in Wyse Management Suite.

Steps

1. Log in to the device as an administrator.
2. Open the Wyse Device Agent application  located in the **System Tray**.
   The **Wyse Device Agent** screen is displayed.
3. From the **Management Server** drop-down list, select **Wyse Management Suite**.
4. Enter the appropriate server address and port number for your data center:
   - If you are using the WMS cloud environment:
     - **US data center**—us1.wysemanagementsuite.com
     - **EU data center**—eu1.wysemanagementsuite.com

     The default port number is 443.
   - If you are using the WMS on-premises environment, enter the on-premises FQDN address and the custom port number.

   NOTE: If the server address contains **http**, a warning message is displayed. Click **Ok** to confirm.
5. Enter the group token in the **Tenant** and **Group** field. For example, if the group token for the group is **defa-Acme@123**, enter **defa** in the **Tenant** field and **Acme@123** in the **Group** field.
6. Enable or disable **Validate Server Certificate CA**.
   If you disable **Validate Server Certificate CA**, a warning message is displayed. Click **Ok** to confirm.
   NOTE: For the cloud environment of WMS, **Validate Server Certificate CA** must be enabled.
7. Click **Register** to complete the process.
   The status of the registration is displayed in the bottom left corner of the **Wyse Device Agent** screen.

Windows 11 IoTE policy in Wyse Management Suite

Windows 11 IoTE Policy is a new WMS configuration policy that is designed exclusively for Windows 11 IoT Enterprise LTSC 2024 for Dell thin clients. It provides enhanced capabilities, improved security, and better management features compared to the previous WinIoT 2.x policy.

Benefits of Windows 11 IoTE policy

The following are benefits of Windows 11 IoTE Policy:

- Provides access to the most recent features and configurations available in Windows 11 IoT Enterprise LTSC 2024.
- Delivers improved input validation checks from both the device agent and the Windows 11 IoTE policy itself.
- Offers a dedicated management policy built specifically for Windows 11 IoT Enterprise LTSC 2024 devices.
- Enables instant, quick migrations with full support for transferring child groups.
- Allows administrators to seamlessly retain and migrate specific device-level exceptions.
- Adds Unicode support for display-focused string input fields, such as Connection Name, Application Name, Alert Message, and others.

NOTE: It is recommended to migrate to Windows 11 IoTE from WinIoT 2.x policy.

Migrate WinIoT 2.x configurations to Windows 11 IoTE policy

Perform the following steps to migrate WinIoT 2.x configurations to Windows 11 IoTE policy.

Prerequisites

- Ensure that the WMS version is 2605 or above (provides Windows 11 IoTE policy option and migration support).
- Ensure that the DAS version is 2605 or above (changes OS Type to Windows 11 IoTE and enables backward compatibility).

NOTE:

- Migration is enabled through DAS 2605 or later, there is no separate migration installer.
- If WMS is earlier than version 2605, the device continues to be managed under WinIoT 2.x policy.

About this task

The migration enforces users to switch to a new policy with better features and security, ensuring devices benefit from the latest Windows 11 IoT Enterprise LTSC 2024 capabilities.

Steps

1. Upgrade WMS to 2605 or above.
2. Select the **Windows 11 IoTE Policies from WinIoT 2.x Policies** option for group policy migration. Select **Include Child Groups** if you want to include child groups in the migration.

   NOTE: At this stage, no devices are actively assigned to this new policy.

   A new Windows 11 IoTE policy is created but no devices are assigned to this policy.
3. Install DAS 2605 or later on the target devices. Once installed, the **OS Type** of these devices change from WinIoT 2.x to Windows 11 IoTE.

   The target devices will now be managed under the Windows 11 IoTE policy.
4. After completing the group-level migration, you will receive a notification confirming that the migration was successful. You will then be prompted to migrate to device-level exceptions. You may choose to migrate them immediately or perform the migration later using the Import Policies Wizard.

Important details

Group scenarios

When migrating policies, the group scenario plays a crucial role in determining which devices are managed by which policy. The following group scenarios are supported:

- Group with only WinIoT 2.x policy: Devices with OS Type as Windows 11 IoTE and WinIoT 2.x can be managed.
- Group with only Windows 11 IoTE policy: Only devices running with OS Type as Windows 11 IoTE can be managed.
- Group with both policies: Windows 11 IoTE policy will manage Windows 11 IoTE OS Type devices, and WinIoT 2.x policy will manage WinIoT 2.x OS Type devices.

Device management with WinIoT 2.x policy

Devices with an OS Type as Windows 11 IoTE can be managed by a WinIoT 2.x policy if there is no Windows 11 IoTE policy created. However, the policies will be applied to those devices during a full check-in, which occurs under the following conditions:

- Every 8 hours
- On group change events
- On device query
- On fresh registration or re-registration

This ensures that devices with an OS Type of Windows 11 IoTE receive the necessary policies and updates, even if a Windows 11 IoTE policy is not created.

Recommendations

It is recommended to manage devices with OS Type as Windows 11 IoTE with the Windows 11 IoTE policy. This ensures that the devices are managed correctly and receive the necessary policies and updates.

Import Policies Wizard

The **Import Policies Wizard** option allows you to trigger the migration process multiple times. However, each time you use this option, it will override the existing Windows 11 IoTE policy with the current snapshot of WinIoT 2.x policies.

Exclusions

During migration, two configurations are excluded from migration:

- IE Browser Settings: Internet Explorer browser settings are excluded from migration.
- Local User Password Settings: Local user password settings are excluded from migration.

Downgrade

Downgrading Wyse Device Agent (WDA) to an older version will delete Windows 11 IoTE device-level exceptions. After downgrade, the device will be managed under WinIoT 2.x as the OS Type will change to WinIoT 2.x.

Migration checklist

To ensure a smooth migration to Windows 11 IoTE, complete the following:

- Ensure that the WMS version is 2605 or above.
- Confirm that the DAS version is 2605 or above on all target devices.
- Set up a Windows 11 IoTE policy in WMS.
- Decide on a migration strategy, choosing between group-level and device-level migration.
- Test the migration process on non-production devices to identify potential issues.
- Perform the migration during a scheduled maintenance window to minimize disruptions.
- Confirm that devices are functioning correctly after migration.
- Monitor devices for any issues that may arise during or after migration, and address them promptly.

Edit the Windows 11 IoTE policy settings in WMS

Editing the Windows 11 IoTE policy settings in WMS allows you to tailor the policy configurations to your specific requirements.

Steps

1. Log in to **WMS** as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, select **Windows 11 IoTE**.
   The **Configuration Control | Windows 11 IoTE** window is displayed.
4. Click **Advanced**.
5. In the respective fields, select the options that you want to configure.

   Use the **Search** field at the top of the page to locate specific settings. The search results display settings in the following order:

   - Setting
   - Parameter Group

- Parameter Subgroup
- Parameter

6. Configure the options as required.

   NOTE: If necessary, click **Reset Policy** to restore the policy to the default configuration. Alternatively, click **Reset Entire Policy** to clear all existing configurations.

7. Click **Save & Publish** to save the changes and apply the updated policy configurations.

   NOTE: The policy configurations with reference files, such as firmware, package, wallpaper, and so on, applied to the parent group are inherited by default to the child groups. You can override these configurations for the child groups.

Set Passwordless Login for User account

You can now log in into the User account without adding a password.

About this task

You can set a passwordless login option for the local User account only from the Windows 11 IoTE policy. Also you can also add a custom password or set a default factory password to a group of devices.

Steps

1. Log in to the WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **Windows 11 IoTE** .

   The **Configuration Control | Windows 11 IoTE** window is displayed.

4. Click **Advanced**.
5. Click **Privacy & Security** and select **Password Settings**.
6. Select **Change Local User Password** settings to manage Local User Password settings through WMS.

   Under the **Change Local User Password** settings, the following options are displayed:

   - **Set a Custom Local User Password**: You can Set Custom Local User Password to set any custom password. Enter the Windows password for the local User account.
     - Enter the Windows password for the local User account. Ensure that the password is 8 to 32 characters long and contains characters from three of the following four categories:
       - English uppercase characters (A - Z).
       - English lowercase characters (a - z).
       - Base 10 digits (0-9) non - alphanumeric.
   - **Enable Passwordless login for User account**: You can enable Password less login for User account so the local User account will no longer require a password to sign in.
   - **Reset Local User Password**: You can reset local User password to the default `User#<Service_Tag>` format.

7. Select **Enable Passwordless login for User account** option to remove the password for local User account.
8. Click **Save & Publish**.

   NOTE:

   - If the local User account is configured for passwordless login, the password will revert to the factory default after a image capture or deploy.
   - For domain-joined devices, the passwordless local User account feature is not supported, as domain password validation rules do not allow local accounts with empty passwords.

RAM based and Disk-based overlay type configuration from WMS

Disk-based overlay is a write-filter mode where all system and application changes are redirected to a dedicated space on the disk instead of system memory (RAM). This mode isolates writes from the protected base operating system, helping maintain system integrity. Compared to RAM-based overlays, disk-based overlays can support larger write volumes and reduce memory pressure on the system.

About this task

You can configure **Overlay Type** in WMS for specific groups and policies.

Steps

1. Log in to the WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **Windows 11 IoTE** .

   The **Configuration Control | Windows 11 IoTE** window is displayed.
4. Click **Advanced**.
5. Click **System Settings** and select **Write Filter Settings**.
6. Click **Enable Write Filter Settings** to manage Overlay Type settings through WMS.

   After the **Enable Write Filter Settings** is enabled, under the **Overlay Type** field, following options are displayed:
   - **RAM Based Overlay**
   - **Disk Based Overlay**

   NOTE: Once **Enable Write Filter Settings** is enabled and configured, the Write Filter Overlay Type cannot be managed through the local Dell Application Control Center.
7. Click **Save & Publish**.

WinIoT 2.x policy in Wyse Management Suite

By default, Windows 11 IoT Enterprise LTSC 2024 devices are managed by the WinIoT 2.x policy.

Edit the WinIoT 2.x policy settings in WMS

Editing the WinIoT 2.x policy settings in WMS allows you to tailor the policy configurations to your specific needs and requirements.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. In the respective fields, click the option that you want to configure.

   Use the search field at the top of the page to locate specific settings. The search result displays the settings in the following order:
   - Setting
   - Parameter Group
   - Parameter Subgroup
   - Parameter
6. Configure the options as required.

NOTE: If needed, click the **Reset Policy** option to reset the policy to default configurations. Alternatively, click the **Reset Entire Policy** option to clear all configurations.

7. Click **Save & Publish** to save the changes and apply the updated policy configurations.

NOTE: The policy configurations with reference files, such as firmware, package, wallpaper, and so on, applied to the parent group are inherited by default to the child groups. You can override these configurations for the child groups.

Import Wyse Easy Setup configurations to WMS

As an IT administrator you can export the local Wyse Easy Setup configuration of a device into a JSON file. Using WMS, you can import the JSON file to remotely deploy configurations to other devices.

Prerequisites

You must export a JSON file with Wyse Easy Setup configurations to the local device. For more information, see Import or export configurations.

Steps

1. Log in to WMS as an administrator.
2. On the **Groups & Configs** page, select your preferred group.
3. Click **Edit Policies** and select **WinIoT 2.x**.
4. Click **Import**.
   The **Import Policies Wizard** screen is displayed.
5. Select the **From an export file** mode.
6. Click **Browse** and select the JSON file containing the Wyse Easy Setup configurations.
7. Click **Next**.
   A preview of the policies in the selected group is displayed.
8. Click **Next**.
   The summary of the import process is displayed.
9. Click **Import**.

NOTE:

- When you import a policy from a file, if there are references or invalid dependencies, the import fails and an error message is displayed. If the file to be imported has a reference or dependency file, go to the Edit Policy page of the respective device type and import the group policies.
- If the destination group contains existing policies for the same device type, the newly imported policies replace them.

Deploying applications using WMS

To deploy a single application or multiple applications to different subgroups, use the **Advanced App Policy** feature in WMS. This functionality is available only in the Pro edition of WMS. To deploy a single application to a group, use the **Standard App Policy** feature in WMS. This functionality is available in the Standard edition of WMS.

Prerequisites

- The application and any required pre-install or post-install scripts are uploaded to the **App Inventory**. To upload the files, see How to add an application package to the WMS repository?.
- From the WMS version 5.4 release, you must accept the EULAs embedded within the WMS. For more information, see Accepting the EULAs.

NOTE: You cannot add or edit policies on Windows IoT Enterprise devices until the EULAs are accepted. From the UI, go to the EULAs section to accept them. Only Global Admins can accept or reject EULAs.

Steps

1. Go to **Apps & Data** > **App Policies** > **Thin Client**.

2. Click **Add Advanced Policy**.
   The **Add Advanced App Policy** page is displayed.
3. Enter the **Policy Name**.
4. From the **Group** drop-down list, select one or more groups to which you want to deploy the application.
5. Select the **Include All Subgroups** checkbox to apply the policy to subgroups.
6. From the **Task** drop-down list, select **Install Application**.
7. From the **OS Type** drop-down list, select **Windows IoT Enterprise**.

   NOTE: For WMS version 5.2 and earlier, the **OS Type** drop-down list displays the option as **WinIoT**.

   NOTE: If the **OS Type** dropdown does not display Windows IoT Enterprise, it indicates that the EULA(s) have not been accepted. Follow the steps in the **Prerequisites** section to complete the EULA(s) acceptance process.

8. Select the **Filter files based on extensions** checkbox to filter the applications. If you select this option, only the applications that are associated with the selected operating system type are displayed.
9. From the **Filter Devices** drop-down list, select any of the following options:
   - Select **Apply On All Devices** for applying the policy to all devices.
   - Select **Filter already updated devices** for stopping redeployment of applications deployed through WMS.
   - Select **Filter devices with policy already applied** for excluding devices with the policy.
10. Click **Add app**.

    From the **Apps (applied in the order shown.)** drop-down list, select an application. Optionally, add **Pre-Install**, **Post-Install** scripts, and enter the **Install Parameters**.

    The following table lists the Dell Technologies-supported third-party applications which are available as individual add-on packages at Dell | Support and their respective silent installation parameters:

Table 1. Dell value-added applications and Dell Technologies-supported third-party applications

Application name	Silent installation parameters
Dell Application Store	--silent
Wyse Device Agent	--silent
Omnissa Horizon Client	--silent
Citrix Workspace app	--silent
Amazon WorkSpaces	--silent
Windows App	--silent
Cisco Jabber Softphone for VDI (Virtual Desktop Infrastructure) Client	/qn
Cisco Webex App VDI Plugin (Bundled Webex Meetings VDI plugin)	/qn
Zoom VDI Universal plugin	/quiet /norestart
TightVNC	/quiet
Dell Imaging Manager	--silent
Remote Desktop client	/qn /norestart

NOTE:
- Dell Application Store, Wyse Device Agent, Omnissa Horizon Client, Citrix Workspace app, Windows App, and Amazon WorkSpaces support silent installation (no installation parameter is required) from WMS on Windows 11 IoT Enterprise LTSC 2024 devices.
- You must install Dell Application Store 2508 on the device before you deploy the Omnissa Horizon Client (2503). Dell Application Store 2508 enables remote client configuration using WMS and integration with Dell value-added applications like Wyse Easy Setup and Hotkey Filter.

11. Set an **Install Timeout** (default: 60 minutes).

12. Select **Reboot** if the device should restart after installation.

    NOTE: It is mandatory to select **Reboot** option for all the supported third-party applications, such as Omnissa Horizon Client, Citrix Workspace app, Windows App, Amazon WorkSpaces, and Cisco Jabber Softphone for VDI (Virtual Desktop Infrastructure) Client, Cisco Webex App VDI Plugin (Bundled WebexMeetings VDI plugin), TightVNC and Zoom VDI Universal plugin.

13. Click **Add app** again to include multiple applications.
14. Select **Enable app dependency** to stop the application policy when an application fails.
15. Select OS and platform filters: From the **OS Subtype Filter**, select **WIE11 (Windows 11 IoT Enterprise LTSC 2024)**.
    - **OS Subtype Filter**: Select **WIE11 (Windows 11 IoT Enterprise LTSC 2024)**.
    - **Platform Filter**: Choose the device model for deployment.
16. From the **Platform Filter**, select the device model to which you want to deploy the application.
17. In the **Timeout** field, enter the number of minutes the message dialog box should be displayed on the device, which gives you time to save your work before the installation begins.
18. To enable delay in the implementation of the policy for the user, select the **Allow delay of policy execution** checkbox. If this option is selected, the following drop-down menus are enabled:
    - From the **Max Hours per Delay** drop-down list, select the maximum hours (1–24 hours) which you can delay running the policy.
    - From the **Max delays** drop-down list, select the number of times (1–3) you can delay running the policy.
19. From the **Apply Policy Automatically** drop-down list, select any of the following options:
    - **Do not apply automatically**—This option does not apply a policy automatically to the devices.
    - **Apply the policy to new devices**—This option automatically applies the policy to a registered device which belongs to a selected group or to the device that is moved to a selected group. When this option is selected, the policy is applied to all the new devices that are registered to the group. To run the job on the existing devices present in the group, you must schedule the policy. After you schedule the policy, the job status displays the count of devices that are already present in the group. The job status of the newly added device count that is registered is not displayed.
    - **Apply the policy to devices on check in**—This option is automatically applied to the device at check-in. When this option is selected, the policy is applied to all the devices present in the group. To run the job on existing devices present in the group immediately or at a scheduled time before the device check-in, you must schedule the policy. After you schedule the policy, the job status displays the count of devices that are already present in the group.
20. Select the **Skip write filter check** checkbox if you want to skip the write filter cycles.

    The option is applied only if the policy is applied using a job.
21. Click **Save** to create a policy.
    A message is displayed to enable the administrator to schedule this policy on devices based on group.
22. Select **Yes** to schedule a job on the same page or select **Later** to schedule the job later, see Schedule an application policy.
23. If you selected **Yes** in step 22, then an **App Policy Job** window is displayed.
24. In the **App Policy Job** window, select the **Policy**.
25. Enter the description for the job.
26. From the **Run** drop-down list, select any of the following options:
    - **Immediately**
    - **On selected time zone and date/time**
    - **On selected date/time (of device time zone)**
27. Select the **Exclude Offline Devices** if you want to exclude the offline devices while creating the job.
    You can view the list of excluded offline devices on the **Jobs** page. You can later restart the job for the offline devices from the jobs list.
28. Select the time zone if you have selected **On selected time zone and date/time** in Step 26.
29. Enter or select the following details if you have selected **On selected time zone and date/time** or **On selected date/time (of device time zone)** in Step 26:
    - **Effective**—Enter the starting and ending date.
    - **Start between**—Enter the starting and ending time.
    - **On day(s)**—Select the days of the week.
30. Click the **Preview** option to view the details of the scheduled job.
31. On the next page, click the **Schedule** option to initiate the job.

Results

You can check the status of the job by going to the **Jobs** page.

Next steps

On the device, **Wyse Device Agent : Software Update Alert** window is displayed.

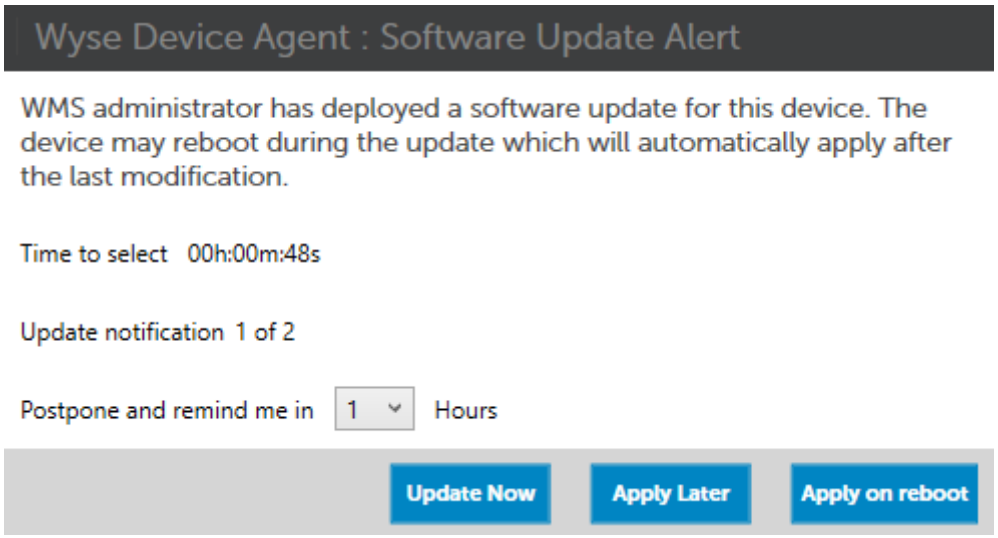


Figure 1. Wyse Device Agent : Software Update Alert

You can postpone the execution of the policy that is based on the configurations in step 18. The following details are displayed:

- **Time to select**—The time before which you must select an option on the screen.
- **Update notification**—Displays the number of times that you can defer the update.
- **Postpone and remind me in**—Select the time in hours that you want to postpone the update and an alert window to be displayed again on the device.

You can also select any of the following options:

- **Update Now**—Click this option to apply the update immediately.
- **Apply Later**—Click this option to apply the update later.
- **Apply on Reboot**—Click this option to apply the update when you reboot the device.

NOTE:

- If you select **Apply Later** in the **Wyse Device Agent: Software Update Alert** notification, the App Policy does not apply immediately, even after shutting down and restarting the device. The App Policy applies based on the user-configured execution delay.
- When you enable the **Allow delay of policy execution** option in WMS and deploy another policy without configuring any delay, the new policy fails to deploy to the device.

Accepting the EULAs

The global administrator must accept the EULAs in WMS, before creating the application policies for the devices.

Steps

1. Log in to WMS as an administrator.
2. Go to **Apps & Data** > **EULA**.
   By default, the EULAs **Approval Status** is **Pending**.
3. Click **Review EULA(s)** to view and accept the agreement.
4. Click the **Select this checkbox to confirm you've reviewed all the EULA(s) displayed above** checkbox.
5. Click **Accept**.

Important information about EULA

End User License Agreements (EULAs) are crucial for accessing and using certain features and services within Dell's ecosystem.

- Only global administrators can accept or reject the EULAs. Roles such as viewer and group administrator can only view the EULAs.
- EULA acceptance is applicable only for WMS Cloud tenants and is not required for WMS on-premises tenants.
- EULAs must be accepted once per tenant for each updated version. Reacceptance is only necessary when the EULA files are changed or updated.
- Without EULA acceptance:
  - New application policies (Standard and Advanced App Policies) cannot be created for Windows IoT Enterprise devices.
  - Existing application policies cannot be edited, but they can still be used and scheduled.
- If EULAs are rejected, Global Administrators can go to **Apps & Data** > **EULA**, review the EULAs, select the checkbox, and click **Accept** to enable application policy creation.
- If EULAs are not accepted, a message appears on the **Apps & Data** > **App Policies** > **Thin Client page**. You cannot add or edit policies on Windows 11 IoT Enterprise LTSC 2024devices until the EULAs are accepted. Go to the EULAs section to accept them. Only Global Admins can accept or reject EULAs.
- Go to the **EULAs section** hyperlink in the information bar for quick navigation.

Schedule an application policy

The **Schedule App Policy** option is used to configure the deployment schedule for an existing application policy using Wyse Management Suite.

Steps

1. Log in to WMS as an administrator.
2. On the **Jobs** page, click the **Schedule App Policy** option.
   The **App Policy Job** screen is displayed.
3. From the drop-down list, select the application policy that you want to schedule.
4. Enter the job description.
5. From the **Run** drop-down list, choose one of the following options:
   - **Immediately**—Deploys the policy right away.
   - **On selected time zone and date/time**—Deploys based on a specific time zone.
   - **On selected date/time (of device time zone)**—Deploys according to the device local time.
6. Select **Exclude Offline Devices** to skip devices that are currently offline. Offline devices can be updated later from the Jobs page.
   You can view the list of excluded offline devices on the **Jobs** page. You can later restart the job for the offline devices from the jobs list.
7. Select the time zone if you have selected **On selected time zone and date/time**.
8. Configure scheduling details:
   - **Effective**—Set the start and end date.
   - **Start between**—Define a time range for deployment.
   - **On day(s)**—Select specific days of the week.
9. Click **Preview** to review the details of the scheduled job.
10. Click **Schedule** to confirm and initiate the job.

Customizable WDA lock screen

IT administrators configure the WDA lock screen using WinIoT 2.x Policy and Application Policy (Standard and Advanced). This configuration incorporates corporate branding elements and status indicators.

Prerequisites

The customizable WDA lock screen feature needs the following requirements:

- Dell Application Store version 25.05.0.5 or later.

- Wyse Device Agent version 14.7.0.6 or later.
- Wyse Management Suite version 5.2 or later.
- Wyse Easy Setup version 2.0.0.664 or later.

About this task

Customizing the WDA lock screen enhances the user experience by:
- Displaying corporate branding through custom logos.
- Showing operational status by indeterminate progress indicators.
- Providing contextual instructions through customized messages.

Steps

1. Log in to WMS as an administrator.
2. Access policy configuration—
   a. Go to the **Groups & Configs** page and select the target group.
   b. From the **Edit Policies** drop-down menu, select **WinIoT 2.x**.
      The **Configuration Control | WinIoT 2.x** window is displayed.
3. Configure lock screen elements through WMS—
   a. Go to **Advanced** > **WMS Settings** > **WDA Lock Screen Settings** .
   b. Upload company logo (175 px recommended).
      Set the **WDA Lock Screen Logo** to display your company logo for branding.
   c. Enter alert message for lock screen display.
      Configure the **Alert Message** to be shown on the lock screen.
4. Implement app policy customization using one of the following methods—
   a. Standard Policy:
      i. Go to **Apps & Data** > **App Policies** > **Thin Client**.
      ii. Click **Add Policy**.
         - Complete all fields in the policy with the necessary information.
      iii. Select **Windows IoT Enterprise** as **OS Type**.
      iv. Check **Enable Custom Message**.
      v. Enter **Custom Message Title** and **Custom Message**.
   b. Advanced Policy:
      i. Go to **Apps & Data** > **App Policies** > **Thin Client**.
      ii. Click **Add Advanced Policy**.
         - Complete all fields in the policy with the necessary information.
      iii. Select **Windows IoT Enterprise** as **OS Type**.
      iv. Check **Enable Custom Message**.
      v. Enter **Custom Message Title** and **Custom Message**.

Results

After deploying these configurations, the customized WDA lock screen activates and shows:
- Corporate logo in header position.
- Indeterminate progress bar during operations.
- Custom alert messages if configured.

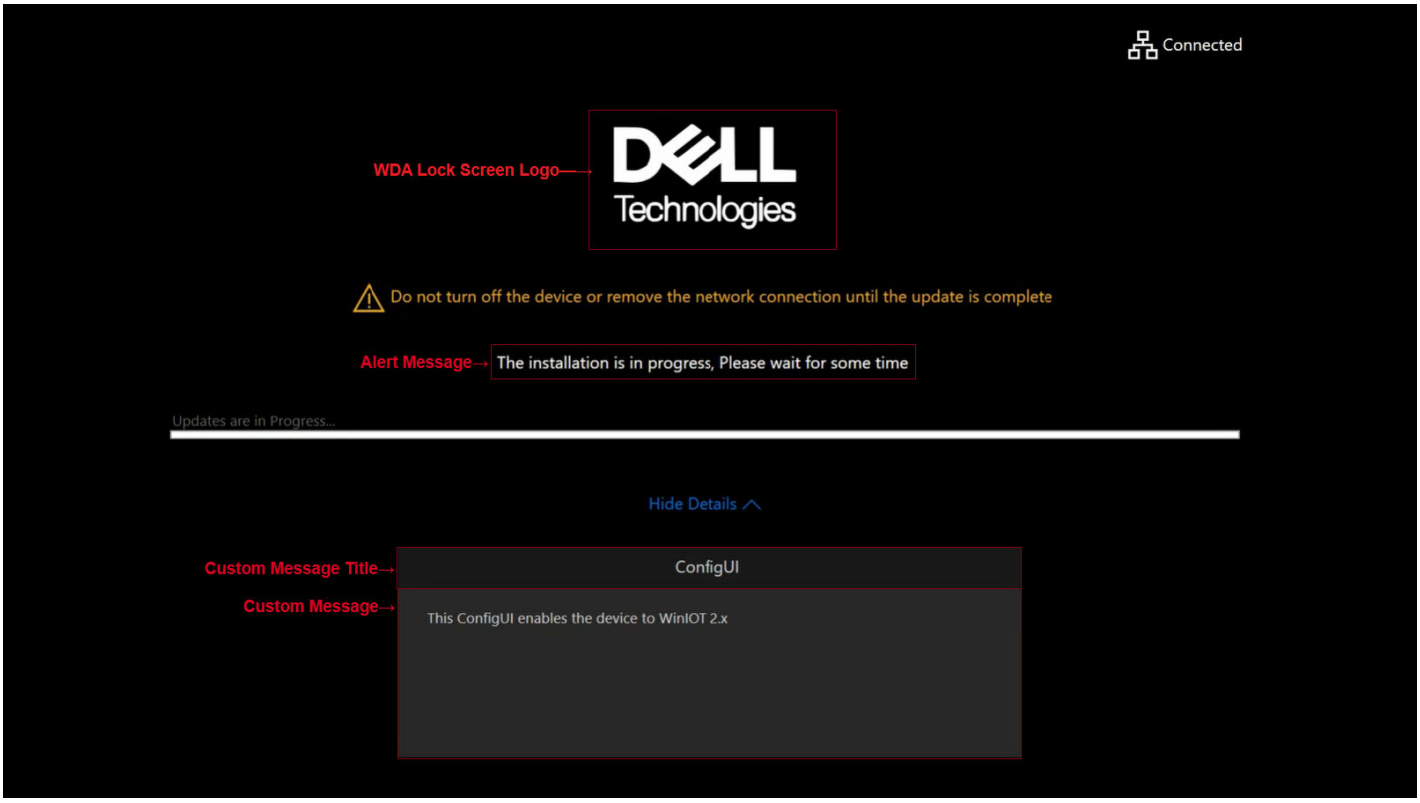


Figure 2. Customizable WDA lock screen

Configure region and language settings from WMS

Configure region and language settings in WMS for specific groups and policies.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page, and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **Region & Language** and select any of the following options:
   - **Time Zone & Clock**—Configure the **Time Zone Setting** and **Clock Setting**.
   - **Language Setting**—Configure the **Display Language** and **Keyboard Layout** language options.
6. Click **Save & Publish**.

Install certificates using WMS

You can upload and deploy multiple certificates to multiple Store Accounts and profiles. You can also assign different Store Type for a single certificate.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.

5. Click **Privacy & Security** > **Certificate**.
6. Choose from the following options:
   - **Install Certificates**—Deploy multiple certificates to a single Store Account and Certificate Store Type.
   - **Install Multiple Certificates**—Deploy a certificate to multiple Store Accounts and Certificate Store Types. Click **Add Row** for additional certificates.

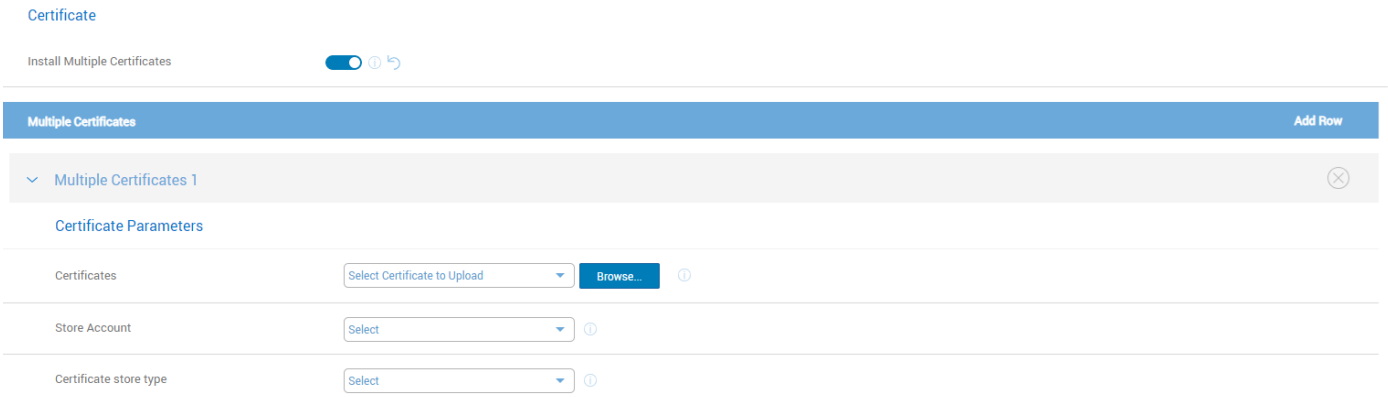


Figure 3. Multiple certificates

NOTE:

- If you have configured and deployed the settings using the **Install Certificates** option, you must reset the policy using **Reset Policy** before using the **Install Multiple Certificates** option.
- Uploading a Trusted Root Certificate to a Current User store account results in a security notification. This notification is displayed because the Trusted Root Store is secure, and deploying the certificate to a local system can prevent potential security issues.
- You can only add one certificate for a Store Account when using the **Install Multiple Certificate** option.

7. In the **Certificates** field, click **Browse** and select the certificate that you want to install.
   From the **Certificates** drop-down menu, select the certificate.
8. From the **Store Account** drop-down menu, select the appropriate option:
   - **Current user**—This type of certificate store is local to a user account on the device and is located under the `HKEY_CURRENT_USER` registry root.
   - **Local Computer**—This type of certificate store is local to the device, global to all users on the device, and located under the `HKEY_LOCAL_MACHINE` root in the registry.
   - **Both**—Select this option for both Store Accounts.
9. From the **Certificate store type** drop-down menu, select any of the following options:
   - **Personal**—For user-specific certificates.
   - **Trusted root certification authorities**—For trusted root certificates.
   - **Intermediate certification authorities**—For intermediate certificates in the chain.
10. Click **Save & Publish**.

Configure password settings from WMS

You can configure the administrator and user passwords of the devices from WMS.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **Privacy & Security** > **Password Settings**.
6. Enable any of the following options to configure the local administrator and user password as required:

- **Change Local Admin Password**
- **Change Local User Password**

7. Click **Save & Publish**.

Configure Broker agent connections from WMS

You can configure the Citrix, Omnissa Horizon, Azure Virtual Desktop (AVD), and Microsoft Remote Desktop settings from WMS.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **Broker Settings** and select any of the following options:
   - **Citrix Settings**
   - **Omnissa Horizon Settings**
   - **Azure Virtual Desktop (AVD) Settings**
   - **Microsoft Remote Desktop Settings**
6. Configure the options as required.
7. Click **Save & Publish**.

   NOTE: If you are configuring the Microsoft Remote Desktop settings, you can add and configure multiple RDP connections.

Add an application in Wyse Easy Setup using WMS

You can add remote desktop applications such as Omnissa, Citrix, Amazon WorkSpaces, Windows App, and Remote Desktop Protocol, and local applications such as Notepad in Wyse Easy Setup using WMS.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **Easy Setup** > **Kiosk Mode**.
6. Enable the **Kiosk Mode** option to replace the default Windows desktop with the Wyse Easy Setup desktop.
7. Enable the **Kiosk Reboot** option to reboot the device when the Kiosk mode is enabled.
8. In the **Application** field, click **Add Row**.
9. Enter or configure the following options:

Table 2. Configuring the application settings

Option	Description
Application Name	Enter the name of the remote desktop application.
Application Path	Enter the full path of the executable file as seen on the specific device.
Auto Launch	Enable the option if you want the application to launch automatically when you log in to the device.
Maximized	Enable this option if you want to open the application in a maximized window when you log in to the device.

Table 2. Configuring the application settings (continued)

Option	Description
Application Arguments	Enter the application argument values that must be passed to an application when it is started.
Custom Icon	If you want to add a custom icon to the application, enter the full path of the custom icon as seen on the specific device.
Application Exit Action	From the drop-down list, select the option that you want to use when you exit the Kiosk mode: • **None** • **Shutdown upon Exit**—Shut down the device when you exit the application or connection. • **Restart upon Exit**—Reboot the device when you exit the application or connection. • **Logout upon Exit**—Log off from the signed user when you exit the application or connection. • **Persistent upon Exit**—Automatically relaunch the application when you exit the application or connection.
Application State Retry Count	Enter the number of times the application must try to reconnect to the server if the network is lost. The retry count value should be between 2–10.
Application State Retry Interval	Enter the number of seconds between two retry attempts to reconnect the application to the server. The retry interval value should be between 30–360 s.

10. In the **Personalization** field, browse and add the background and logo for the Kiosk mode if required.
11. Click **Save & Publish**.

NOTE: To configure the Windows App for Easy Setup Shell mode, use the following Application Path:

```
C:\Program Files\WindowsApps\MicrosoftCorporationII.Windows365_2.0.964.0_x64__8wekyb3d8bbwe\Windows365.exe
```

Configure Wyse Easy Setup from WMS

You can configure and deploy Wyse Easy Setup configurations from WMS.

Steps

1. Log in to WMS as an administrator with **WF** disabled.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **Easy Setup** and select any of the following options:
   - **Access Control**
   - **Kiosk Mode**
6. Configure the options as required.
7. Click **Save & Publish**.

   For more information about configuring Kiosk Mode and remote desktop application in Wyse Easy Setup from WMS, see Add an application in Wyse Easy Setup using WMS.

   The following table describes the user persistence settings that are applied when the device is managed using WMS.

Table 3. Display, Network, mouse and keyboard settings

User type	After you restart the device	After you log in to a new session
Administrator	Device settings that are configured using WMS are applied.	Device settings that are configured using WMS are applied.
User—Using Windows Explorer when Control Panel settings (display, Network, mouse, and keyboard) are disabled.	Device settings that are configured using WMS are applied.	Device settings that are configured using WMS are applied.
User—Using the Control Panel settings when display, Network, mouse, and keyboard are enabled.	User-specific settings are retained after you restart the device.	User-specific settings are retained from the previous session.

NOTE: Only a single user persistence configuration file exists for each user and it is shared when the client is managed locally or using WMS. The contents in the file vary according to the configuration deployed.

Configure Citrix Workspace app in Kiosk mode from WMS

You can configure the Citrix Workspace app in kiosk mode and manage its connection and access control settings from WMS.

Steps

1. On the **Wyse Management Suit** page, click the **Groups & Configs** tab and select a group.
2. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
3. Click **Advanced**.
4. Click **Broker Settings** and select **Citrix Settings**.
5. Enter the name to identify the connection in the **Connection Name field**.
6. Enable **Auto Launch Connection On Logon** to automatically launch the connection when the user logs in.
7. Enable **Use Default Citrix Workflow** to follow the native workflow of Citrix. After enabling this option, **Connection Type** field does not appear on the screen.

   NOTE: Use this option to follow native workflow of Citrix. Enter configurations such as the **Store URL**, **Store Name**, and related parameters. The system automatically maps these settings to the appropriate connection type (**StoreFront**, **Gateway**, or **Citrix Cloud**) and provides a unified setup experience without requiring separate configurations for each. To see the **Connection Type** field, disable the **Use Default Citrix Workflow**.

   NOTE: It is recommended to specify the **Store Name** when configuring the **Use Default Citrix Workflow** option.

8. From the **Connection Type** drop-down list, select the following:
   - **Store Front**—Launches applications or desktops that are published through StoreFront or NetScaler Gateway servers (Supports XenApp/XenDesktop 7.0 and above). If you select **Store Front**, the following options are displayed on the screen:
     - **Broker Server**—Specifies the Citrix server Url or FQDN or IP.
     - **Published Application**—Specifies the published application to launch. This field is mandatory when using the Published Application connection type.
     - **View only published application**—Displays only the published applications.
     - **Session logout upon zero open connections**—Select this option to automatically log off the Citrix configuration, when all active Citrix connections or sessions are terminated.
     - **Authentication Methods**—Enables the type of authentication. Select one of the following authentication types:
       - **Prompt for Credentials**
       - **Username and Password authentication**. If you select **Username and Password authentication**, following options are displayed:
         - **Username**

- **Password**
- **Domain Name**

- **Smartcard Authentication**
- **Single Sign On (Domain pass through authentication)**

- **Audio Quality**—Select the preferred audio quality from the dropdown:
  - **Optimized For Speech**
  - **Default User Audio Setting**
  - **Hi-Definition**
  - **Low Bandwidth**
  - **Off**
- **User Key Combos Passthrough**—This parameter allows you to specify on which window to apply the Windows user key combinations. Select one of the following:
  - **Default User Key Combos Passthrough**
  - **On The Local Desktop**
  - **On the Remote Desktop**
  - **The Full Screen Desktops Only**
- **StoreName**—This option specifies the Name of the store to connect to.

9. Click **Save & Publish**.

   Citrix Broker agent has been successfully configured. Accept the update on the device. Once completed, the Citrix shortcut with the configured settings appears on the desktop.

10. To continue this configuration, follow the steps that are provided in the Add configured citrix connection in Kiosk mode.

Add configured citrix connection in Kiosk mode

After successfully configuring Citrix Broker, add configured citrix connection in Kiosk mode.

Steps

1. Go to **Groups & Configs** page, from the **Edit Policies** drop-down menu and click **WinIoT 2.x**.
2. Click **Advanced**.
3. Click **Easy Setup** and select **Kiosk Mode**.
4. Under **Kiosk Mode Settings**, enable **Kiosk Mode** to launch the configured Citrix connection in a simplified desktop environment. This replaces the default Windows desktop.
5. Enable **Kiosk Reboot** to reboot the device after applying Kiosk Mode settings (instead of the default logoff).
6. Under **Application**, select **Application Exit Action** to define what happens when the configured remote connection or application closes in Kiosk Mode.
7. Configure **Application State Retry Count** and **Application State Retry Interval**.
8. Select **Background** and **Logo** to display on the Kiosk mode screen as wallpaper.
9. Click **Easy Setup** and select **Access Control**.
10. Under **System**, enable **Region & Language**, **Date & Time**, **Display**, **Network**, **Ease of Access**, and **Sound** to allow the local user to manage these settings while in Kiosk mode.
11. Under **Peripherals**, enable **Mouse and Keyboard** to allow control of peripheral settings in Kiosk Mode.

    NOTE: From the system and peripheral options listed, the **Display**, **Network**, and **Mouse and Keyboard** settings are persistent and retain their values across reboots.

12. Under **Taskbar**, enable **Show Taskbar menu**, **Date & Time**, **24 Hour Format**, **Sound**, **Network**, and **Touch Keyboard** to display these controls on the Kiosk Mode taskbar.
13. Under **Start Menu**, enable **Show Start menu**, **Allow Shutdown**, **Allow Restart**, **Allow Log off**, and **Enable Help** to make these options available in the Kiosk Mode Start menu.
14. Click **Save & Publish**. To apply the changes, accept the update on the device.

Results

Citrix connection has been successfully configured in Kiosk mode.

Configure Hotkey Filter from WMS

The Hotkey Filter provides a consistent and secure way to manage important Windows shortcut keys across both the local device and various VDI brokers by intelligently redirecting or blocking key combinations based on session context. It ensures that actions like locking the session behave uniformly in Citrix, Omnissa, and RDP environments while preventing unintended access to local Windows functions.

About this task

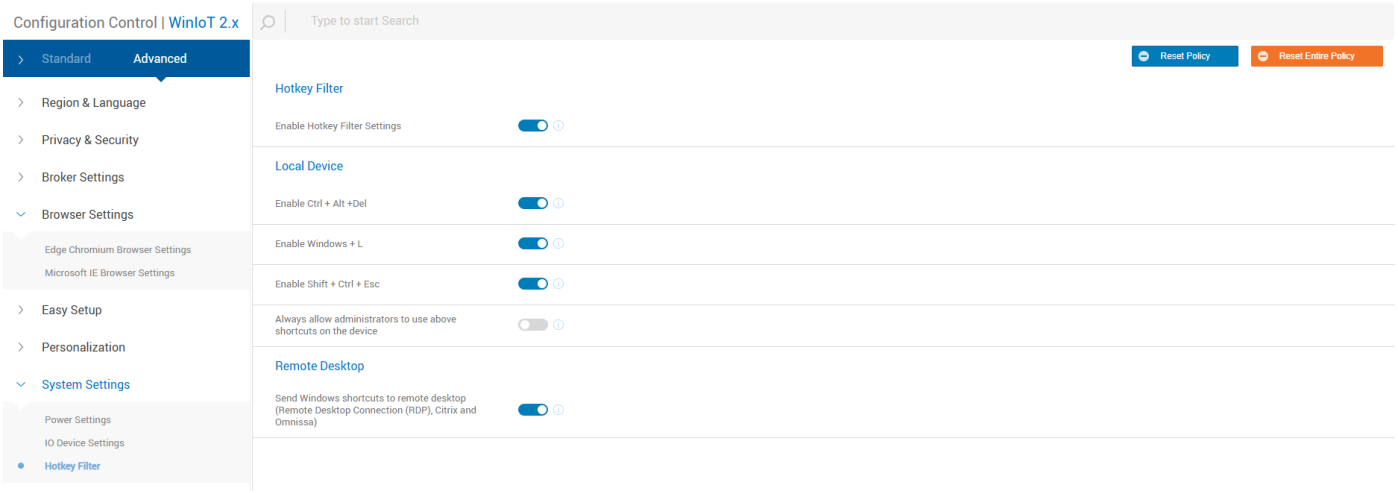
You can configure **Hotkey Filter** in WMS for specific groups and policies.

Steps

1. Log in to the WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.

   The **Configuration Control | WinIoT 2.x** window is displayed.

4. Click **Advanced**.
5. Click **System Settings** and select **Hotkey Filter**.
6. Click **Enable Hotkey Filter Settings** to manage Hotkey Filter settings through WMS.



NOTE: Once this option is enabled and configured, hotkey filter cannot be managed through local Dell Application Control Center.

7. For local device, select the following options:
   - **Enable Ctrl + Alt +Del**: Toggle this setting to enable or disable the shortcut on the local device.
   - **Enable Windows + L**: Toggle this setting to enable or disable the shortcut on the local device.
   - **Enable Shift + Ctrl + Esc**: Toggle this setting to enable or disable the shortcut on the local device.
   - **Always allow administrators to use above shortcuts on the device**: Enable this setting to allow administrators to use the above shortcuts (**Ctrl+Alt+Del**, **Windows+L**, **Ctrl+Shift+Esc**) in Administrator account irrespective of local device selection. If this option is disabled, the local device selected policies apply for all users.
8. For remote desktop, select the following option:
   - **Send Windows shortcuts to remote desktop (RDP, Citrix and Omnissa)**
     - When this setting is enabled, all Windows shortcuts (**Ctrl+Alt+Del**, **Windows+L**, **Ctrl+Shift+Esc**) are sent to the VDI sessions of RDP, Citrix, and Omnissa.
9. Click **Save & Publish**.

Configure Write Filter notification settings from WMS

You can configure **Write Filter Notification Settings** in WMS for specific groups and policies.

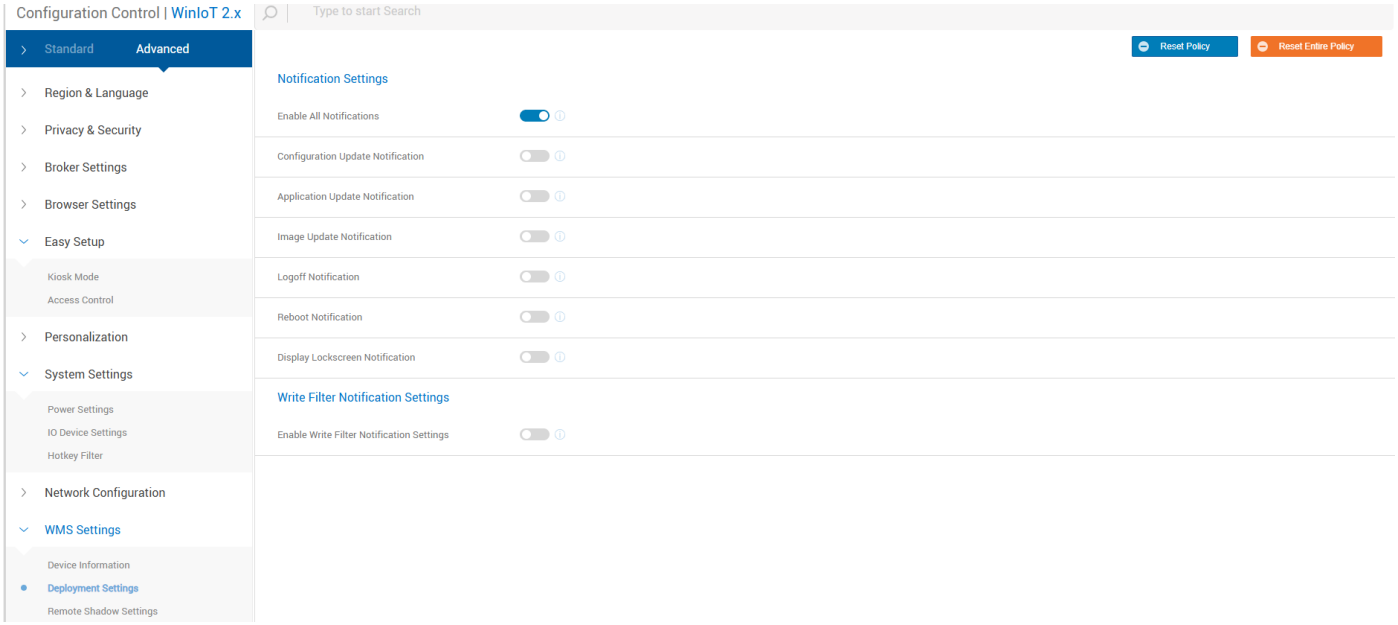
Steps

1. Log in to the WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.

   The **Configuration Control | WinIoT 2.x** window is displayed.

4. Click **Advanced**.
5. Click **WMS Settings** and select **Deployment Settings**.
6. Click **Enable Write Filter Notification Settings** to manage **Write Filter Notification Settings** through WMS under **Write Filter Notification Settings** and select the required values for following options:
   - **Hide the warning message for all users when Write Filter is disabled**: Hide the alert notification for all users displayed on the desktop when the **Write Filter** is disabled.
   - **Allow administrators to view the Write Filter Disabled notification**: Enable this setting to allow administrators to still view the alert notification when Write Filter is disabled on the admin desktop.

   NOTE: Once the **Enable Write Filter Notification Settings** option is turned on and the changes are saved, local administrators cannot modify these settings on the device.



7. Click **Save & Publish**.

Configure Power Settings from WMS

You can configure the **Power Settings** in WMS for specific groups and policies.

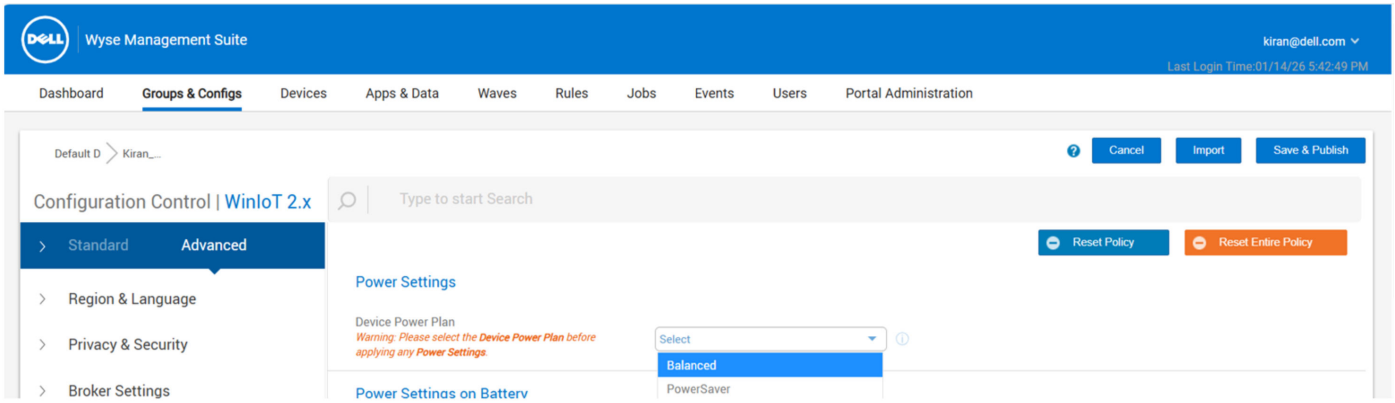
Steps

1. Log in to the WMS user interface as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.

   The **Configuration Control | WinIoT 2.x** window is displayed.

4. Click **Advanced**.

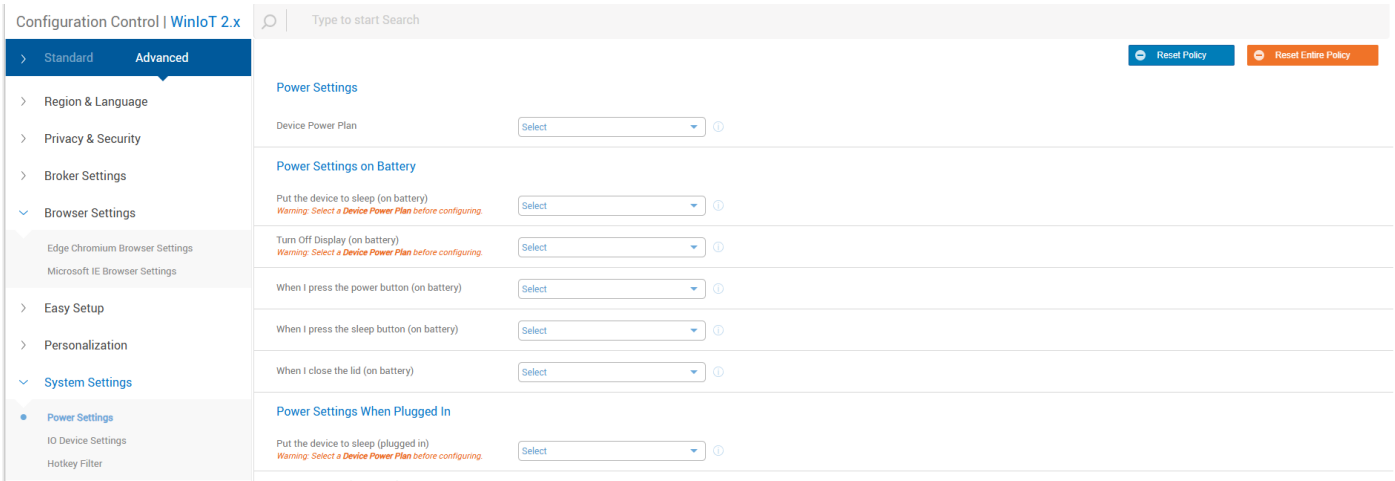
5. Click **System Settings** and select **Power Settings**.
6. Click **Power Settings** and select one of the following options:
   - **Balanced**
   - **PowerSaver**



7. Under the **Power Settings on Battery**, configure the following options:

   NOTE: Select the **Device Power Plan** before applying any **Power Settings** related to **Balanced** and **PowerSever**. The **Device Power Plan** setting is applicable for the option 1 and 2.

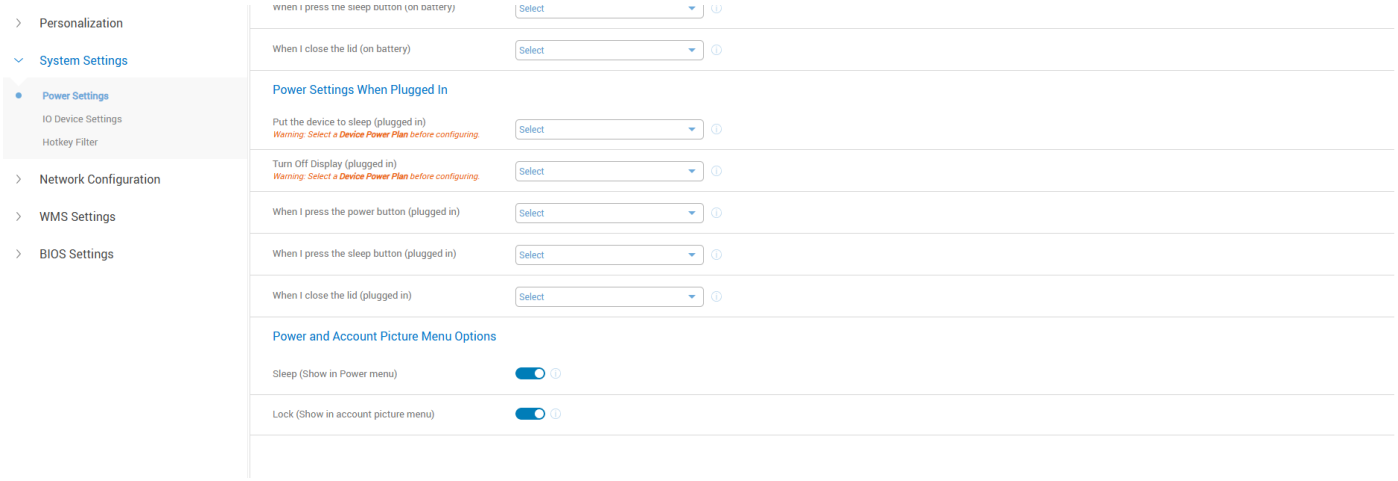
   - **Put the device to sleep (on battery)**: Time after which the device can go to sleep.
   - **Turn Off Display (on battery)**: Time after which the display is turned off.
   - **When I press the power button (on battery)**: Sets the behavior of the device when the power button is pressed by selecting the following options:
     - **Do nothing**
     - **Sleep**
     - **Shut down**
   - **When I press the sleep button (on battery)**: Sets the behavior of the device when the sleep button is pressed by selecting the following options:
     - **Do nothing**
     - **Sleep**
   - **When I close the lid (on battery)**: Sets the behavior of the device when the lid is closed by selecting the following options:
     - **Do nothing**
     - **Sleep**
     - **Shut down**



8. Under the **Power Settings When Plugged In**, configure the following options:

   NOTE: Select the **Device Power Plan** before applying any **Power Settings** related to **Balanced** and **PowerSever**. The **Device Power Plan** setting is applicable for the option 1 and 2.

- **Put the device to sleep (plugged in)**: Time after which the device can go to sleep.
- **Turn Off Display (plugged in)**: Time after which **Display** is turned off.
- **When I press the power button (plugged in)**: Sets the behavior of the device when the power button is pressed by selecting the options **Do nothing**, **Sleep**, and **Shut down**.
- **When I press the sleep button (plugged in)**: Sets the behavior of the device when the sleep button is pressed by selecting the options **Do nothing** and **Sleep**.
- **When I close the lid (plugged in)**: Sets the behavior of the device when the lid is closed by selecting the options **Do nothing**, **Sleep**, and **Shut down**.



9. Under the **Power and Account Picture Menu Options**, configure the following options:
   - **Sleep (Show in Power menu)**: Enable this setting to display the **Sleep** option in **Power** menu. If disabled, the **Sleep** option is hidden.
   - **Lock (Show in account picture menu)**: Enable this setting to display the **Lock** option in the account figure menu. If disabled, the **Lock** option is hidden.
10. Click **Save & Publish**.

Configure domain settings from WMS

You can set up domain settings in WMS by logging in as an administrato

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **Network Configuration** > **Domain Settings** and configure the following options:

Table 4. Domain settings

Option	Description
Domain or Workgroup	From the drop-down list, select **Domain** or **Workgroup**.
Domain or Workgroup Name	Enter the domain or workgroup name.
User Name	Enter the username of the account which has the **Add to Domain** privileges.
Password	Enter the password for the user account specified in the **User Name** field.
Account OU	Enter the location of the organization unit where the computer object should be created. You must add semicolons and quotes as required. For example, "OU=testOU; DC=domain; DC=Domain; DC=com".

Table 4. Domain settings

Option	Description
Auto Login	Enable this option to automatically log in to the device.

Configure BIOS settings and password using WMS

You can configure BIOS settings such as device integration, wireless connections, password, device management, and so on, for different platforms using WMS.

About this task

NOTE: Configure BIOS settings and password is a WMS Pro feature.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **BIOS settings**.
6. Select the platform from the **Platforms** list and click X.
7. Configure the options as required.
8. Click **Save & Publish**.

Sync BIOS admin password for WinIoT 2.x devices using WMS

About this task

NOTE: Sync BIOS admin password is a WMS Pro feature.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Groups & Configs** page and select a group.
3. From the **Edit Policies** drop-down menu, click **WinIoT 2.x**.
   The **Configuration Control | WinIoT 2.x** window is displayed.
4. Click **Advanced**.
5. Click **BIOS settings**.
6. Select the platform from the **Platforms** list and click X.
7. Go to **BIOS Admin Password** > **Enable Admin Password**.

   NOTE: For **OptiPlex AIO 7410** and **OptiPlex AIO 7420**, go to **Security** > **BIOS Admin Password**.
8. Enter the password.
9. Click **Save & Publish**.

   NOTE: Sync BIOS Admin password option must be used when the BIOS password settings are changed. For information about how to use the option from WMS, see Sync BIOS admin password.

Remotely shadow your client

Global and group administrators can initiate remote shadow sessions using **VNC** or **P2P** protocols in Wyse Management Suite (WMS).

NOTE: Remote Shadow (P2P) is supported in both WMS Cloud and on-premises deployments, but only for WMS Pro licenses. Remote Shadow (VNC) is available solely in on-premises deployments and supports both WMS Standard and WMS Pro licenses.

Initiate remote shadow (VNC) connection using WMS

Global and group administrators can remotely access device sessions using WMS. This feature is available only in the private cloud version of WMS and supports both Standard and Pro licenses.

About this task

Remote Shadow (VNC) requires configuration of **Remote Shadow Settings** in WinIoT 2.x policy followed by initiating the remote session using WMS.

NOTE:

- As of September 2025, TightVNC has been deprecated and removed from all e-support and factory image builds. However, the TightVNC server can still be obtained by downloading it from the Internet and installing it through Wyse Management Suite (WMS), see How do I deploy TightVNC using Wyse Management Suite (WMS)?. WMS installation can be configured to run silently using the parameter `/quiet`.

Steps

1. Log in to WMS as an administrator.
2. Configure the **Remote Shadow Settings** for VNC using WMS.
   a. Go to the **Groups & Configs** page and select the target group.
   b. From the **Edit Policies** drop-down menu, select **WinIoT 2.x**.
   c. Go to **Advanced** > **WMS Settings** > **Remote Shadow Settings**.

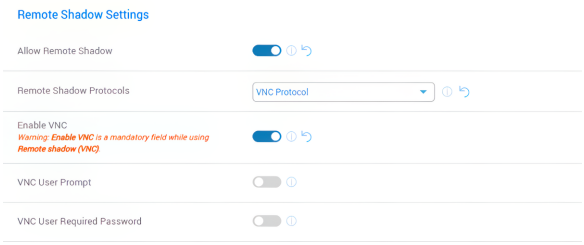


Figure 4. Remote Shadow Settings (VNC)

   The **Remote Shadow Settings** page is displayed.
   d. In the **Remote Shadow Settings** page, configure these parameters:
      - **Allow Remote Shadow**—Enable this option to select Remote Shadow (VNC).
      - **Remote Shadow Protocols**—Select VNC protocol.
      - **Enable VNC**—Enable this option to establish Remote Shadow (VNC), which is mandatory.
      - **VNC User Prompt**—Enable this option to display a notification on the client system, prompting the user to approve or reject the remote session.
      - **VNC User Required Password**—Enter the authentication password required for the administrator to initiate the Remote Shadow (VNC) connection.
   e. Click **Save & Publish**.
3. Initiate a Remote Shadow (VNC) Session Using WMS.
   a. On the Devices page, select the device.
   The **Device Details** page is displayed.

b. From the **More Actions** drop-down list, select the **Remote shadow (VNC)** option.
The IP address and the port number of the target device is displayed in the **Remote Shadow (VNC)** dialog box.

NOTE: The default port number is 5900.

c. Optionally, change the port number of the target device.
d. Click **Connect**.

NOTE: Wyse Management Suite portal supports a maximum of five remote shadow sessions per tenant.

e. Enter the password to initiate a remote session to the target device. The default password is: `DELL`.
You can configure the password, port number, and other configurations. See, Configuring TightVNC server properties on the device.

Results

The end-user receives an Incoming TightVNC Connection dialog with **Accept** or **Reject** options.

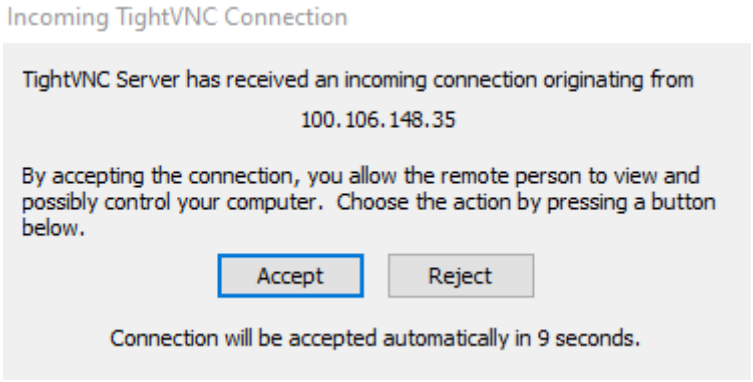


Figure 5. TightVNC Connection dialog

Remote Shadow (P2P)

Remote Shadow (P2P) allows administrators to remotely view and interact with user sessions on devices running Windows 11 IoT Enterprise LTSC 2024 directly from Wyse Management Suite (WMS) Pro Edition. This capability enables efficient troubleshooting, user guidance, and remote management without requiring physical access to the device.

Enhanced Remote Shadow (P2P)

Enhanced the existing capabilities of remote shadow (P2P) as follows:

- Significantly reduced the connection time.
- Account switching capability in same session.
- Initiate connection when client is in locked, signed out or screen saver state.
- Initiate the connection when the client is in a sleep or shutdown state for WMS on-premises devices.

NOTE: Ensure that the Wake-on-LAN (WoL) is supported and enabled on the device.

The following are the minimum supported versions:

- Wyse Management Suite 5.5 or later with pro licensing
- Dell Application Store 26.02.0.2 or later

NOTE: If either of the above mentioned versions is not used then the Remote Shadow (P2P) previous version will be used.

NOTE: IT administrators must include the following new signaling server URLs in their firewall configuration:

us1-relay-direct.wysemanagementsuite.com (US1) and eu1-relay-direct.wysemanagementsuite.com (EU1).

IP address and port details are available through the Dell support team.

NOTE: Remote Shadow P2P fails to establish a connection when the WMS URL is accessed using the IP address of WMS server from another system, or when the WMS external URLs are configured as IP addresses. This behavior occurs because the required certificates must be installed to allow the Signaling Server WebSocket to establish a secure connection.

Initiate remote shadow (P2P) connection using WMS

About this task

Remote Shadow (P2P) requires configuration of **Remote Shadow Settings** in WinIoT 2.x policy followed by initiating the remote session using WMS.

Steps

1. Log in to WMS as an administrator.
2. To configure **Remote Shadow Settings** using WMS:
   a. Go to the **Groups & Configs** page and select the target group.
   b. From the **Edit Policies** drop-down menu, select **WinIoT 2.x**.
   c. Go to **Advanced** > **WMS Settings** > **Remote Shadow Settings**.
   The **Remote Shadow Settings** page is displayed.
   d. In the **Remote Shadow Settings** page, configure these parameters:
      - **Allow Remote Shadow**: Enable this option to activate Remote Shadow (P2P).
      - **Remote Shadow Protocols**: Select `P2P` protocol.
      - **Remote Shadow Password**: Enter the authentication password required for the administrator to initiate the Remote Shadow (P2P) connection.

        NOTE: Use a password with uppercase and lowercase letters, special characters, and numbers. Ensure that the password length is between 12 and 32 characters.

      - **Enable Remote Shadow Prompt**: Enable this option to display a notification on the client system, prompting the user to approve or deny the remote session.
      - **Select Timeout Type**: Define the default action when the client device user does not respond to the prompt:
        - **Accept**: Automatically permit the remote session.
        - **Reject**: Automatically block the remote session.

        NOTE: If the device is locked or signed out, Remote Shadow connection will not wait for the timeout or user consent and will automatically accept or reject the request based on the **Select Timeout Type** field.

      - **Timeout**: Specify the response window duration in seconds. Specify a value between **`0 to 400`**s.
      - **Enable View Only**: Optionally, enable this option to restrict mouse and keyboard input during remote sessions, limiting the session to observation mode.
      - **Active Visible**: Enable this option to display real-time notifications to the user during the remote session.
   e. Click **Save & Publish**.

   The configuration is saved and assigned to the target devices.
3. Initiate a Remote Shadow session using WMS.
   a. Select the target device. Go to **Devices** > **Device Details**.
   The **Device Details** window displays information that is related to the target device.
   b. Go to **More Actions** → **Remote Shadow (P2P)** to start the remote session.
   c. Enter the **Remote Shadow Password** configured in Step 1.

   NOTE: Initiate the Remote Shadow (P2P) session before initiating the Image Pull operation because Wyse Management Suite cannot communicate with the Wyse Device Agent during the Image Pull operation, which prevents Remote Shadow (P2P) from working.

   The remote session is initiated. The end-user receives a Remote Access Request dialog with **Accept** or **Decline** options.

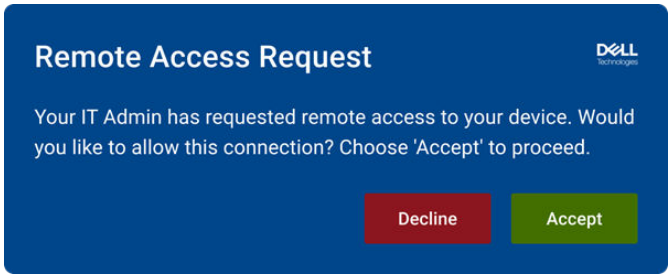


Figure 6. Remote access request on client system

Results

When the end-user accepts, the administrator gains access to the session. If the user does not respond within the configured timeout, the session adheres to the **Accept** or **Reject** policy that is defined in the settings.

Additional configuration settings

This section lists the additional configuration for Remote Shadow (P2P) settings in the WMS Portal Administration tab to manage remote shadow sessions.

About this task

You can define various parameters for remote shadow sessions, such as the maximum number of concurrent connections and session timeouts, to optimize performance and security.

Steps

1. Log in to WMS as an administrator.
2. Go to **Portal Administration** > **Console Settings** > **Other Settings**.
   The **Portal Administration — Other Settings** page is displayed.
3. In the **Portal Administration — Other Settings** page, go to **Remote Shadow (P2P) Configuration** section.

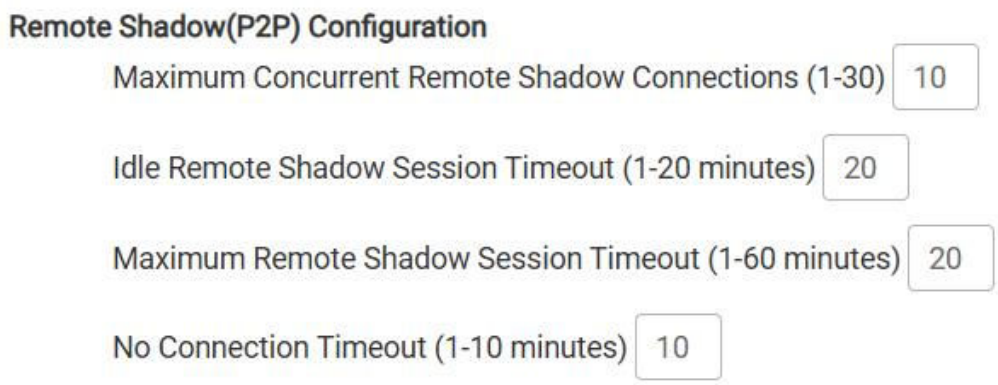


Figure 7. Settings for remote shadow (P2P) configuration

4. Configure the following settings:
   - **Maximum Concurrent Remote Shadow Connections (1-30)** : This setting defines the maximum number of remote shadow sessions that can be active simultaneously. Administrators can set a value between 1 and 30 based on their requirements and network infrastructure capacity. For example, if set to 10, up to 10 remote shadow sessions can be active at the same time.
   - **Idle Remote Shadow Session Timeout (1-20 minutes)**: This setting specifies the duration of inactivity after which an idle remote shadow session automatically disconnects. The timeout can be set between 1 and 20 minutes. For example, if set to 5 minutes, the session disconnects if there is no activity for 5 minutes.
   - **Maximum Remote Shadow Session Timeout (1-60 minutes)**: This setting determines the maximum duration for a remote shadow session before it is automatically terminated. The timeout can be set between 1 and 60 minutes. [cite: 11] For example, if set to 30 minutes, the session will automatically end after 30 minutes, regardless of activity.

- **No Connection Timeout (1-10 minutes)**: This setting defines the duration to wait for a connection to be established before timing out. [cite: 13] The timeout can be set between 1 and 10 minutes. For example, if set to 3 minutes, the system waits for 3 minutes to establish a connection before timing out.

NOTE: In the configuration settings, **No Connection Timeout** applies only to Remote Shadow (P2P) before Quarterly release 2602. Starting with the Quarterly release 2602, this setting is not applicable and the connection timeout is fixed at 2 minutes by default.

Results

When you complete these steps, the Remote Shadow (P2P) settings are configured according to your specifications, allowing for controlled management of remote shadow sessions.

Imaging Windows 11 IoT Enterprise LTSC 2024 devices using WMS

This section details the Windows 11 IoT Enterprise LTSC 2024 operating system image capture and deployment process using Dell Imaging Manager and WMS.

Capture image using WMS

About this task

The following steps are applicable to capture a Windows 11 IoT Enterprise LTSC 2024 image using Wyse Management Suite.

Steps

1. Log in to WMS as an administrator.
2. Go to **Devices** and select your Windows 11 IoT Enterprise LTSC 2024 registered device.
3. Select **Pull OS Image** from the **More Actions** drop-down list.
   The **Pull OS Image** window is displayed.
4. Enter the **Name of image**, **File repository**, **Pull type**, and **Default options**.
5. Click **Prepare for Image Pull**.
6. Click **Pull Image**.
   The **Image Pull Request from System Admin** window is displayed on the registered device.
7. On the registered device, click **Pull after sysprep** to capture the image by running custom Sysprep.

   NOTE:
   - The device disables the **Write Filter** (**WF**) if it is enabled and prompts you to switch to the **Admin** account if not already in it. Ensure that the device is in the **Admin** account with the **WF** disabled.
   - Dell Technologies recommends using **Pull after sysprep** for image capture.

8. The **Create a new System Image** screen is displayed.
9. Optionally, click the checkbox **Update Password** and enter a new password for both Admin and User profiles. The password must meet the complexity criteria set on the devices where the image is restored.

   NOTE: When the **Update Password** is not selected, use the following default password credentials for the ISO image:
   - Administrator account: `Admin#<Service Tag of the device>`
   - User account: `User#<Service Tag of the device>`

   Replace `<Service Tag of the device>` with the Service Tag for your device.

10. Optionally, click the checkbox **Join a Domain** and enter the domain details to join the device to a specific domain postimaging process.
11. Click **Capture Image**.
12. The image capture process activates on the device, displaying progress indicators.

Results

- After a successful capture, the device automatically logs in to the **User** account.
- Once the upload is successful and synced to WMS, the pulled image is displayed under **Apps & Data** > **OS Image Repository** > **Windows IoT Enterprise / ThinLinux** in WMS.

Deploy an image using WMS

You can deploy an image to a device using WMS, ensure to use only device-specific images. Images from other devices are not compatible.

Steps

1. Log in to the Wyse Management Suite (WMS) as an administrator.
2. Go to **Apps & Data** > **OS Image Policies** > **Windows IoT Enterprise / ThinLinux**.
3. Click **Add Policy**.
   The **Add Windows IoT Enterprise / ThinLinux Policy** screen is displayed.
4. Enter a **Policy Name**.
5. From the **Group** drop-down menu, select a group.
6. From the **OS Type** drop-down menu, select **Windows IoT Enterprise**.
7. From the **OS Subtype Filter** drop-down menu, select **WIE11 (Windows 11 IoT Enterprise LTSC 2024)**.
8. From the **OS Image** drop-down menu, select the image file specific to the hardware platform. For more information, see *Add Windows Embedded Standard operating system and ThinLinux images to repository* in Dell Wyse Management Suite Version 5.0 Administrator Guide at Dell | Support.

   NOTE: To deploy an e-support image downloaded from Dell | Support, from WMS 5.3 onwards, you must first accept the End User License Agreement (EULA) in the **Windows IoT Enterprise/ThinLinux OS Image Repository**. It is a necessary step to ensure compliance with the terms of use for the image.

   The following points outline the behavior, and management of EULA accepted OS images:
   - Only OS images with accepted End-User License Agreements (EULAs) are listed in the OS Image drop-down menu.
   - To view the EULA status of OS images, go to the **Apps & Data** > **OS** > **Image Repository** > **Windows IoT Enterprise / ThinLinux** page, where the EULA column displays the acceptance status.
   - If the EULA column indicates **Pending**, you must click the Pending link to accept all applicable EULAs, ensuring the OS image is listed in the drop-down menu.
   - If the EULA column displays **N/A**, no further action is required, as these OS images will automatically appear in the OS Image drop-down menu.
9. From the **Platform Filter** drop-down menu, select the platform for which you want to deploy the image.
10. From the **Rule** drop-down menu, select one of the following rules for the image policy:
    - **Upgrade only**.
    - **Allow downgrade**.
    - **Force this version**.
11. From the **Apply Policy Automatically** drop-down menu, select one of the following options:
    - **Do not apply automatically**: The image policy is not applied automatically to a device registered with Wyse Management Suite.
    - **Apply the policy to new devices**: The image policy is applied to a new device registered with Wyse Management Suite.
    - **Apply the policy to devices on check-in**: The image policy is applied to a new device upon check-in that is registered with Wyse Management Suite.
12. Click **Save**.
13. An alert window is displayed.
14. In the alert window, click one of the following options:
    - **Later**: Schedule the policy later from the Jobs page.
    - **Yes**: Schedule it immediately.

    If you select **Yes**, the **Image Update Job** window is displayed.
15. In the **Image Update Job** window, complete the following:
    a. Enter the job description.
    b. From the **Run** drop-down list, select one of the following options:

- **Immediately**: The server runs the job immediately.
- **On selected time zone and date/time**: The server creates one job for each device time zone and schedules the job to the selected date or time of the device time zone.
- **On selected date/time (of device time zone)**: The server creates one job to run at the date or time of the designated time zone.

c. If you have selected **On selected time zone and date/time** in step 15(b), then from the **Time Zone** drop-down lists select the time zone.

d. Enter or select the following options:

- **Effective**: Select the days during which the policy should be deployed.
- **Start between**: Select the time during which the policy should be deployed.
- **On day(s)**: Select the days when the policy should be deployed.

16. Click **Preview**.
17. Click **Schedule**.

- On the device, a notification box appears indicating that the OS image download is in progress. The notification displays the image download progress.

  NOTE: When the same image is applied to the device again, the notification is not displayed.

- A notification bar is displayed to notify the user about the image application. Save ongoing work on applications before proceeding.
- Click **Ok** to start the imaging process immediately, or it begins automatically based on the scheduled wait time.
- Once the download has been completed, the deployment of the imaging process starts, and progress indicators display all critical tasks.

Results

- The Windows 11 IoT Enterprise LTSC 2024 image is deployed successfully to the device.
- In WMS, go to **Jobs** and check the details of the image job. The status shows **Success: 1**.

NOTE: The default password credentials for the Admin and User accounts in the Windows 11 IoT Enterprise LTSC 2024 ISO image are as follows:

- **Admin:** Admin#<Service Tag of the device>
- **User:** User#<Service Tag of the device>

Upgrade BIOS using WMS

Steps

1. Go to Dell | Support.
2. Enter the **`Service Tag`** of your device, and click **Search**.

   NOTE: If the **`Service Tag`** is not available, you can manually browse your device model.

3. Click **Drivers & Downloads**.
4. From the **Operating system** drop-down menu, select **WIE11 (Windows 11 IoT Enterprise LTSC 2024)**.
5. From the Category drop-down menu, select **BIOS**.
6. Download the respective BIOS file.
7. Deploy the file using the advanced application policy in WMS. For information about how to deploy the file, see Deploy applications using WMS and use the silent installation parameter `/s /p=<Password>`.

   NOTE:
   - If the BIOS password is not changed, the default password is **`Fireport`**.

   The lock screen is displayed during the package installation process on all the devices.

6

Dell Application Control Center (DACC)

Starting with release version 2605, all Dell value-added applications are consolidated into the modern Dell Application Control Center (DACC). DACC is preinstalled and provides centralized management for the system on which it is installed.

Dell Application Control Center (DACC) is a unified device management application that is designed for Windows 11 IoT Enterprise LTSC 2024. The application integrates multiple device management capabilities into a single interface, allowing administrators to configure, monitor, and manage devices efficiently.

Key features

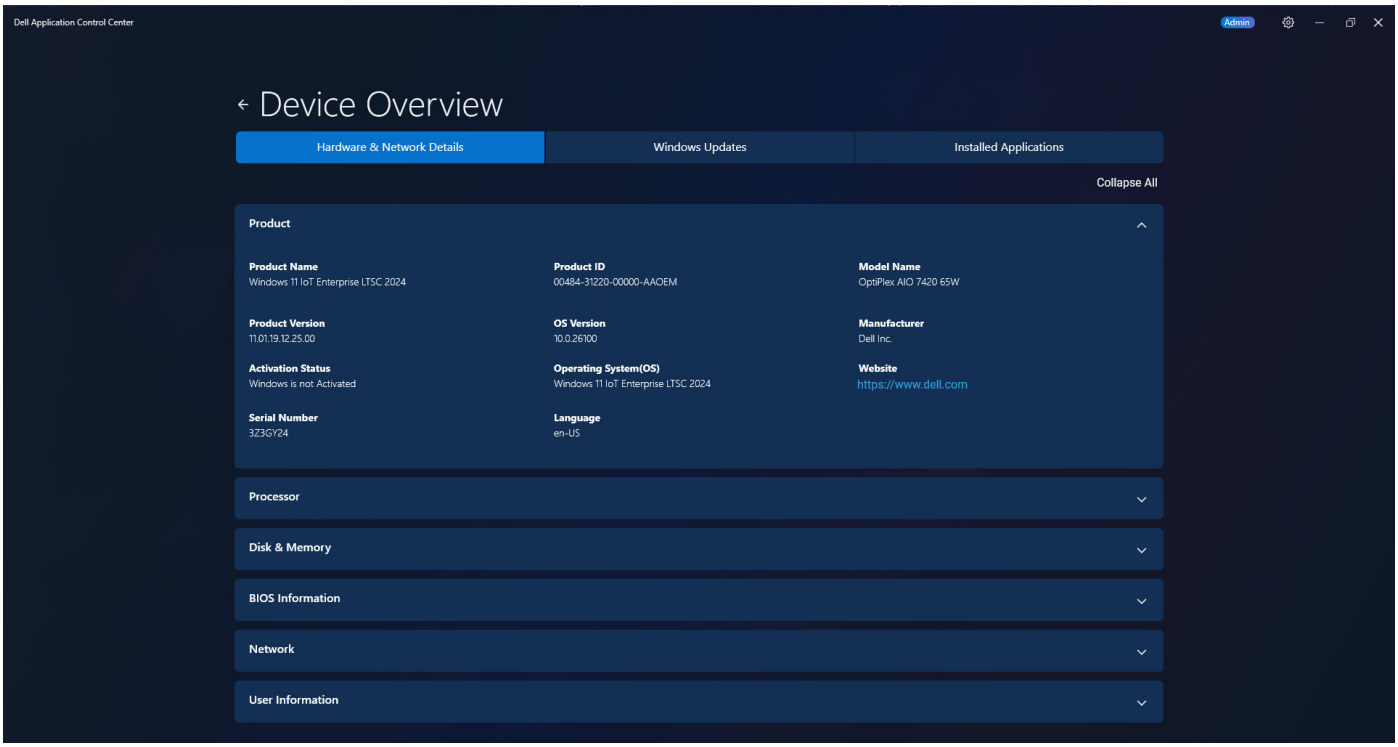
DACC provides the following core features:

- **Device Overview**—Provides visibility into hardware status, network configuration, system updates, and installed applications.
- **Write Filter Settings**—Enables configuration and management of the Unified Write Filter (UWF) to protect system integrity.
- **WMS Settings**—Allows device registration and configuration of custom system information.
- **Easy Setup**—Supports creation of user profiles with kiosk mode, application settings (VDI brokers, browser, or any other custom application), and access control.
- **Utilities**—Includes tools to manage keyboard shortcuts, autologin, export device logs, Application Launch Manager (ALM), and Microsoft Endpoint Configuration Manager (MECM) settings.

NOTE: DAS 2605 or later is mandatory to install the new DACC.

Device Overview

The **Device Overview** provides a unified view of system configuration, status, and inventory. It includes key details such as hardware specifications, BIOS information, network configuration, and user account information.

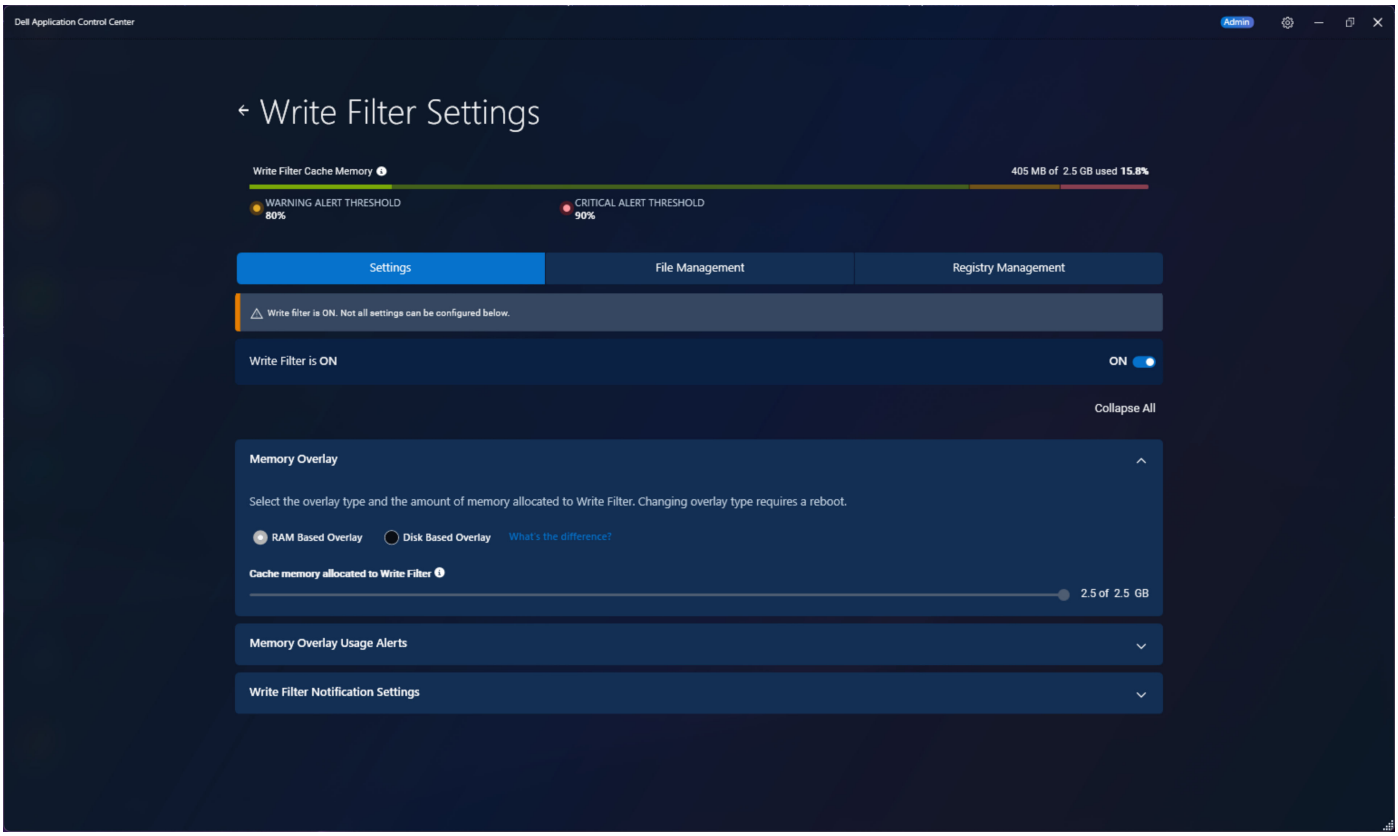


It also provides visibility into Windows Updates, helping verify patch compliance and troubleshoot update issues. Also, the Installed Applications list supports software inventory management by displaying application names, publishers, and versions.

Device Overview enables quick monitoring of system health, configuration, and compliance.

Write Filter Settings

Write Filter Settings page enable administrators to configure and manage the Unified Write Filter (UWF), a critical feature for protecting system integrity in Windows 11 IoT Enterprise LTSC 2024 environments. UWF redirects all write operations to a temporary overlay, preventing permanent changes to the system drive.



Overview

When Write Filter is enabled, a progress bar displays the current overlay consumption. Monitoring this consumption is essential to prevent system instability.

Settings

Memory Overlay Configuration—This setting can only be configured when the Write Filter is **OFF**. Administrators can select between the following two overlay types:

- **RAM-Based Overlay**: Stores write operations in system memory, with typical sizing ranging from 0 GB to 2.5 GB.
- **Disk-Based Overlay**: Stores write operations on disk, with no fixed size limit, using available disk space.

Memory Overlay Usage Alerts—This setting can be configured when the Write Filter is either **ON** or **OFF**. You can configure proactive monitoring to prevent overlay exhaustion, applicable only for RAM-Based Overlay:

- Warning Alert Threshold: The default setting is 80% of overlay capacity. System logs a warning event, and administrators receive tray notifications.
  - Action required: Monitor overlay consumption and plan for device restart if necessary.
- Critical Alert Threshold: The default setting is 90% of overlay capacity. System instability may occur, with a risk of forced reboot and potential session termination.

- Action required: Immediate restart is recommended to clear overlay.

Write Filter Notification Settings—You can control how the system notifies users when Write Filter is **OFF** using the following options:

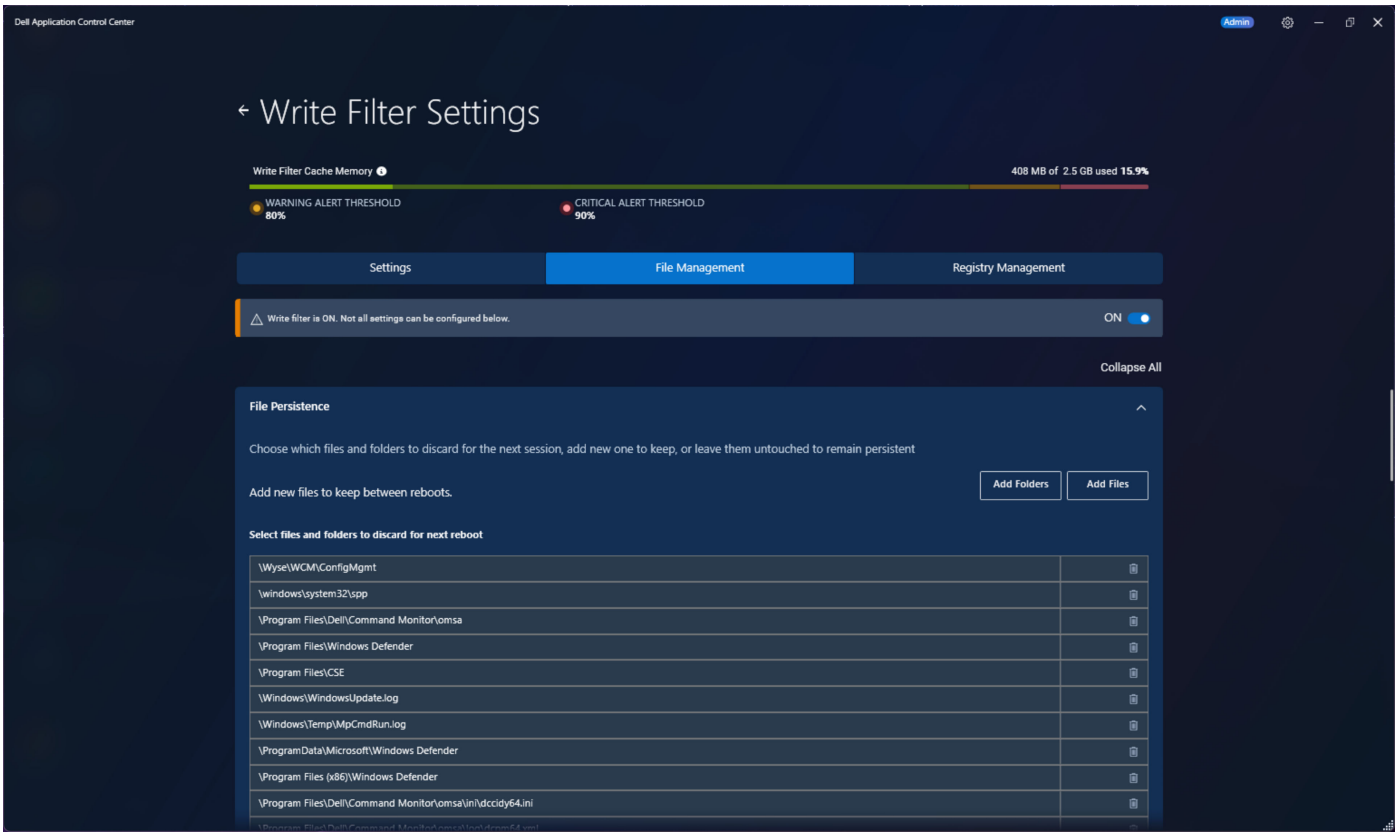
- **Hide the warning message for all users when Write Filter is disabled**: Suppress Write Filter notifications for all users.
- **Allow only administrators to view the Write Filter disabled notification**: Display notifications to inform administrators of UWF state.

This setting helps manage user awareness of Write Filter status, particularly in environments where UWF may be temporarily disabled for maintenance.

File Management

File Management enables administrators to control how specific files and folders interact with UWF. You can configure this setting only when the Write Filter is **OFF**:

- File Commits: Performs a one-time persistence of specified files from the overlay to the protected volume. Use this when configuration files or logs must be retained across reboots.
- File Persistence: Exclude specific files or folders from Write Filter protection, allowing write operations to bypass the overlay, and write directly to disk. It is useful for application data directories, log files, or user-generated content that must persist.



The following are the common use cases:

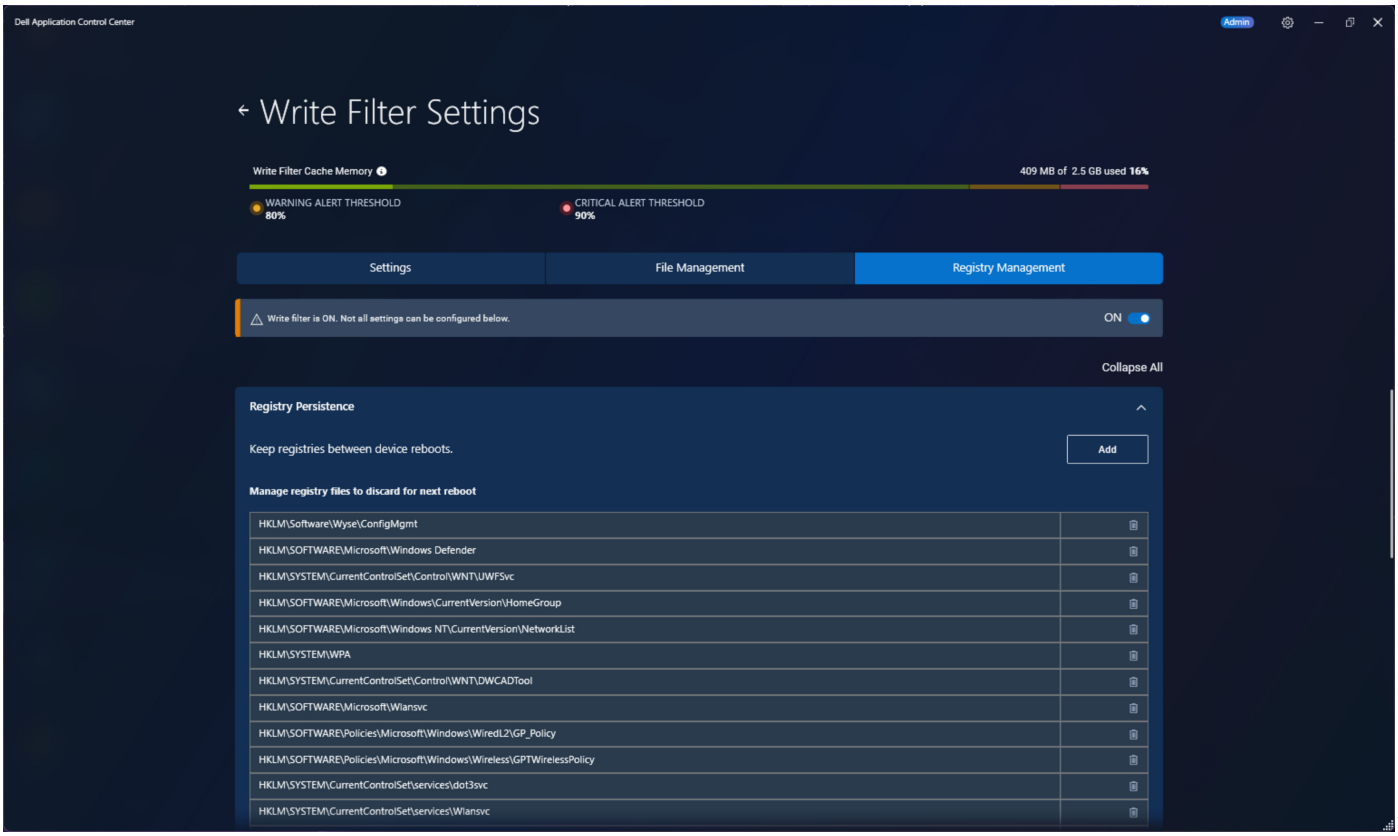
- Exclude log directories to preserve diagnostic information
- Commit critical configuration changes after validation
- Exclude database files for applications requiring persistent storage

Registry Management

Registry Management provides similar control for Windows Registry keys. You can configure this setting only when the Write Filter is **OFF**:

- Registry Commits: It is one-time persistence of a specific registry value for the current session. Use after applying validated configuration changes. The changes take effect immediately.

- Registry Persistence: Exclude specific registry keys from write filter protection, allowing registry modifications to excluded keys to write directly to the registry. This is useful for application settings, license keys, or dynamic configuration data.



The following are the common use cases:

- Exclude application license registry keys
- Commit system configuration changes after testing
- Exclude registry paths for applications requiring persistent settings

NOTE:

- All file and registry management operations require administrator privileges.
- File and Registry Persistence persist across reboots and UWF state changes.
- Review exclusions regularly to maintain a security posture.
- Document all exclusions for audit and troubleshooting purposes.

WMS Settings

WMS Settings page enables administrators to register devices with Wyse Management Suite and configure custom device identification information.

Registering a device with WMS allows centralized management, policy enforcement, and monitoring across the device fleet.

Registration status

The system provides status indicators to help administrators verify the device registration state.

- Not Registered (red indicator)—Indicates that the device is not registered with WMS.
- Last Sync to WMS—Displays the timestamp of the most recent registration with the WMS server successful.

Device registration

Device registration connects a Windows 11 IoT Enterprise LTSC 2024 device to a WMS server.

This connection enables:

- Centralized configuration management
- Policy deployment
- Device monitoring and reporting

Prerequisites to register a device with WMS

Ensure that the following requirements are met before registering a device:

- Verify that the system time and time zone are correctly configured to support certificate validation and secure communication
- Confirm that the device has a stable network connection to the WMS infrastructure
- Verify that firewall rules allow communication with the WMS server
- Ensure that required SSL/TLS certificates are installed and trusted when using HTTPS

Required information

Provide the following configuration details to register a device:

Registration type

You can select one of the following methods to register the device:

- **Manual Registration**—Select this registration method to configure server details manually.
- **Automatic Discovery**—Searches for the available management servers and registers the device in the priority WMS.

Automatic discovery

- Using DNS record fields or DHCP scope options. For more information, see Registering devices by using DHCP option tags, and Registering devices by using DNS SRV record.
- Using secure DNS record fields or DHCP scope options. For more information, see Register devices using secure DNS record fields or secure DHCP scope options.

Manual registration

The following are the prerequisites for manual registration:

- **Management Server**—Specify the WMS server address.
  - Enter the fully qualified domain name (FQDN) or IP address of the WMS server. Following are the examples of the domain name or IP address of the WMS server:
    - `us1.wysemanagementsuite.com`
    - `eu1.wysemanagementsuite.com`
    - `192.168.1.100`
  - Verify that the server URL corresponds to the Wyse Management Suite deployment
  - Select from the dropdown list if previously used servers are available
- **Port**—Specify the communication port used by the WMS server.
  - Enter port 443 for secure HTTPS communication
  - Change the port only if a custom configuration is used. Common ports:
    - Use 443 for HTTPS (recommended)
    - Avoid using 80 for HTTP in production environments
    - Use custom ports as defined by the organization
- **Group Registration Token (optional for WMS on-prem)**—Specify a group token to assign the device during registration.
  - Enter a group registration token to assign the device to a specific group
  - Allow the device to be assigned to the Unmanaged group if no token is provided

- Use the visibility toggle to show or hide the token
- Use tokens to automatically organize devices into groups
- Apply tokens for department-based or location-based grouping
- Keep group tokens confidential

NOTE: **Group Registration Token** is mandatory for WMS Cloud.

- **Enable Server Certificate Authority Validation (optional for WMS on-prem)**—Configure SSL/TLS certificate validation for secure communication.
  - Enable validation to verify the identity of the WMS server
  - Use validated certificates in production environments
  - Disable validation if certificate verification is not required (default setting)

You can select the following options:

- Select **OFF** to disable certificate validation
- Select **ON** to enable certificate validation

NOTE: **ON** option is mandatory for WMS cloud environment.

Manually register a device with WMS

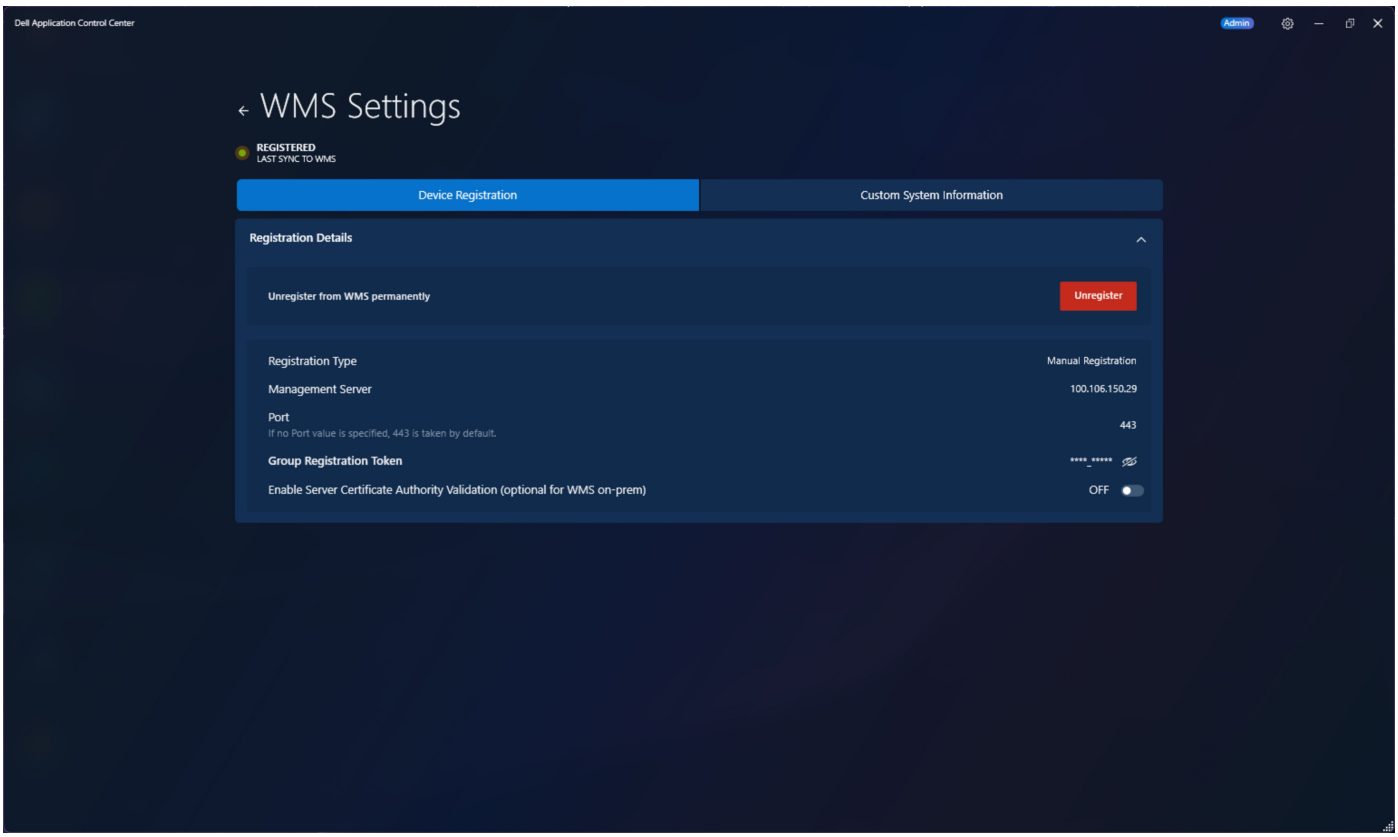
About this task

NOTE: This procedure applies to the users who are using Dell Application Control Center 2605 or later.

Perform the following steps to register a device with the WMS server:

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **WMS Settings** > **Device Registration**.



3. Select the **Registration Type**.
4. Enter the **Management Server** address.
5. Specify the **Port**.
6. Enter the **Group Registration Token (optional for WMS on-prem)**.
7. Enable the **Enable Server Certificate Authority Validation WMS (optional for WMS on-prem)**.
8. Click **Register**.

Results

After you click **Register**, it takes few seconds to register the device. Once the device is registered, the status gets changed as **Registered**.

Next steps

After the registration is complete, you can validate the enrollment by using the **Enrollment Validation** feature. For more information, see Enrollment Validation.

Enrollment Validation

WMS provides the **Enrollment Validation** feature, enabling administrators to manage the automatic or manual addition of devices to specific groups. This feature is enabled by default. As an administrator you can assign devices to their designated group by following these steps:

1. Go to the **Devices** page and select the Status filter as **Enrollment Validation Pending**.
2. Select individual devices or multiple devices, then click **Validate Enrollment**.
3. After validation, assign the devices to their designated group.

Troubleshooting registration issues

If registration fails, perform the following checks:

- Verify that all prerequisites are met.
- Confirm network connectivity.
- Validate server address and port.
- Check firewall settings.
- Go to **Dell Application Control Center (DACC)** as admin and then go to **Utilities** > **Export Device Logs** to export the detailed logs for more effective troubleshooting.

Custom system information

Custom System Information allows administrators to define device-specific metadata for identification, tracking, and asset management.

This information is visible in the WMS console under **Devices** > **Device Details** > **System Info**.

Custom fields help to categorize and manage devices across environments.

Available custom fields

The system provides following configurable fields for storing device metadata:

- Field-1
  - General-purpose field
  - Example: Office or lab name
- Field-2
  - Typically used for department information
  - Example: Engineering, Finance
- Field-3

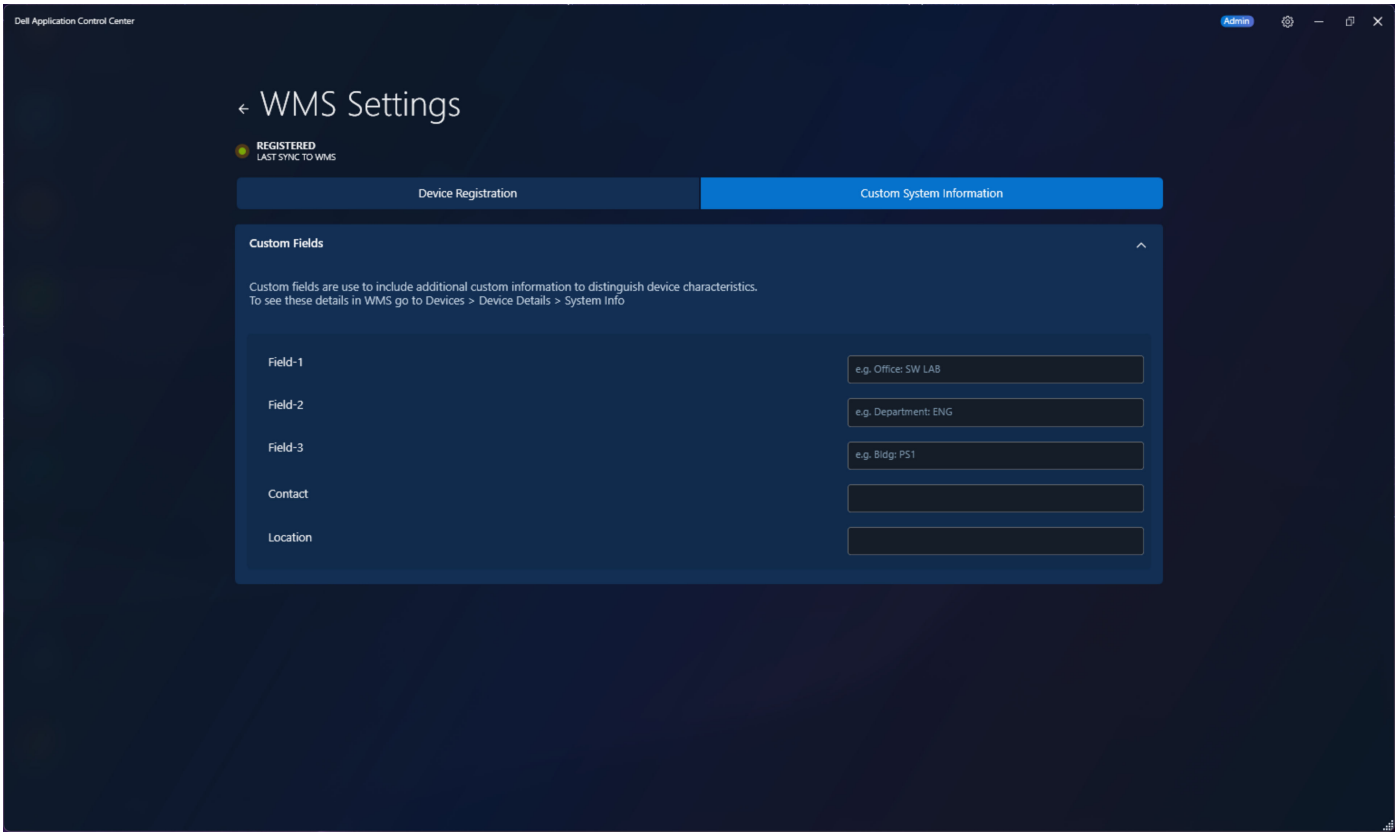
    - Used for building or facility identification
    - Example: Building ID or campus name
- Contact
    - Stores contact information
    - Example: Name, email, or phone number
- Location
    - Stores detailed location information
    - Example: City, region, or room number

Configure custom system information

Perform the following steps to configure custom system fields:

Steps

1. Open **Dell Application Control Center (DACC)** as an administrator.
2. Go to **WMS Settings** > **Custom System Information**.



3. Enter values in the required custom fields.
4. Click **Save** to apply the configuration.
5. Ensure the device synchronizes with the WMS server for the changes to appear.

Next steps

To ensure consistency and effective device management:

- Use standardized naming conventions for all fields.
- Maintain consistent formats for location and department values.
- Regularly review and update custom field data.

Easy Setup

Provides a profile based configuration framework to control user experience, application access, and system behavior.

Easy Setup enables administrators to configure device behavior using profiles that define user access, applications, and kiosk experience for easy setup shell. Each profile controls user assignment, application availability, kiosk mode behavior, and access control settings for easy setup shell interface. Profiles can be used to configure restricted kiosk environments or standard multiuser workstations.

To access **Easy Setup**, open **Dell Application Control Center (DACC)** as an administrator, and then click **Easy Setup**.

Profile Management

Describes how profiles are created and applied to users.

- Profile Types—Defines available profile types and their behavior.
  - Default Profile—Provides baseline configuration for all users without a custom profile.
    - Applied automatically to unassigned users
    - Cannot be deleted
    - Can be modified
    - Serves as a fallback profile
  - Custom Profiles—Provides configurable profiles for specific users or use cases.
    - Can be created, edited, renamed, and deleted
    - A user can be assigned to only one custom profile
    - Assigning a custom profile removes the Default profile assignment
    - Removing a user from a custom profile reassigns it to the Default profile
- Profile Assignment Behavior—Defines how profiles are applied to users.
  - Users can have only one profile at a time
  - Custom profile assignment overrides Default profile
  - On the next user login, the profile changes appear
- Profile Configuration Workflow—Defines the sequence of steps required to configure a profile.The workflow includes:
  - Create profile
  - Assign users
  - Add applications
  - Configure kiosk mode
  - Configure access control
  - Review and complete profile

NOTE: Admin access cannot be enabled from the Easy Setup shell. To make any configuration changes, switch to an Admin account and open the **Easy Setup** settings.

Create and configure a profile

Perform the following steps to create and configure a profile:

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Navigate to **Easy Setup** > **Profiles**.
3. Click **Create New Profile**.
4. Enter a profile name, for example, Sales Kiosk or Finance Workstation.
5. Click **Create**.

Assign users

You can assign users to the selected profile. Currently, only local users present on the system and belonging to the Users group can be added.

Steps

1. Click **Add Users**.
2. Select users from Local users.
3. Add selected users to the profile.
4. Click **Save & Continue**.

Results

After completing these steps, users receive profile settings at next login. Users moved between profiles are reassigned automatically.

Add applications

You can defines and configure the applications for the profile users.

Steps

1. Open **Dell Application Control Center** as an administrator and then click **Easy Setup**.
2. Click **Add Applications**.
3. Select applications from the following:
   - Preconfigured applications (Citrix Workspace, Omnissa Horizon Client, Microsoft Edge, Calculator, Notepad, Remote Desktop Connection)
   - **Import Application** (To start adding the app to your profile)
4. Configure application settings by entering required details. Repeat the process as needed for additional applications.
5. Click **Save & Continue**.

Results

Applications appear in Easy Setup shell when kiosk mode is enabled.

Configure the Kiosk mode

You can define the user interface and session behavior.

Steps

1. Enable or disable **Kiosk Mode**.
   - Enabled:
     - Displays Easy Setup shell
     - Hides Windows desktop, Start menu, and taskbar
     - Shows only configured applications and configured access control settings
   - Disabled:
     - Displays standard Windows desktop
     - Profile configuration remains active and shows only configured apps
2. Configure the following kiosk settings:
   - Kiosk Mode - Enables Easy Setup shell as primary interface, replacing Windows desktop and taskbar. Users cannot access standard Windows elements.
   - Kiosk Reboot - Device reboots after applying Easy Setup configurations
   - Smart Card on Removal - Defines actions when smart card is removed. Only enabled when Kiosk Mode is on.
   - Application Exit Action - Defines actions when user closes an application. Only enabled with Kiosk Mode and single app configured.

- Application Reconnection Retry Interval Count (2-10) - Maximum Remote Desktop Connection(RDP) reconnection attempts during network interruptions (range: 2-10). Requires Kiosk mode and Remote Desktop Connection(RDP) connection.
- Application Reconnection Retry Interval (30-360s) - Seconds between Remote Desktop Connection(RDP) reconnection attempts (range: 30-360s). Requires Kiosk mode and Remote Desktop Connection(RDP) connection.

3. Configure personalization (optional):
   a. Upload logo
   b. Upload background image
4. Click **Save & Continue**.

   A reboot is recommended when kiosk mode is changed.

Configure access control

You can define which system features are accessible in the Easy Setup environment and is only applicable when Kiosk Mode is ON.

Steps

1. Review and configure the following categories:
   - System—Controls system-level settings.
     - Region & Language
     - Date & Time
     - Display
     - Network
     - Sound
     - Ease of Access
   - Peripherals—Controls external device access.
     - Mouse
     - Keyboard
   - Taskbar & Start Menu—Controls the visibility and behavior of the taskbar.
     - Allow Shutdown
     - Allow Restart
     - Allow Log-off
     - Allow Help
2. Enable required settings.
3. Disable unnecessary settings.
4. Click **Save & Continue**.

   NOTE: Access control applies only when kiosk mode is enabled.

Review and complete profile

You can validate and finalize profile configuration.

Steps

1. Review the following sections:
   - Assigned users
   - Selected applications
   - Kiosk mode settings
   - Access control settings
2. Click **Complete Profile** to finalize.

Results

The profile becomes active and is applied at next login.

Runtime behavior

Describes system behavior after profile activation.

Kiosk mode enabled

Defines behavior when kiosk mode is active.

- Easy Setup shell is displayed
- Only configured applications are available
- Autolaunch applications start automatically
- Access control settings are enforced
- Exit actions control session behavior

Kiosk mode disabled

Defines behavior when kiosk mode is inactive.

- The standard Windows desktop is displayed
- Applications are accessed through desktop shortcuts
- Access control settings do not apply

Profile updates

Administrator must log out and then login the user profile to verify the configured updates.

Profile management

You can edit, rename or delete a profile. Additionally, you can also toggle Kiosk mode from profile

Edit a profile

Perform the following steps to modify an existing profile.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Navigate to **Easy Setup** > **Profiles**.
3. Click the three dots next to the profile name and then click **Edit**.
4. Click **Save & Continue** through the workflow.
5. Click **Update Profile**.

Rename a profile

Perform the following steps to rename a profile.

Steps

1. Open **Dell Application Control Center** as an administrator.

2. Go to **Easy Setup** > **Profiles**.
3. Click the three dots next to the profile name and then click **Rename**.
4. Enter a new name.
5. Click **Save**.

Delete a profile

Perform the following steps to delete a profile.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Navigate to **Easy Setup** > **Profiles**.
3. Click the three dots next to the profile name and then click **Delete**.
4. Click **Delete profile** to confirm deletion.

   Users assigned to the profile are reassigned to the Default profile.

Toggle Kiosk mode from profile

You can enable or disable kiosk mode from the profile card.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Easy Setup** > **Profiles**.
3. Toggle kiosk mode ON or OFF on the profile card.

Utilities

Utilities provide advanced tools for configuring system behavior, logging, and automation.

Managing Windows keyboard shortcuts

You can define how keyboard shortcuts are enabled or restricted to control user access to system functions.

You can use the following Windows shortcuts:

- **Local Device**—These shortcuts control behavior for users on the local device:
  - **Ctrl+Alt+Delete**—Controls access to the Windows Security screen:
    - Enabled allows access to Task Manager, Lock, Sign out, and Change password.
    - Disabled prevents access to Windows Security options.

      Recommended usage:

      - Enable for administrative users.
      - Disable for kiosk or restricted users.
  - **Shift+Ctrl+Esc**—Controls direct access to Task Manager:
    - Enabled allows users to open Task Manager.
    - Disabled blocks Task Manager access by shortcut.

    Recommended usage:

    - Disable in restricted environments.
  - **Windows+L**—Controls workstation lock functionality:
    - Enabled allows users to lock the device.
    - Disabled prevents locking using this shortcut.

    Recommended usage:

    - Enable for shared systems.
    - Disable for kiosk deployments.
  - **Administrators can use Windows shortcuts**
    - Allows administrators to use all shortcuts even when disabled for standard users.
    - Ensures that administrative access is not restricted.
- **Remote Desktop**—Determines whether shortcuts are applied locally or within remote sessions.
  - **Send Windows shortcuts to remote desktops (RDP, Citrix, Omnissa)**—You can enable this option to send all shortcuts to remote device or disable it to keep shortcuts active only on the local device.

Configure Windows keyboard shortcuts

Perform the following steps to configure keyboard shortcut behavior.

Prerequisites

- Ensure that administrative privileges are available.
- Close active sessions if required.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Utilities** > **Manage Windows Keyboard Shortcuts**.

   NOTE: Ensure that the WF is disabled.

3. Configure required local device shortcuts in the **Local Device** section.
4. Configure remote desktop shortcut behavior in the **Remote Desktop** section.
5. Restart the device to apply the changes.

Auto login

Auto login feature configures the system to bypass manual authentication and log in a user automatically.

Use Cases

Following are the common scenarios where auto login is required:

- Kiosk deployments requiring immediate access
- Single-user environments
- Physically secured systems

Security Considerations

Following are the implications of enabling auto login:

- Bypasses Windows authentication
- Should be used only in secure environments
- Should be combined with restricted user permissions
- Suitable with Easy Setup kiosk mode

Enable auto login

Perform the following steps to configure automatic login.

Prerequisites

- Ensure selected account is available on the system.
- Verify physical device security.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Utilities** > **Enable Auto Login** > **Auto Login Settings** > **Auto Login** (by default this option is enabled). You can specify the user, domain, and password for auto login.

Disable auto login

Use this procedure to disable automatic login.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Navigate to **Utilities** > **Enable Auto Login** > **Auto Login**.
3. Disable **Auto Login**.

Results

Changes appear after the system is rebooted.

Export device logs

Export all types of support logs by performing the following steps:

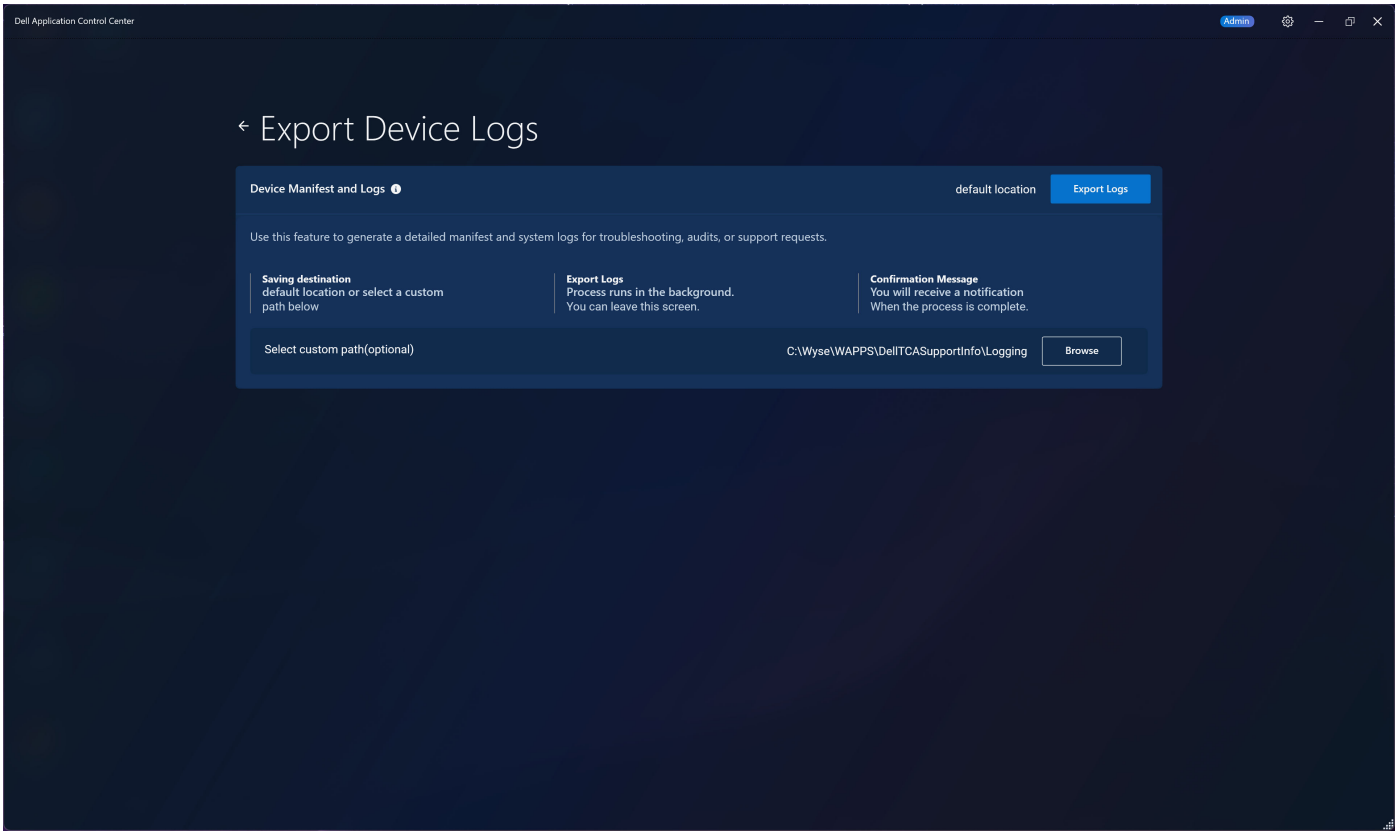
Prerequisites

- Ensure sufficient storage space

- Verify destination path accessibility

Steps

1. Open **Dell Application Control Center** (DACC) as an administrator.
2. Go to **Utilities** > **Export Device Logs**.



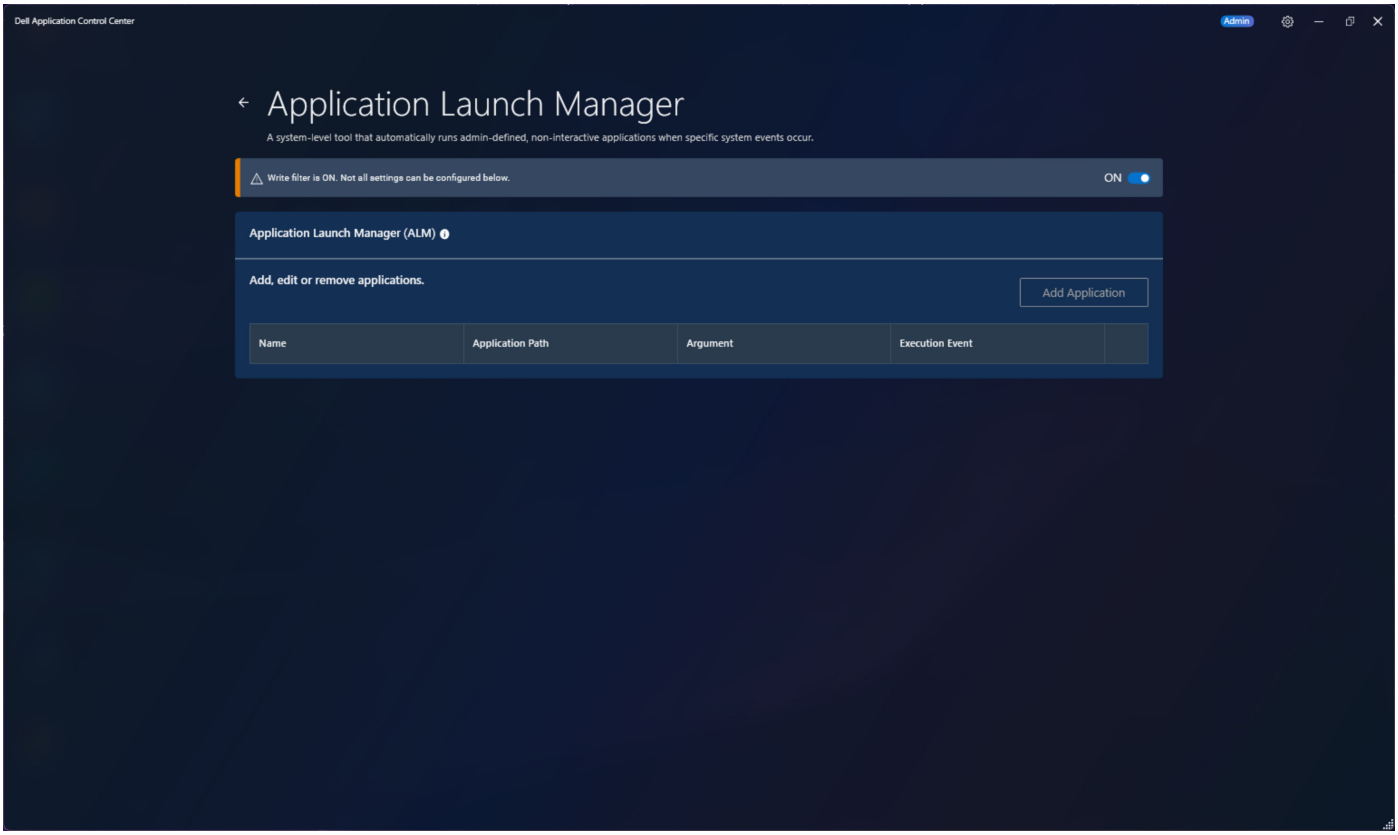
3. Select export option:
   - Click **Export Logs** to default location, or
   - Click **Browse** to select a custom location.
4. Click **Export Logs**.
5. Wait for completion notification.
6. Verify the log file at the selected location.

Application Launch Manager (ALM)

Application Launch Manager (ALM) provides a centralized mechanism for automating application and script execution that is based on system lifecycle events, reducing the need for manual intervention, and improving operational efficiency.

It enables event-driven execution of applications and scripts on managed devices. Also, ALM allows administrators to configure automation tasks that are triggered by predefined system events, helping streamline system operations, and administrative

workflows.



ALM interface

The ALM screen displays a list of configured entries with the following details:

- **Name**—Identifier for the configured entry
- **Application Path**—Location of the executable or script
- **Argument**—Command-line parameters passed during execution
- **Execution Event**—Event that triggers the application

Trigger events

Trigger events determine when configured applications or scripts are triggered.

- USER LOGON

  Runs when a user logs in
- USER LOGOFF

  Runs when a user logs out
- SYSTEM SHUTDOWN

  Runs during system shutdown or restart
- SERVICE STARTUP

  Runs when the DACC service starts

Execution Behavior

ALM entries run with the following runtime characteristics:

- Runs in noninteractive mode (Session 0)

- No user interface is displayed during execution
- Execution must be validated through:
  - Logs
  - Output files
- Applications must support unattended execution

Multiple application executions

ALM supports configuring multiple entries for the same execution event.

- Entries are run sequentially
- Allows administrators to define ordered workflows for a single event

Add an ALM entry

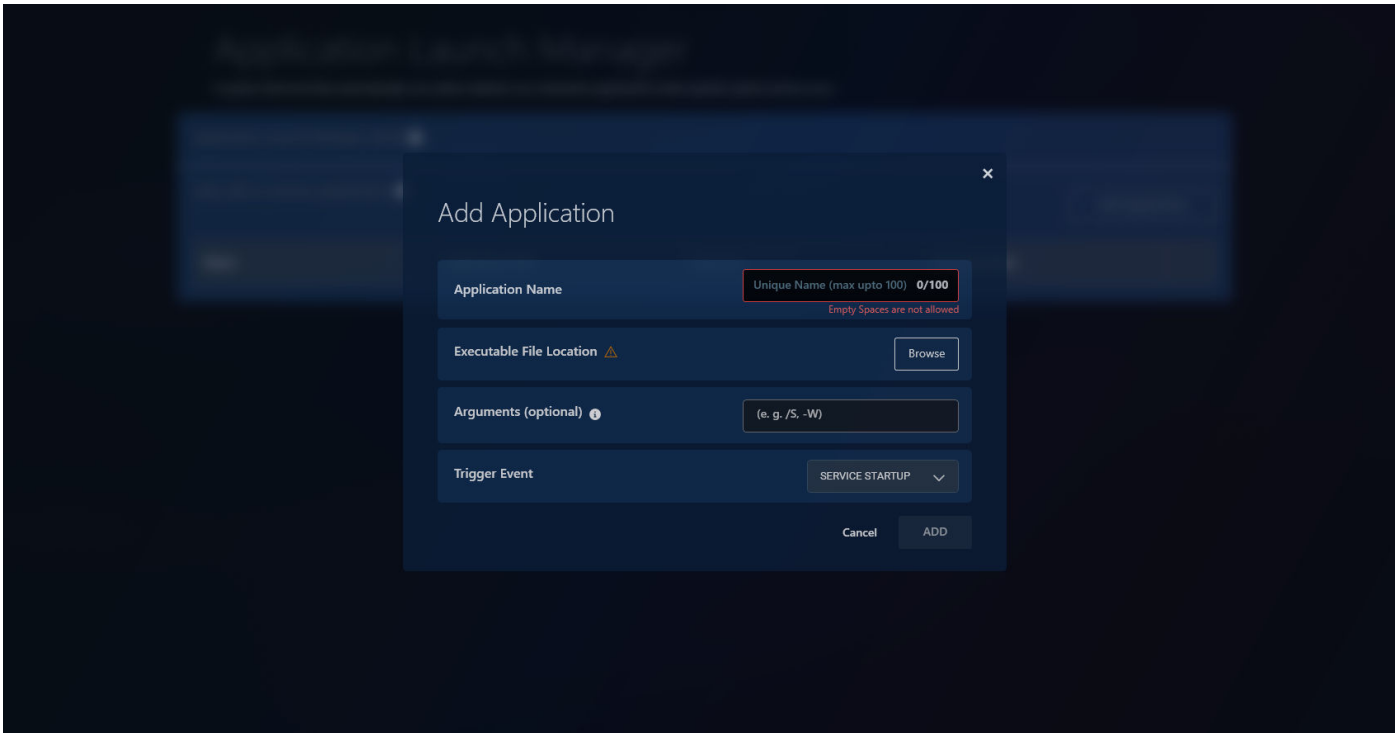
Perform the following steps to configure a new ALM application.

Prerequisites

- Ensure that an executable or script file is available
- Verify required permissions

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Utilities** > **Setup ALM**.



3. Click **Add Application**.
4. Enter **Application Name**.
5. Click **Browse** under the **Executable File Location** field to select the executable file.
6. Provide command-line arguments in the **Arguments (optional)** field.
7. Select one of the following from **Trigger Event** dropdown:
   - SERVICE STARTUP
   - SYSTEM SHUTDOWN
   - USER LOGOFF

- USER LOGON

8. Click **Add**.

Delete an ALM entry

Perform the following steps to remove an entry.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Utilities** > **Setup ALM**.
3. Click three dots next to the entry and then click **Remove**.
4. Click **Confirm Remove**.

Edit an ALM entry

Perform the following steps to modify an entry.

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Utilities** > **Setup ALM**.
3. Select **Edit**.
4. Modify the required fields.
5. Click **Save**.

Microsoft Endpoint Configuration Manager (MECM)

The **MECM Image Settings** feature enables administrators to configure system image capture and deployment using Microsoft Endpoint Configuration Manager (MECM).

This feature provides the necessary configuration for creating system images that can be used for provisioning and recovery scenarios. The **MECM Image Settings** feature standardizes image capture and deployment workflows by allowing administrators to define required credentials and domain configurations in advance, ensuring consistent and secure provisioning of devices.

MECM Image Settings interface

The MECM screen provides options to configure image capture settings and manage deployment-related parameters.

Screen actions

The following actions are available on the MECM screen:

- Reset—Clears all configured values
- Capture Image—Initiates the image capture process
- Expand All—Displays all available configuration sections

Password configuration

Password settings are required to secure the image configuration process.

The following fields must be specified:

- **Admin Password**
- **Confirm Admin Password**
- **User Password**

- **Confirm User Password**

NOTE: All password fields are mandatory and must be validated before proceeding.

Domain Join configuration

The Domain Join configuration enables automatic domain enrollment during image deployment.

- Domain Join Toggle—Enables or disables domain join functionality

When domain join is enabled, the following details must be provided:

- **Domain Name (FQDN)**
- **Admin Username**
- **Admin Password**

Configure MECM image settings and capture the image

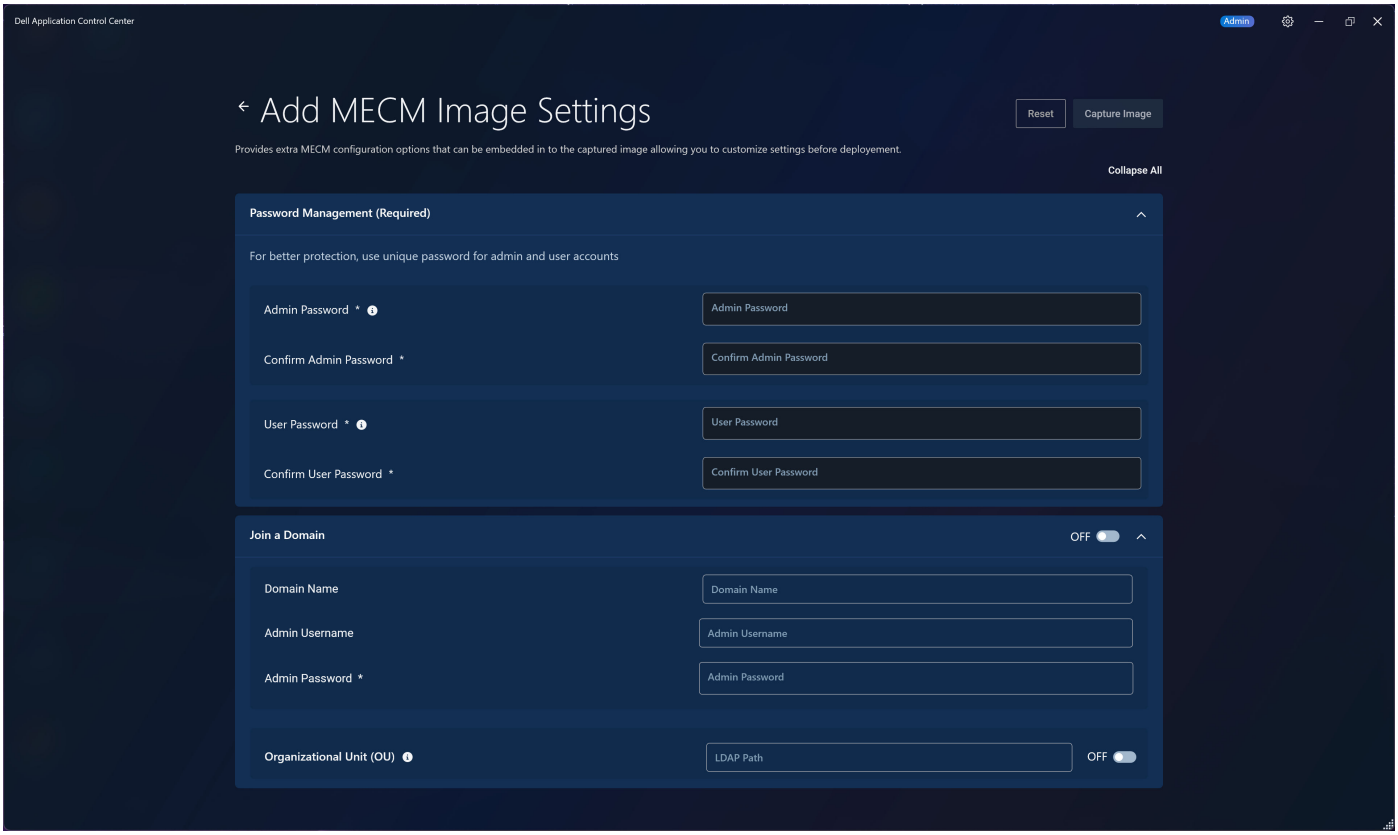
Perform the following steps to configure and capture a system image.

Prerequisites

- Ensure MECM infrastructure access
- Verify network connectivity

Steps

1. Open **Dell Application Control Center** as an administrator.
2. Go to **Utilities** > **Manage MECM Image Settings**.
3. Enter administrator password and confirm.
4. Enter user password and confirm.
5. Enable domain join (Optional).
6. Enter domain details if enabled.
7. Click **Capture Image**.



Dell Application Control Center System Tray Application

The Dell Application Control Center (DACC) System Tray Application enables administrators to quickly monitor system status and access key configuration settings without opening the full application. It is available for all users and supports real-time visibility into critical device information.

Key capabilities include monitoring UWF status and overlay usage with alerts, checking WMS registration status, viewing the last synchronization time, and verifying the configured server address. It also provides quick access shortcuts to commonly used settings such as WMS and Write Filter configuration.

Overall, the Dell Application Control Center (DACC) System Tray Application simplifies status monitoring and speeds up access to essential management tasks.

To access the Dell Application Control Center (DACC) System Tray Application, go to the Windows system tray, locate, and click the **Dell Application Control Center** icon. You can view the status or right-click to open the quick access menu for more details.

7

Local available applications

Omnissa Horizon Client, Citrix Workspace app, and Microsoft Remote Desktop are preinstalled on the devices running Windows 11 IoT Enterprise LTSC 2024. You can also download the latest version of the applications from Dell | Support. You can configure the Hotkey Filter to allow administrators to harden remote desktop sessions. Configuring the Hotkey Filter enables users to lock and unlock their remote desktop sessions without affecting the local Windows environment. For more information, see Hotkey Filter.

Table 5. Local available applications

Local available applications	Product documentation
Omnissa Horizon Client	Omnissa Horizon Documentation
Citrix Workspace app	Citrix Product Documentation
Azure Virtual Desktop	Azure Virtual Desktop
Microsoft Remote Desktop	Microsoft Remote Desktop
Amazon WorkSpaces	Amazon WorkSpaces Documentation
Zoom Meetings optimization for VDI	Zoom Meetings optimization for VDI
Cisco Jabber Softphone for VDI	Cisco Jabber Softphone for VDI
Microsoft Teams for VDI	Microsoft Teams for VDI

Wyse Easy Setup

Wyse Easy Setup enables administrators to deploy configurations to devices.

Wyse Easy Setup enables you to:

- Create a dedicated browser-focused client by configuring the Internet Explorer and Microsoft Edge settings.
- Configure multiple Broker agent connections such as Citrix, VMware, and Microsoft RDP.
- Configure a device to create a dedicated application for a particular line of business.

You can create a kiosk mode to lock down a Windows device to prevent users from accessing any features or functions on the device outside of the kiosk mode. You can also customize the kiosk interface to enable or disable user access to specific settings.

NOTE: As an administrator you must configure Wyse Easy Setup with **Write Filter (WF)** enabled. The device must be disconnected from the WMS server to enable configurations.

WyseEasySetupAdmin and **WyseEasySetupShell** can be located in the **Start** menu on the device. You can configure Wyse Easy Setup locally on the device or using WMS. For information about configuring Wyse Easy Setup using WMS, see Configure Wyse Easy Setup from WMS.

Configuring profiles

In Wyse Easy Setup, administrators can configure multiple profiles for different users and groups.

You can add multiple local users and local groups to a profile and deploy customized configurations to the profile. If a local user or a user domain is not added to a profile, they are added automatically to the default group.

You can add domain users and groups to a local group and deploy configurations.

The selected profile is displayed in the upper left corner, and the configurations of the selected profile are displayed in the administrator user interface.

NOTE:

- The default profile settings are applied to all users who are not added to a profile.
- If a local user or a domain user is added to multiple profiles, the settings that are configured for the first profile are applied.
- If a local user or a domain user is not added to any profile, they are added automatically to the default profile. The default profile is created automatically, and by default, all local users and groups are added to it.

NOTE:

- The configurations that are deployed using Wyse Management Suite are deployed to the default profile and applied to all local and domain users. If the local configurations are applied to the same profile, then the configurations that are pushed through Wyse Management Suite are replaced by the local configurations. If the persistent user settings configurations for Mouse, Keyboard, Display, and WiFi are configured by a local user and also deployed using Wyse Management Suite, the local user configurations takes precedence.
- After the configurations are deployed to a profile, when a local user or domain user logs in to the administrator user interface, the configurations are reflected only if the profile is applicable to the logged-in user.

Create a profile

About this task

You can add multiple local users and local groups to a profile. You can also deploy customized configurations to the profile. This section describes the steps to create a profile and add users or groups to the profile.

Steps

1. Go to **Start** > **Wyse** > **WyseEasySetupAdmin**.
   The Wyse Easy Setup user interface is displayed.
2. Click the **Profiles** tab.
   The **Profiles** window is displayed. By default, the **Default** profile is selected.
3. Click  to add a profile.
4. Enter the profile name and click the check mark next to the new profile name.

   NOTE: Profile names should be unique and should not contain more than 30 characters.

5. To add users or groups to the profile, select the check box in the **Users** and **Groups** window.
6. Click  in the **Change Profile** section.
   The new profile is added, and displayed on the Wyse Easy Setup administrator user interface.
7. Click **Apply**.

   NOTE: To save a new profile and the configurations, you must click **Apply** before closing the administrator user interface.

Edit a profile

About this task

NOTE: You cannot edit the default profile.

You can edit the profile name and you can also add or remove local users and groups for a profile. This section describes the steps to edit a profile.

Steps

1. Go to **Start** > **Wyse** > **WyseEasySetupAdmin**.
   The Wyse Easy Setup user interface is displayed.
2. Click the **Profiles** tab.
   The **Profiles** window is displayed.

3. Select the profile that you want to edit.
4. Click the button in the **Profiles** tab.
5. Edit the profile name, and select or clear the check box in the **Users** and **Groups** window.
6. Click in the **Change Profile** section.
   The profile is displayed on the Wyse Easy Setup administrator user interface.
7. Click **Apply**.
   NOTE: All the configurations made to the current profile are lost when you select a different profile before you apply the changes.

Preview a profile

About this task

You can preview the settings configured to a profile by an administrator. This section provides information about the steps to preview a profile.

Steps

1. Go to **Start** > **Wyse** > **WyseEasySetup shell**.
2. Select the profile from the **Profiles** drop-down list.
   The settings configured by an administrator are displayed.

Delete a profile

About this task

NOTE: You cannot delete the default profile.

You can delete a profile added to Wyse Easy Setup. This section describes the steps to delete a profile.

Steps

1. Go to **Start** > **Wyse** > **WyseEastSetupAdmin**.
   The Wyse Easy Setup user interface is displayed.
2. Click the **Profiles** tab.
   The **Profiles** window is displayed.
3. Select the profile that you want to delete.
4. Click the button in the **Profiles** tab.
5. Click **Yes**.
   The profile is deleted, and the first profile available in the **Profiles** tab is selected automatically.
6. Click **Apply**.
   NOTE: You must click **Apply** (with default or any profile) to complete the deletion of the profile.

Import or export configurations

- **Import Configuration** —This option can import local configurations (JSON files), which can then be applied to the current machine by clicking **Apply**. The user must select the source folder and the file to import.

  NOTE: Importing configurations to WMS is not supported.

- **Export Configuration** —This mode can export current machine configurations to an external JSON file. The user can select the destination folder and filename for the output file. You can also export the configuration from a JSON file to WMS. For more information, see Import Wyse Easy Setup Configurations to WMS.

Configure connections and applications

About this task

The **Connections & Applications** section in Wyse Easy Setup enables you to add and configure connections and applications for a user.

Steps

1. Click the **+** icon in the **Connections & Applications** section.

   The **Available applications/connections to add** dialog box is displayed.

   The following options are available by default:

   - RDP
   - Citrix
   - VMware Horizon View or Omnissa Horizon View
   - Browser
   - Calculator
   - Notepad
   - Edge Browser

   NOTE: To manually add an application, browse the application, and click **Import**.
2. Click the application or connection that you want to add and configure.
3. Click **Save**.

   The configured application or connection is displayed in the **Connections & Applications** section.
4. Click **Apply**.

   NOTE:
   - You can add a maximum of 18 connections and applications in the Wyse Easy Setup shell.
   - The device must be logged in using domain user credentials from the same domain as the server to connect to a Citrix VDI, Omnissa, or RDP environment using single sign-on.

User settings

The **User Settings** section enables an IT administrator to configure the device-specific settings for users. This section contains the following options:

Table 6. System

Option	Description
Region/Language	Enable access to the region and language option in the control panel.
Date and Time	Enable access to the date and time option in the control panel.
Display	Enable access to the WyseEasySetup Display option in the control panel. When you enable this option, the device retains user-added configurations after rebooting. **NOTE:** If this option is configured using Wyse Management Suite, all the configurations are applied during the initial login. User changes made during a session take effect after the next login.
Network	Enable access to the **Network and Sharing Center** option in the control panel. When you enable this option, the device retains user-added configurations after rebooting. **NOTE:** If this option is configured using Wyse Management Suite, all the configurations are applied if the user logs in to the device for the first time. If the user

Table 6. System (continued)

Option	Description
	changes these settings during a session, the new settings are applied when the user logs in to the device again.
Sound	Enable access to the sound option in the control panel.
Ease of Access	Enable access to the ease of access option in the control panel.

Table 7. Peripherals

Option	Description
Mouse	Enable access to the mouse option in the control panel. When you enable this option, the device retains user-added configurations after rebooting. **NOTE:** If this option is configured using Wyse Management Suite, all the configurations are applied if the user logs in to the device for the first time. If the user changes these settings during a session, the new settings are applied when the user logs in to the device again.
Keyboard	Enable access to the keyboard option in the control panel. When you enable this option, the device retains user-added configurations after rebooting. **NOTE:** If this option is configured using Wyse Management Suite, all the configurations are applied if the user logs in to the device for the first time. If the user changes these settings during a session, the new settings are applied when the user logs in to the device again.

User persistence settings

Wyse Easy Setup supports user persistence settings. This feature enables you to automatically save your application settings from each session. The configured settings are applied during the next session.

The following tables describe the user persistence settings behavior when you restart or log off from the device.

Table 8. Display and Network settings

User type	After you restart the device	After you log in to a new session
Administrator	Default device settings are applied.	Display and Network settings from the previous session are preserved and applied in the current session.
User—Using Windows Explorer when Control Panel settings (Display and Network) are disabled.	Default device settings are applied.	Display and Network settings from the previous session are preserved and applied in the current session.
User—Using the Control Panel settings when Display and Network are enabled.	User-specific settings are retained after you restart the device.	User-specific settings are retained from the previous session.

Table 9. Mouse and keyboard settings

User type	After you restart the device	After you log in to a new session
Administrator	Default device settings are applied.	Mouse and keyboard settings from the previous session are preserved and applied in the current session.

Table 9. Mouse and keyboard settings (continued)

User type	After you restart the device	After you log in to a new session
User—Using Windows Explorer when Control Panel settings (mouse and keyboard) are disabled.	Default device settings are applied.	Mouse and keyboard settings from the previous session are preserved and applied in the current session.
User—Using the Control Panel settings when mouse and keyboard are enabled.	User-specific settings are retained after you restart the device.	User-specific settings are retained from the previous session.

The following table describes the user persistence settings that are applied when the device is managed using WMS.

Table 10. Display, Network, mouse and keyboard settings configured from WMS

User type	After you restart the device	After you log in to a new session
Administrator	Device settings that are configured using WMS are applied.	Device settings that are configured using WMS are applied.
User—Using Windows Explorer when Control Panel settings (display, Network, mouse, and keyboard) are disabled.	Device settings that are configured using WMS are applied.	Device settings that are configured using WMS are applied.
User—Using the Control Panel settings when display, Network, mouse, and keyboard are enabled.	User-specific settings are retained after you restart the device.	User-specific settings are retained from the previous session.

NOTE:

- Only a single user persistence configuration file exists for each user, and is shared when the client is managed locally or using WMS. The contents in the file vary according to the configuration deployed.
- Persistent settings are supported only for login-required user scenarios. They are not available for auto-login configurations.

The following table lists the mouse, keyboard, and Network settings that are saved automatically from the previous session.

Table 11. Persistent mouse, keyboard, and Network settings

User settings	Persistent settings
Mouse	• Switch primary and secondary buttons. • Double-click speed • Turn on Click Lock. • Click Lock Time • Find the mouse pointer. • Hide mouse pointer—Display the location of the pointer when you press the **Control** key. • Pointer trail length • Snap mouse pointer • Scroll lines—vertical
Keyboard	• Character repeat delay • Character repeat rate • Cursor blink rate
Network	Preconfigured connections by an administrator or the configurations deployed using WMS. **NOTE:** Wyse Easy Setup enables the users to connect and disconnect Network that persists after you reboot the device.

Configure the user persistent settings

User settings such as display, network, keyboard, mouse, and debug logs can be stored across various user profiles using Wyse Easy Setup.

About this task

This section describes the steps to configure persistent user settings for a user profile using Wyse Easy Setup.

Steps

1. Go to **Start** > **Wyse** > **WyseEasySetupAdmin**.
   The **Wyse Easy Setup Admin** interface is displayed.
2. Select the user from the **Profiles**.
   The **Current Profile** shows the selected user.
3. Go to the **User Settings**.
4. Enable the **Display**, **Network**, **Mouse**, **Keyboard**, and **Enable DebugLog**.
5. Click **Apply**.
6. Log in to the device as a user.
7. Go to **Start** > **Control Panel**.
   The persistent user settings are displayed and available for configuration.

User Interface settings

The **User Interface** section enables you to configure the taskbar and the **Start** menu. You can also personalize the background and the logo on the user shell. The **User Interface** section contains the following options:

Table 12. Kiosk mode

Option	Description
Perform Reboot.	The device reboots after you apply any Wyse Easy Setup configurations.
Display Kiosk Mode	When the Kiosk mode is enabled, the Wyse Easy Setup shell becomes the primary interface, replacing the traditional Windows desktop and taskbar. Users cannot access these standard Windows elements. However, users can switch between the active application and the connection using Alt+Tab keys. **NOTE:** If the Kiosk mode is disabled, only RDP, Citrix, and Omnissa Horizon View connections configurations are displayed on the Windows desktop.
Exit Action—Application	Using this feature, you can define actions to be performed when a user closes an application. **NOTE:** The **Exit Action** is enabled only if **Display Kiosk Mode** is enabled, and a single application or connection is configured.
Smart Card On Removal	When a smart card is removed, you can define the actions to be performed using this feature. **NOTE:** • This option is enabled only if **Display Kiosk Mode** is enabled. • When you configure the device to remain unlocked, and you remove the smart card, you are logged off from the client desktop.

Table 12. Kiosk mode (continued)

Option	Description
Retry Count(2-10)	Specify the maximum number of automatic reconnections attempts for Remote Desktop Protocol (RDP) sessions if there are network interruptions. **NOTE:** To configure this option, you must enable KIOSK mode and set up one RDP connection setting.
Retry Interval(30-360)	Specify the number of seconds between two retry attempts to reconnect the Remote Desktop Protocol to the server. **NOTE:** To enable this option, you must configure KIOSK mode and set up one RDP connection setting.

Table 13. Personalization

Option	Description
Background	It enables the user to set a customized background. To set a customized background, click **Change**, and select the required background.
Logo	It enables the user to add a customized logo instead of the default Dell logo. To set a customized logo in the background, click **Change**, and browse to the required logo on your local drive. If you do not want any logo, then select the image at `<drive C>\Program Files\Wyse\WyseEasySetup\Help\Images\NoLogo.png`.

Table 14. Taskbar

Option	Description
Date and Time	It enables the user to set the date and time option in the taskbar on the Wyse Easy Setup shell or custom desktop.
24 Hours Format	It displays the time in a 24-hour format.
Sound	It enables the user to set the sound parameters in the taskbar on the Wyse Easy Setup shell or custom desktop.
Network Status	It enables the user to view the network option in the taskbar on the Wyse Easy Setup shell or custom desktop.
Touch Keyboard	It enables the user to view the touch keyboard on the Wyse Easy Setup shell or custom desktop.
StartMenu	It enables the user to view the **Start** menu on the Wyse Easy Setup shell or custom desktop.
Taskbar	It enables the user to view the **Taskbar** menu on the Wyse Easy Setup shell or custom desktop.

Table 15. Start Menu

Option	Description
Admin Mode	It enables the user to access administrator mode on the Wyse Easy Setup shell or custom desktop.
Allow Shutdown	It enables the user to shut down the device on the Wyse Easy Setup shell or custom desktop.
Allow Restart	It enables the user to restart the device on the Wyse Easy Setup shell or custom desktop.

Table 15. Start Menu (continued)

Option	Description
Allow Log Off	It enables the user to log off from the device on the Wyse Easy Setup shell or custom desktop.
Allow Help	It enables the user to access **Help** file from the **Start** menu on the Wyse Easy Setup shell or custom desktop. **NOTE:** The **Help** file can be opened only using Internet Explorer.

8

Local administrative features and utilities

Add additional languages to Windows 11 IoT Enterprise LTSC 2024 operating system

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:

   Double-click the **Dell Wyse WF Disable** icon on the desktop.

   The Write Filter is disabled and the device restarts.
3. Log in as an administrator.
4. Go to **Start** > **Settings** > **Time & Language** > **Language & region** > **Add a language**.
   The **Choose a language to install** window is displayed.
5. Search and select the required language.
6. Click **Next**.
   The **Install language features** window is displayed.

   The **Install language pack** option is selected by default. You can select additional optional features of the language pack.
7. Select the **Set as my Windows display language** option.
8. Click **Install**.
9. In the **Preferred languages** section, select the added language and click **More Options**.
10. Download all the language packs.
11. Restart the device and log in as an administrator.
12. Go to **Start** > **Settings** > **Time & Language** > **Language & region**.
13. Select the required **Country or Region** from the drop-down list.
14. Go to **Time & Language** > **Language & region** > **Administrative language settings**.
15. In the **Administrative** tab, click **Change system locale**.
16. From the **Current system locale** drop-down list, select the required language.
    The device restarts.
17. Log in as an administrator.
18. Go to **Time & Language** > **Language & region** > **Administrative language settings**.
19. In the **Administrative** tab, click **Copy settings**.
20. Select the **Welcome screen and system accounts** and **New user accounts** options and click **OK**.

    The device restarts.
21. Log in as an administrator.
22. Open **Windows PowerShell** and run the following commands:
    - `Get-AppxPackage -AllUsers "*LanguageExperience*" | Remove-AppxPackage`
    - `Get-AppxPackage -AllUsers "*LanguageExperience*"`

    NOTE:
    - Verify the installation of the required language packs after running the command in step 22. If the language packs are missing, download the required language packs again.
    - Verify that the downloaded language packs are configured following the system reboot and before running Sysprep.
23. Go to **C:** > **Windows** > **Setup** > **Tools** and double-click the `LanguageConfig.exe` file.
    Language Config window is displayed.
24. Select the required language and click **Apply**.

The language configuration completion message is displayed.

25. Click **Reboot Now**.
    The device restarts.
26. Log in as an administrator.

Next steps

Run the Sysprep process to convert the required language, see Capture an image using WMS or, Capture an image using USB.

Supported languages

The following are the list of languages that are supported in Windows 11 IoT Enterprise LTSC 2024 operating system:

Table 16. Supported languages

Language	Abbreviation
English	en-US
Chinese Simplified	zh-CN
Chinese Traditional	zh-TW
Danish	da-DK
Dutch	nl-NL
Finnish	fl-FI
French	fr-FR
French Canadian	fr-CA
German	de-DE
Italian	it-IT
Japanese	ja-JP
Korean	ko-KR
Norwegian	nb-NO
Portuguese Brazilian	pt-BR
Russian	ru-RU
Spanish	es-ES
Swedish	sv-SE

Removing language and feature on-demand packages

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:
   Double-click the **Dell Wyse WF Disable** icon on the desktop.
   The Write Filter is disabled and the device restarts.
3. Log in as an administrator.
4. Open the command prompt with administrator privileges.
5. Run the following command:`dism /online /get-packages | find /I "Client-Language"`.
6. View the **Supported Languages** table to identify the languages installed.
7. After the language has been identified, locate all the associated packages with that language.
8. Run `dism /online /get-packages | find /I "<Language Abbreviation>"`.

NOTE: To get the **Package Identity** Version, execute the following command: `dism /online /get-packages`

9. Run the following commands to remove all language feature packages:

   `dism /online /remove-package /packagename:"Microsoft-Windows-LanguageFeatures-Speech-<Language Abbreviation>-Package~31bf3856ad364e35~amd64~~<Package Identity Version>" /norestart`

   `dism /online /remove-package /packagename:"Microsoft-Windows-LanguageFeatures-TextToSpeech-<Language Abbreviation>-Package~31bf3856ad364e35~amd64~~<Package Identity Version>" /norestart`

   `dism /online /remove-package /packagename:"Microsoft-Windows-LanguageFeatures-OCR-<Language Abbreviation>-Package~31bf3856ad364e35~amd64~~<Package Identity Version>" /norestart`

   `dism /online /remove-package /packagename:"Microsoft-Windows-LanguageFeatures-Handwriting-<Language Abbreviation>-Package~31bf3856ad364e35~amd64~~<Package Identity Version>" /norestart`

   `dism /online /remove-package /packagename:"Microsoft-Windows-LanguageFeatures-Basic-<Language Abbreviation>-Package~31bf3856ad364e35~amd64~~<Package Identity Version>" /norestart`

   NOTE: Not all the languages include the **LanguageFeatures-Speech** package. If the selected language includes the **LanguageFeatures-Speech** package, then that package must be removed.

10. After the **LanguageFeature** packages are removed, remove the **Client-LanguagePack** using the command `start /b /wait dism /online /remove-package /packagename:"Microsoft-Windows-Client-LanguagePack-Package~31bf3856ad364e35~amd64~<Language Abbreviation>~<Package Identity Version>" /norestart`.
11. Repeat the steps to remove all the unused languages from the device.
12. After removing the unused languages, reboot the device.
13. After the device reboots, log in as an administrator and run the `OSComponentCleanup` utility.
14. Enable **Unified Write Filter**.

Next steps

- Double-byte character languages such as Chinese Simplified, Chinese Traditional, Japanese and Korean include the following **Feature On Demand** packages that must be removed, if the languages are removed from the device:
  - Chinese Simplified

    ```
    Microsoft-Windows-LanguageFeatures-Fonts-Hans-Package~31bf3856ad364e35~amd64~~<Package Identity Version>
    ```

  - Chinese Traditional

    ```
    Microsoft-Windows-LanguageFeatures-Fonts-Hant-Package~31bf3856ad364e35~amd64~~<Package Identity Version>
    ```

    ```
    Microsoft-Windows-InternationalFeatures-Taiwan-Package~31bf3856ad364e35~amd64~~<Package Identity Version>
    ```

  - Japanese

    ```
    Microsoft-Windows-LanguageFeatures-Fonts-Jpan-Package~31bf3856ad364e35~amd64~~<Package Identity Version>
    ```

  - Korean

    ```
    Microsoft-Windows-LanguageFeatures-Fonts-Kore-Package~31bf3856ad364e35~amd64~~<Package Identity Version>
    ```

  These packages are not dependent on any other packages, hence can be removed at any time.
- You must remove the **LanguageFeatures-Basic** package.

Format any existing partition

You can format a partition or volume on a hard disk if you are logged in as an administrator and the Write Filter (**WF**) is disabled. For detailed instructions, refer to the section titled *To Format an Existing Partition (Volume)*in the Disk Management in Windows guide.

Using custom fields

To enter the configuration strings for use by the WMS, use the **Custom Fields** dialog box. These strings can be used to identify devices based on location, user, administrator, contacts, room, floor, and other criteria. The custom fields information is published to the WMS server, enabling IT administrators to manage the device and differentiate it from other devices.

About this task

To input information for use by the WMS server, follow these steps:

Steps

1. Log in as an administrator.
2. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
3. On the left navigation bar, go to **UTILITIES** > **Custom Fields**.
4. Enter the custom field information in the custom field boxes, and click **Apply**.
   The custom field information is transferred to the Windows registry which is then available to the WMS server.

Hotkey Filter

The Hotkey Filter provides a consistent and secure way to manage important Windows shortcut keys across both the local device and various VDI brokers by intelligently redirecting or blocking key combinations based on session context. It ensures that actions like locking the session behave uniformly in Citrix, Omnissa, and RDP environments while preventing unintended access to local Windows functions.

Configure the Hotkey Filter

Steps

1. Log in to the device as an administrator.
2. Double-click the **Dell Wyse WF Disable** icon on the desktop to disable **WF**.
   The Write Filter is disabled and the device restarts.
3. Log in as an administrator.
4. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
5. On the left navigation bar, go to **UTILITIES** > **Tools**.
6. In the **Hotkey Filter** section, select any of following keyboard combinations that must be disabled:
   - **Ctrl+Alt+Del**
   - **Windows+L**
   - **Shift+Ctrl+Esc**
7. If you want to allow only the administrators to use the Windows security key combinations, select the **Always allow administrators to use Windows security keys on this computer** option.
8. Click **Apply** and restart the device.

Unified Write Filter

Unified Write Filter (UWF) is a sector-based Write Filter that is designed to protect your storage media. UWF redirects write attempts to a virtual overlay, intercepting writes to the protected volume. This enhances device stability and reliability while reducing wear on write media, such as solid state drives (SSDs).

NOTE: In this document **Unified Write Filter (UWF)** is addressed as **Write Filter** (**WF**).

In UWF, an overlay is a virtual storage space that captures changes that are made to the protected volume. When the file system attempts to modify a protected sector, UWF copies the sector to the overlay and updates it there. If an application reads from that sector, UWF returns the data from the overlay, making it appear as though the volume has been written to, while it remains unchanged.

Upon device startup, the UWF utility starts automatically. You can add specific files or folders on a protected volume to a file exclusion list, allowing them to bypass UWF filtering. Writes to these excluded files or folders are written directly to the protected volume and persist after a device restart.

For more information, see the Unified Write Filter documentation.

Using Unified Write Filter

About this task

To configure devices using UWF, do the following:

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:

   Double-click the **Dell Wyse WF Disable** icon on the desktop.

   The Write Filter is disabled and the device restarts.
3. Configure the device as per your requirements.
4. After you configure the device to enable the Unified Write Filter, double-click the **Dell Wyse WF Enable** icon on the desktop.
   This icon enables the filter, and the device restarts. Your configurations on the device are now saved, and they persist after you reboot the device.

Configure Write Filter dashboard

Steps

1. Log in to the device as an administrator with **WF** disabled.
2. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
3. On the left navigation bar, go to **WRITE FILTER MANAGER** > **Write Filter Dashboard**.
4. In the **Write Filter Dashboard** section, do the following and click **Apply**:
   - **Write Filter Status**—Displays the status of the Write Filter. You can also enable or disable the Write Filter.
   - **Current Overlay Size**—Displays the space that is reserved for overlay.
   - **Warning Threshold**—Displays the UWF cache percentage value at which a Low Memory warning message is displayed to the user for the current session.
   - **Critical Threshold**—Displays the UWF cache percentage value at which a Critical Memory warning message is displayed to the user. Once the memory level crosses the warning level 2, the device automatically restarts.
   - **Amount of RAM used for UWF Cache**—Displays the amount of RAM allocated to the UWF cache for the current session in Megabytes (MB).
5. In the **Write Filter Settings** section, configure **Amount of RAM to be used for UWF Cache** and click **Apply**. You can configure the amount of RAM that is to be used as the UWF cache for the next session in MB. This value must be in the range of 1024 MB to 2560 MB. There is an extra check to ensure that this value does not exceed 50% of the total available RAM.
6. In the **Write Filter Threshold Settings** section, do the following and click **Apply**:

- **Warning Threshold**—Set the UWF cache percentage value at which a Low Memory warning message is displayed to the user for the current session. The default value is 80, the minimum value is 50, and the maximum value is 80.
- **Critical Threshold**—Set the UWF cache percentage value at which a Critical Memory warning message is displayed to the user. The default value is 90, the minimum value is 80, and the maximum value is 95.

Configure file or folder exclusion list of UWF

You can add and remove a file or directory to or from the exclusion list of the Write Filter. The **Current Session** column lists the files or directories that are excluded from the Write Filter function in the current session. The **Next Session** column lists the files or directories that are excluded from the Write Filter function in the next session and the changes are not committed until an administrator restarts the device.

Steps

1. Log in to the device as an administrator with **WF** disabled.
2. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
3. On the left navigation bar, go to **WRITE FILTER MANAGER** > **Commits & Exclusions** > **File Manager**.
   You can view the file or folder that is excluded from the current and next session.
4. Click **+ Add** under the **Next Session** list to add the file or folder to be excluded from the next session.
5. Click **+ Add** under **Commit a File** list to exclude a file from the Write Filter function.
6. After you add the file, select the file from the **Commit a File** list and click **Commit**.
   The **Changes made to the files listed are committed** message is displayed.

Next steps

To remove file or folder from the list, select the file or folder, and click **Delete**.

Configure registry exclusion list of UWF

You can add and remove a Registry key path to or from the exclusion list of the Write Filter. The **Current Session** column lists the Registry key path that is excluded from the Write Filter function in the current session. The **Next Session** column lists the Registry key path that is excluded from the Write Filter function in the next session and the changes are not committed until an administrator restarts the device.

Steps

1. Log in to the device as an administrator with **WF** disabled.
2. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
3. On the left navigation bar, go to **WRITE FILTER MANAGER** > **Commits & Exclusions** > **Registry Manager**.
   You can view the file or folder that is excluded from the current and next session.
4. Enter the path of the registry in the **Registry Key Path** field under the **Next Session** list to add the registry to be excluded from the next session.
5. Click **+ Add**.
6. Enter the path of the registry in the **Registry Key Path** and the **Value Name** under **Commit a File** list to exclude it from the Write Filter function.
7. Click **+ Add**.
8. After you add the details, select the registry path from the **Commit Registry** list and click **Commit**.
   The **Changes made to the registry are committed** message is displayed.

Configure Overlay Type under UWF Write Filter Settings

About this task

You can configure Overlay type as RAM based or Disk based under **UWF Write Filter Settings** section.

Steps

1. Log in to the device as an administrator with **WF** disabled.
2. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**. The **Application Control Center** window is displayed.
3. On the left navigation bar, go to **WRITE FILTER MANAGER** > **Write Filter Dashboard**.
4. Select **RAM Based** or **Disk Based** Overlay type under **Write Filter Settings**.
5. Click **Apply then** enable Write Filter.

NOTE:

- Overlay cache Size is applicable only for RAM Based Overlay type.
- The values set and information that is displayed for Disk Based Overlay is not applicable. The values are do not have functional implementation.

Windows Updates with UWF Servicing Mode

Microsoft provides various updates, which are categorized as important, recommended, and optional. These updates offer significant advantages, including enhanced security and improved device reliability.

During normal operations, with the Unified Write Filter (UWF) enabled, windows updates are automatically disabled as they would be discarded upon device reboot due to the UWF overlay clearing. The UWF Servicing Mode allows you to schedule a job for planned automatic critical Windows Updates and antimalware signature files.

When UWF Servicing Mode is triggered,

- The operating system reboots the device, clearing the UWF overlay and temporarily disabling the Write Filter **(WF)**.
- A designated maintenance window opens, providing a dedicated time for update installation.
- The device scans for and applies any necessary Windows Updates within the maintenance window.
- The device enters a locked state. Do not enter any keys or enter any password when the **UWF-Servicing** screen is displayed.

NOTE: Devices require an Internet connection to update using UWF Servicing Mode.

Initiate UWF Servicing Mode manually from WMS

The UWF Servicing Mode can be triggered manually from the WMS server for a single device or multiple devices.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Devices** page.
3. Apply the filters to find the preferred devices.
4. Select the checkbox of the device or devices.
5. From the **More Actions** drop-down menu, click **Initiate UWF Servicing Mode**.

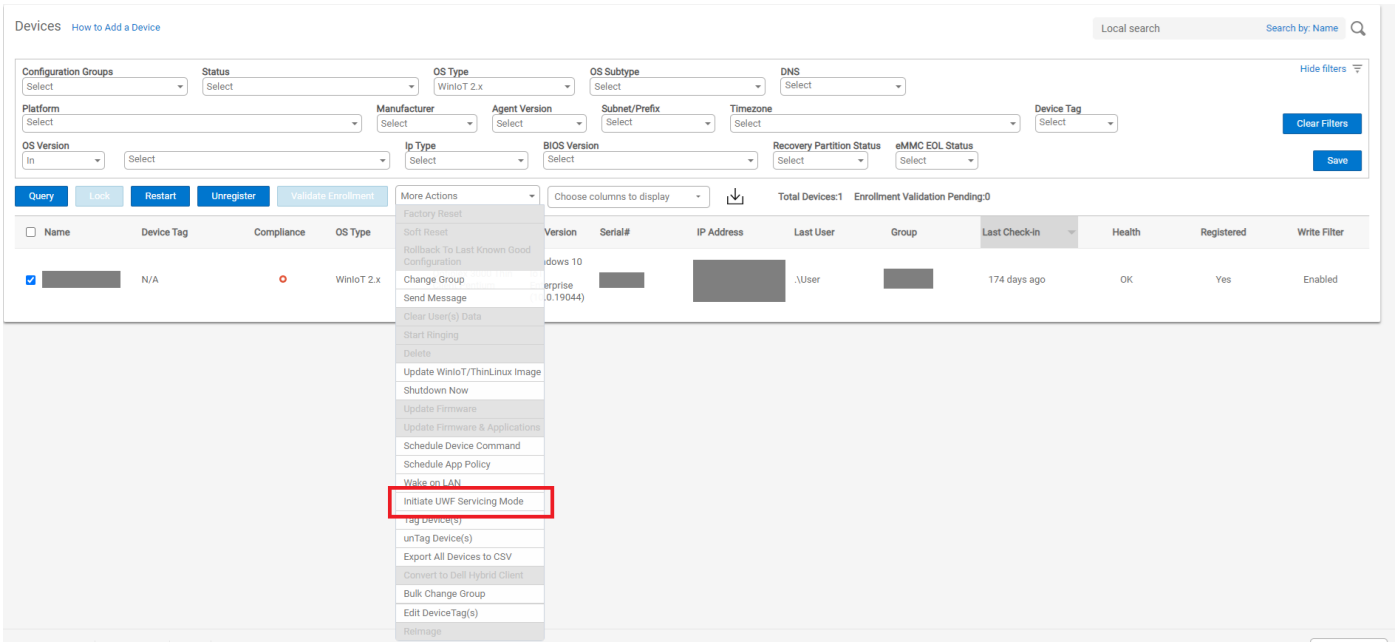


Figure 8. Initiate UWF Servicing Mode

An alert window is displayed.

6. Click **Send Command** to initiate the UWF Servicing Mode to the selected devices.

   NOTE: The UWF Servicing Mode can also be triggered in the same manner from the **Device Details** page.

Schedule a UWF Servicing Mode job from WMS

You can set up a recurring device command to run UWF Servicing Mode regularly on the selected devices.

Steps

1. Log in to WMS as an administrator.
2. Go to the **Jobs** page.
3. Click **Schedule Device Commands**.
4. From the **Command** drop-down menu, select **Initiate UWF Servicing Mode**.
5. From the **OS Type** drop-down menu, select **Windows IoT Enterprise**.
6. Enter a name for the job.
7. Select the group for which you want to schedule the device command job.
8. Enter the job description.
9. From the **Run** drop-down list, select any of the following options:
   - **Immediately**
   - **On selected time zone and date/time**
   - **On selected date/time (of device time zone)**
10. Select the time zone if you have selected **On selected time zone and date/time** in Step 9.
11. Enter or select the following details if you have selected **On selected time zone and date/time** or **On selected date/time (of device time zone)** in Step 9:
    - **Effective**—Enter the starting and ending date.
    - **Start between**—Enter the starting and ending time.
    - **On day(s)**—Select the days of the week.
12. Click the **Preview** option to view the details of the scheduled job.
13. On the next page, click the **Schedule** option to initiate the job.

Results

You can verify the status of the job from the **Jobs** page.

Run UWF Servicing Mode manually from the device

The UWF Servicing Mode can be triggered manually from the device.

Steps

1. Log in to the device as an administrator.
2. Disable **Write Filter**.
3. Log in as an administrator.
4. Go to `C:\Windows\System32\oem`.
5. Run the `SystemServicing.bat` file as an administrator.

Run UWF Servicing Mode using a scheduled task

You can enable the UWF Servicing Mode using a scheduled task on the devices. This option is disabled by default.

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:
   Double-click the **Dell Wyse WF Disable** icon on the desktop.
   The Write Filter is disabled and the device restarts.
3. Log in as an administrator.
4. Go to **Start** > **Task Scheduler**.
5. On the left pane, click **Task Schedule Library**.
6. On the right pane, right-click **WindowsUWFServicing** and select **Properties**.
7. Configure the options as required to run the UWF Servicing Mode.
8. Click **Ok**.
9. Right-click **WindowsUWFServicing** and click **Enable**.
10. Enable the **WF**.

Application Launch Manager

The Application Launch Manager (ALM) enables you to start an application that is based on predefined events such as service startup, user login/logoff, or system shutdown in system account.

Configure Application Launch Manager

You can configure Application Launch Manager using the **Dell Application Control Center**. You can configure the applications to start when an event is triggered.

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:
   Double-click the **Dell Wyse WF Disable** icon on the desktop.
   The Write Filter is disabled and the device restarts.
3. Log in to the device as an administrator.
4. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.

5. On the left navigation bar, go to **UTILITIES** > **Application Launch Manager**.
   You can view the applications details and the execution event.

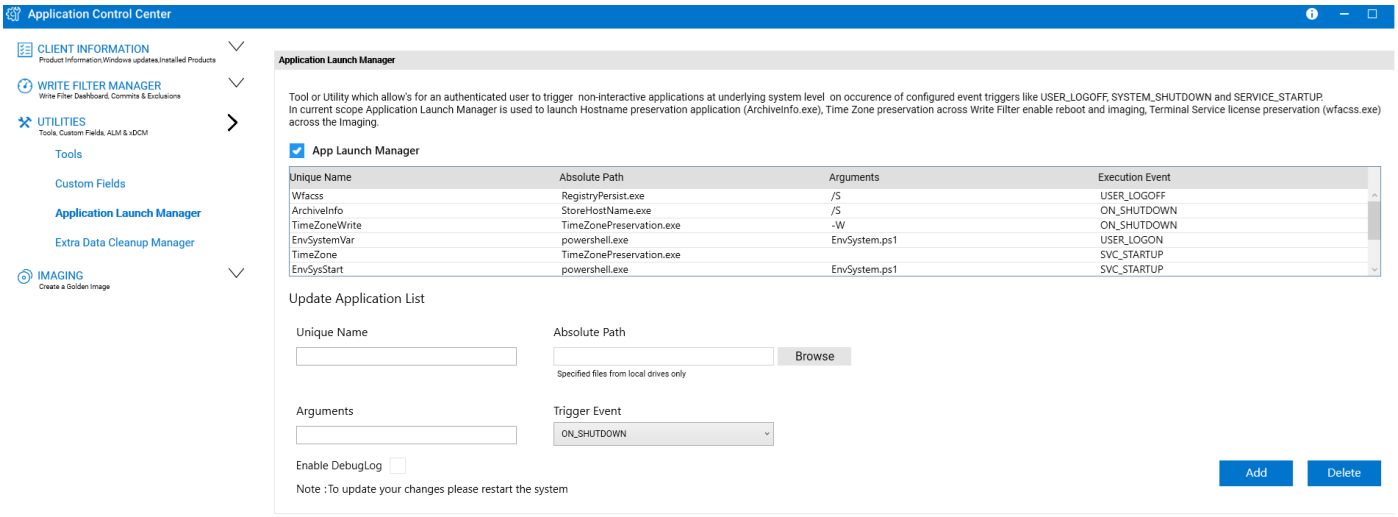


Figure 9. Application launch Manager

6. In the **Update Application List** section, enter the following details:
   - **Unique Name**—Enter the name of the application.
   - **Absolute Path**—Browse to the location of the .exe file of the application.
   - **Arguments**—Optionally, enter any arguments for the application.
   - **Trigger Event**—From the drop-down list, select the event that triggers the application to start.
7. Click **Add**.
   The application details are added to the list.
8. Restart the system to update the changes.

Next steps

To remove an application from the list, select the application, and click **Delete**.

xData Cleanup Manager

xData Cleanup Manager (xDCM) prevents extraneous information from being stored on the local disk. xDCM can be used to automatically clean up directories used to temporarily cache the information. A clean up is triggered on either service startup, user logoff, or system shutdown.

Configure xData Cleanup Manager

You can configure xData Cleanup Manager using the **Dell Application Control Center**. You can configure the xData Cleanup Manager to clean up the files or folders when an event is triggered.

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:
   Double-click the **Dell Wyse WF Disable** icon on the desktop.
   The Write Filter is disabled and the device restarts.
3. Log in as an administrator.
4. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
5. On the left navigation bar, go to **UTILITIES** > **Extra Data Cleanup Manager**.

You can view the folder and file cleanup list.

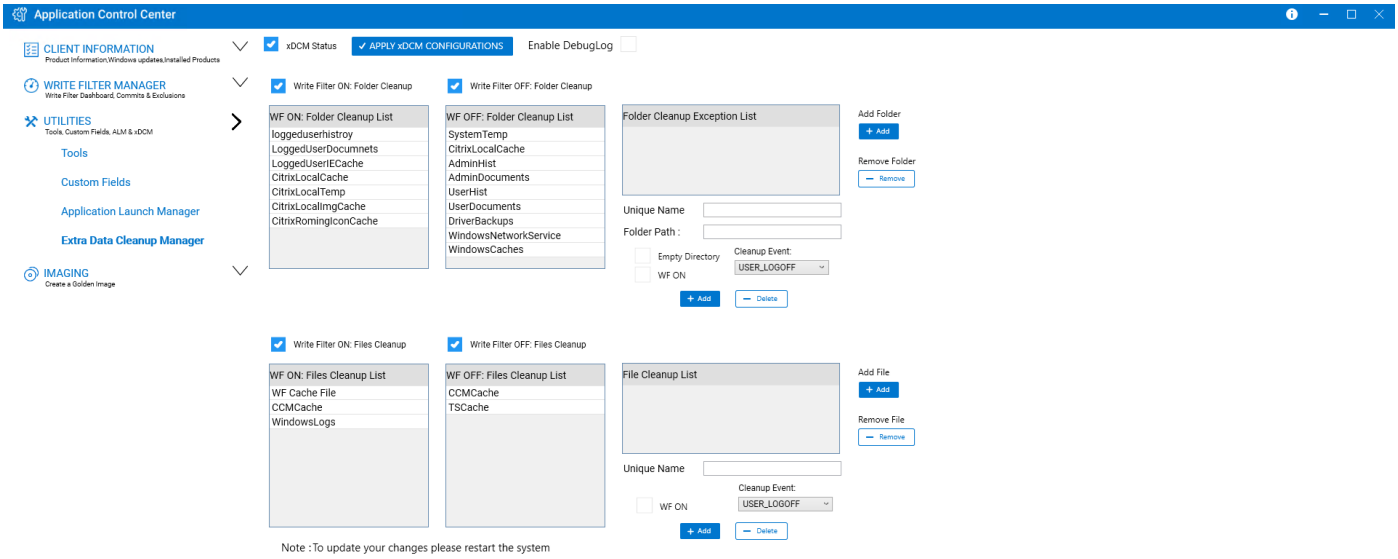


Figure 10. Extra Data Cleanup Manager

6. To add the file or folder to the list, configure the following options and click **Add**:
   - **Unique Name**—Enter the name of the folder or file.
   - **Folder Path**—Browse to the location of the folder.
   - **Empty Directory**—Select this option if you want to empty the directory of the folder.
   - **WF ON**—Select this option if you want the event to be triggered when the Write Filter is enabled.
   - **Cleanup Event**—From the drop-down list, select the option that triggers the cleanup.

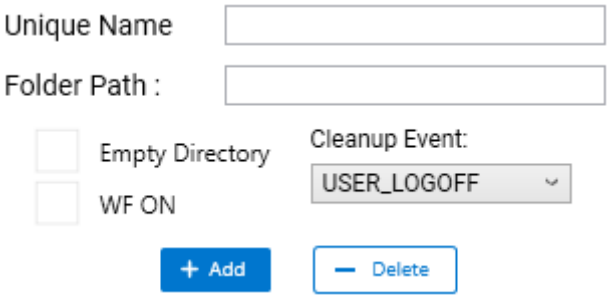


Figure 11. Add folder to xDCM

7. Restart the device to update the changes.

NOTE: You can follow the same steps to clean up the files. You must add the **Unique Name**, select or clear the **WF ON** option, and select the **Cleanup Event**.

Next steps

You can also add folders and files to the exception list to skip the cleanup of the selected folder or file.

1. Click **+ Add** under **Add Folder** or **Add File**.
2. Browse to the folder or file and click **OK**. The **Folder CleanUp Exception** or **File CleanUp Exception** window is displayed confirming the folder or file selection.
3. Click **Ok**.

9

Remote system administration

TightVNC—Server and Viewer

TightVNC is primarily intended for support and troubleshooting purposes.

NOTE: As of September 2025, TightVNC has been deprecated and removed from all e-support and factory image builds. However, the TightVNC server can still be obtained by downloading it from the Internet and deploying through Wyse Management Suite (WMS), see Deploying applications using WMS. WMS installation can be configured to run silently using the parameter `/quiet`.

You can download and install TightVNC Viewer from the TightVNC website. After installation, the TightVNC Viewer can be used to shadow, operate, and monitor a device that runs Windows 11 IoT Enterprise LTSC 2024 operating system from a remote device.

TightVNC Server starts automatically as a service when the device restarts. The initialization of TightVNC Server can also be controlled by using the **Services** window.

TightVNC—Pre-requisites

Before you install TightVNC Viewer on a remote machine, to access the device, you need the following:

- IP address or valid DNS name of the device to shadow, operate, or monitor. You can find the IP address by hovering over the TightVNC icon in the taskbar.
- Primary password of the device to shadow, operate, or monitor.

NOTE: To establish a connection to a device that runs Windows 11 IoT Enterprise LTSC 2024 operating system using TightVNC, the default password is **DELL**.

Using TightVNC Viewer to shadow a device

Steps

1. Go to **Start** > **TightVNC**.
2. Open the **New Tight VNC Connection** dialog box.
3. Enter the IP address or valid DNS name of the device that is to be shadowed or operated or monitored.
4. Click **OK**.
   The **VNC Authentication** dialog box is displayed.
5. Enter the **Password** of the device that is to be shadowed.
   This password is the primary password of the device that is to be shadowed.
6. Click **OK**.
   The device that is to be shadowed or operated or monitored is displayed for the administrator in a separate window on the remote machine. Use the mouse and keyboard to operate the remote machine.

Configuring TightVNC server properties on the device

TightVNC Server starts automatically as a service upon device startup. The TightVNC Server service can also be stopped and started by using the **Services** window.

Steps

1. Log in to the device as an administrator with **WF** disabled.

2. To open the **TightVNC Server Configuration (offline)** dialog box, go to **Start** > **TightVNC** > **TightVNC Server — Offline Configuration**.
   The **TightVNC Server Configuration (offline)** window is displayed.
3. In the **Server** tab, set the **Primary password**. Use this password while shadowing the device.
   The default primary password is **DELL**.
   NOTE: The maximum length of the password should be 8.
4. In the **Server** tab, select the following options:
   - **Accept incoming connections**
   - **Require VNC authentication**
   - **Enable file transfers**
   - **Hide desktop wallpaper**
   - **Show icon in the notification area**
   - **Serve Java Viewer to web clients**
   - **Use mirror driver if available**
   - **Use D3D driver if applicable**
5. Clear the following options:
   - **Block remote input events**
   - **Block remote input on local activity**
   - **No local input during client sessions**
   - **Connect to RDP session**
6. In the **Main server port** box, enter **5900**.
7. In the **web access port** box, enter **5800**.
8. In the **Screen poling cycle** box, enter **1000**.
9. Click **OK**.
   NOTE: For security purposes, Dell Technologies recommends that the primary password must be changed immediately upon receipt of the device and it is for administrator use only.

10

BIOS settings and upgrades

To maintain your device environment, you can perform BIOS settings and upgrades locally using a USB drive or remotely from WMS.

Accessing BIOS settings

Steps

1. During the device start-up, press F2 when you see a Dell logo.
   The **BIOS Setup** screen is displayed.
   NOTE: The default BIOS password is **`Fireport`**.
2. Change the BIOS settings as required.
3. Save the changes and exit.

Unified Extensible Firmware Interface and secure boot

Unified Extensible Firmware Interface (UEFI) is a standard firmware interface that is designed to improve software interoperability and address limitations of BIOS. UEFI is designed to replace the Basic Input Output System (BIOS).

Secure Boot is a feature on UEFI-based clients that help increase the security of a client by preventing unauthorized software from running on a client during the boot sequence. It checks whether each software has a valid signature, including the operating system that is loaded during booting.

The device is enabled with UEFI and Secure Boot. Due to this feature, you cannot boot from USB drives if you do not enter the BIOS, disable Secure Boot, change the boot mode to Legacy, and enable the **Boot from USB** option. Secure Boot is supported during the initial setup.

Upgrading BIOS

You can upgrade the BIOS of the devices using any of the following methods:

- Using a USB drive. For more information, see—Upgrade BIOS using USB drive.
- Using WMS. For more information, see—Upgrade BIOS using WMS.

Upgrade BIOS using USB drive

About this task

To upgrade the BIOS by using the USB drive, do the following:

Steps

1. Download the BIOS binary file and copy it to a USB drive.
   NOTE: The USB drive does not have to be a bootable device.
2. Plug in the USB drive into a USB port.
3. Power on the device.

4. During device start-up, press **F12**.
   The one-time boot menu is displayed.
5. In **Other Options**, select **BIOS Flash Update**.
6. Click **...** to browse to the USB drive and locate the downloaded BIOS file.
7. Select the file and click **Ok**.
8. Verify the existing system BIOS information and the BIOS update information.
9. Click **Begin Flash Update**.
10. Review the warning message and click **Yes** to proceed with the update.

Results

The device restarts and displays a progress bar at the Dell logo screen. The device restarts again when the update is complete.

11

Imaging Windows 11 IoT Enterprise LTSC 2024 devices

Custom image preparation allows you to modify the shipped image to incorporate additional application, device, environment-specific configuration and capture the same which can be deployed across the installed similar ecosystem. The custom image contains all the necessary applications, drivers, settings, and security updates that are required for the devices.

Dell Imaging Manager is the new imaging solution. It is enhanced to provide a faster, more efficient, and more streamlined imaging experience for the Windows 11 IoT Enterprise LTSC 2024 for Dell devices.

You can capture and deploy the custom image using any of the following:

- Using the Dell Imaging Manager - USB drive. For more information, see—USB Imaging Prerequisites and Configure USB drive for ISO imaging or capture the recovery image on USB drive.
- Using WMS. For more information, see—Imaging Windows 11 IoT Enterprise LTSC 2024 devices using WMS.
- Using Dell Imaging Manager - Bare Metal Recovery. For more information, see—Bare Metal Recovery.
- Using MECM. For more information, see—Imaging Windows 11 IoT Enterprise LTSC 2024 devices using MECM.

USB Imaging Prerequisites

Follow these steps to configure your USB drive for compatibility with Dell imaging before using USB imaging:

- Download the appropriate Windows 11 IoT Enterprise LTSC 2024 operating system ISO image from the Dell | Support.
- Download and install the Dell OS Recovery Tool (available for Microsoft Windows only) from Reinstall Microsoft Windows | Dell US.
- Use a USB flash drive with at least 32 GB of free space.
- You must have administrator user rights and at least 64 GB of available hard drive space to download the Dell operating system recovery image.
- A wired network connection is recommended for network stability.
- Disable any antivirus software during the download.

The creation of the Recovery USB drive is complete.

Configure USB drive for ISO imaging or capture the recovery image on USB drive

Steps

1. Launch the Dell OS Recovery Tool and click **INSTALL**.
2. Click **CLOSE** and launch the application from the desktop shortcut.
3. Click **SWITCH TO ADVANCED RECOVERY**.

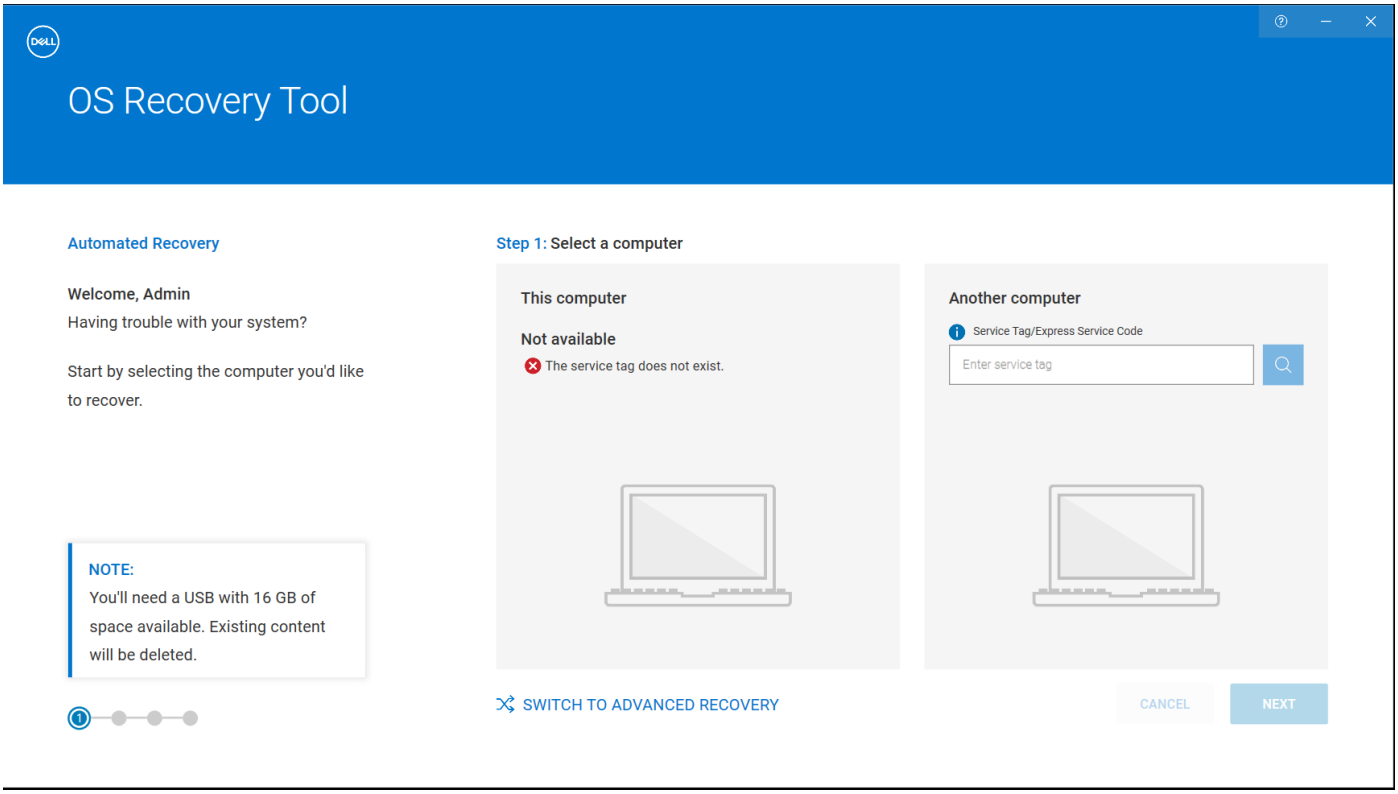


Figure 12. OS Recovery Tool

4. Browse to the Windows 11 IoT Enterprise LTSC 2024 ISO image, select it, and click **NEXT**.
5. Click **BURN OS**.

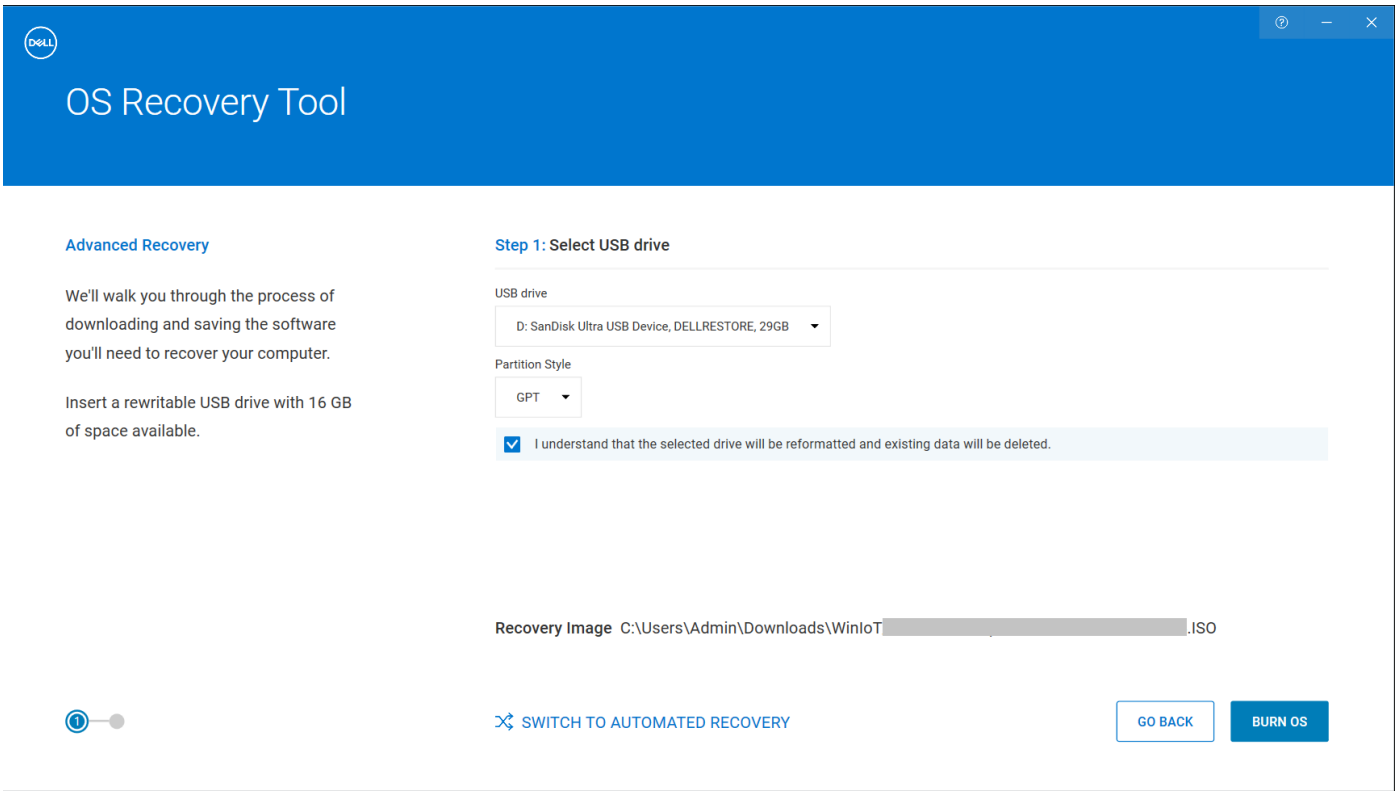


Figure 13. OS Recovery Tool

6. Wait for image registration to complete.

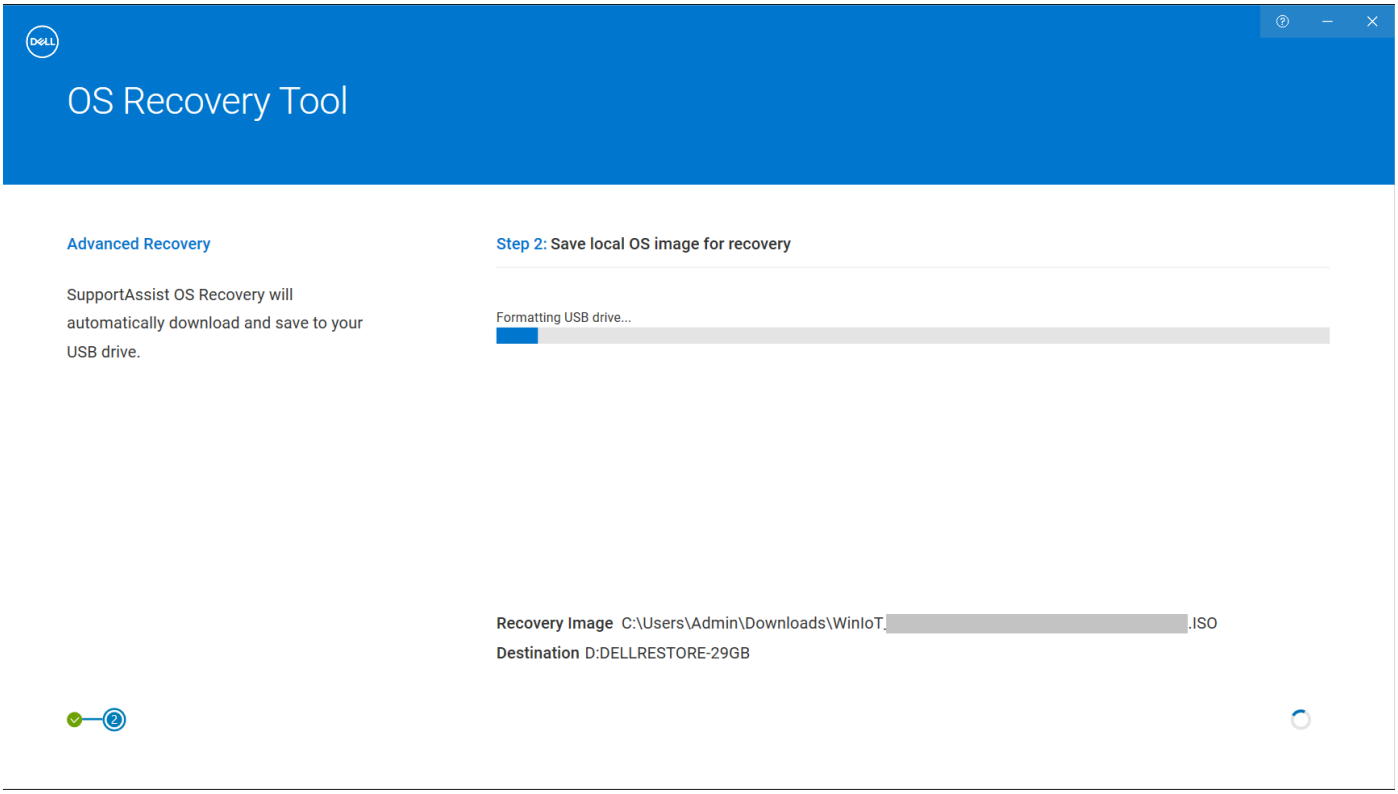


Figure 14. OS Recovery Tool

7. Click **Close**.
8. Remove the USB drive.
   The USB drive is configured with the device-specific Windows 11 IoT Enterprise LTSC 2024 image.

Dell Imaging Manager

Capture an image using USB

The steps below outline how to capture a golden image using a USB drive.

Prerequisites

- The USB drive must be configured for Dell imaging. See Configure USB drive for ISO imaging or capture the recovery image on USB drive under the USB Imaging Prerequisites.

About this task

The following steps for USB Image Capture using Dell Imaging Manager apply only to devices running Windows 11 IoT Enterprise LTSC 2024 .

NOTE: The recovery image is captured using the Dell OS Recovery tool. For capturing the Windows 11 IoT Enterprise LTSC 2024 e-support image, see Configure USB drive for ISO imaging or capture the recovery image on USB drive under the USB Imaging Prerequisites.

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:
   Double-click the **Dell Wyse WF Disable** icon on the desktop.
   The Write Filter is disabled and the device restarts.
3. Log in as an administrator again.

4. Insert the configured USB drive into the device.

NOTE:

- Starting from Dell Application Store version 26.02.0.2 and higher, an automatic provisioning mechanism is deployed to update the USB binaries to the latest version.
- You can launch Dell Imaging manager from the USB connected notification of Dell Imaging Manager or launch the `DIM.USBImaging.exe` from the `DIM_USB` folder on the USB drive.
- If any latest updates are available with the Dell Application Store, you will be promted to install the updates.
- Once the installation of update is complete, the **Dell Imaging Manager** screen is automatically launched.
- For the older versions of Dell Application Store, click **DIM.USBImaging.exe** from the `DIM_USB` folder on the USB drive to launch **Dell Imaging** screen.

5. Click **Capture Image**.
6. Click **Create a system image** and then click **Yes, Proceed**.
7. Select a removable drive for capturing and click **Confirm**.
8. The **Create a new System Image** screen appears.

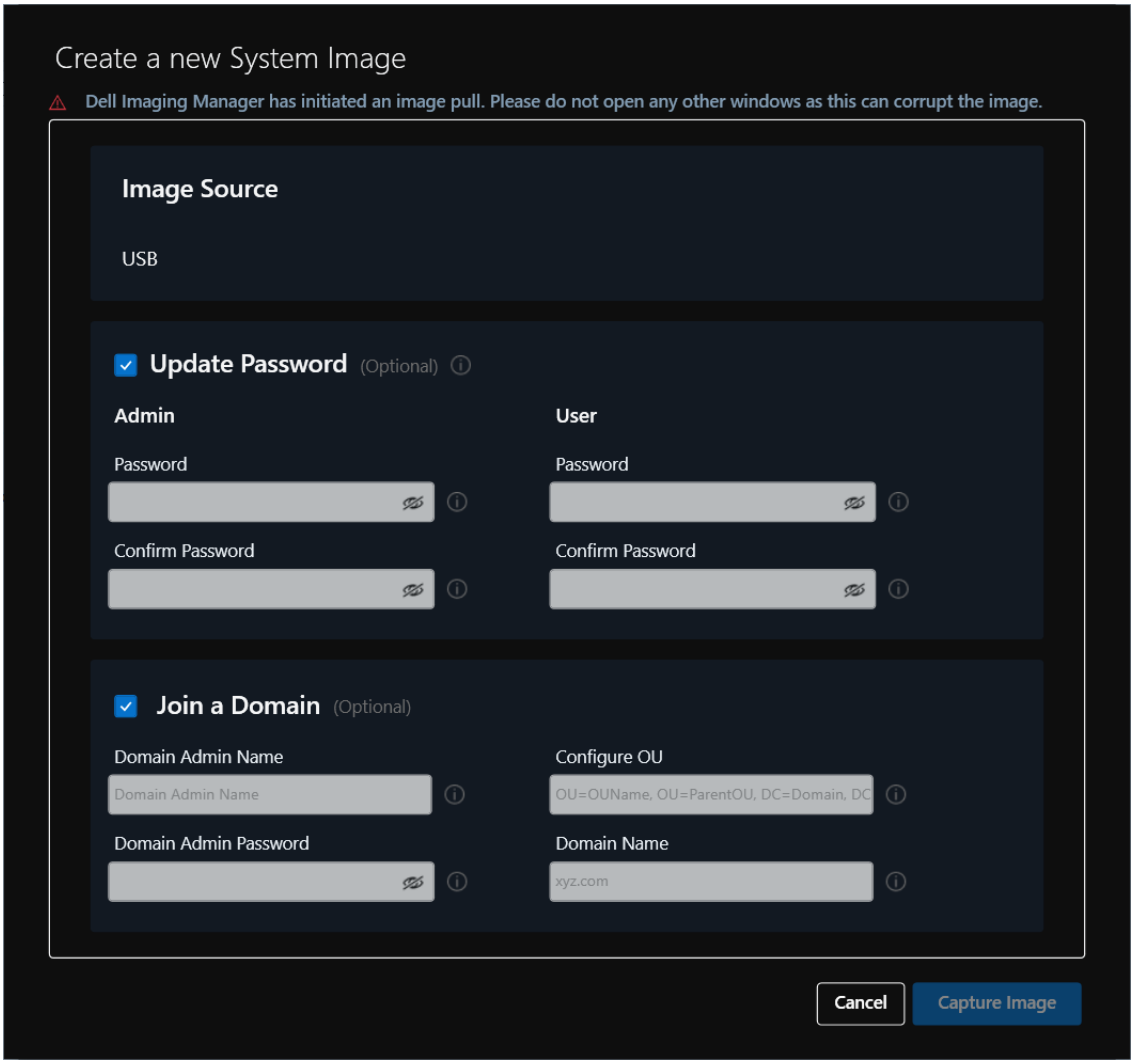


Figure 15. Create a new System Image

9. Optionally, click the checkbox **Update Password** and enter a new password for both Admin and User profiles. The password must meet the complexity criteria set on the devices where the image is restored.

NOTE: When the **Update Password** is not selected, use the following default password credentials for the ISO image:

- Administrator account: `Admin#<Service Tag of the device>`

- User account: `User#<Service Tag of the device>`

Replace `<Service Tag of the device>` with the Service Tag for your device.

10. Optionally, click the checkbox **Join a Domain** and enter the domain details to join the device to a specific domain postimaging process.
11. Click **Capture Image**.
    - When you click **Capture Image**, the pre-sysprep process loads after a short delay.
    - The pre-sysprep process begins and displays progress indicators for the ongoing tasks.
    - The device reboots for the first time, followed by the post-sysprep process, displaying the progress indicators for the ongoing tasks.
    - The device reboots after the post-sysprep process completes, and it captures the image successfully.

Results

To verify that the image is captured:

- Log in to the device as an administrator.
- Go to the selected USB drive partition.
- Double-click the **Images** folder to check if the image is successfully captured.

Deploy an image using USB

About this task

- The following steps for USB Image Deployment using Dell Imaging Manager apply only to devices running Windows 11 IoT Enterprise LTSC 2024 .
- Ensure the image that is deployed on the device is captured for that device. Images from other platforms are not compatible.

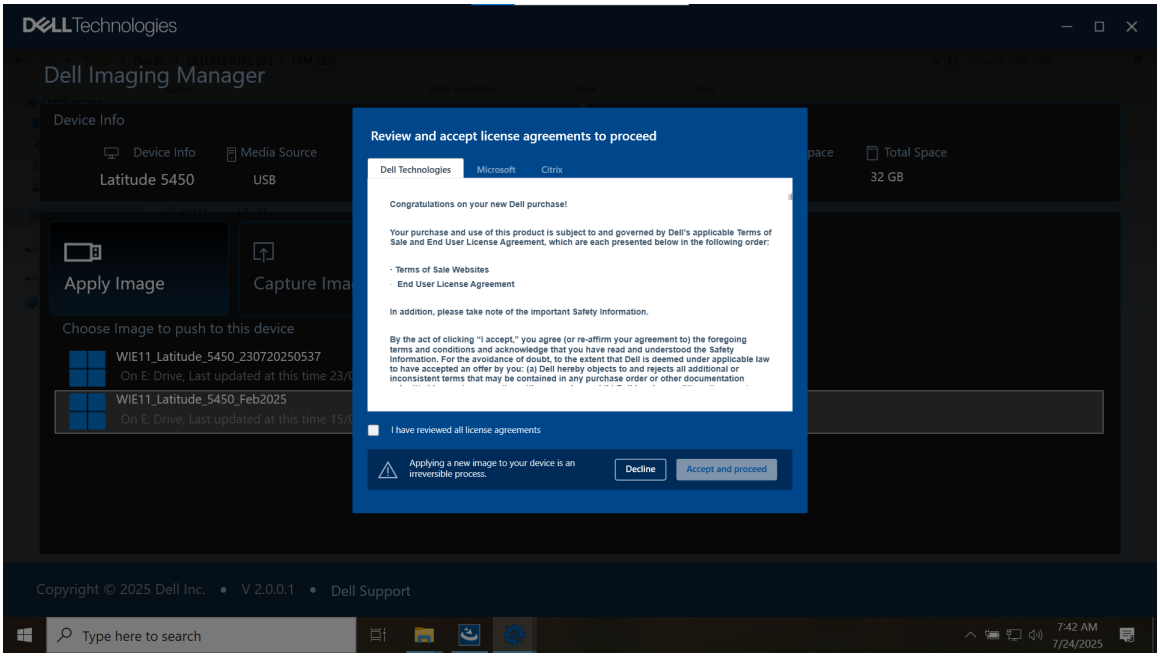
Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:

   Double-click the **Dell Wyse WF Disable** icon on the desktop.

   The Write Filter is disabled and the device restarts.
3. Log in to the device as an administrator again.
4. Connect the USB drive configured for ISO imaging. For more information see—USB Imaging Prerequisites and Configure USB drive for ISO imaging or capture the recovery image on USB drive.

   NOTE:
   - Starting from Dell Application Store version 26.02.0.2 and higher, an automatic provisioning mechanism is deployed to update the USB binaries to the latest version.
   - You can launch Dell Imaging manager from the USB connected notification of Dell Imaging Manager or launch the `DIM.USBImaging.exe` from the `DIM_USB` folder on the USB drive.
   - If any latest updates are available with the Dell Application Store, you will be promted to install the updates.
   - Once the installation of update is complete, the **Dell Imaging Manager** screen is automatically launched.
   - For the older versions of Dell Application Store, click **DIM.USBImaging.exe** from the `DIM_USB` folder on the USB drive to launch **Dell Imaging** screen.
5. Click **Apply Image**.
6. Choose the image to deploy and select it.
7. After selecting the image, click **Apply Image**.
   The End User License Agreement (EULA) page is displayed, presenting all applicable license agreements.



8. Review the EULA carefully.

   Follow these steps:

   a. Select **I have reviewed all license agreements**.
   b. Click **Accept and Proceed**.

   NOTE: It is mandatory to review and accept EULA before you proceed.

9. Click **Confirm**.
   - When you click **Confirm**, the recovery process loads after a brief delay.
   - The device enters recovery mode and shows progress indicators for the Applying Image process. At this stage, it is safe to remove the USB drive.

Results

- After the first reboot, the device enters the postimaging process, displaying progress indicators for all critical tasks in progress.
- After a final reboot, the device successfully applies the Windows 11 IoT Enterprise LTSC 2024 image.
- The device auto logs in to the **User** account.

NOTE: The default password credentials for the Admin and User accounts in the Windows 11 IoT Enterprise LTSC 2024 ISO image are as follows:

- **Admin:** Admin#<Service Tag of the device>
- **User:** User#<Service Tag of the device>

Bare Metal Recovery

When a device experiences password loss, disk failure, or another catastrophic event, this feature restores the device to its original state. You can deploy a preconfigured recovery image or custom image to reset the device, erasing any existing data and settings. The applied image restores the device to its original factory settings, allowing the user to regain access.

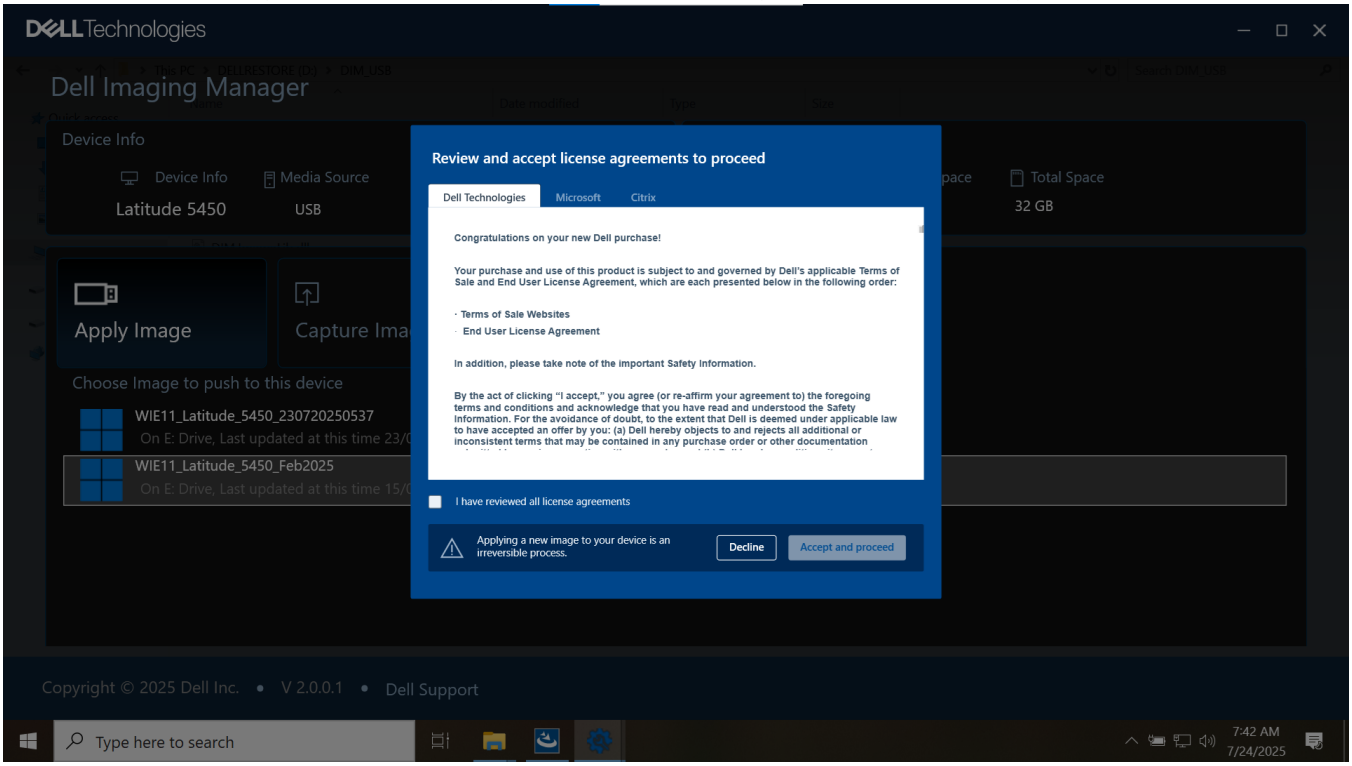
Prerequisites

The USB drive can contain the ISO or recovery image or the custom image to be deployed into the bare metal device. See detailed steps in Capture an image using USB to capture the custom image or Configure USB drive for ISO imaging or capture the recovery image on USB drive to capture the recovery image.

Steps

1. Insert the USB with the custom image or recovery image into the target device.

2. Power on the device.
3. Press **F12** to open the **One-Time Boot Settings.**
4. Click the USB drive with the custom image or recovery image under the **UEFI Boot Devices**.
5. Enter the BIOS admin password. The Dell default password is **Fireport**.
6. The device boots and opens the **Dell Imaging Manager**.
7. Click **Apply Image**. The Windows 11 IoT Enterprise LTSC 2024 image files are displayed.
8. Select the Windows 11 IoT Enterprise LTSC 2024 image.
9. After selecting the image, click **Apply Image**.
   The End User License Agreement (EULA) page is displayed, presenting all applicable license agreements.



10. Review the EULA carefully.
    Follow these steps:
    a. Select **I have reviewed all license agreements**.
    b. Click **Accept and Proceed**.

    NOTE: It is mandatory to review and accept EULA before you proceed.

11. Click **Confirm**.
    - When you click **Confirm**, the recovery process loads after a brief delay.
    - The device enters recovery mode and shows progress indicators for the Applying Image process. At this stage, it is safe to remove the USB drive.

Results

- After the first reboot, the device enters the postimaging process, displaying progress indicators for all critical tasks in progress.
- After a final reboot, the device successfully applies the image and upgrades to Windows 11 IoT Enterprise LTSC 2024.
- The device automatically logs in to the User account.

NOTE: The default password credentials for the Admin and User accounts in the Windows 11 IoT Enterprise LTSC 2024 ISO image are as follows:

- **Admin:** Admin#<Service Tag of the device>
- **User:** User#<Service Tag of the device>

12

Managing Windows 11 IoT Enterprise LTSC 2024 devices with MECM

Microsoft Endpoint Configuration Manager is a device management software by Microsoft that can be used to manage Windows 11 IoT Enterprise LTSC 2024 based devices.

The following versions are used while documenting the steps in the guide:

- Microsoft Configuration Manager Version: 5.00.9128.1007
- Microsoft Configuration Manager Console Version: 5.2403.1171.1000

Upgrade BIOS using Microsoft Endpoint Configuration Manager server

Prerequisites

Ensure that you are using Microsoft Endpoint Configuration Manager server 2016 or later.

Steps

1. Go to Dell | Support.
2. Click **Product Support**, enter the **Service Tag** of your device, and click **Submit**.

   NOTE: If you do not have Service Tag, manually browse for your device model.

3. Click **Drivers & Downloads**.
4. From the **Operating system** drop-down menu, select **Windows 11 IoT Enterprise LTSC 2024**.
5. Download the respective BIOS file.
6. In **Microsoft Configuration Manager**, create a folder with the name `Packages`.
7. Copy the installation package to the `Packages` folder.
8. Open the **Microsoft Endpoint Configuration Manager** console, and go to **Software Library** > **Application Management** > **Packages**.

   NOTE: System Center Configuration Manager is now **Microsoft Endpoint Configuration Manager**.

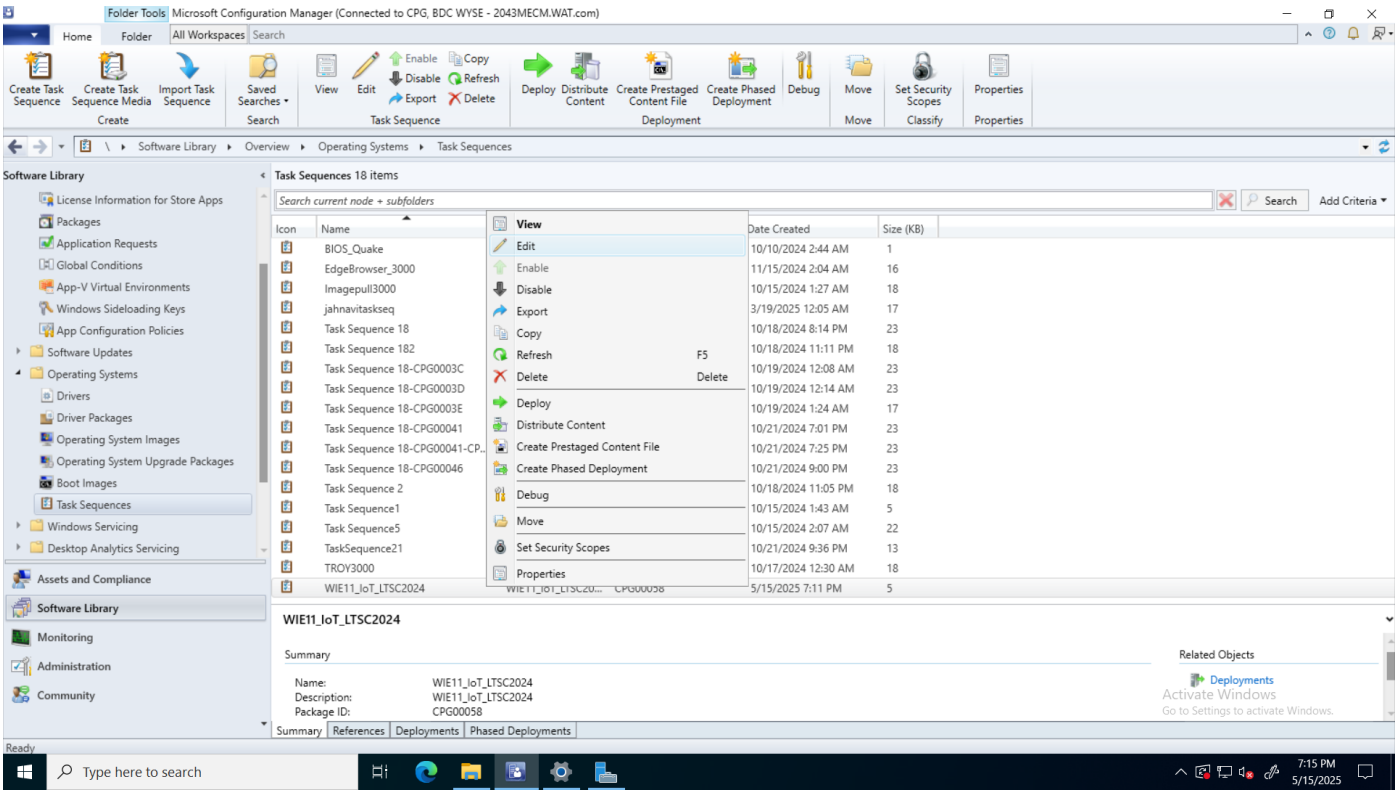


Figure 16. MECM console

9. Right click **Packages**, and select **Create Package**.

   The **Create Package and Program Wizard** screen is displayed.

10. Click **Browse**.
    A folder selection window is displayed, select the source folder of the package.

11. Click **Next**.
    The **Program Type** screen is displayed.

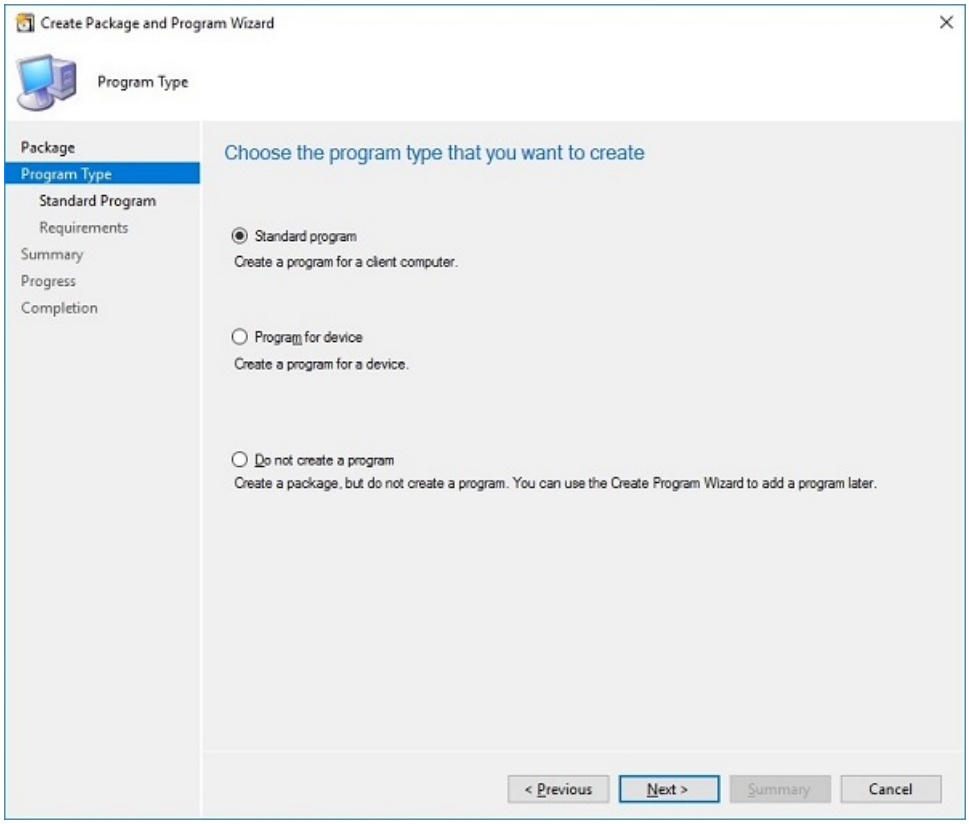


Figure 17. Program Type

12. Select **Standard Program**, and click **Next**.
The **Standard Program** screen is displayed.

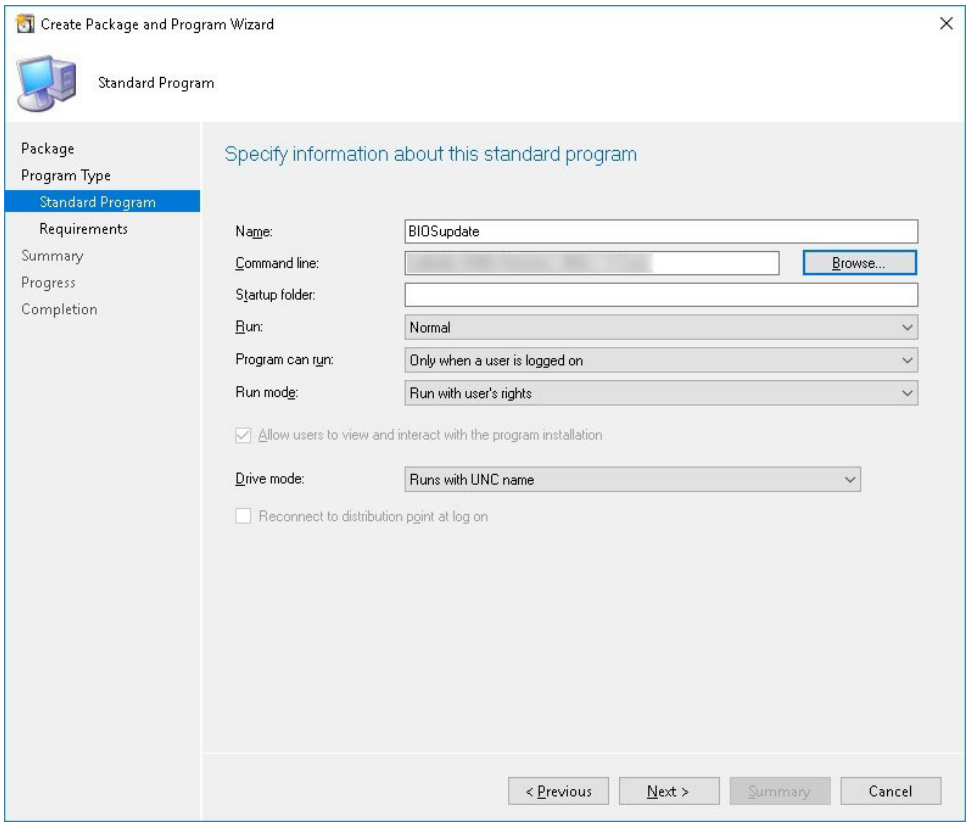


Figure 18. Standard Program

13. In the **Standard Program** package, enter the package name.

14. In the **Command Line** field, go to the folder where the BIOS executable file is located, and select it.
15. Click **Next**.
    The **Requirements** screen is displayed.

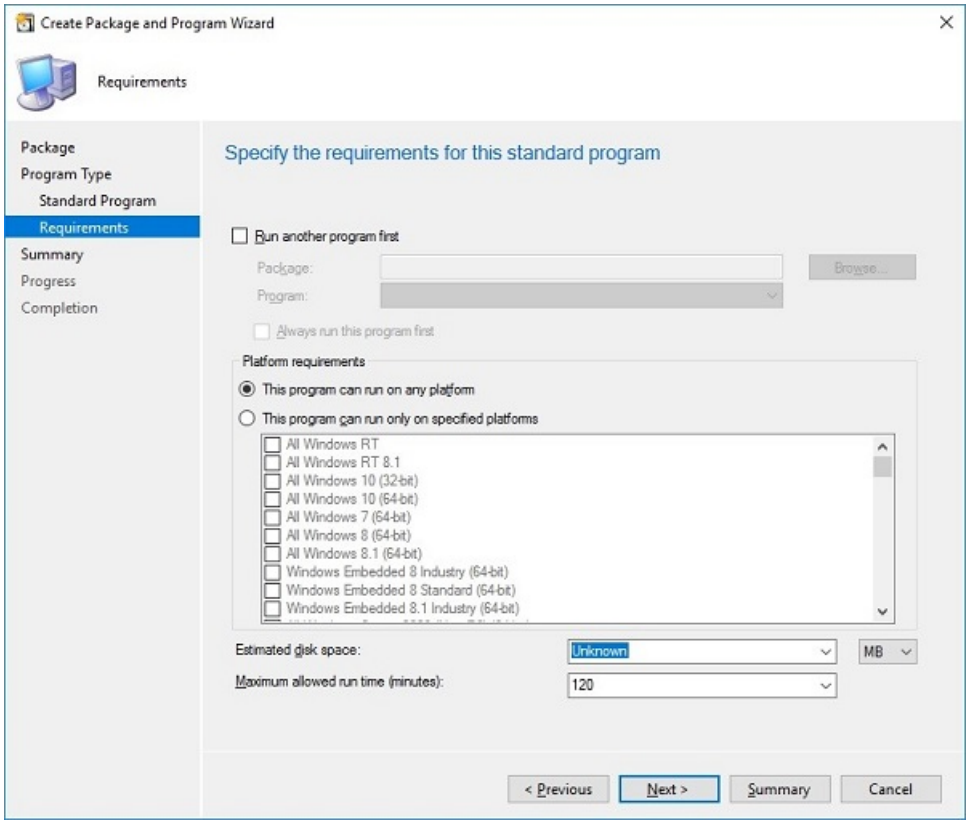


Figure 19. Requirements

16. Click **Next**.
    The **Summary** screen is displayed.

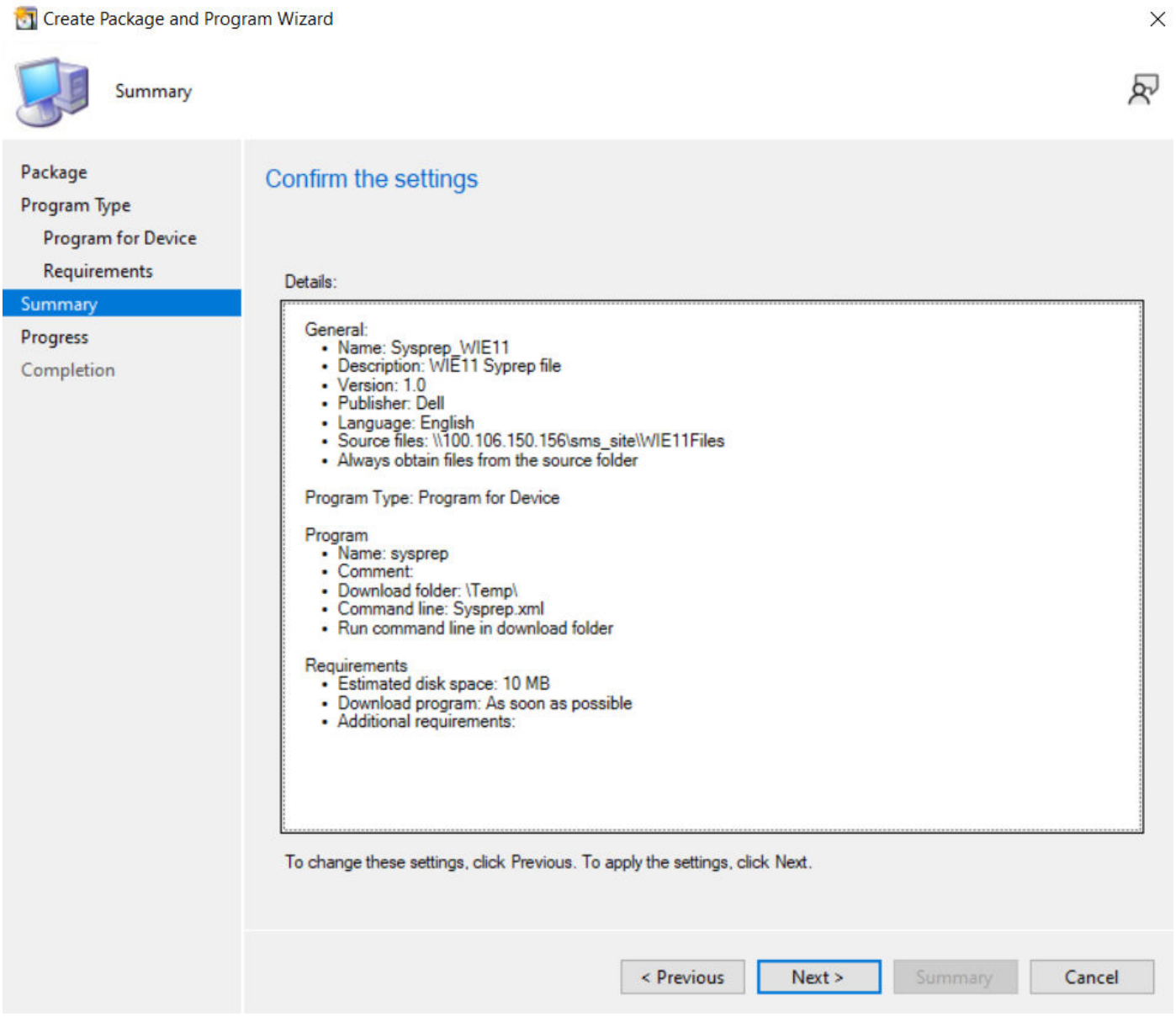


Figure 20. Summary

17. Verify the information that you have provided, and click **Next**.
The **Completion** screen is displayed.

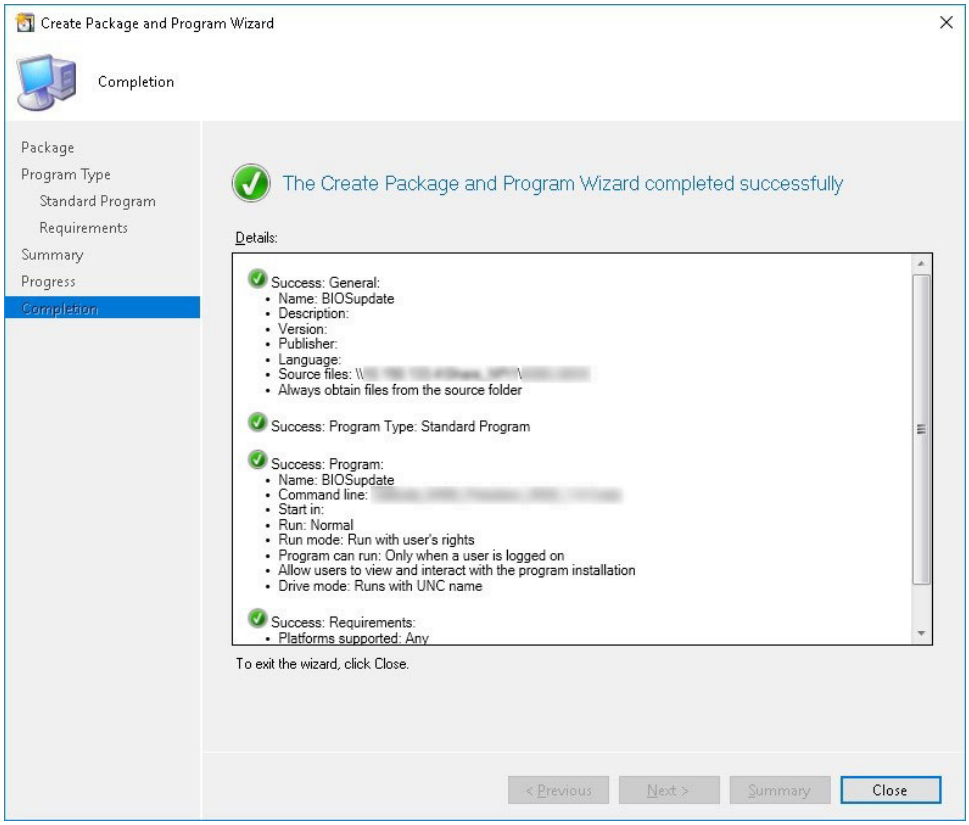


Figure 21. Completion

18. Click **Close**.
19. Right-click the package, and select **Distribute Content**.

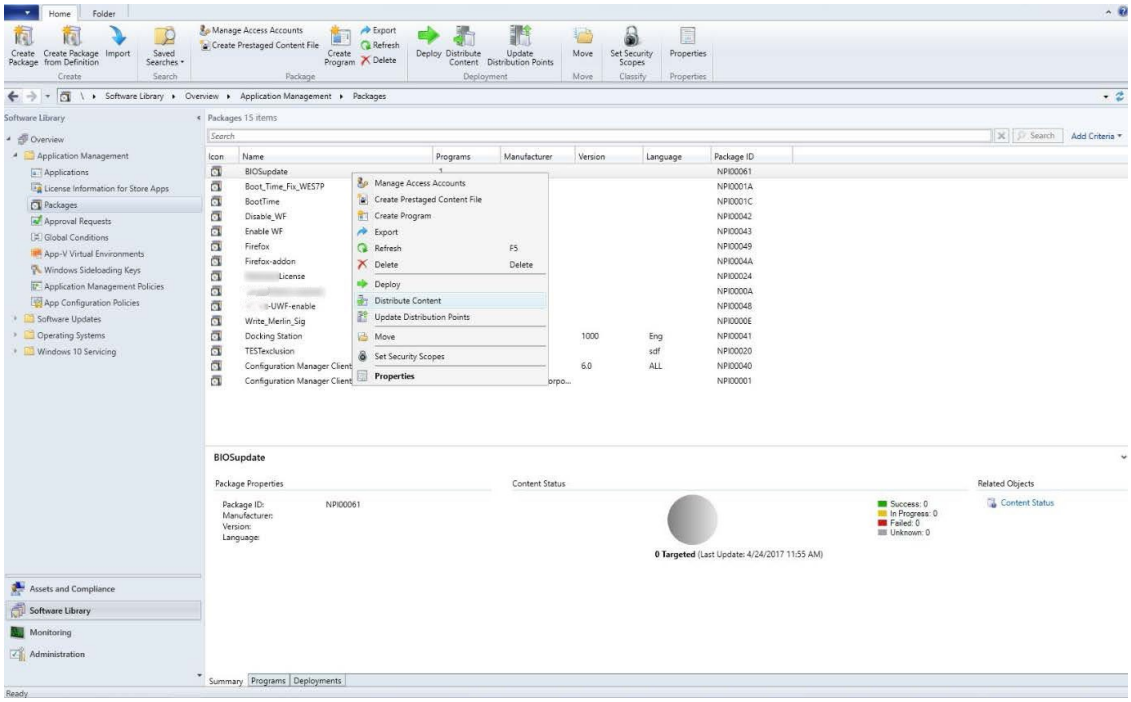


Figure 22. Distribute Content

20. After package distribution is complete, confirm that the package status is green.
21. Add the device to the domain, and verify if it is displayed on the MECM server.
22. Identify the MAC address of the device. To identify the MAC address, go to **Assets and compliance** > **Devices** on the target device.
23. Add the device to the device collection.

24. Deploy the BIOS package to the created device collection.
The device restarts and upgrades the BIOS.

Deploy software applications from MECM

You can deploy third party software applications to Windows 11 IoT Enterprise LTSC 2024 devices using MECM.

The following prerequisites must be met to deploy the applications:

- The device must be discovered in the Configuration Manager server.
- The write filter **WF** must be disabled on the device.
- The latest application must be obtained and copied to the local drive on the ConfigMgr site server's shared location `C:\ConfigMgr_packages\apps\`.
- The device must be a member of a collection with a configured **maintenance window** that allows management when the **write filter** is disabled and enabled, and when the device restarts.

For information about the application deployment, see *Deploy applications with Configuration Manager* in the Application management guide for Microsoft Intune on Microsoft Learn.

NOTE: When deploying applications to write-filter-enabled devices, you can choose whether to disable the write filter during deployment. If the write filter is disabled, the device must be restarted. If the write filter remains enabled, the software is deployed to a temporary overlay, and the software is not installed when you restart the device.

NOTE: In the **Deploy Software Wizard**, the setting that controls write filter behavior is the **Commit changes at deadline or during a maintenance window**. Enabling this option ensures that changes are saved after deployment.

Imaging Windows 11 IoT Enterprise LTSC 2024 devices using MECM

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. If the captured .wim file is 8 GB and the used space on drive C is 17 GB, then the deployment is possible only if the operating system drive has a capacity greater than 25 GB.

NOTE: For better performance during imaging, it is recommended that the total size of the wim file and the used space should be at least 1 GB less than the total size of drive C.

Create driver packages for imaging

About this task

Perform the following steps to create a driver package for imaging a device using Microsoft Endpoint Configuration Manager (MECM):

Steps

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

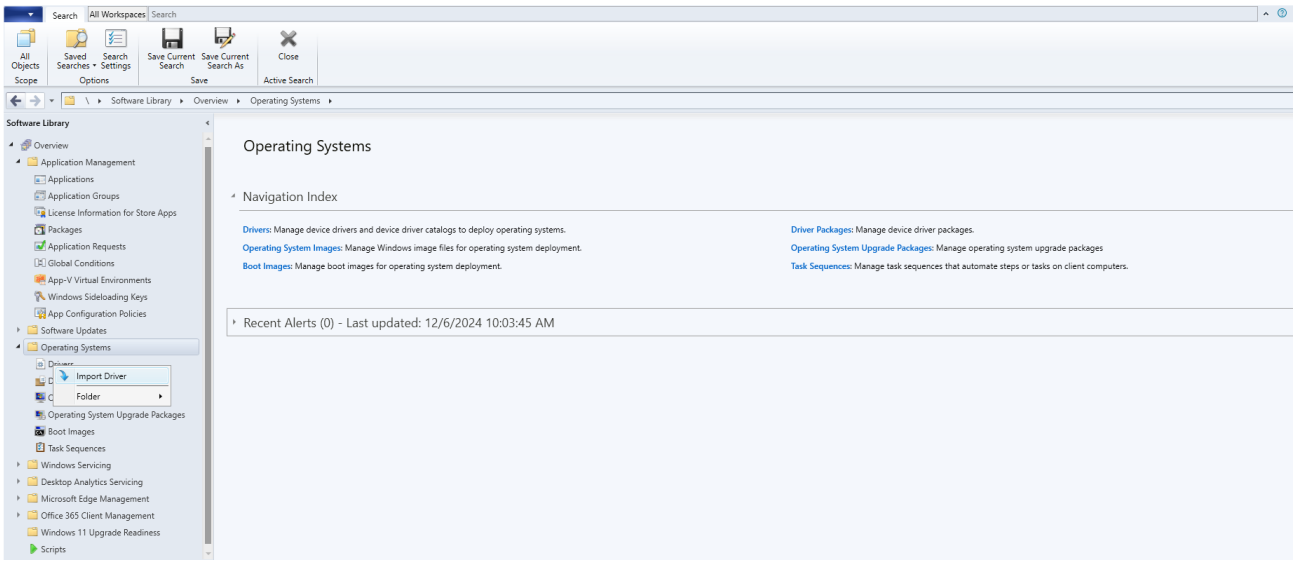


Figure 23. Import driver

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

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

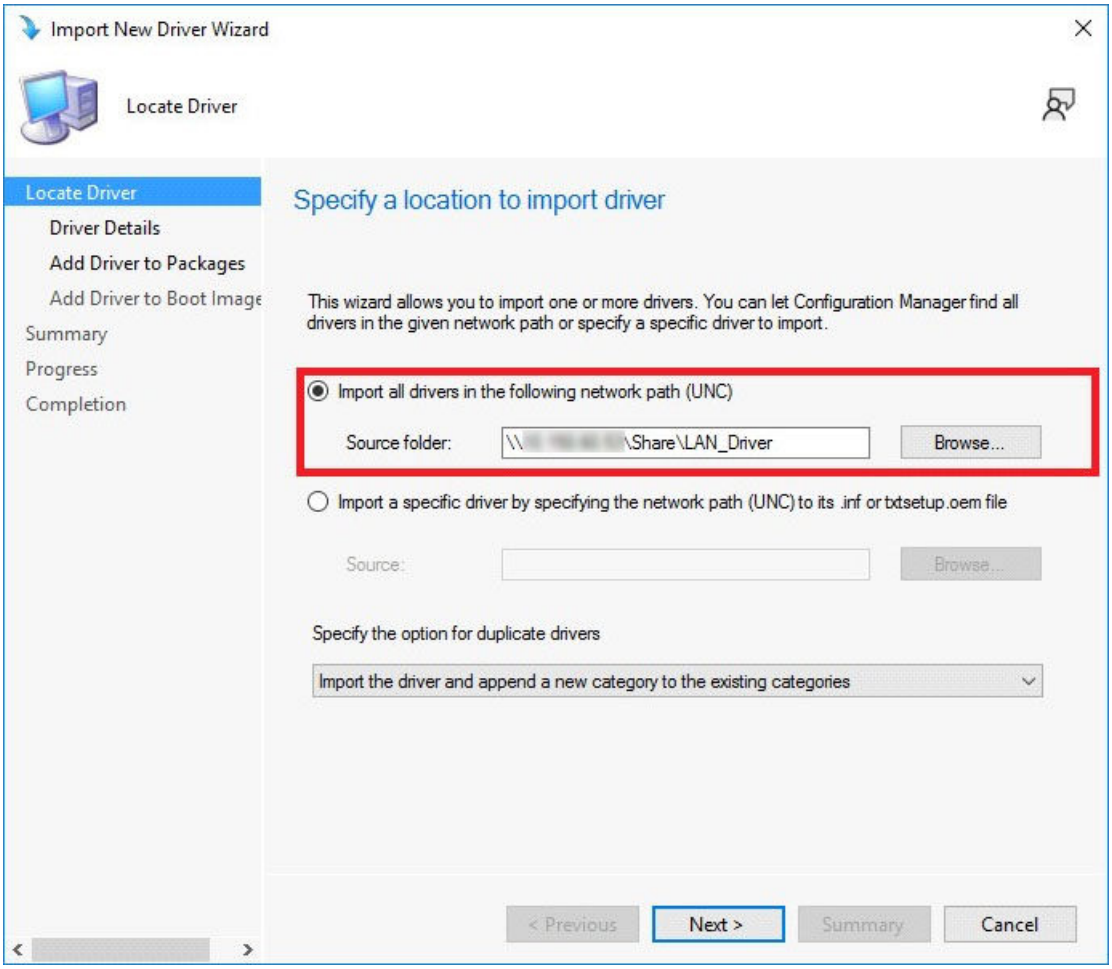


Figure 24. Locate driver

NOTE: The driver must be available in the local share path of MECM.

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

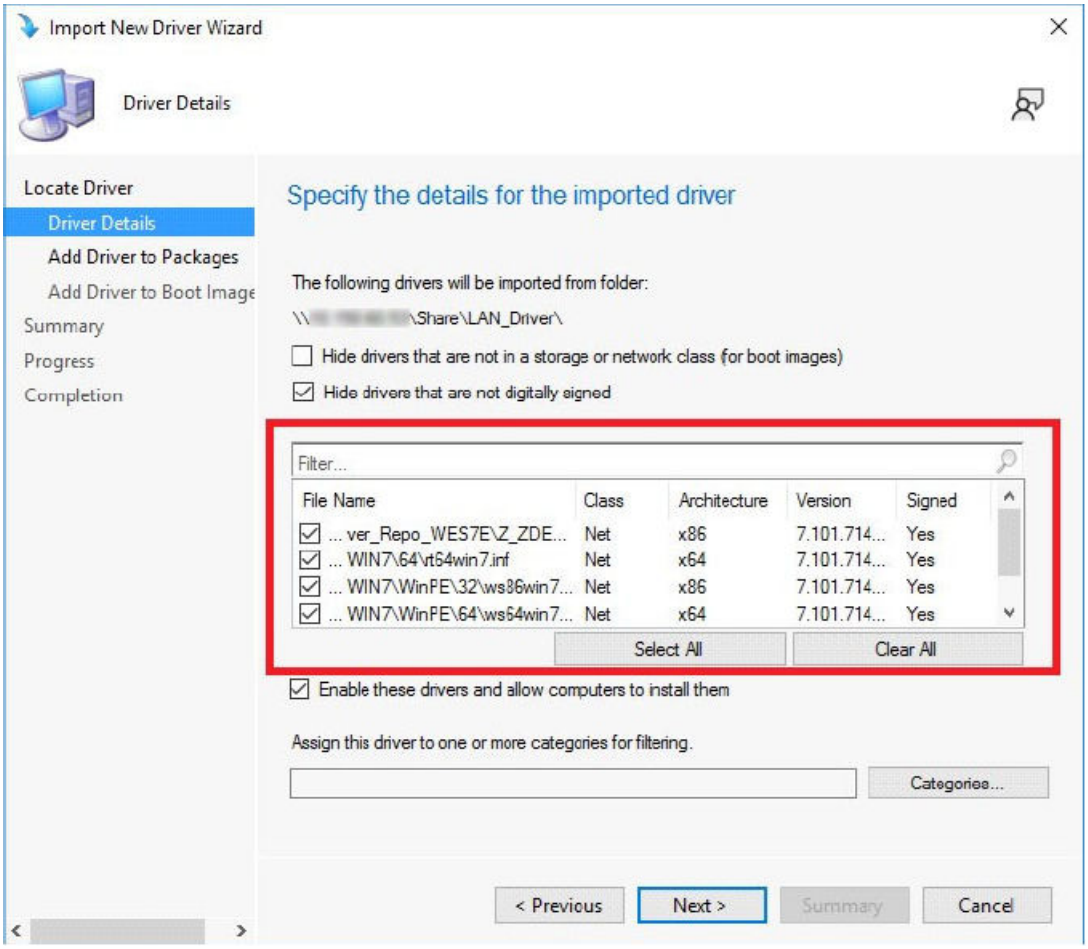


Figure 25. Driver details

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

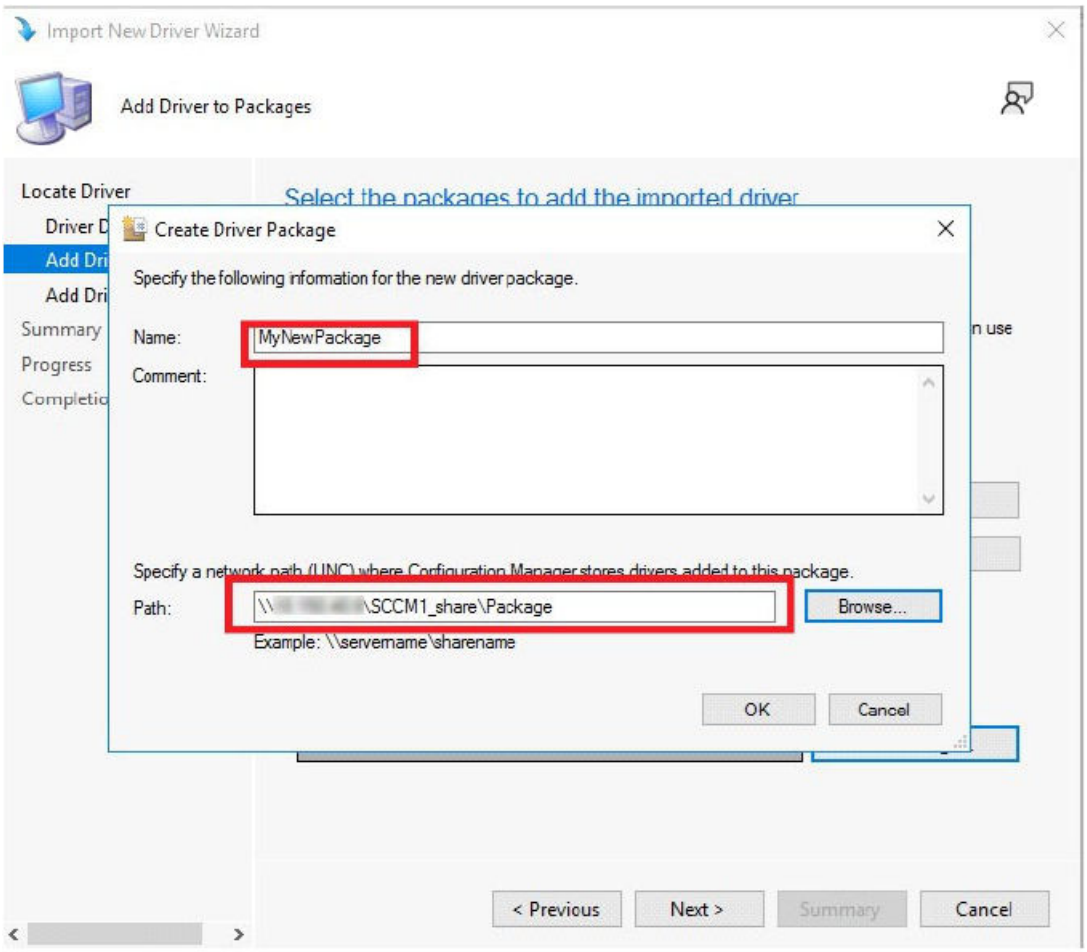


Figure 26. Create driver package

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

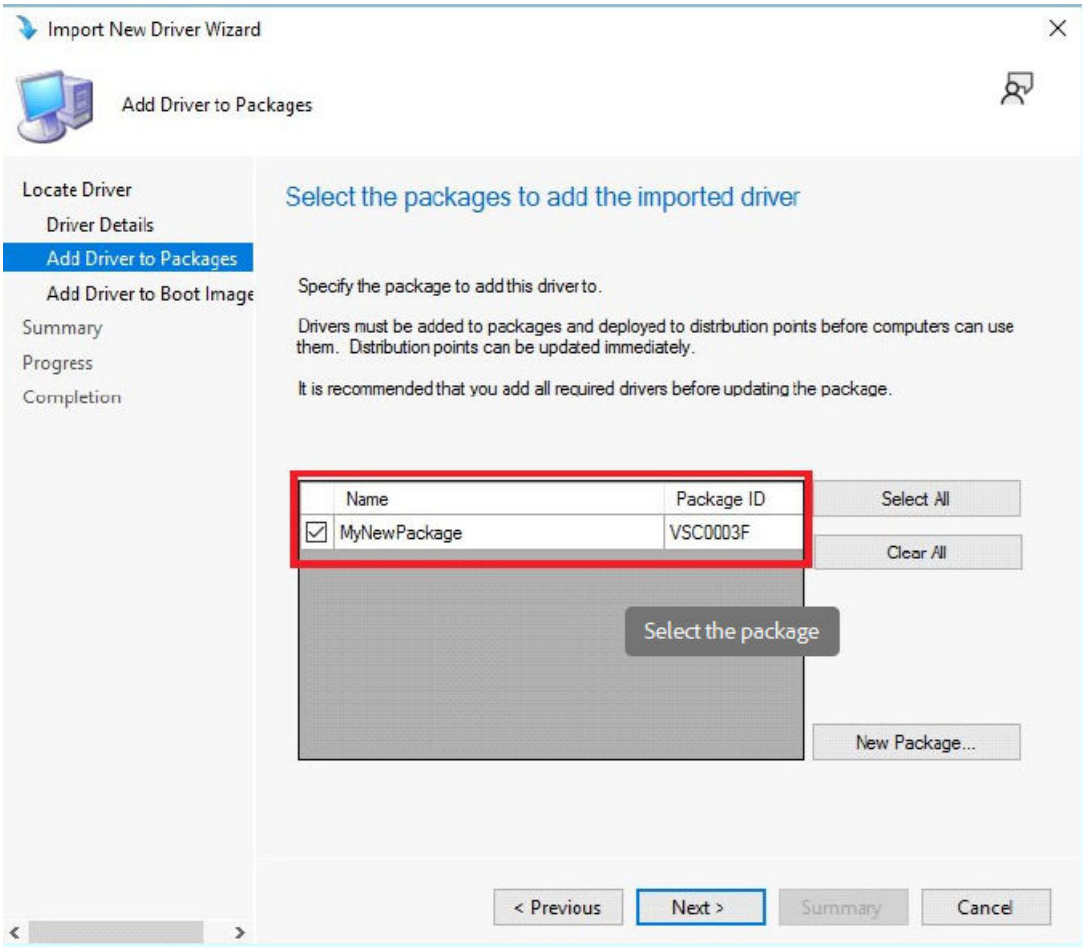


Figure 27. Select the packages

13. On the **Add Driver to Boot Images** page retain the default options and click **Next**.
14. On the **Summary** page, verify the details, and click **Next**.
15. After the configuration is complete, click **Close**.
16. Click **Software Library**.
17. Expand **Overview** > **Operating System** > **Driver Packages**.
18. Right-click the imported driver package, and select **Distribute Content**. The **Distribute Content wizard** window is displayed.

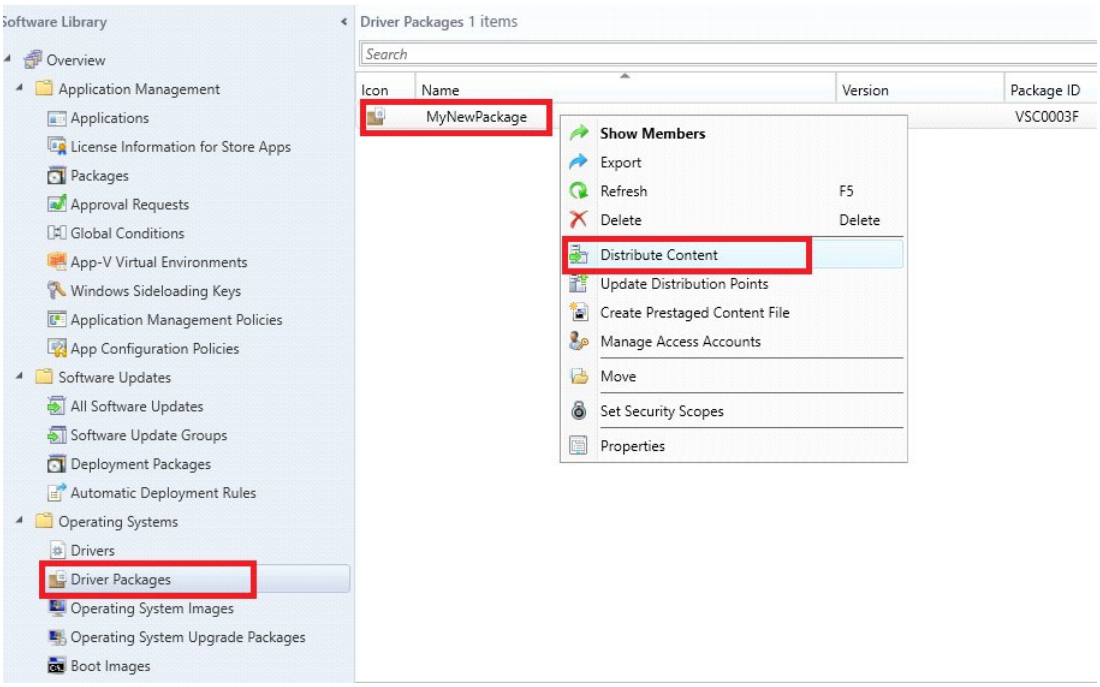


Figure 28. Distribute content

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

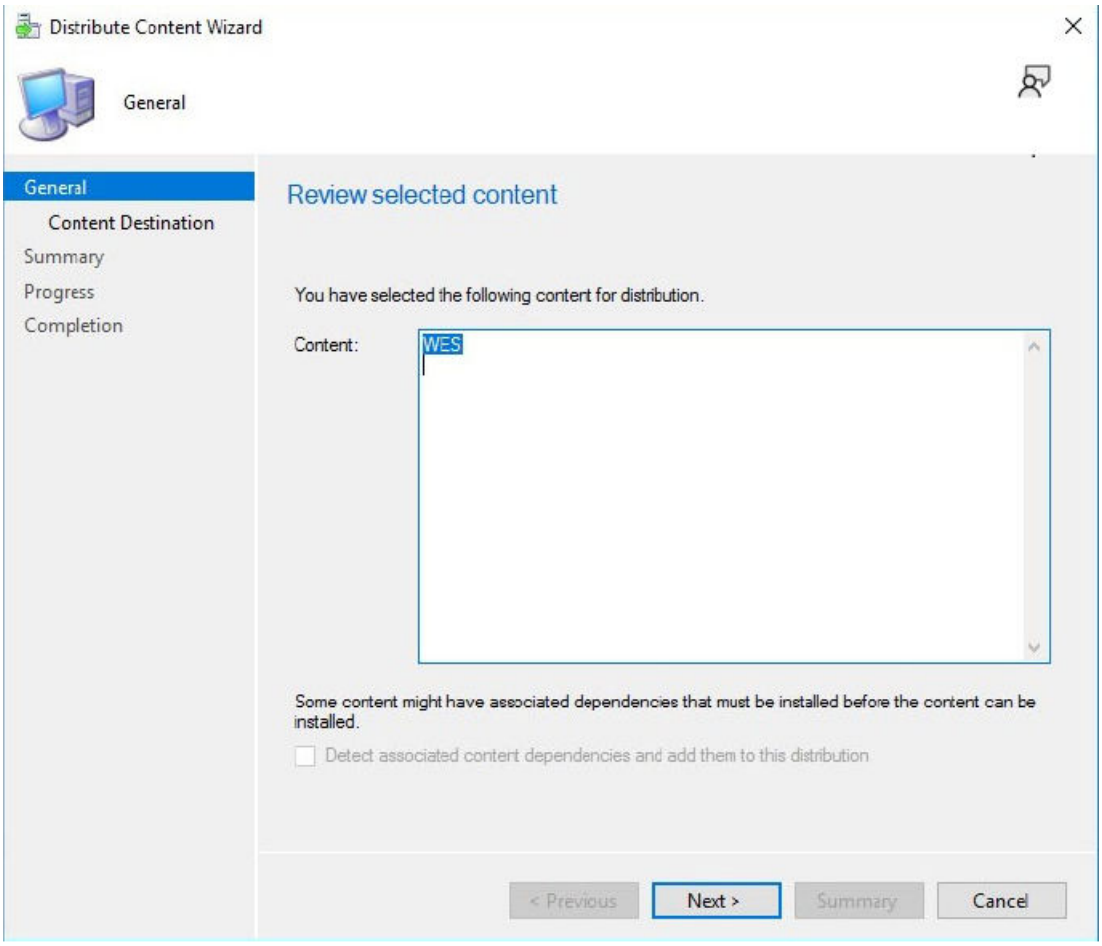


Figure 29. Review selected content

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

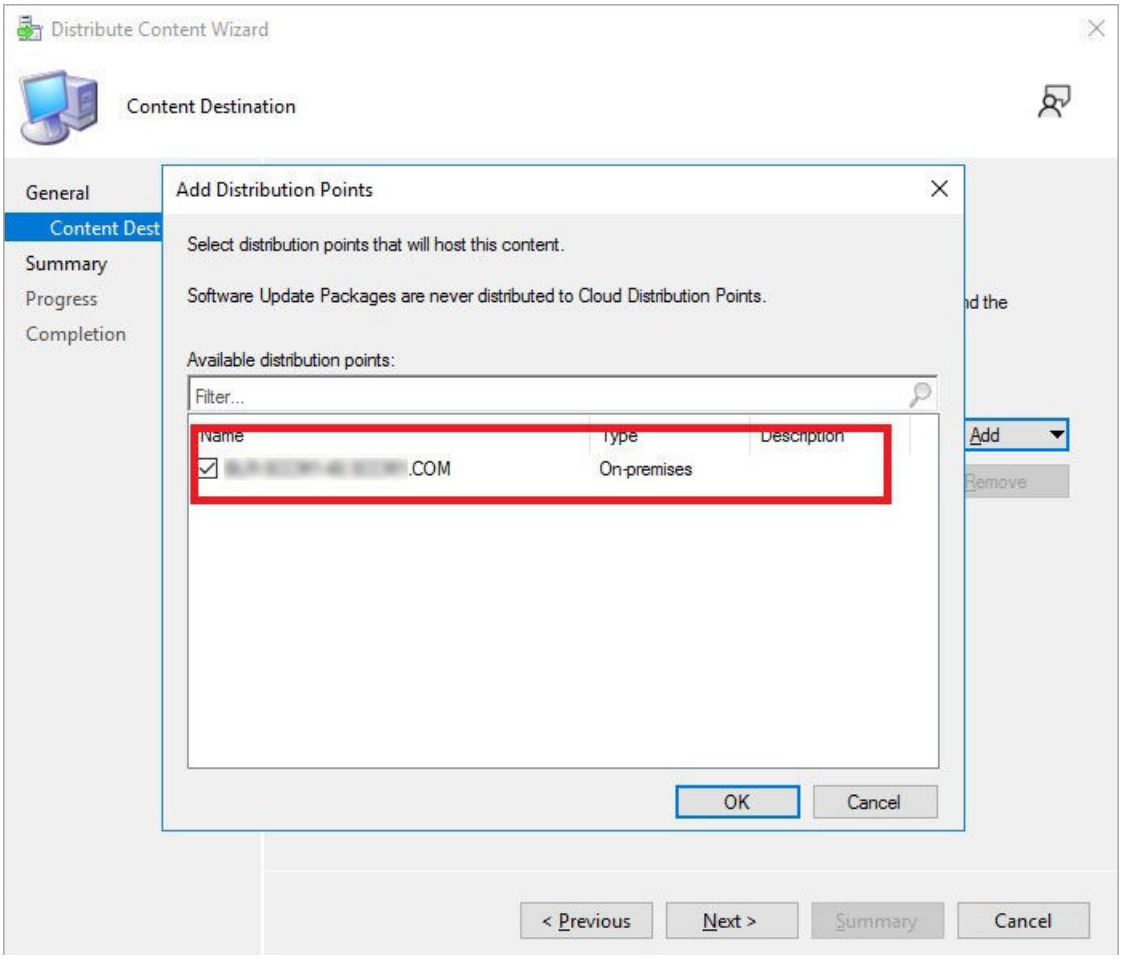


Figure 30. Content destination

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

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

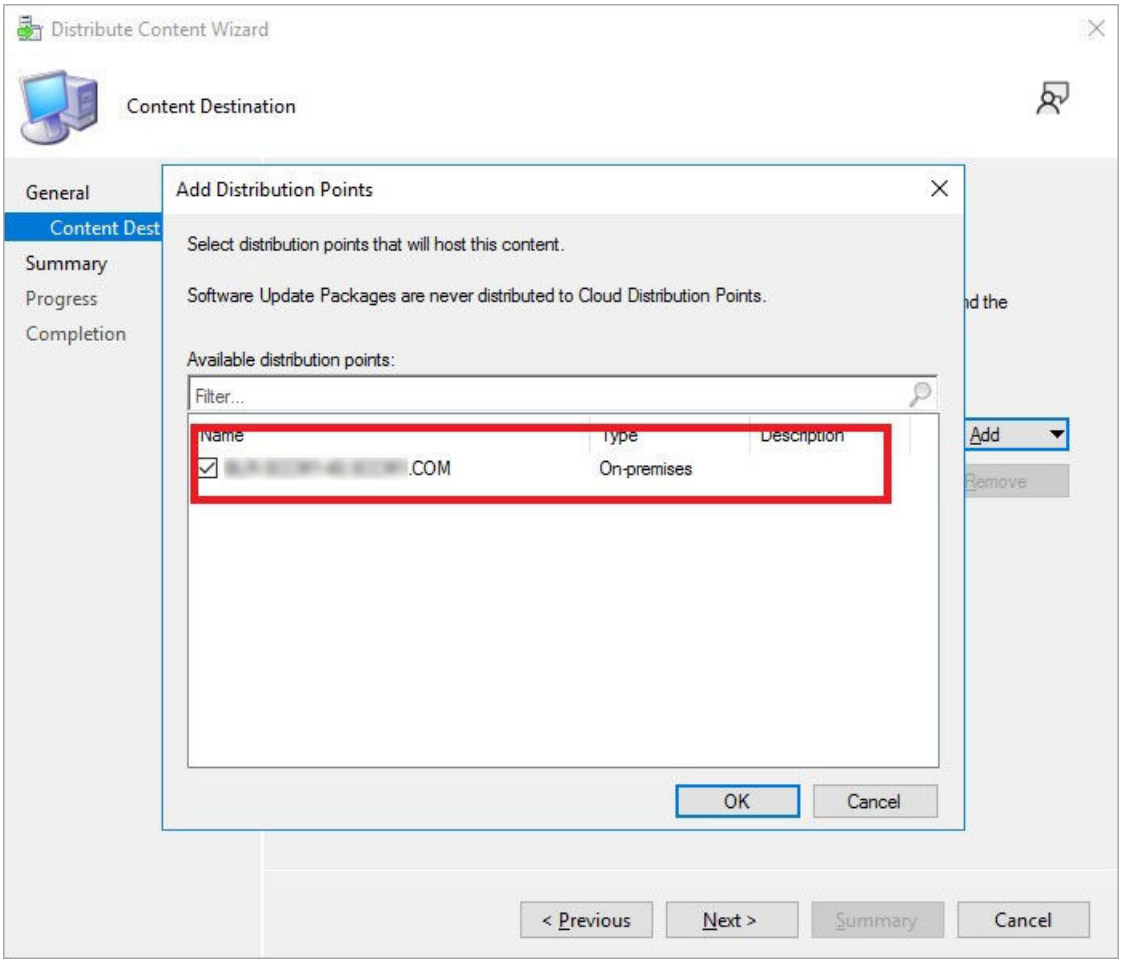


Figure 31. Add distribution points

NOTE: MECM 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.

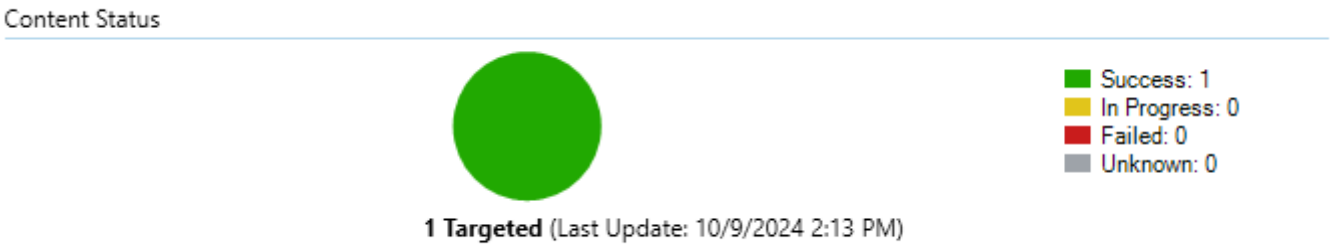


Figure 32. Content status

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

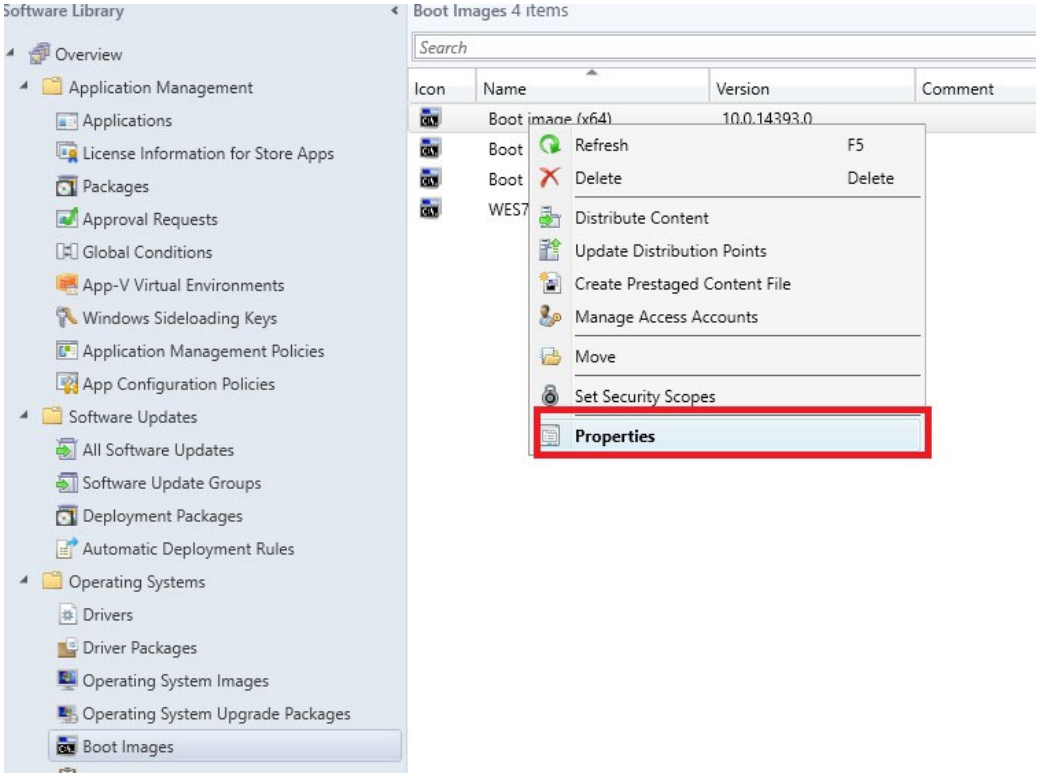


Figure 33. Properties

28. In the **Properties** window, click the **Drivers** tab, 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

About this task

This section explains how to prepare an operating system image for capture. The reference image must be captured as a Windows Imaging (WIM) format file. The captured image can be imported and deployed to supported devices running Windows 11 IoT Enterprise LTSC 2024 in a Configuration Manager environment.

NOTE: To prepare a reference Windows 11 IoT Enterprise LTSC 2024 image, it is recommended that you start with a newly imaged device Customize the build as required, and prepare the build for the Configuration Manager image capture.

Steps

1. Log in as an administrator.
2. Disable the write filter.
   The device restarts.
3. Log in as an administrator.
4. You can customize the image by adding drivers, applications, wallpapers and so on, depending on your requirements.
5. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
6. Go to **IMAGING** > **Image Settings**.
7. From the **Imaging Source** drop-down list, select **MECM**.
8. Optionally, select the **Join to a Domain** checkbox to join the device to a specific domain post imaging process.
9. Enter the administrator and user passwords in the **Update a Password** section.

10. Select the **Confirm Selections** option and click **Capture Image**.

Creating capture media task sequence

About this task

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:

Steps

1. Click **Start** > **Microsoft Configuration Manager** > **Configuration Manager Console**

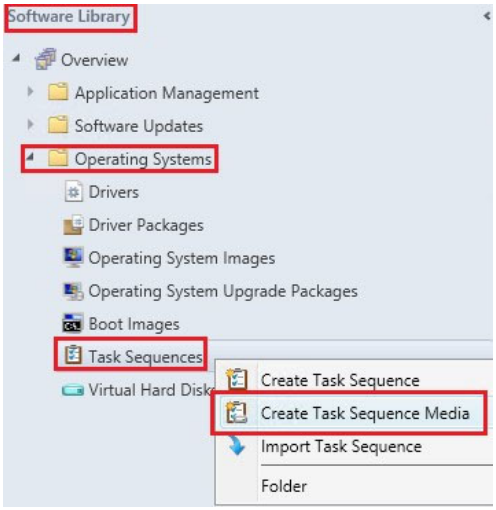


Figure 34. Software library

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

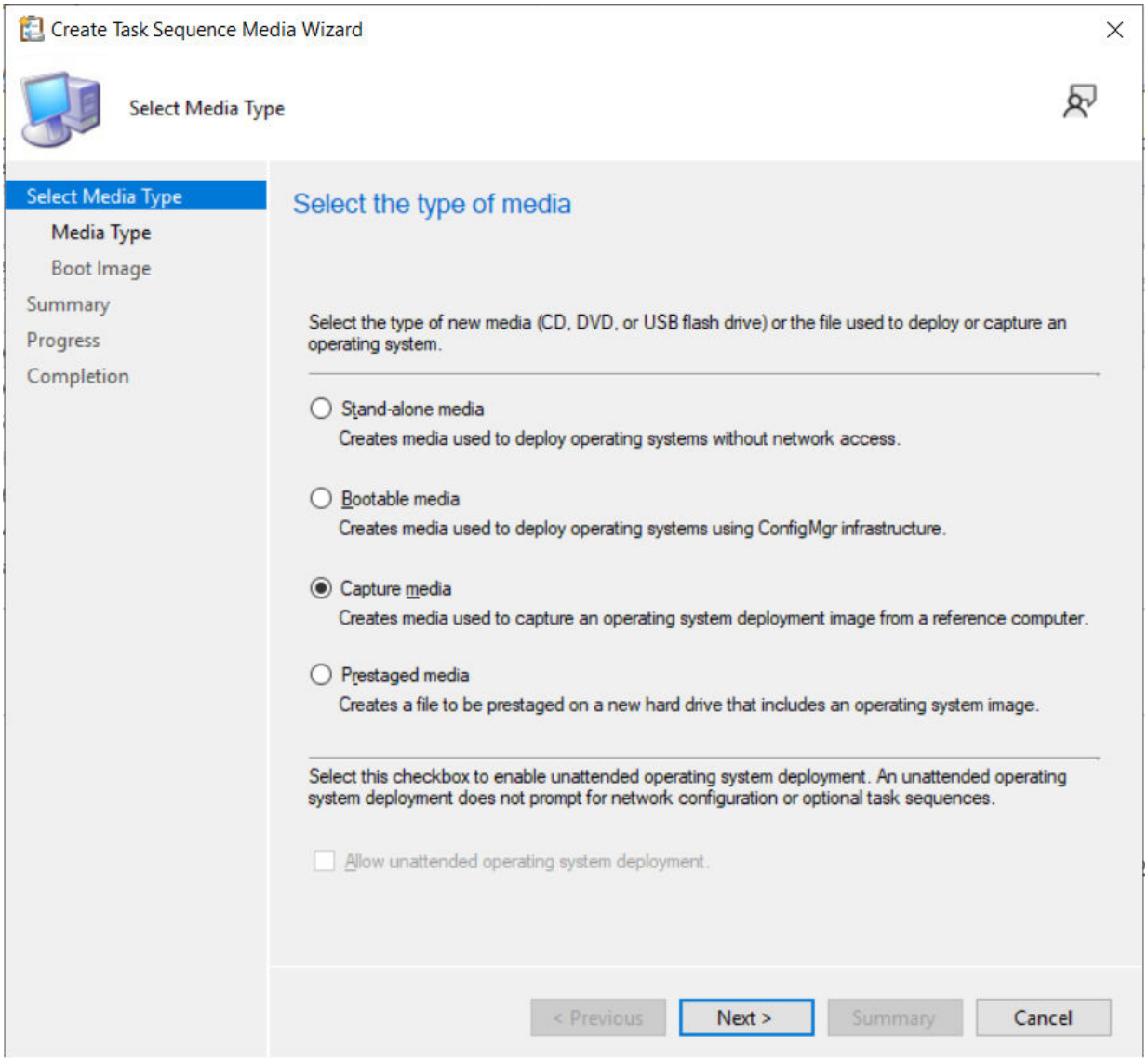


Figure 35. Media type

6. On the **Media Type** page, select the media type which you want to use for capturing media.
   - To use a removable USB drive for the image deployment, select the **Removable USB drive** radio button, and from the drop-down list, select the drive.
   - To use a CD/DVD set for the image deployment, select the **CD/DVD set** radio button, and browse to the media file.

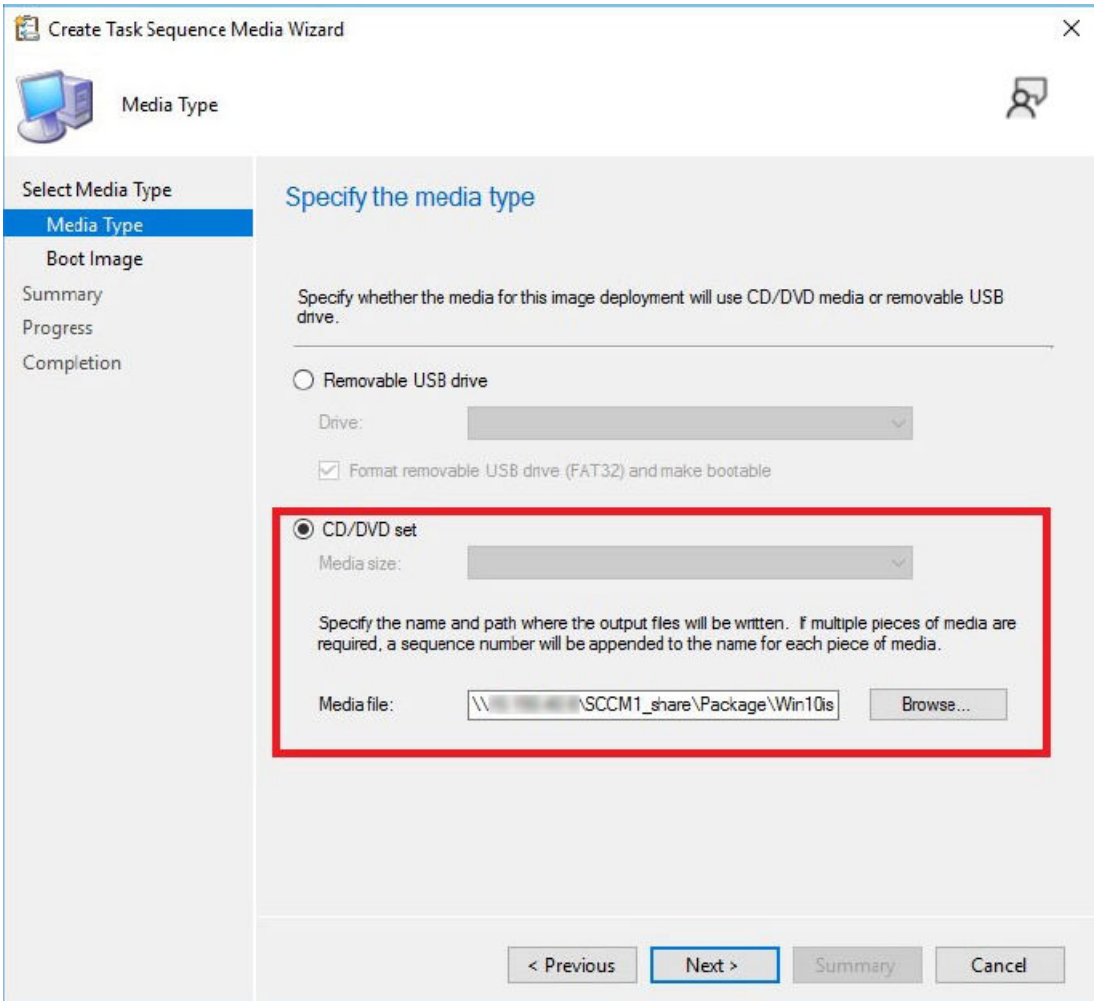


Figure 36. Create task sequence media wizard

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

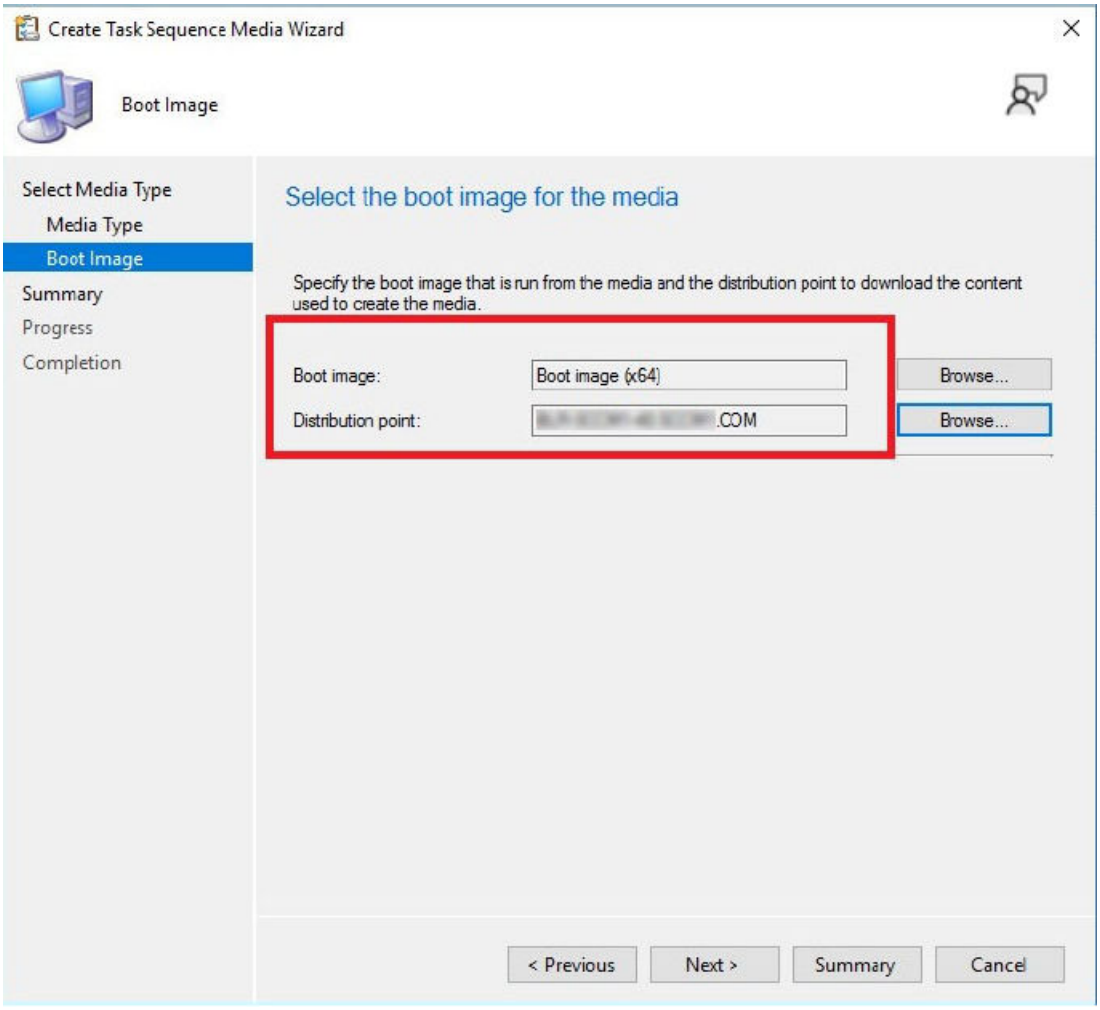


Figure 37. Boot image

NOTE: You must include Ethernet/ SFP driver in the boot image. You can 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

About this task

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

Steps

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

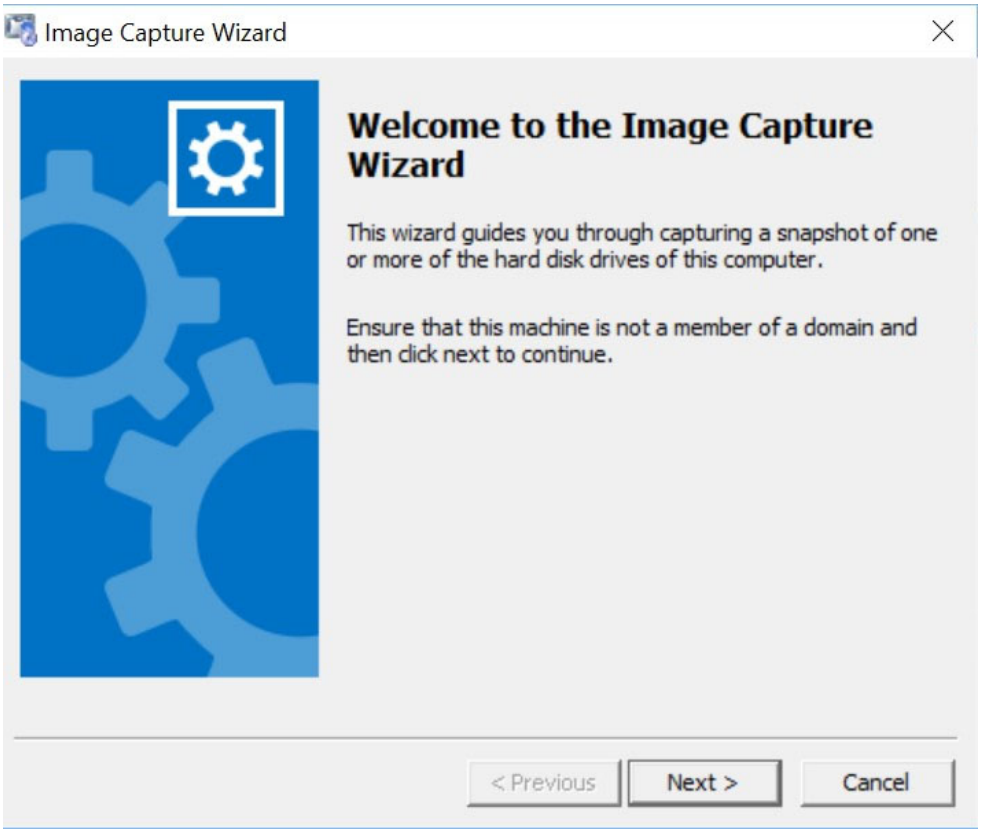


Figure 38. Image capture wizard

5. On the **Image Destination** page, browse to any of the following:
   - A shared location on the remote network—recommended
   - A local USB drive path along with the `.wim` file name extension

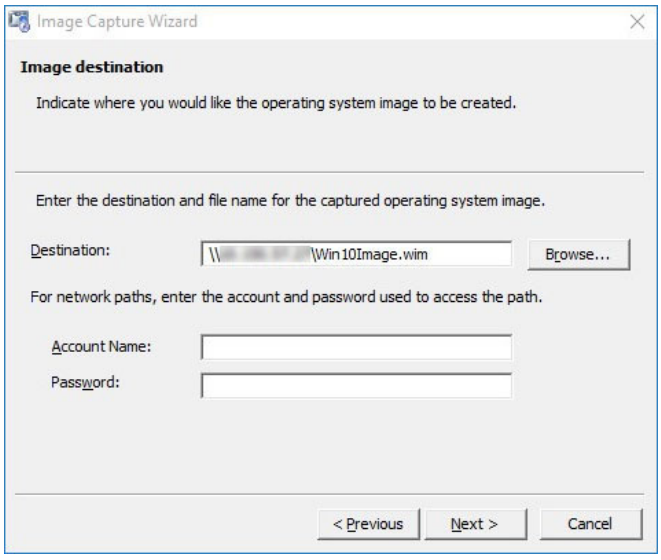


Figure 39. Image destination

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

   The installer takes 5–10 minutes to start the capture process. During the capture process, the machine completes the Sysprep and boots into the Windows Preinstallation Environment. In the Windows Preinstallation Environment session, the

image is captured. After the image capture, the `.wim` file is generated and stored to the location specified in the **Capture Wizard** page.

NOTE:

After the image is captured, the reference device will not be in the same state as it was before the capture. To bring the reference device 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.

Associating target devices with Configuration Manager server

About this task

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

Steps

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

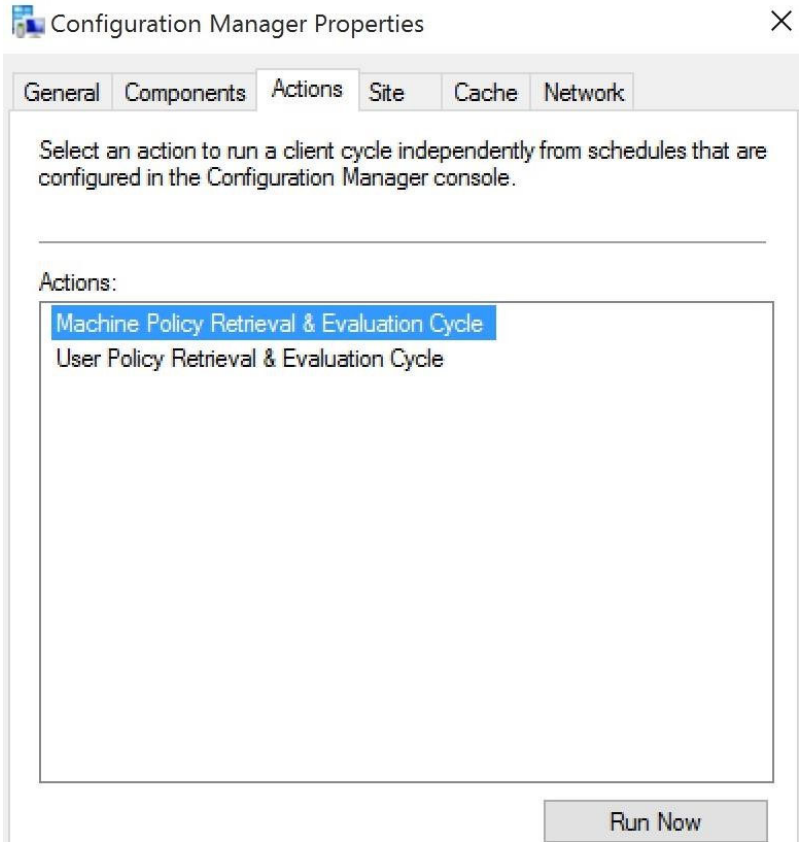


Figure 40. Configuration Manager Properties

The device is added to the Configuration Manager server.

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

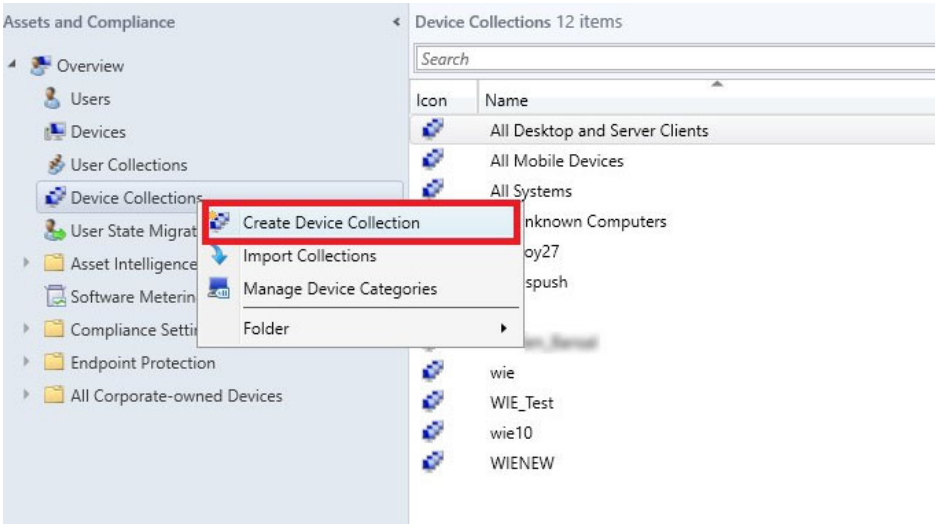


Figure 41. Create Device Collection

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

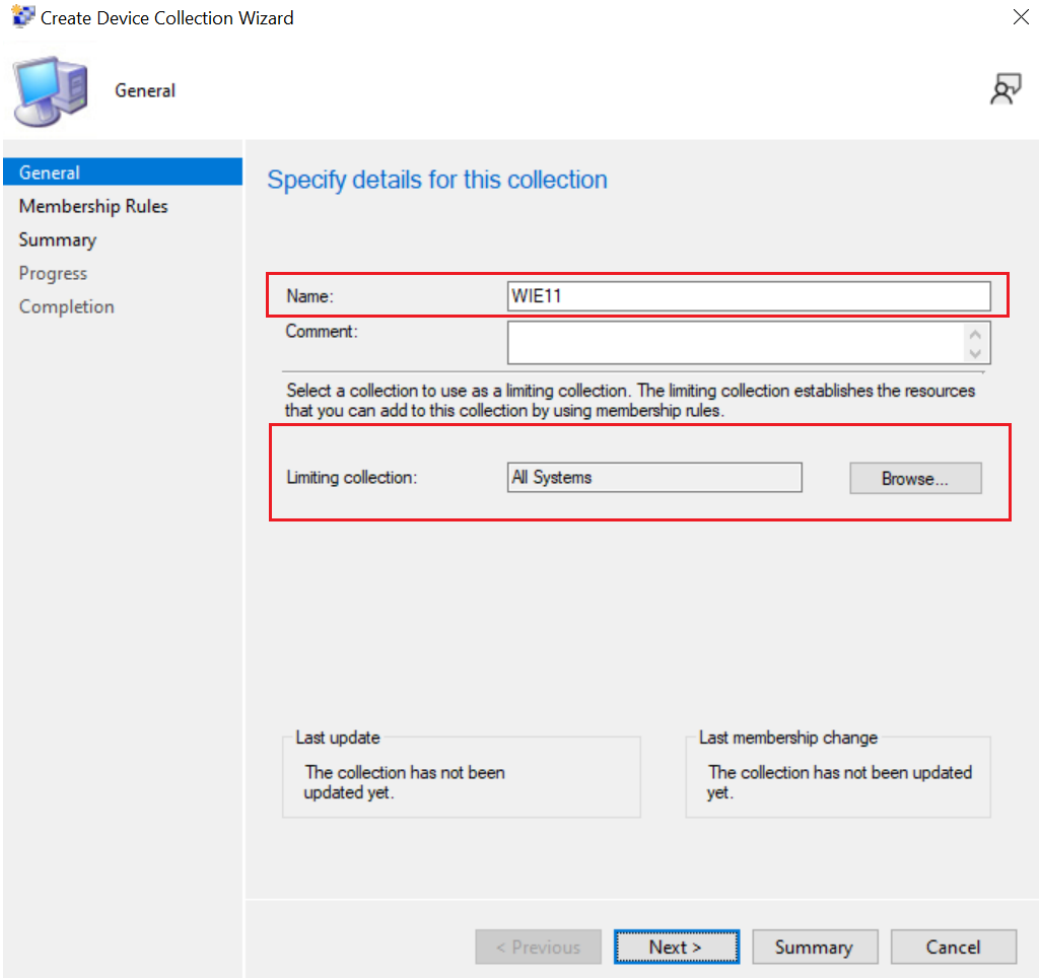


Figure 42. General

8. Click **Next**.

NOTE: Add a rule when multiple clients are available. For more information about rules, see how to create collections in configuration manager in AddMembershipRule.

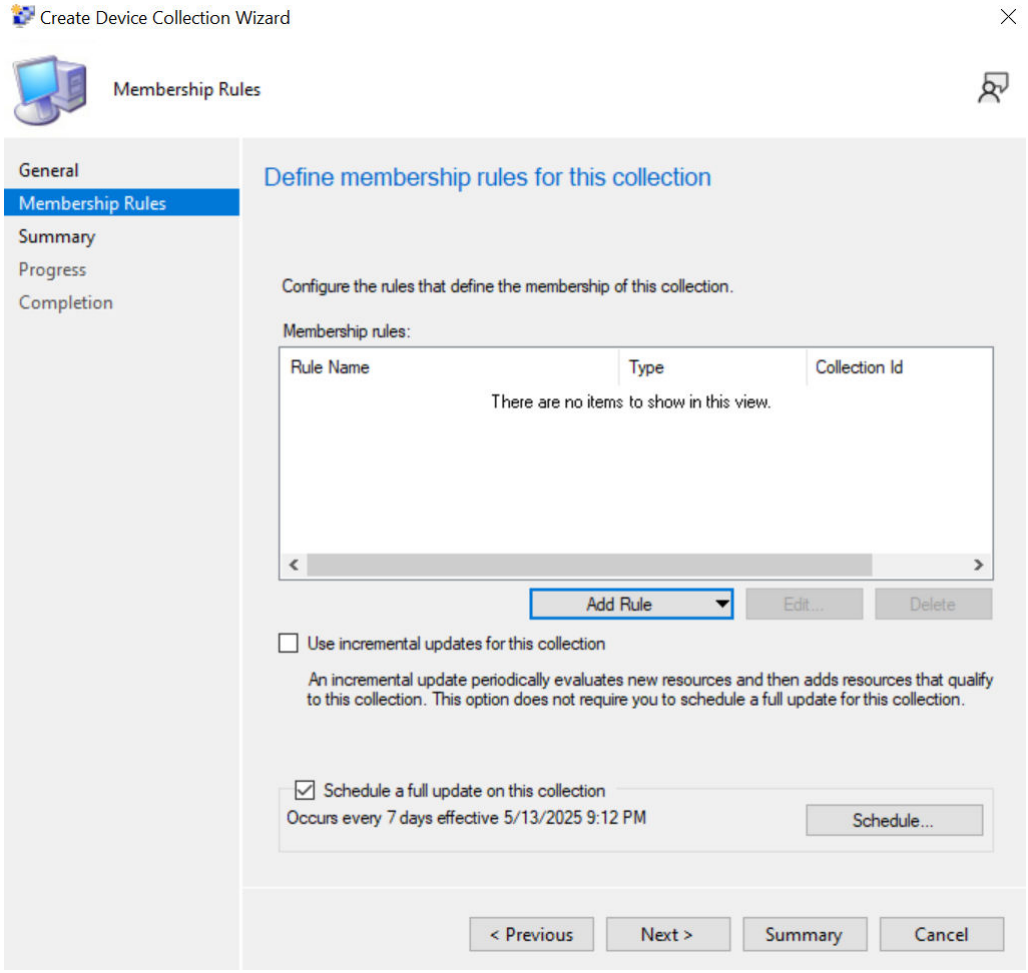


Figure 43. Membership Rules

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

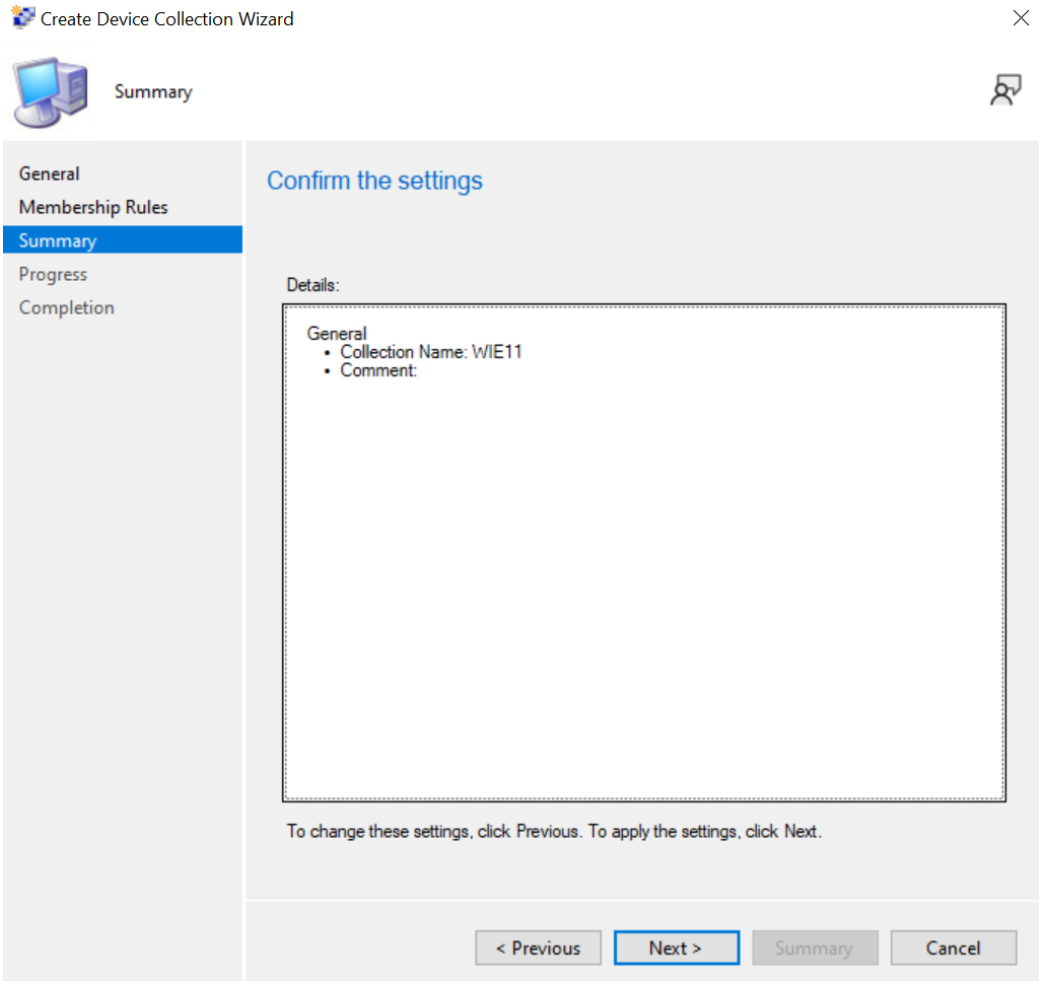


Figure 44. Summary page

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

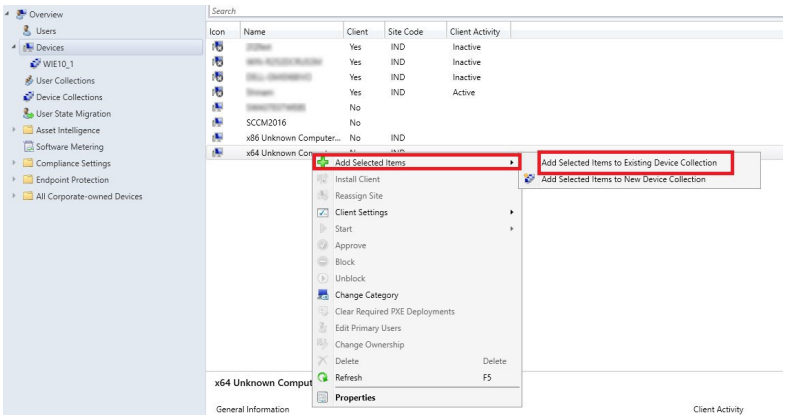


Figure 45. Devices

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

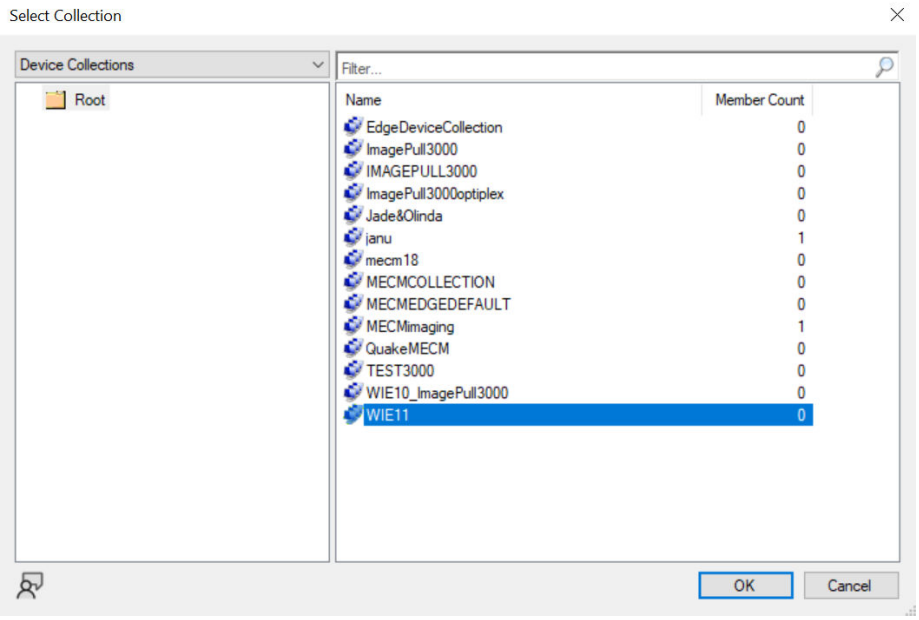


Figure 46. Select device collections

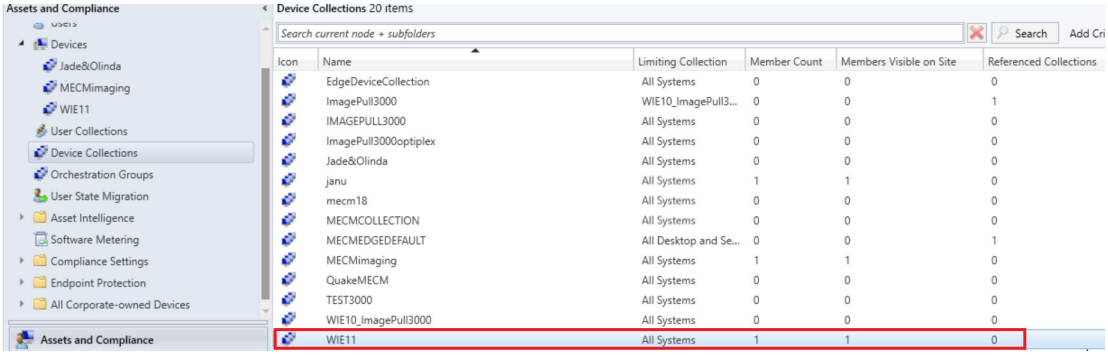


Figure 47. Device collections

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

About this task

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

Steps

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

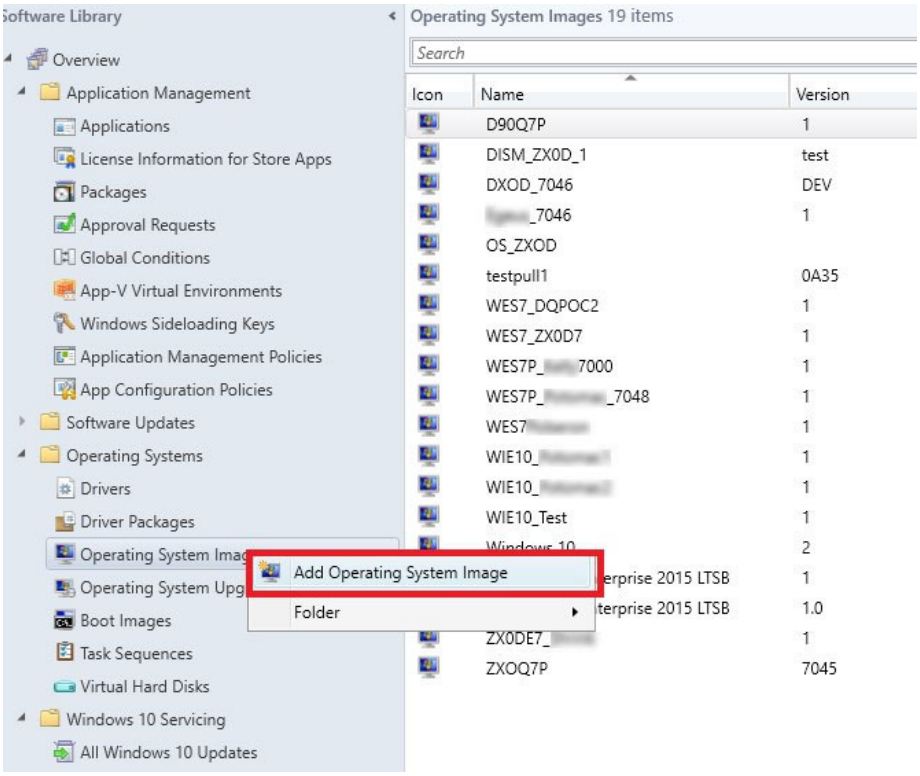


Figure 48. Add operating system image

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

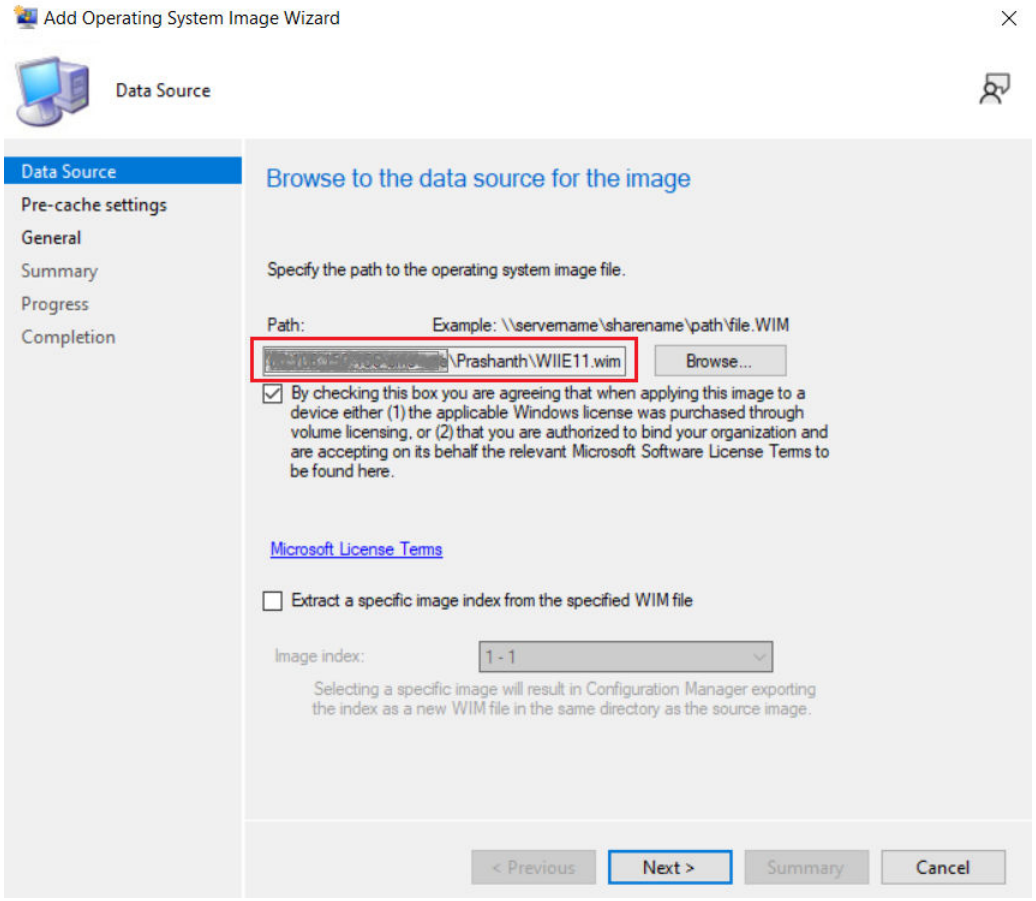


Figure 49. Data source

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:

Steps

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

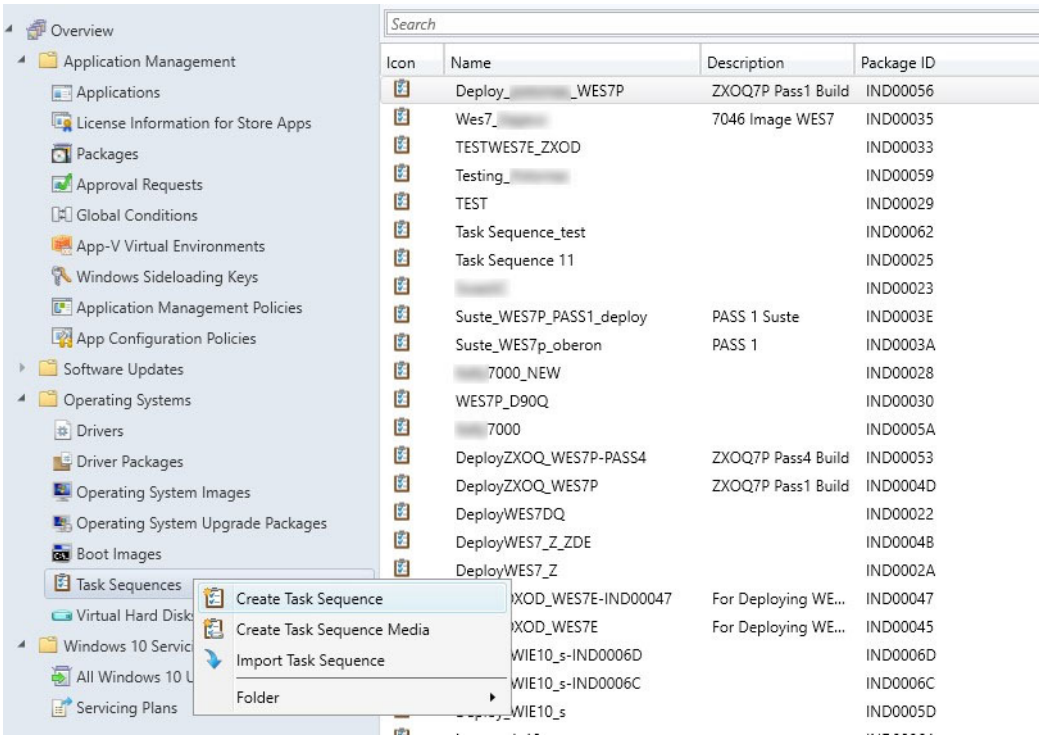


Figure 50. Create task sequence

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

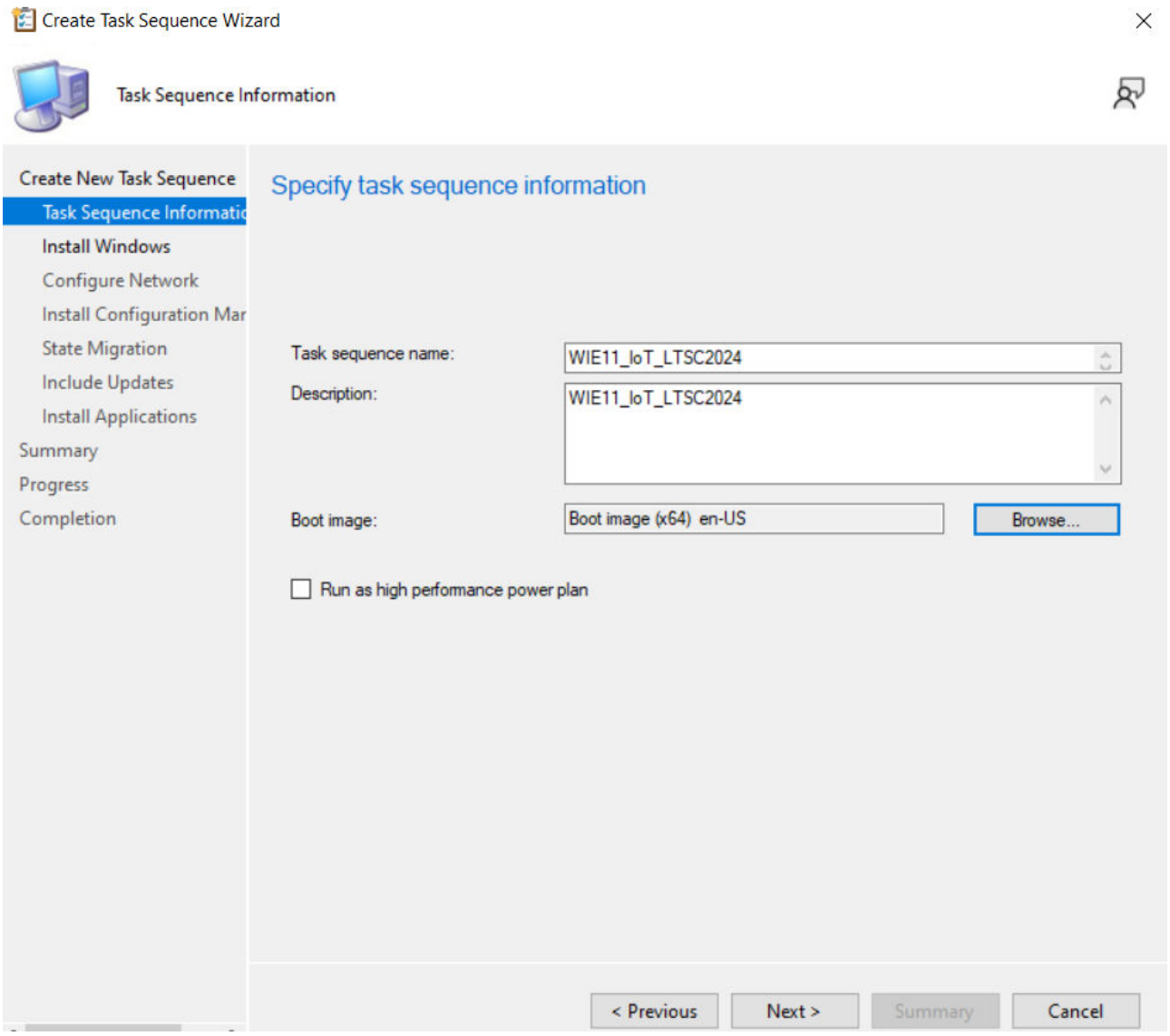


Figure 51. Task sequence information

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

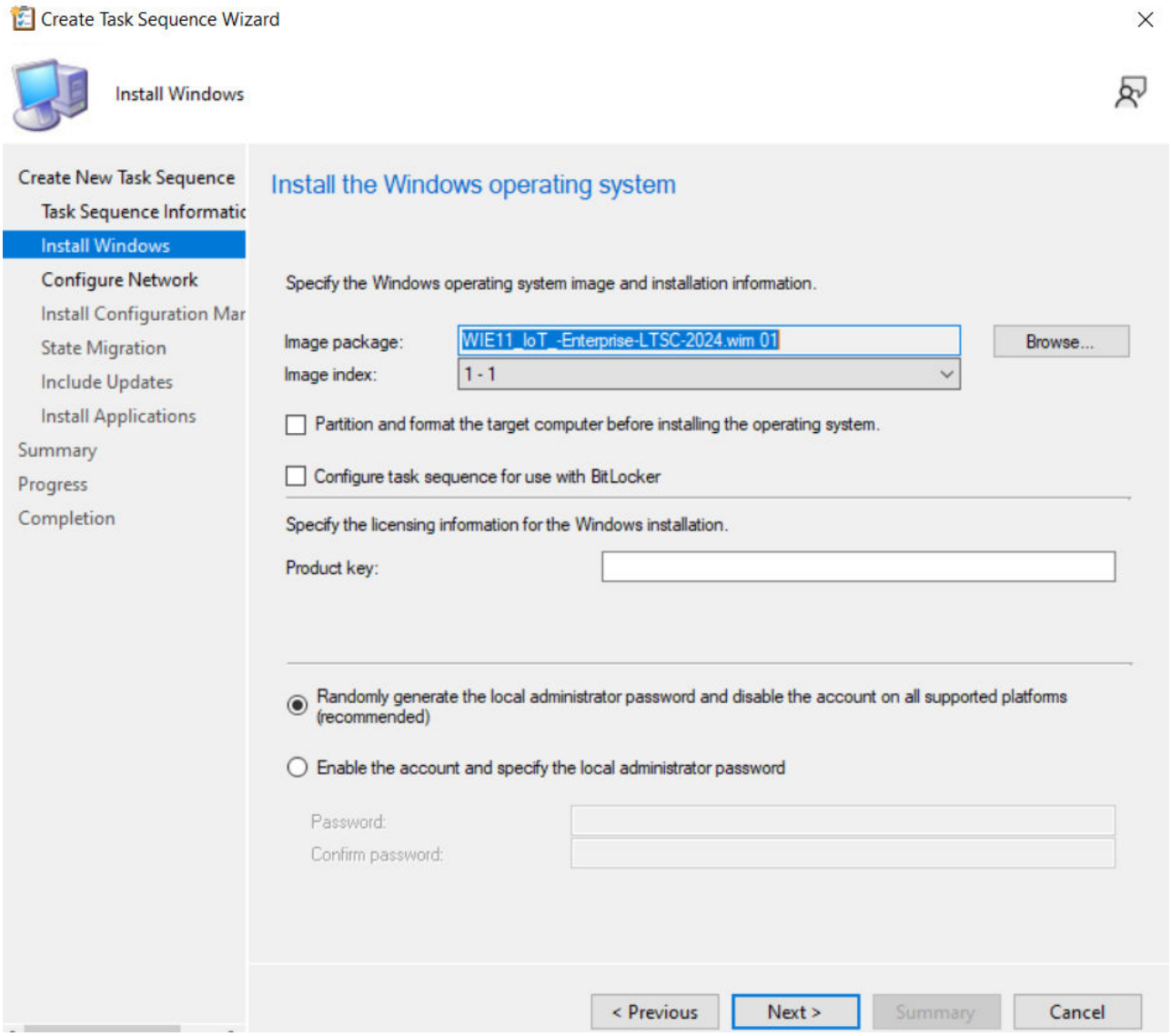


Figure 52. Install Windows

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

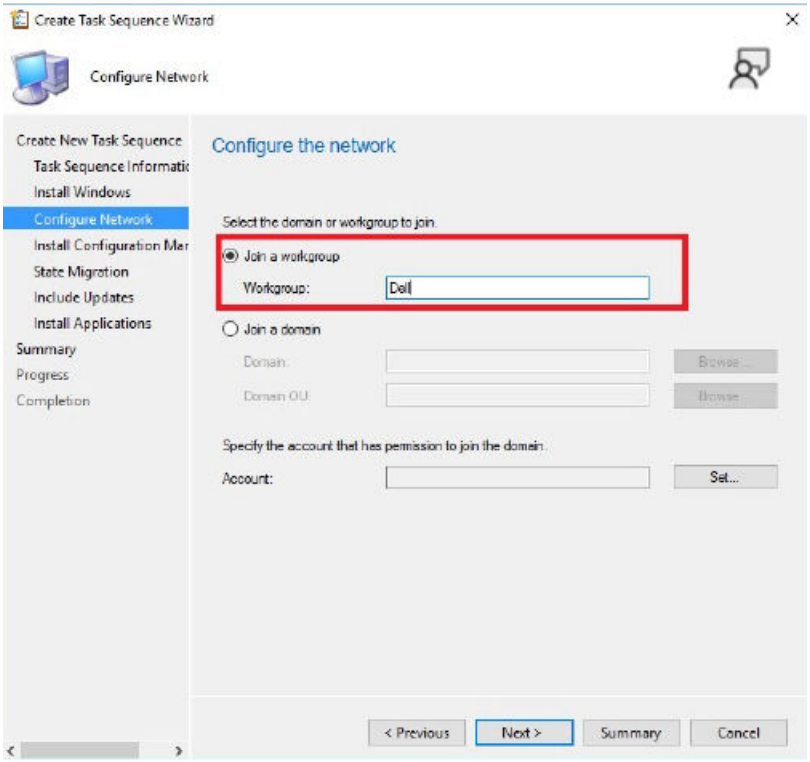


Figure 53. Configure network

7. On the **Install the Configuration Manager client** page, click **Browse**, and select **Configuration Manager Client Package** and then click **Next**.

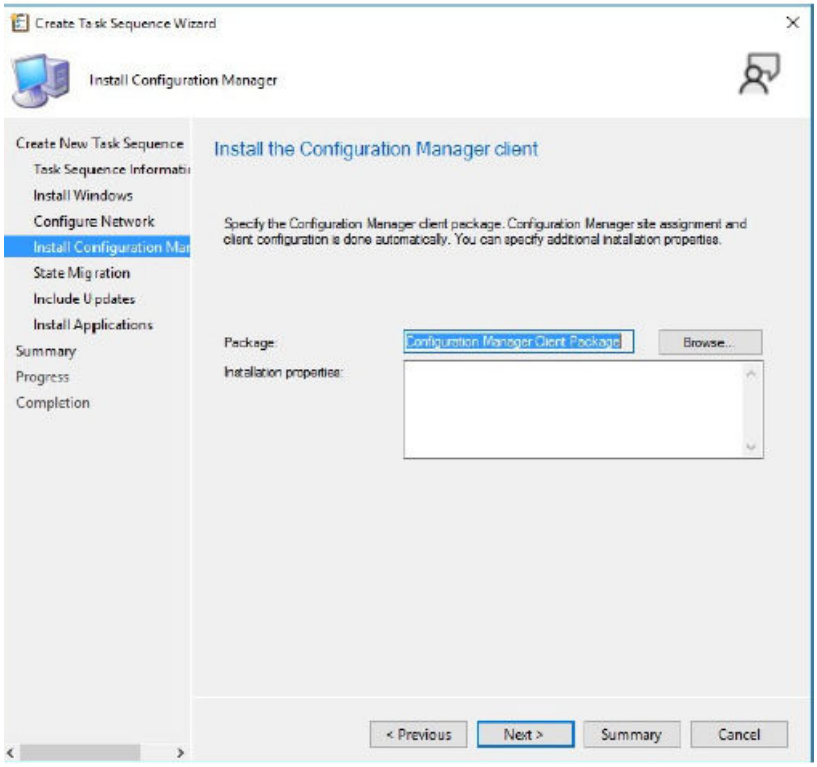


Figure 54. Install configuration manager

8. Clear the following check boxes and click **Next**:
   - Capture user settings and files

- Capture network settings
- Capture Microsoft Windows settings

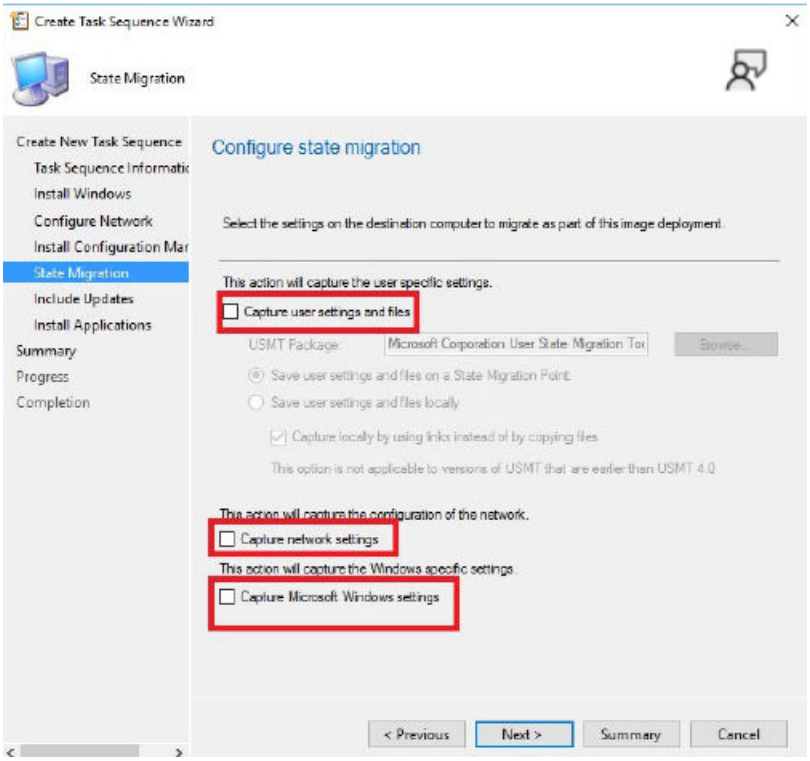


Figure 55. State migration

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

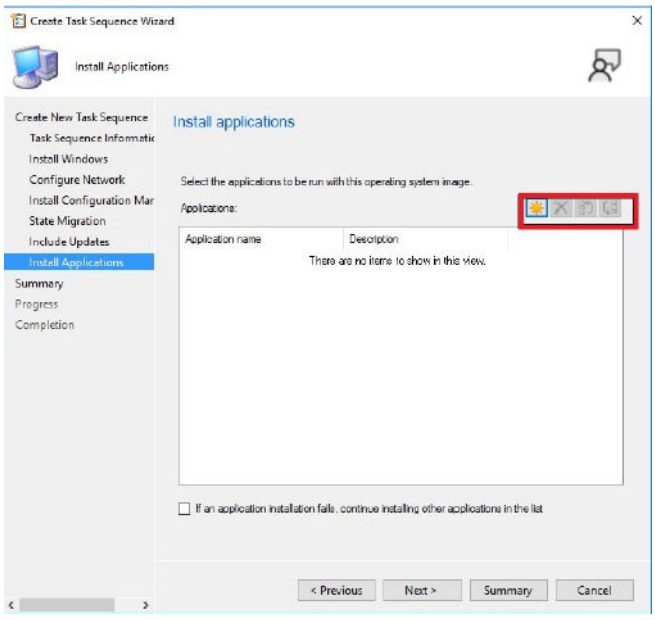


Figure 56. Install applications

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

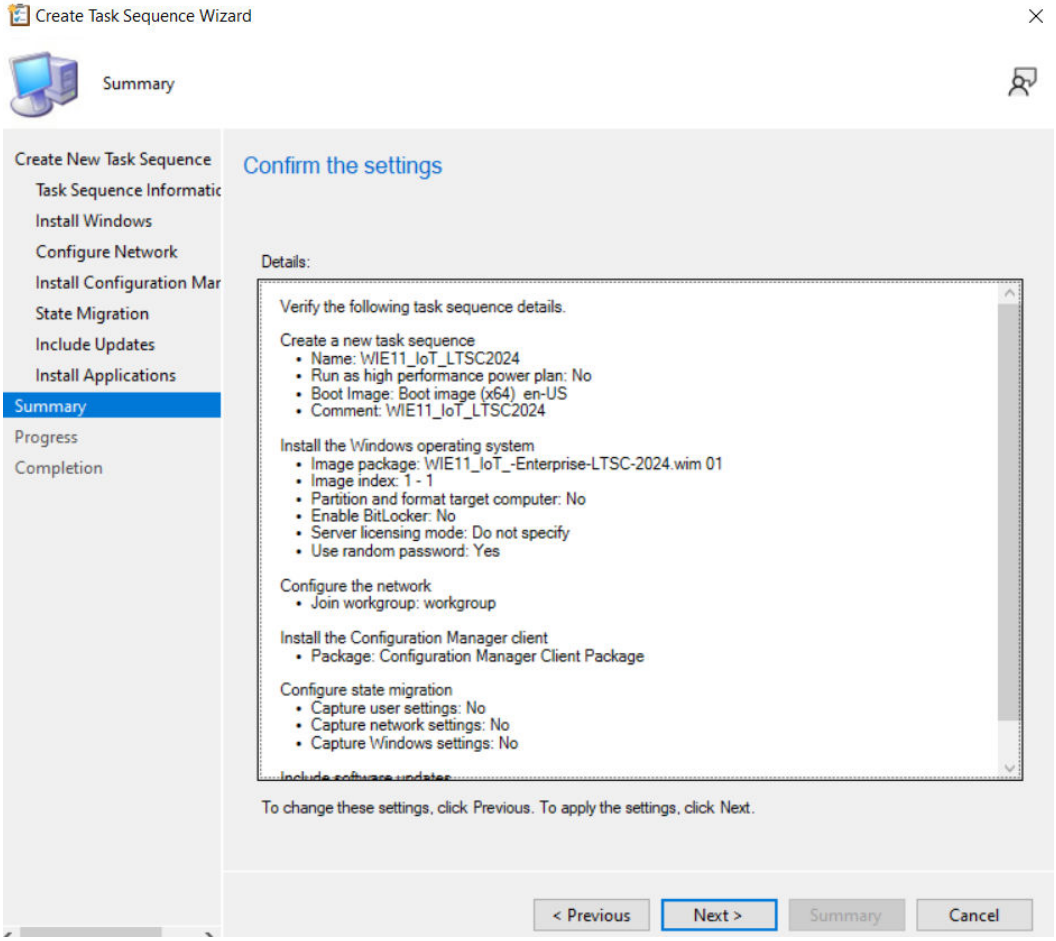


Figure 57. Summary page

The selected settings are applied.

12. Click **Close**.

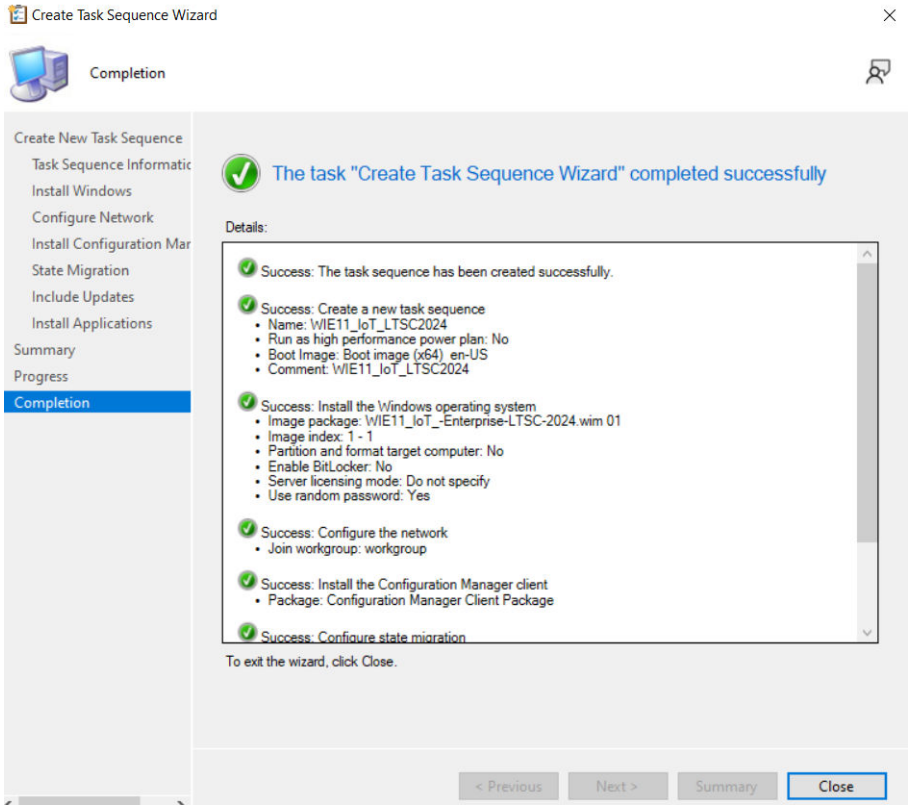


Figure 58. Completion

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

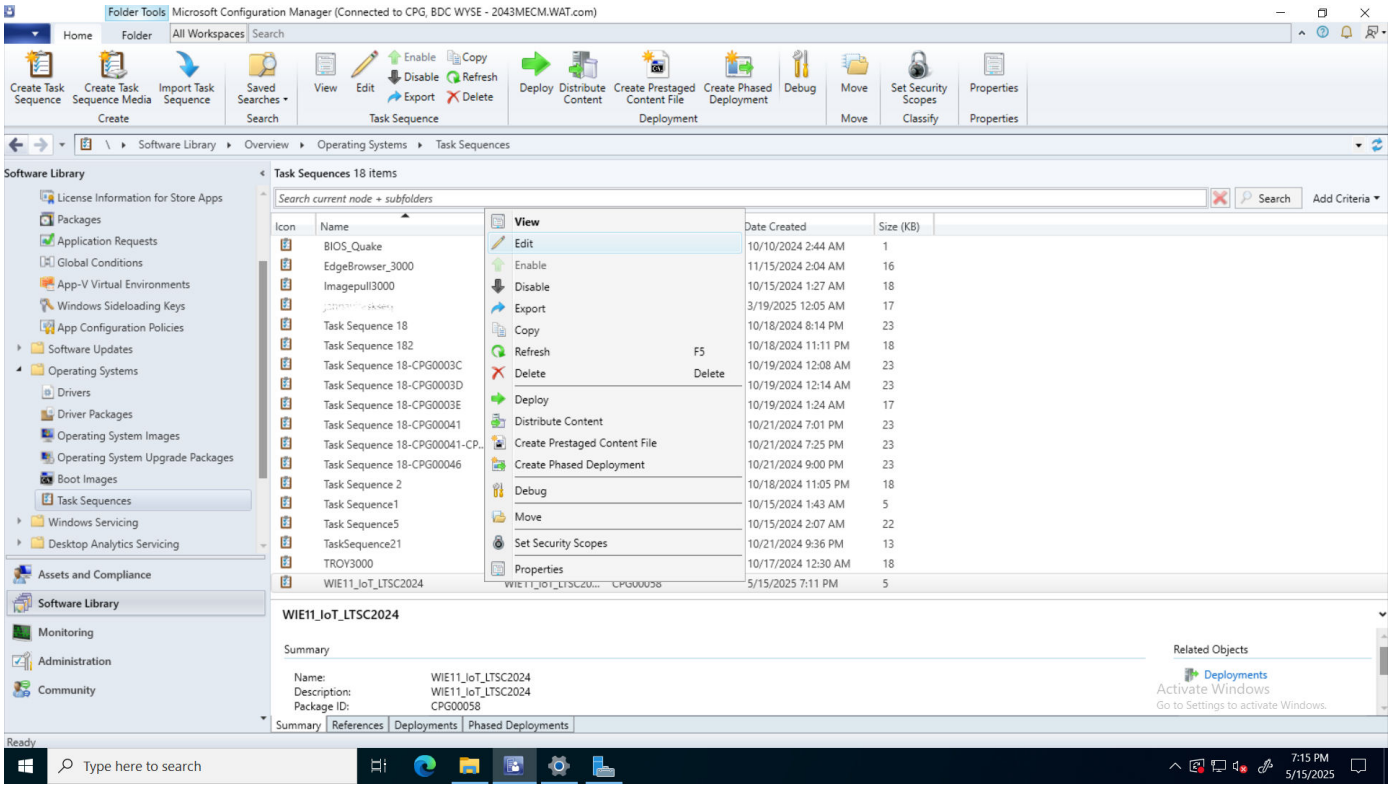


Figure 59. Task sequence

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

15. In the **Properties** tab, enter **`Restart in Windows PE`** in the **Name** field.

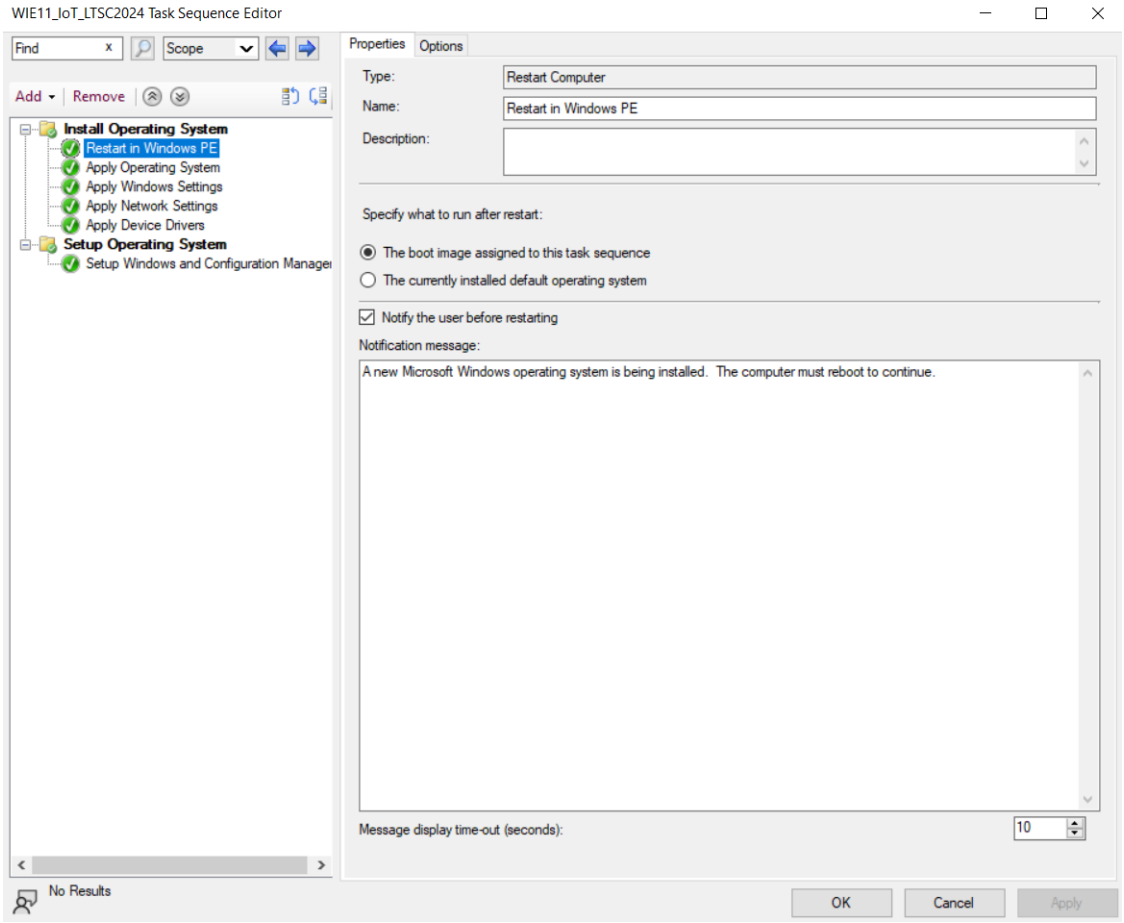


Figure 60. Restart in Windows PE

16. Click **Apply** and then click **OK**.
17. Click **Install Operating System**, and click **Add**.
18. In the **Properties** tab, enter **`Mapping`** in the **Name** field.

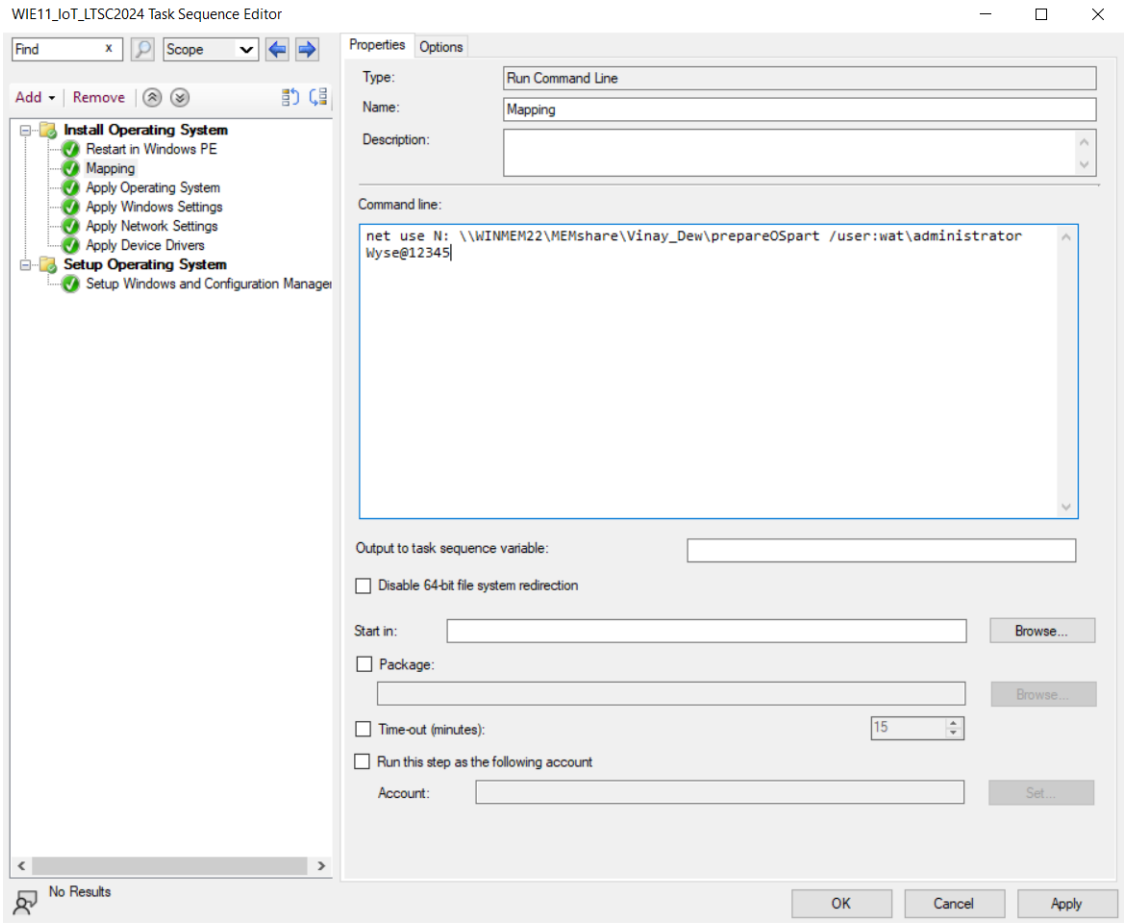


Figure 61. Mapping

19. Enter the command line to map the network drive of the SCCM Server share where the **PrepareOSPartition.wss** files are copied.

    NOTE: The **PrepareOSPartition.wss** file is at `C:\Windows\Setup\Tool` on the client. Edit the **PrepareOSPartition.wss** file to change the partition number to `3`.

20. Click **Apply** and then click **OK**.
21. Click **Install Operating System**, and click **Add**.
22. In the **Properties** tab, enter `Format` in the **Name** field.

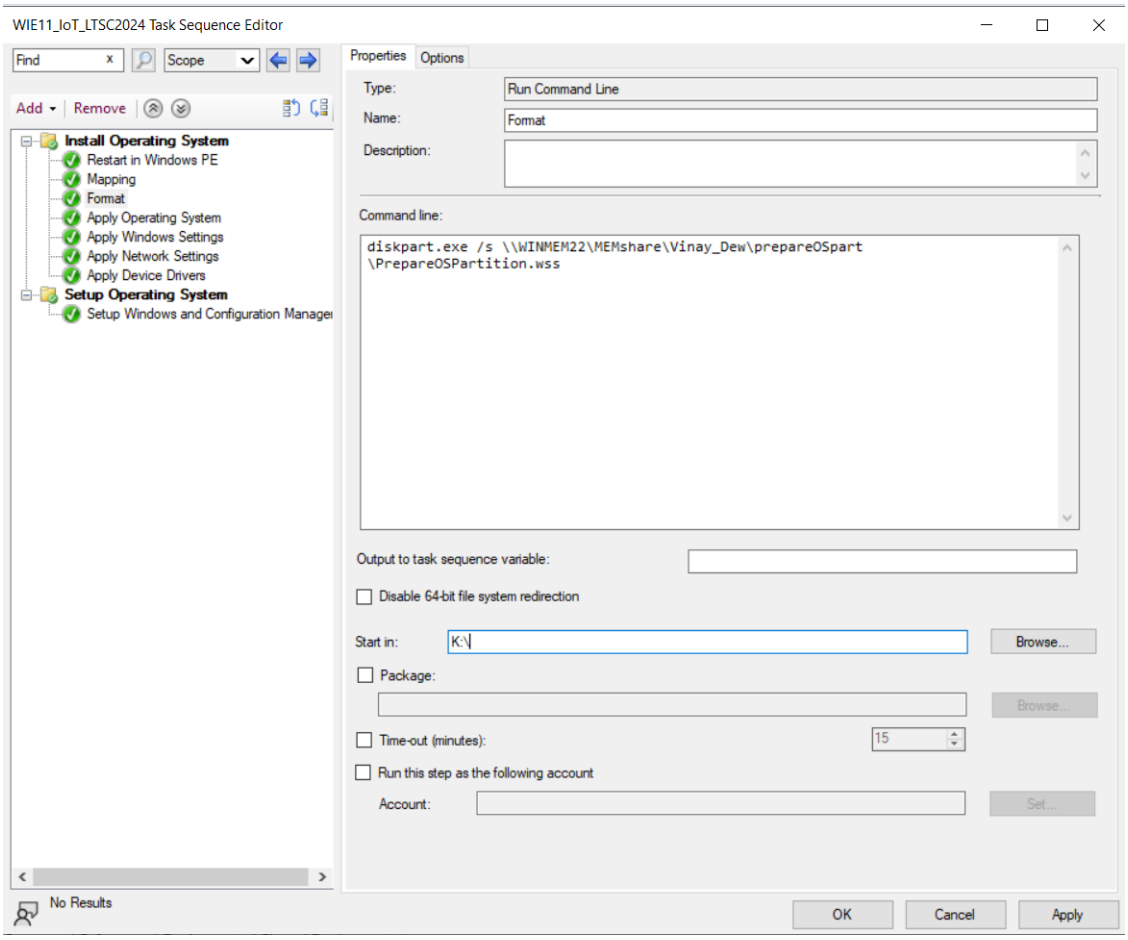


Figure 62. Format

23. Enter `Diskpart.exe /s PrepareOSPartition.wss` in the **Command line** field.
24. Enter **`K:\`** in the **Start in** field.
25. Click **Apply** and then click **OK**.
26. Click **Install Operating System** and select **Apply Operating System**.
27. Click the **Properties** tab, and do the following:
    a. Click the **Apply an operating system from a captured image** radio button.

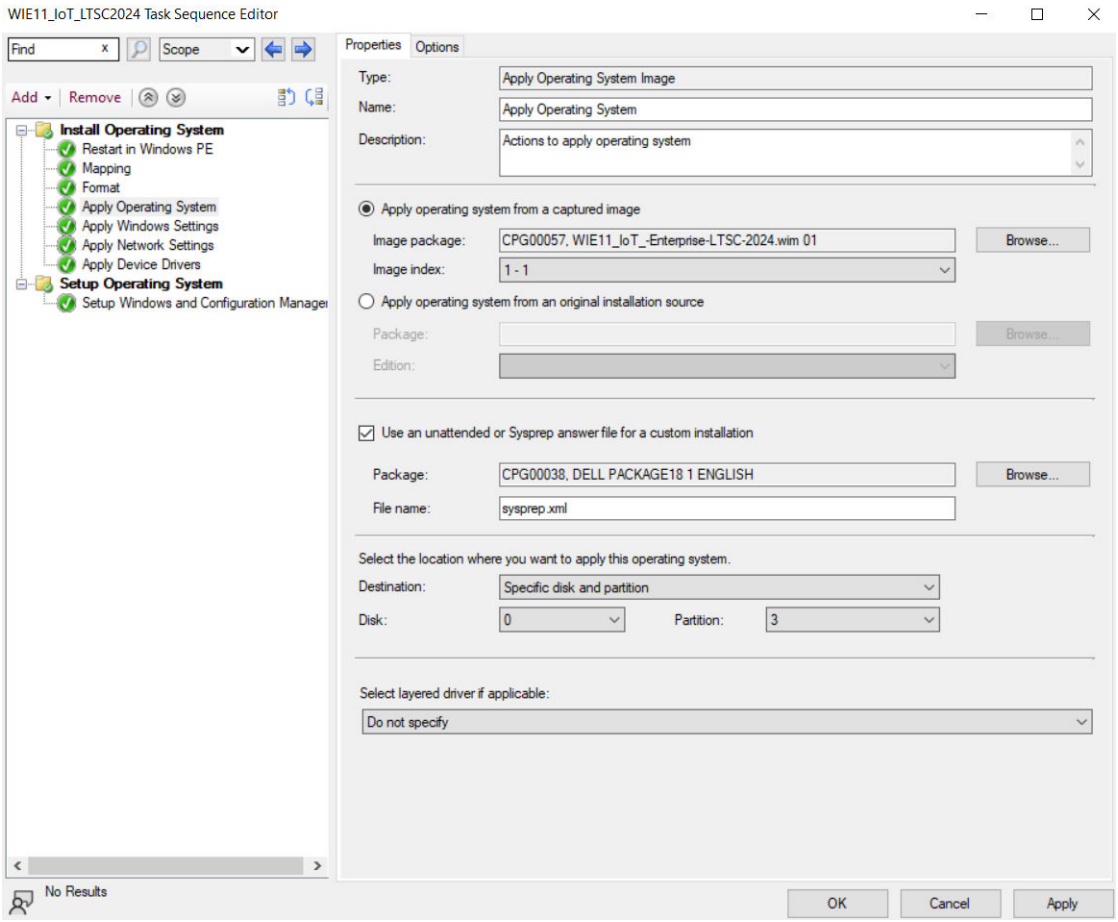


Figure 63. Apply Operating System

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.

   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** checkbox.
e. Browse to the location where you have placed the unattended installation software package that is 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 **3**.
j. Click **Apply** and then click **OK**.

28. Click **Install Operating System**.
29. Select **Apply Network Settings**.

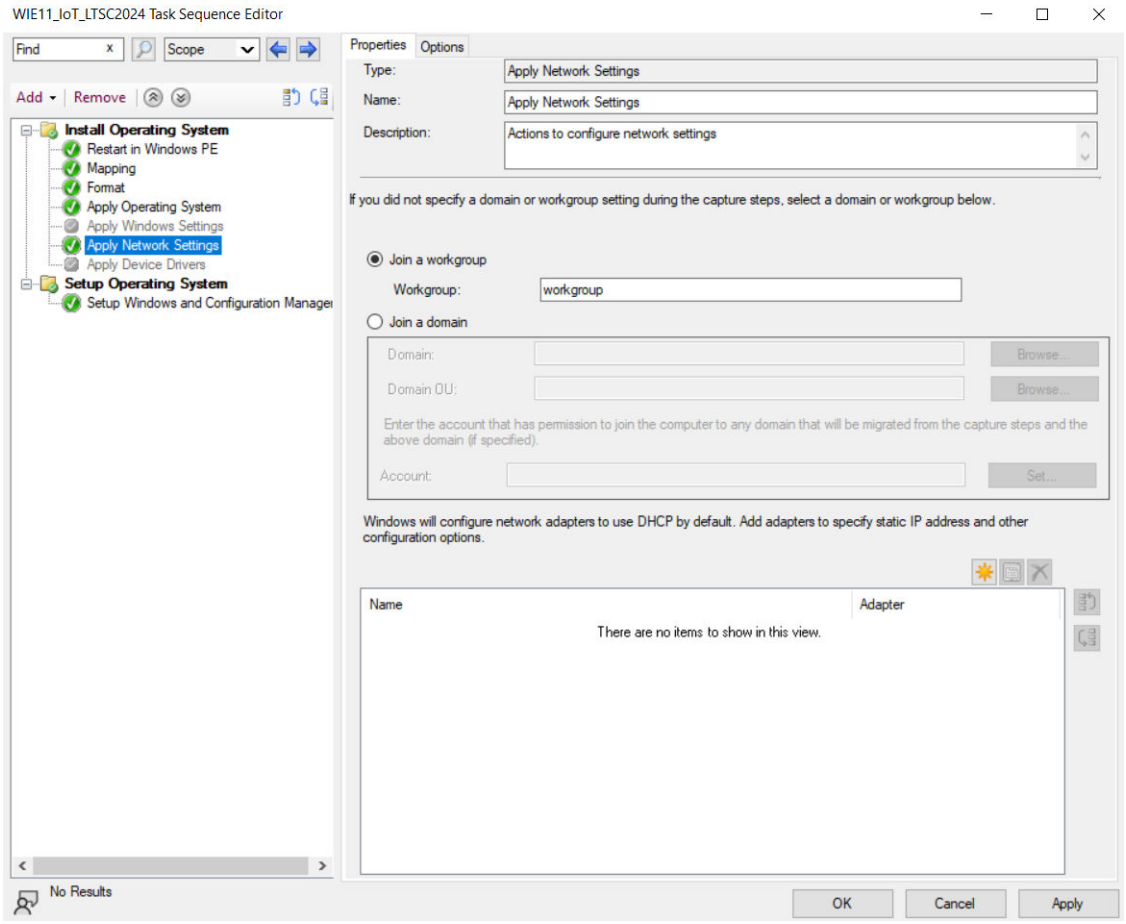


Figure 64. Apply Network Settings

30. Select the **Join a workgroup** radio button and specify the workgroup name.
31. Click **Apply** and then click **OK**.
32. Click **Setup Operating System** and select **Setup Windows and Configuration Manager**.
33. In the Properties tab, enter **`Setup Windows and Configuration Manager`** in the **Name** field.

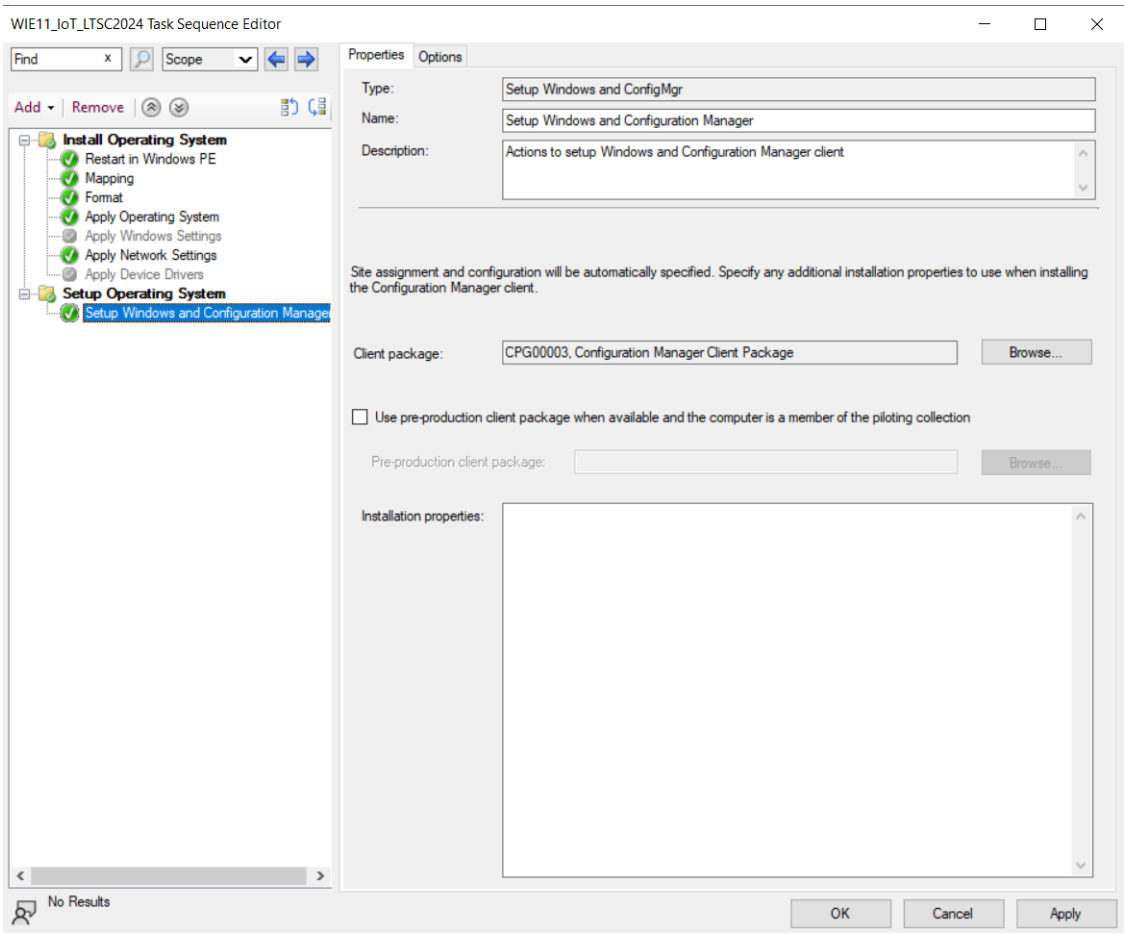


Figure 65. Setup Windows and Configuration Manager

34. In the **Client Package** field, browse and select Configuration Manager Client Package.
35. Click **Apply** and then click **OK**.

Deploying Windows reference image

About this task

To deploy the Windows reference image, do the following:

Steps

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

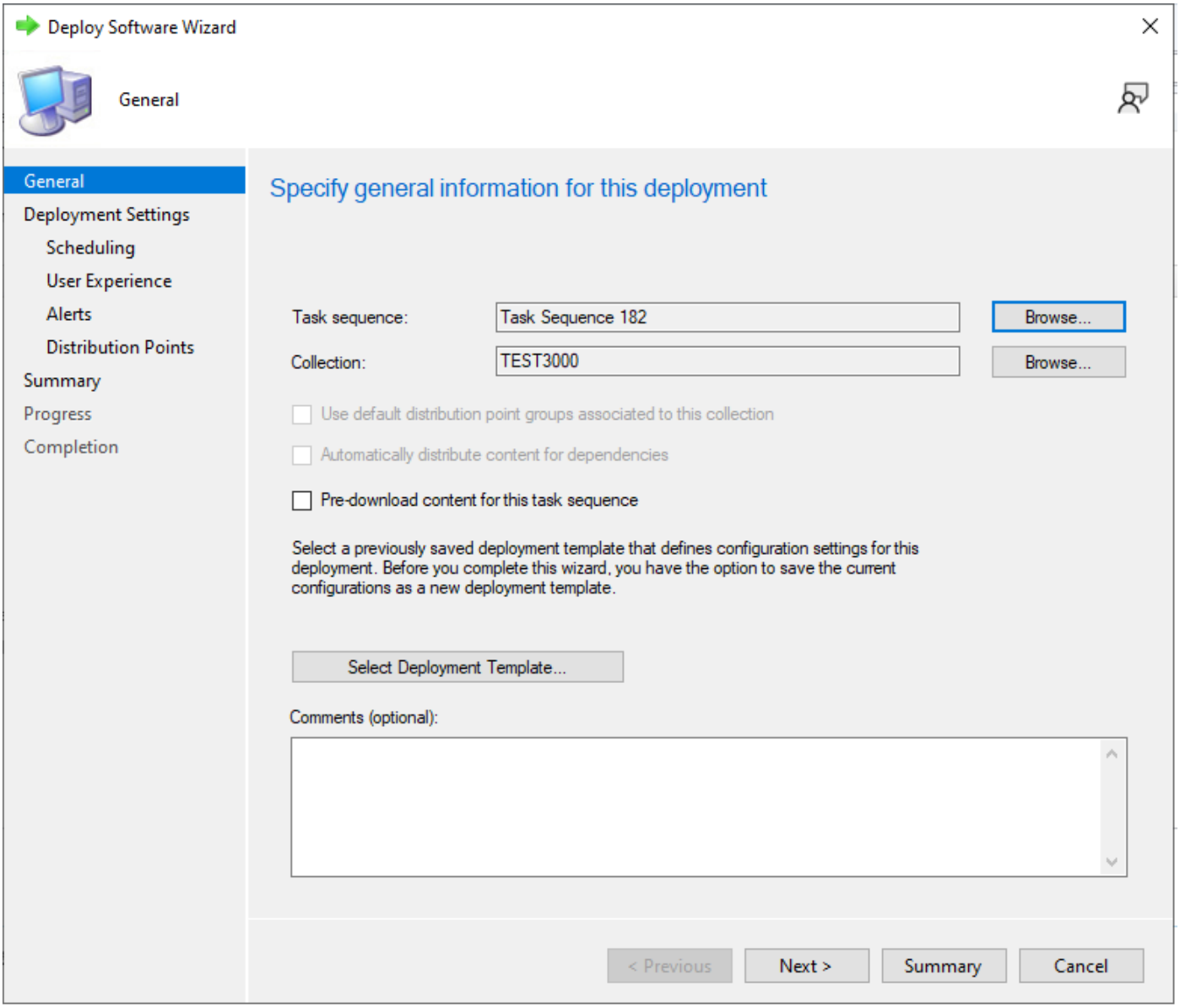


Figure 66. Deploy software wizard

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

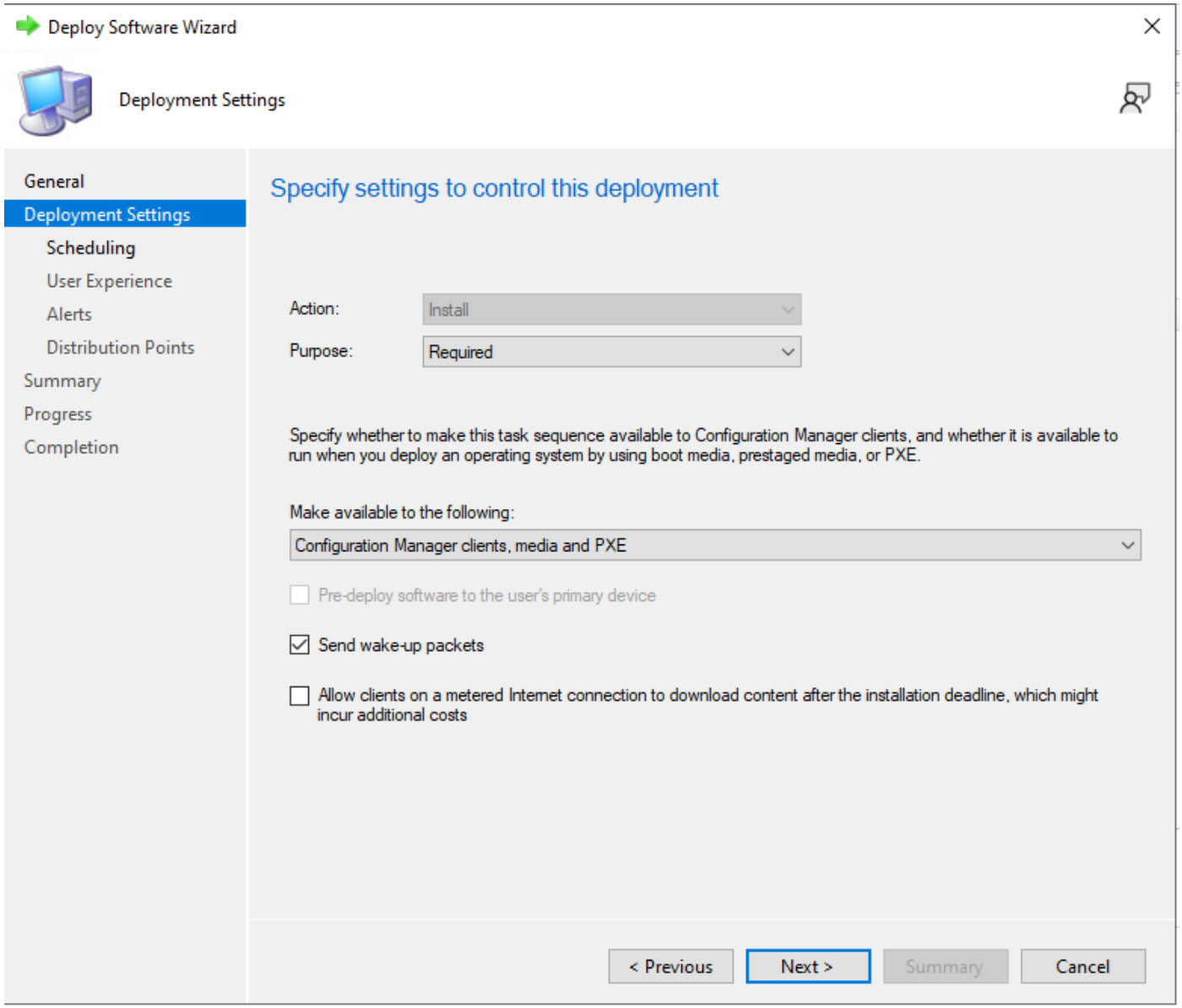


Figure 67. Deployment settings

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

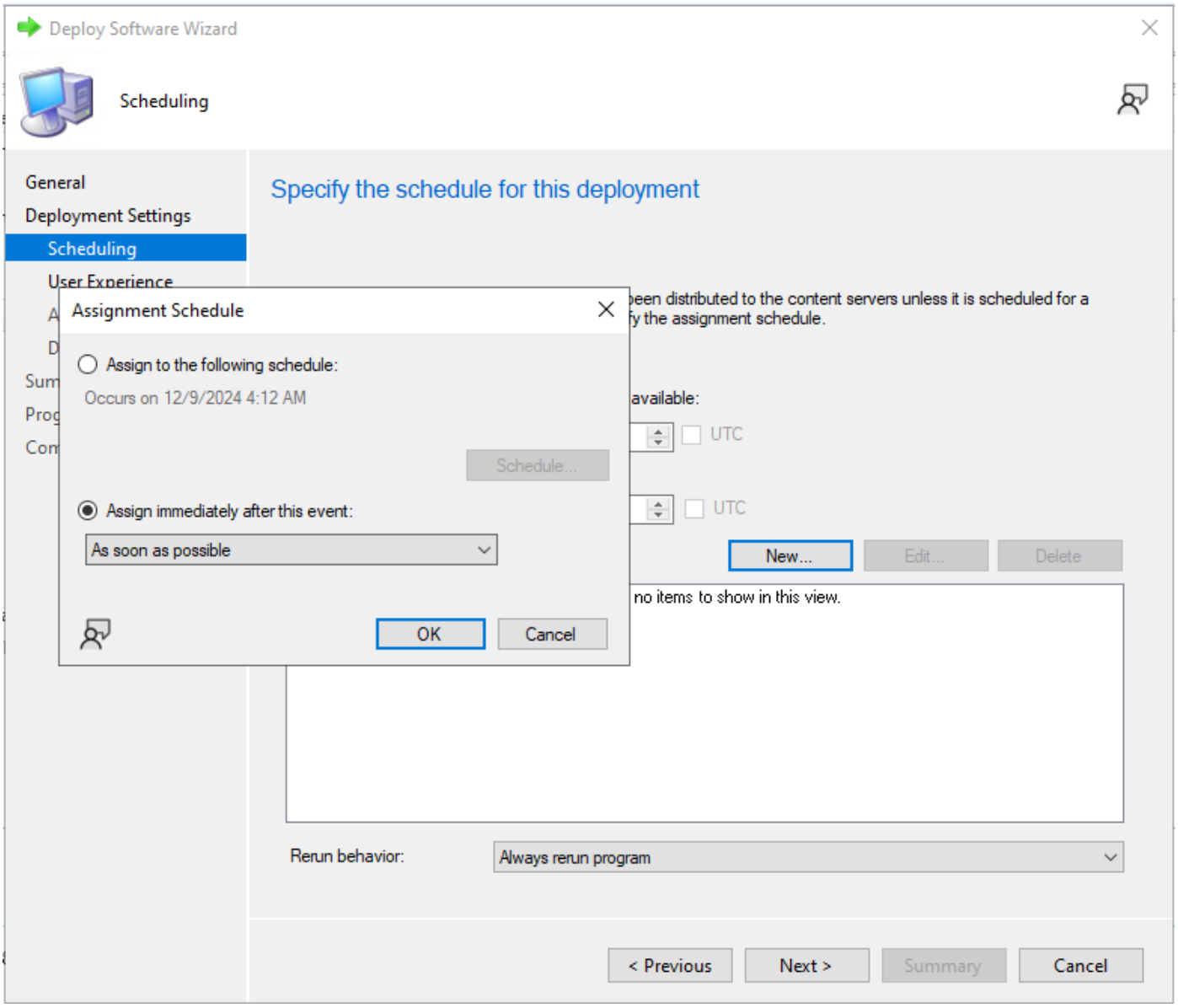


Figure 68. Assignment schedule

The **Assignment Schedule** window is displayed.

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

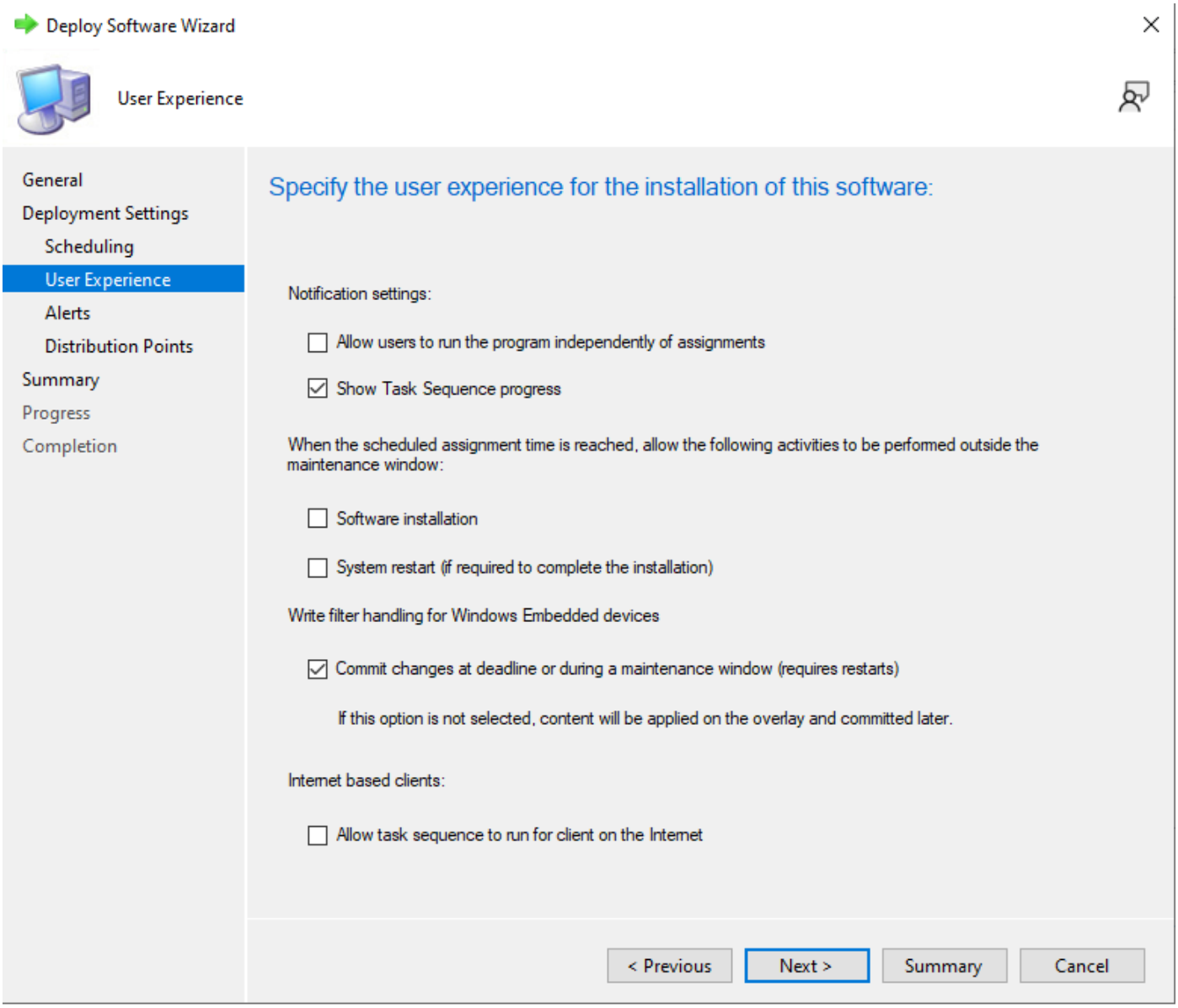


Figure 69. User experience

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 device restarts in the Windows pre-installation environment.

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

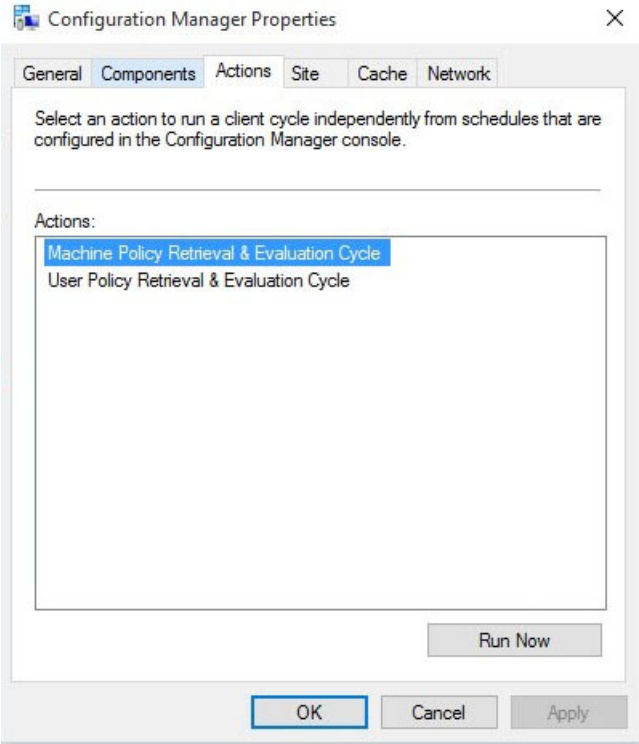


Figure 70. Configuration manager properties

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

Creating software package for unattended installation

About this task

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.

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.

Steps

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

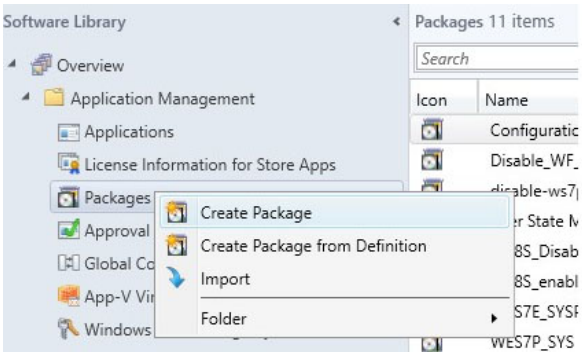


Figure 71. Packages

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

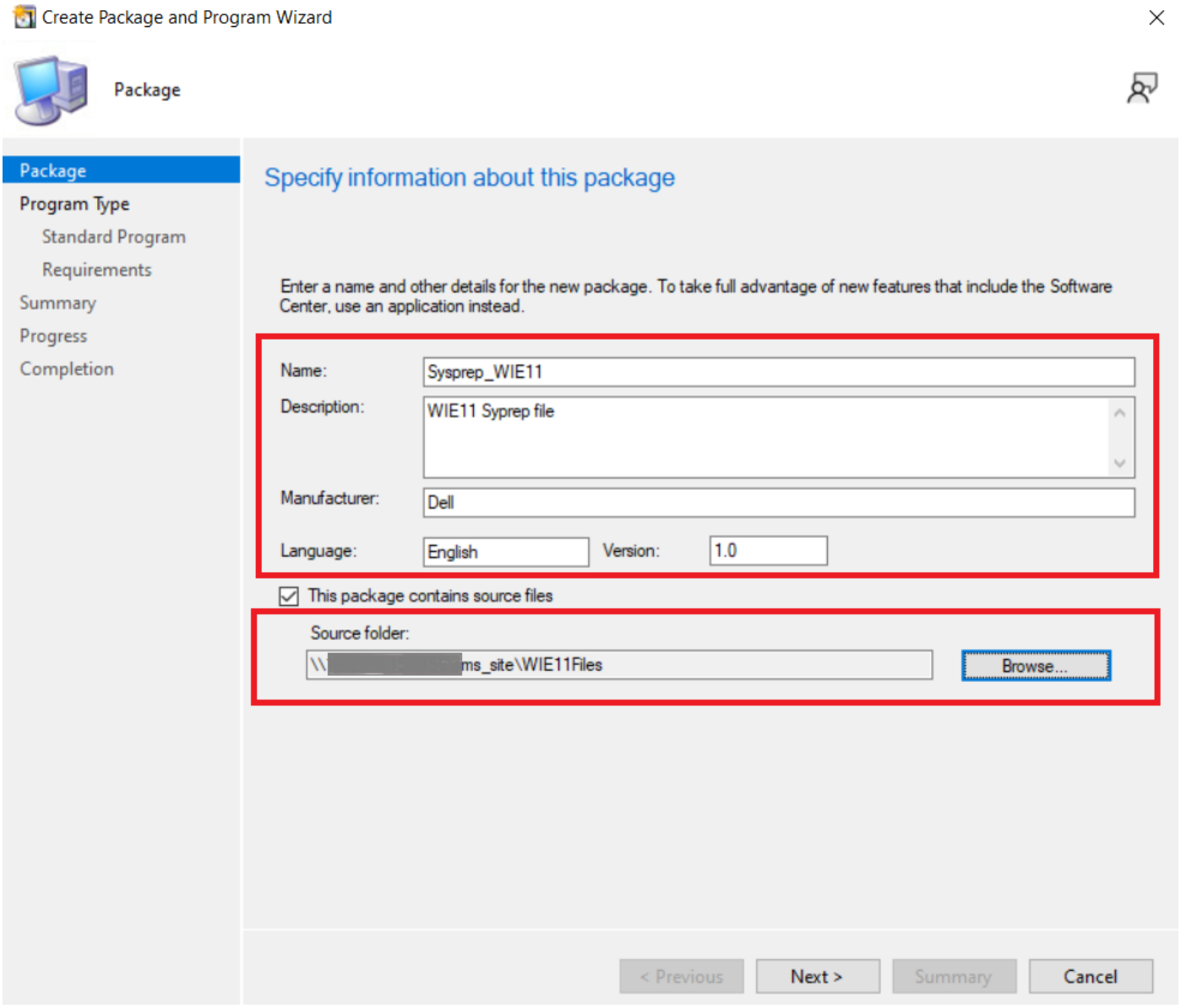


Figure 72. Information about package

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

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

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

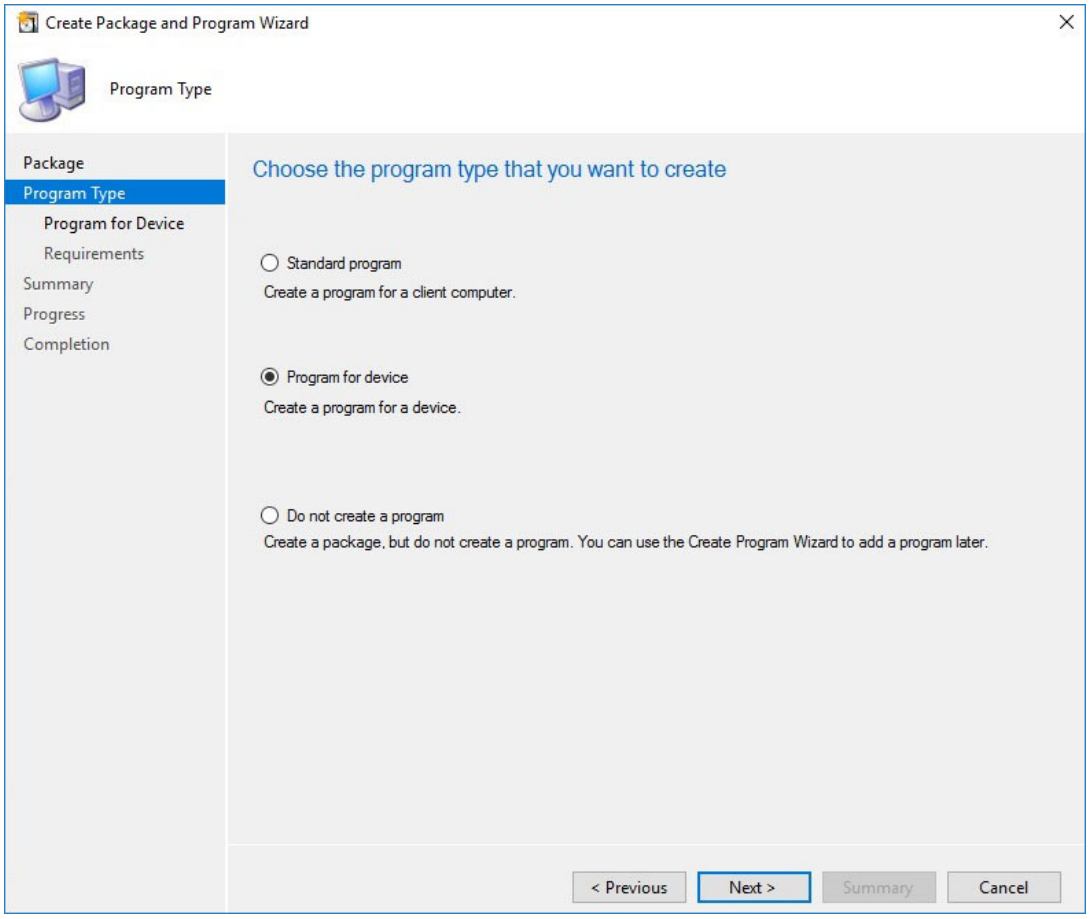


Figure 73. Program type

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

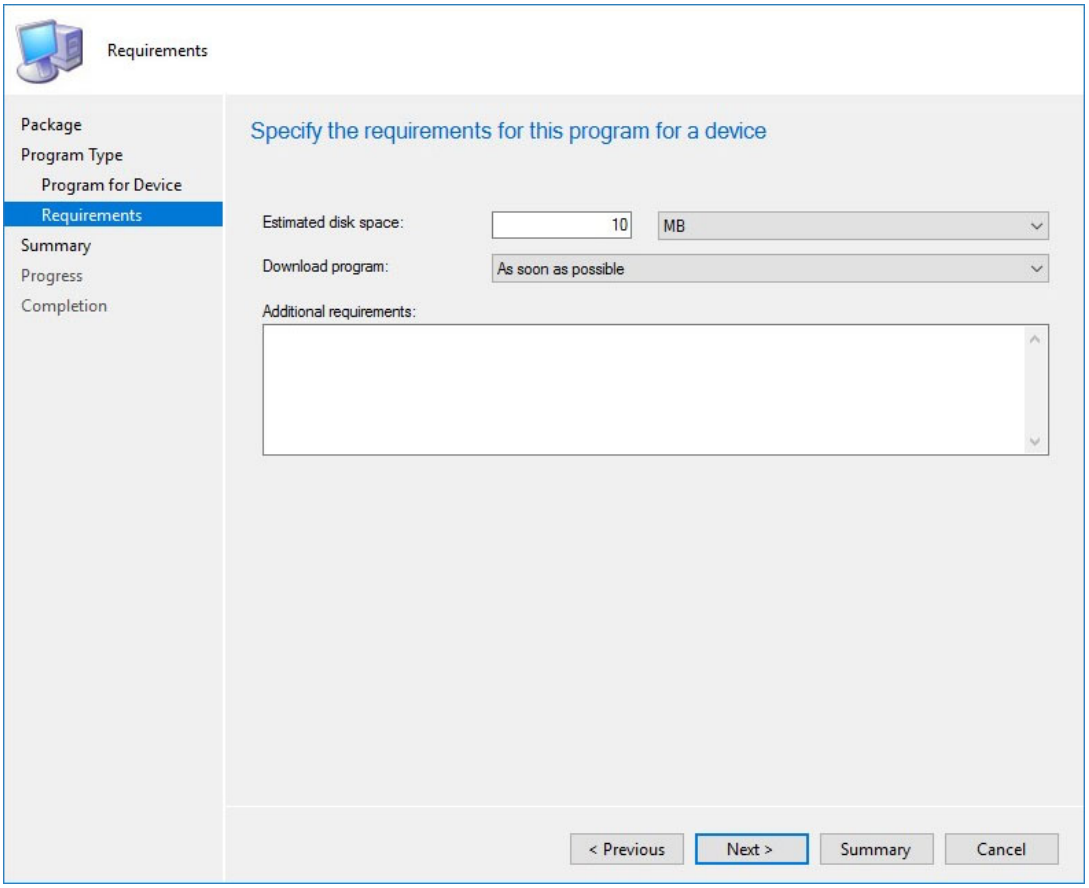


Figure 74. Estimated disk space

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

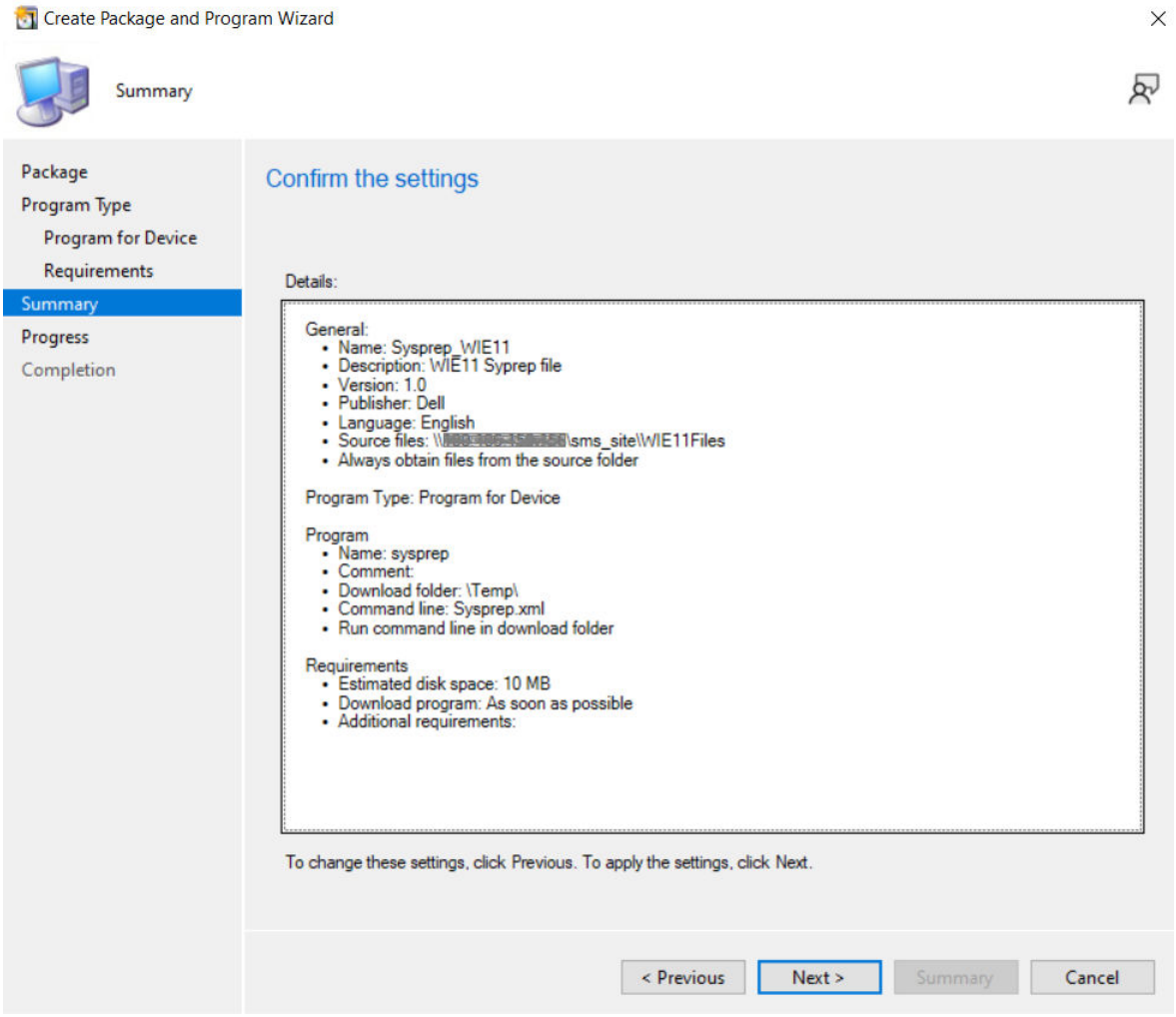


Figure 75. Summary page

The settings are applied.

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

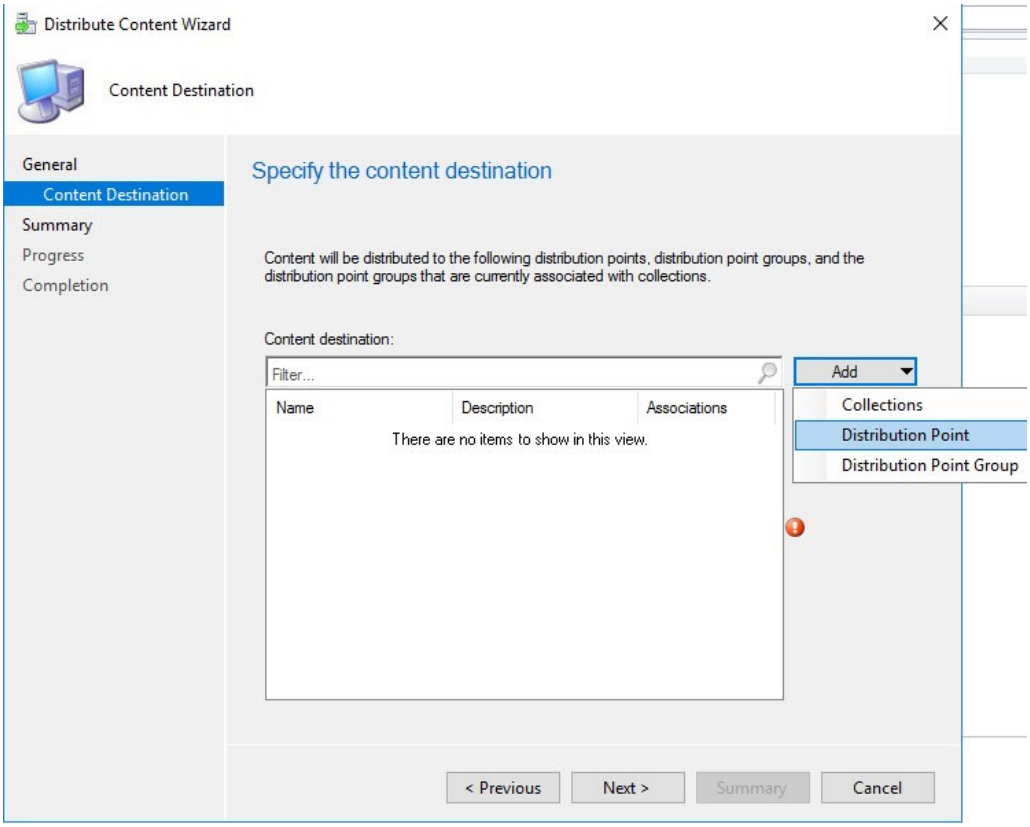


Figure 76. Content destination

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

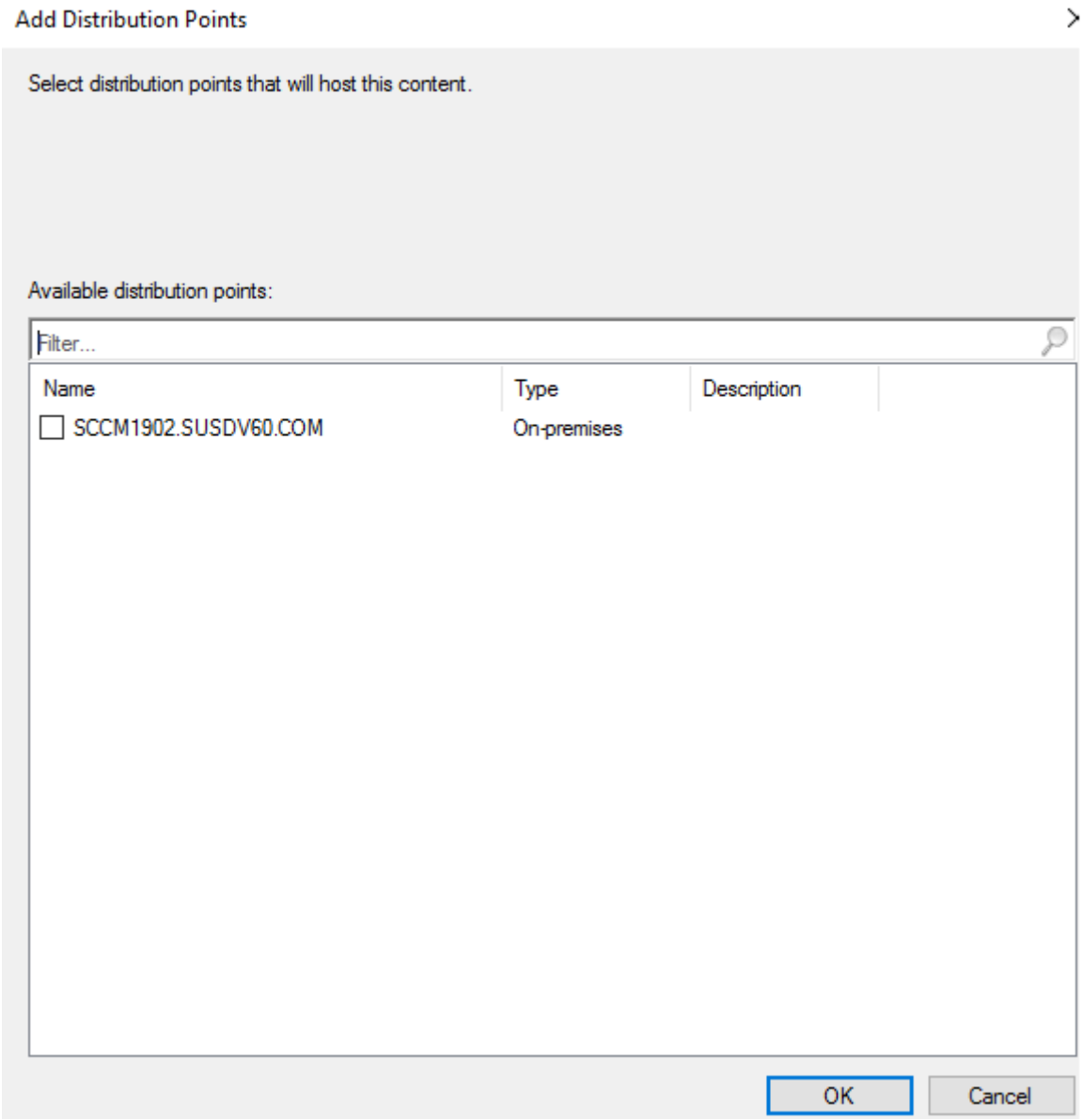


Figure 77. Add distribution points

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

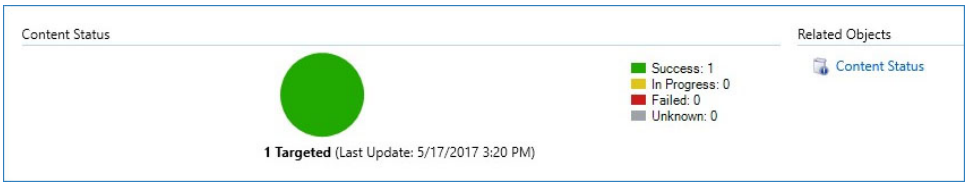


Figure 78. Content status

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

13

Troubleshooting

To view windows and other program messages, use Event Viewer. In the **Component Services** console, click the **Event Viewer** icon from the **Console Root** tree. The summary of all the logs of the events that have occurred on your device is displayed. For more information, see Event Viewer.

NOTE: Event logs are cleared when the device reboots due to Write Filter.

Capturing logfiles

To collect different types of logs for an application, configure the `DebugLog.xml` file. Modify log levels within this file to specify the required log details. Log files are generated in the following location: `C:\Windows\Logs\<Application name>\Logs`

NOTE: Log file creation is disabled by default.

Configuration of DebugLog XML file

The Debug Configuration Editor (DCE) console application provides tools to manage the `DebugLog.xml` file to commit, exclude, or modify the debug configuration file.

To commit, exclude, or modify the debug configuration file, enter the following commands on the Debug Configuration Editor:

- To commit the file and obtain the log files—`DebugConfigEditor.exe -CommitLog -Path "DebugLog.xml"`. This command commits the file present in the path that is mentioned in `Debug.xml`.
- To exclude the collection of logs from a folder mentioned in the `Debug.xml`—`DebugConfigEditor.exe -ExcludeLog -Path "DebugLog.xml"`.
- To configure the `Debug.xml` file to collect different types of logs—`DebugConfigEditor.exe -UpdateConfig -Path "DebugLog.xml" -LogPath "Path of Log File" -LogFileName "Name of log File" -LogLevel "logLevel"`.

The following table describes the different LogLevel values that can be used:

Table 17. LogLevel values

Value	Description
0	Logs are not captured.
1	Error logs are captured.
2	Warning logs are captured.
3	Error and warning logs are captured.
4	Information logs are captured.
7	All logs are captured.

Request a log file using WMS

Steps

1. Log in to WMS as an administrator.
2. Go to the **Devices** page, and click a particular device.

The **Device Details** page is displayed.

3. Click the **Device Log** tab.
4. Click **Request Log File**.
   An **Alert** window is displayed.
5. Click **Send Command**.
6. After the log files are uploaded to the WMS server, click the **Click here** link, and download the logs.

View audit logs using WMS

Steps

1. Log in to WMS as an administrator.
2. Go to **Events** > **Audit**.
3. From the **Configuration Groups** drop-down list, select a group for which you want to view the audit log.
4. From the **Timeframe** drop-down list, select the time period to view the events that occurred during that time period.
   The **Audit** window arranges the information into a typical audit log-view. You can view the timestamp, event type, source, and description of each event in the order of time.

Viewing events

To view monitoring and troubleshooting messages from Windows and other programs, use the Event Viewer window. In the Component Services console, click the **Event Viewer** icon from the **Console Root** tree. The summary of all the logs of the events that have occurred on your computer is displayed. For more information, see Event Viewer.

NOTE: Event logs are lost on reboot because of Write Filter.

Capture and locate the log files of an application

Locating and capturing log files of an application is a crucial step in debugging, troubleshooting, or monitoring its performance.

You must enable the capture of the log files of different applications using the following methods:

NOTE:

- You must log in as an administrator and enable the capture of log files for various applications when the **WF** is disabled.

- **Wyse Device Agent (WDA)** – To enable the capture of WDA log files, do the following:
  1. Open the WDA application.
  2. Go to **Support** and enable the **Support Mode** option.

  The logs are captured in the `WyseDeviceAgent` log file at `C:\Wyse\WDA`.
- **Wyse Easy Setup** – To enable the capture of Wyse Easy Setup log files, do the following:
  1. Go to **Start** > **Wyse** > **WyseEasySetupAdmin**. The Wyse Easy Setup user interface is displayed.
  2. In **Debug Log**, click **Enable DebugLog**.

  The logs are captured in `C:\Wyse\WDA\WyseEasySetup`.
- **Application Launch Manager (ALM)** – To enable the capture of ALM log files, do the following:
  1. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator.**
  2. On the left navigation bar, go to **UTILITIES** > **Application Launch Manager**.
  3. Select the **Enable DebugLog** option.

  The logs are captured in the `ALMLog` log file at `C:\Wyse\WAPPS\ALM`.
- **Extra Data Cleanup Manager (xDCM)** – To enable the capture of xDCM log files, do the following:
  1. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
  2. On the left navigation bar, go to **UTILITIES** > **Extra Data Cleanup Manager**.
  3. Select the **Enable DebugLog** option.

  The log files are captured in the `XDCMLog` folder at `C:\Wyse\WAPPS\XDCM`.

The log files that are related to imaging, custom Sysprep, and Dell Application Control Center installation are created at `C:\Wyse\WAPPS`.

Viewing and exporting operating system image manifest files

A manifest file is an xml document which contains metadata about the operating system image. By comparing the current manifest with the original factory manifest, you can identify changes made to the device. The following are the two types of manifest files that are based on the source of data collection:

Table 18. Manifest files

Manifest Source	Installed Products	QFE	Drivers
Current Manifest	Yes	Yes	Yes
Factory Manifest	Yes	Yes	Yes

Installed products, QFE, and driver details from current and the factory manifest files can be compared to find the change on the device regarding the installed applications, QFEs, and drivers respectively.

View and export operating system image current manifest information

Steps

1. Log in to the device as an administrator.
2. Disable the **WF**:

   Double-click the **Dell Wyse WF Disable** icon on the desktop.

   The Write Filter is disabled and the device restarts.
3. Log in as an administrator.
4. Right-click the **Application Control Center** shortcut icon on the desktop and select **Run as administrator**.
   The **Application Control Center** window is displayed.
5. On the left navigation bar, go to **UTILITIES**.
6. In the **Capture Manifest** section, click **Export Support Data**.
   The data is exported to the default path `C:\Wyse\WAPPS\DellTCASupportInfo\Logging\`.

   NOTE: To choose a custom folder, select **Custom Path** and browse to the required folder.

View operating system image factory manifest information

Steps

1. Log in to the device as an administrator.
2. Go to `C:\Windows\Setup\Tools`.
   The `BuildContent` folder contains the factory manifest of the device.
3. View the information of the operating system image manifest.
   - To view the information of the installed products in the factory at the time of shipment, go to **Apps** > **InstalledProducts xml file**.
   - To view the information of the QFEs installed in the factory at the time of shipment, go to **Qfe** > **QFE xml file**.
   - To view the information of the recently installed drivers manifest information, go to **Drivers** > **Drivers xml file**.

   NOTE:
   - You can compare the **InstalledProducts**, **QFE**, and **Drivers** .xml files that are generated through the Application Control Center with the .xml files present in the `C:\Windows\Setup\Tools\BuildContent` folder. This comparison helps you identify changes that are related to the installed applications and QFEs.
   - You can share the **support data** and the **build content** data with the support team during troubleshooting.

Error message while importing Wyse Easy Setup configurations from WMS

The following types of warnings can be displayed while importing Wyse Easy Setup configurations from WMS:

- **Imported <device type> policies will be applied to group <group name>**—This warning is displayed when you import the device type configurations to a group that does not contain any of these device type configurations.
- **<Device type> policies already exists for the <group name> group. Existing <device type> policies will be removed and imported policies will be applied**—This warning is displayed when you import the device type configurations to a group that contains the device type configurations.
- **Importing policies from a file that contains dependencies to inventory files will fail. To allow this import, use the import option from the Edit Policies window**—This warning is displayed when you import the device type configurations from a file that contains references to inventory files.

Keyboard customization issues

To customize the keyboard language that is not supported by default, do the following:

1. Go to `C:\Windows\system32\oobe`.
2. Delete the `oobe.xml` file and the related subdirectories.
3. Manually modify the sysprep.xml file to specify the required keyboard layout, locale, and other language preferences.
4. Deploy the updated sysprep.xml file using either Microsoft Endpoint Configuration Manager or a custom Sysprep.

Once completed, the system reflects the chosen keyboard, locale, time zone, and country settings.

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Frequently asked questions

How to set up a smart card reader?

To set up a smart card reader, do the following:

1. Log in to the device as an administrator.
2. Disable the **WF**: Double-click the **Dell Wyse WF Disable** icon on the desktop. The Write Filter is disabled and the device restarts.
3. Download your preferred smart card application.
4. Extract the file to your local drive.
5. Connect the smart card reader with the smart card, and click **Setup**.
6. After the installation is complete, install the server certificate if you want to establish a connection for Citrix or Omnissa setup.
7. Enable Unified Write Filter.
8. Connect to your preferred VDI session such as Citrix, Omnissa, or RDP.

How to use USB Redirection?

USB Redirection enables you to connect a peripheral into a USB port on your device and access the device using a remote desktop or application.

You configure USB Redirection in a Citrix Virtual Apps and Desktops (formerly Citrix XenDesktop) environment. For more information, see Citrix Generic USB redirection and client drive considerations in Citrix product documentation.

You also configure options to use and manage USB devices in a Omnissa Horizon virtual desktop session. For more information, see Use USB Devices on Horizon Windows Client in Omnissa documentation.

How to add an application package to the WMS repository?

Prerequisites

- For the on-premises environment, download and install the WMS remote repository. To download the repository, log in to Wyse Management Suite as an administrator, go to **Portal Administration** > **File Repository** and use the download link.
- Download the application packages from Dell | Support for the respective device.

Steps

1. Log in to WMS as an administrator.
2. Go to **Apps & Data**.
3. Click **Add Windows IoT Enterprise Package file**.
   The **Add Package** window is displayed.

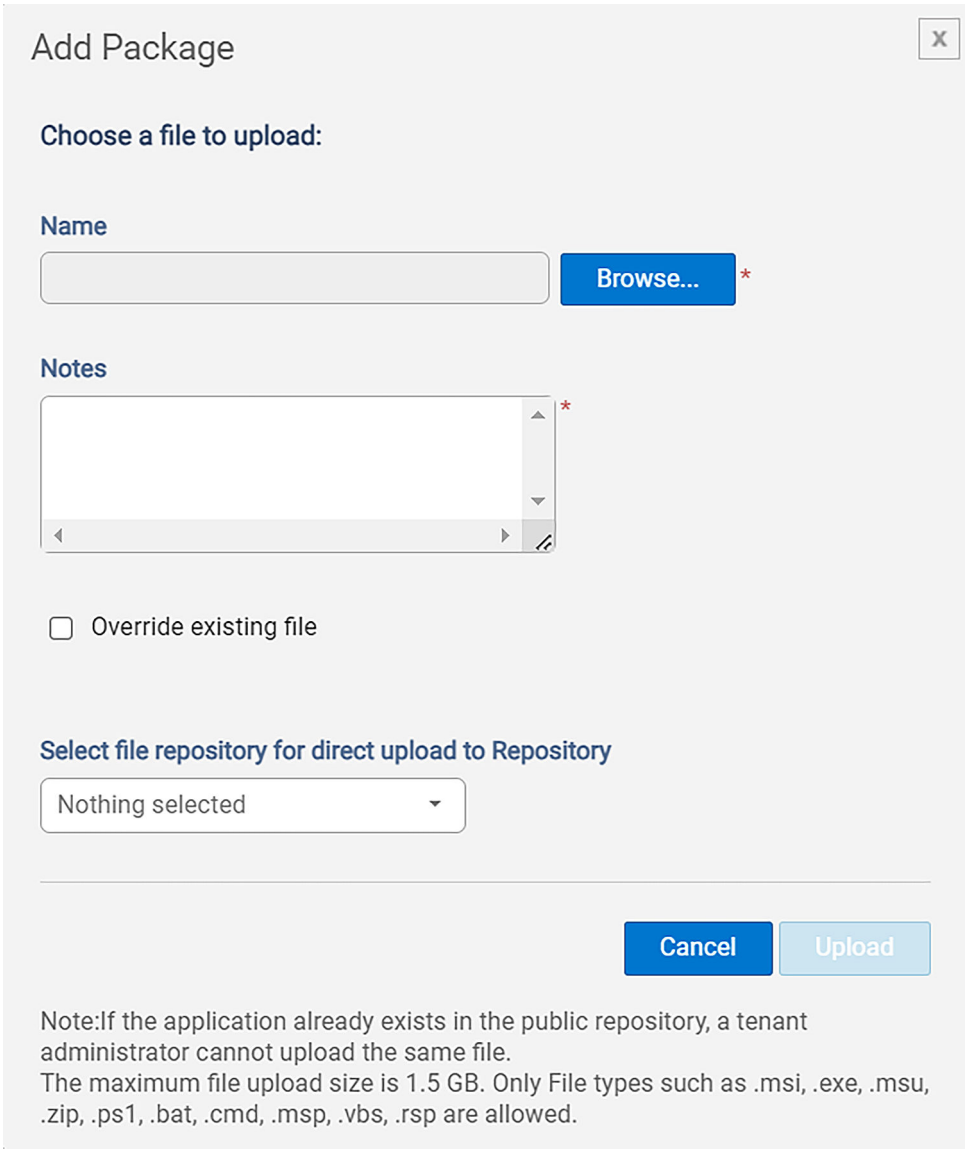

Figure 79. Add WinIoT Package file

4. Browse to the location where you have downloaded the application package.
5. In the **Notes** field, add information about the package.
6. Select the **Override existing file** option if you want to replace the existing application package.
7. From the **Select file repository for direct upload to Repository** drop-down list, select the repository to which you want to upload the application package.
8. Click **Upload**.

NOTE: For the on-premises environment, you can also directly place the application package files to `<repo-dir>\repository\thinClientApps` on the device, and the repository sends metadata for all the files to the server periodically.

How do I deploy TightVNC using Wyse Management Suite (WMS)?

To deploy TightVNC, you must download the installer from the official TightVNC website. Follow the steps listed below to deploy TightVNC using WMS:

1. Download the 64-bit TightVNC installer for Windows from the official TightVNC website.
2. Add the TightVNC installer package to the WMS repository. How to add an application package to the WMS repository?

3. Configure and schedule an application policy in WMS to deploy the TightVNC package to a group of devices. For instructions, see Deploying applications using WMS. When configuring the application policy, you must specify the following:
   - In the **Install Parameters** field, enter `/quiet`.
   - Select the **Reboot** option.
4. To verify a successful installation of TightVNC, do one of the following:
   - Go to the **Jobs** page and confirm that the job status is **Success**.
   - Go to **Devices** > **Device Details** > **Installed Apps** for a target device and confirm that TightVNC is listed in **Installed Apps**.

NOTE: Remote session initiation default password is **DELL** and Default port number is **5900**.

How do I remove TightVNC using WMS?

Perform the following steps to remove TightVNC using WMS:

Steps

1. Add the remove TightVNC script to the WMS repository. For more information, see How to add an application package to the WMS repository?.
2. Configure and schedule an application policy in WMS to deploy the remove TightVNC script to a group of devices. For instructions, see Deploying applications using WMS.

   When configuring the application policy, select remove TightVNC script from the **Apps** dropdown.

   For a detailed PowerShell Script for TightVNC, see PowerShell script for TightVNC.

3. Select the **Reboot** option and schedule the application policy.

How do I update Remote Desktop client using WMS and verify Slimcore optimization?

Perform the following steps to update Remote Desktop client using WMS:

Prerequisites

Verify that the remote desktop client meets the minimum requirements for Slimcore media optimization. For more information, see New VDI Solution for Teams.

Steps

1. Download the latest version of 64-bit Remote Desktop client installer for Windows from the official Microsoft website.
2. Upload the Remote Desktop Client installer package to the WMS repository and remove any existing Remote Desktop Client package, if applicable.

   For instructions, see How to add an application package to the WMS repository?.

3. Configure and schedule an application policy in WMS to deploy the Remote Desktop client package to a group of devices. For instructions, see Deploying applications using WMS.

   When configuring the application policy, select the **Pre-Install Script as Remove Remote desktop script** from PowerShell script for Remove Remote Desktop and specify the following in the **Install Parameters** field:

   ```
   /qn /ALLUSERS=1
   ```

4. Select the **Reboot** option.

   NOTE: To verify that Slimcore media optimization is enabled, see Use Microsoft Teams on Azure Virtual Desktop.

Results

To verify that the Remote Desktop client was installed successfully, do one of the following:

- Go to the **Jobs** page and confirm that the job status shows Success.
- Go to **Devices** > **Device Details** > **Installed Apps** for a target device, and confirm that the Remote Desktop client version is listed in **Installed Apps** with the version that was installed.

How do I deploy a Citrix Workspace app downloaded from a Citrix website using WMS?

Perform the following steps to download and deploy the Citrix Workspace app using WMS:

Steps

1. Download the latest Citrix Workspace app installer for Windows from the official Citrix Workspace app website.
2. Add the Citrix Workspace app installer package to the WMS repository.

   For instructions, see How to add an application package to the WMS repository?.

3. Configure and schedule an application policy in WMS to deploy the Citrix Workspace app package to a group of devices. For instructions, see Deploying applications using WMS.

   When configuring the application policy, specify the following in the **Install Parameters** field:

   ```
   ADDLOCAL=ReceiverInside,ICA_Client,AM,SELFSERVICE,DesktopViewer,USB,Vd3d,WebHelper /
   installMSTeamsPlugin /forceinstall /silent /AutoUpdateCheck=disabled
   ```

   a. Select the **Reboot** option.
4. Prepare the PowerShell Script for the following:
   a. Set the ICA Client registry value. Navigate to `HKLM\SOFTWARE\WOW6432Node\Citrix\ICA Client` and create or update the `AddScanCodes` registry value as DWORD = 1.
   b. Remove autorun entries. Go to `HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run` and delete the keys for `ConnectionCenter` and `Redirector`.

   For detailed PowerShell Script, see Post-Install PowerShell Script.

5. Select the PowerShell script as Post-Install script and deploy the application policy.

   For more information, see Deploying applications using WMS.

Results

To verify that the Citrix Workspace app was installed successfully, do one of the following:

- Go to the **Jobs** page and confirm that the job status shows **Success**.
- Go to **Devices** > **Device Details** > **Installed Apps** for a target device, and confirm that the Citrix Workspace app is listed in **Installed Apps** with the version that was installed.

Can I configure Wyse Easy Setup locally on the device which is managed by WMS?

You cannot configure Wyse Easy Setup locally on the device which is managed by WMS. The Wyse Easy Setup user interface is disabled.

How do I import the local Wyse Easy Setup configurations to WMS?

To import local Wyse Easy Setup configurations to WMS, see Import Wyse Easy Setup configurations from WMS.

Can I host operating system images in the WMS cloud repository?

You cannot host operating system images in the WMS cloud repository since the free space that is provided in the WMS cloud repository is only 5 GB.

How do I publish the Windows App in Easy Setup Kiosk Mode?

To publish the Windows App (Windows 365) in **Easy Setup Kiosk Mode**, locate the installed application and specify its executable file as the Application Path in your kiosk configuration. Use the following path:

```
C:\Program Files\WindowsApps\MicrosoftCorporationII.Windows365_2.0.964.0_x64__8wekyb3d8bbwe\Windows365.exe
```

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D. Use the Software only on as many computers or devices that You purchased, in such configurations permitted by Dell or Licensor, and/or in accordance with the applicable unit of measure, each as may be specified on Your Order. For Software licensed via a unit of measure, the terms and descriptions of each unit of measure are located at www.delltechnologies.com/UOM_terms ("UOM Terms");

E. Abide and be responsible for compliance with the export control and economic sanctions laws of the United States, the European Union, and other applicable jurisdictions (collectively, "Applicable Trade Laws"). Software, including any associated intellectual property rights or trade secrets that may accompany it, may not be used, licensed, sold, supplied, leased, exported, imported, re-exported, or transferred, whether directly or indirectly, to restricted countries (including, but not limited to Cuba, Iran, North Korea, Syria, Russia, Belarus, and the Crimea, Donetsk, and Luhansk regions of Ukraine), restricted end users, or for restricted end uses according to the Applicable Trade Laws. Dell reserves all rights and remedies to enforce these restrictions, including injunctive relief, damages, and cancellation/termination of this EULA. You represent and warrant that You or Your Permitted Third Parties are not the subject or target of, or located in a country or territory that is the subject or target of economic sanctions under the Applicable Trade Laws. For further information about geographical restrictions and compliance with Applicable Trade Laws, visit www.dell.com/tradecompliance; and

F. Comply with all Third Party Terms (as defined in Section 5 below).

2.2. Except as otherwise permitted by this EULA or by mandatory law (meaning a law that the parties cannot change by contract), You must not, and must not allow Your Permitted Third Parties, to do the following:

A. Modify or remove any proprietary notices or markings on or in the Software;

B. Transfer License Keys to any other person or entity;

C. Download Updates from Licensor or an authorized provider unless You have a valid support agreement;

D. Install Updates on Enterprise Products (e.g., server, networking, storage, integrated solutions, and data protection appliances) that have gone end of service life unless Licensor otherwise agrees in writing;

E. Install and operate counterfeit versions of Software (i.e. software provided by anyone other than Dell or an authorized representative of Dell) on Dell hardware;

F. Violate or circumvent any technological use restrictions in the Software;

G. Sell, loan, rent, lease, sublicense, distribute or encumber (e.g., by lien, security interest, etc.) the Software;

H. Use any trademarks or service marks of Licensor, its affiliates or suppliers;

I. Provide access to the Software or allow use by any third party, other than Permitted Third Parties, without Licensor's prior written consent;

J. Copy, republish, upload, post or transmit the Software in any way;

K. Modify or create derivative works based upon the Software, or decompile, disassemble, reverse engineer, or otherwise attempt to derive source code from the Software, in whole or in part;

L. Attack or attempt to undermine the security, integrity, authentication or intended operation of the Software;

M. Use the Software on a service bureau, rental or managed services basis;

N. Create or permit others to create Internet "links" to the Software or "frame" or "mirror" the Software on any other server, wireless or Internet-based device;

O. Use the Software to create a competitive offering;

P. Use the Software to create other software, products or technologies unless the Software contains Development Tools as described in Section 7;

Q. Share or publish the results of any benchmarking of the Software without Dell's prior written consent;

R. Use the Software for high risk activities, including without limitation online control systems, or use in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communications systems, air

traffic control, life support, weapons systems or in any other device or system in which function or malfunction of the Software could result in death, personal injury or physical or environmental damage;

S. Use the Software for activities related to weapons of mass destruction, including but not limited to, activities related to the design, development, production or use of nuclear materials, nuclear facilities, nuclear weapons, missiles or support of missile projects, or chemical or biological weapons; and

T. Assign this EULA, or any right or obligation under this EULA, or delegate any performance, without Dell's prior written consent, unless You are transferring the Software in accordance with the Transferability Section 3 below. Even if Dell consents to an assignment, You remain responsible for all obligations under this EULA that You incurred prior to the effective date of the assignment.

3. Transferability. If You are an individual consumer, You may transfer the Software on a permanent basis as part of the sale or transfer of the hardware system on which the Software is loaded, provided that You retain no copies of any version of the Software. If You are a business entity, You may not transfer the Software to another person or entity without the express written permission of Dell, unless allowed by applicable law stating that transfer may not be restricted (note that a transfer fee may be charged by Dell).

4. Compliance Verification. If You are a business entity, You must: (a) maintain and use systems and procedures that allow You to accurately track Your use of the Software; (b) certify to Dell in writing, at Dell's request, that Your use of Software fully complies with this EULA, indicating the number of Software licenses deployed at that time; and (c) cooperate fully and timely with Dell and its auditors if Dell notifies You that it will conduct an audit to confirm Your compliance with this EULA. Any such audit will be conducted during normal business hours. If Dell determines that You have over-deployed Software, You agree to immediately purchase licenses at the then-current list price to bring Your use into compliance. If You over-deployed Software by 5% or more, then You agree to pay the total cost of the audit, in addition to any other liabilities You may have.

5. Third Party Software. "Third Party Software" is software, including open source software, that is contained in or provided with the Software and is licensed by a third party under its own terms of use ("Third Party Terms"). Third Party Software is governed solely by the applicable Third Party Terms and not by this EULA. Third Party Terms may be provided with the Third Party Software or may be included in the OST Table. For certain open source software, the applicable Third Party Terms may entitle You to obtain the corresponding source files. You may find corresponding source files for such open source software at https://opensource.dell.com/ or in the "About" or "Read Me" file of Software, or other locations that Licensor may specify.

6. Free Software. "Free Software" means Software that is provided to You without additional charge (e.g., scripts that enable customer installation; code that enables You to monitor Your use of Dell products; etc.). You may only use Free Software on or with equipment or in the operating environments for which Dell has designed that Free Software to operate. Licensor may terminate any license to Free Software at any time in its sole discretion. You may not transfer Free Software to anyone else.

7. Development Tools. If the Software includes development tools, such as scripting tools, APIs or sample scripts (collectively "Development Tools"), and unless there is a separate agreement between You and Dell or Licensor for the Development Tools, You may use such Development Tools to create new scripts and code for the purpose of customizing Your use of the Software (within the parameters set forth in this EULA and in the Development Tools themselves) and for no other purpose.

8. Evaluation Software. This EULA does not license use of Software for evaluation purposes ("Evaluation Software") except to the extent these terms may be invoked by the separate license terms and conditions accompanying that Evaluation Software.

9. Support Services Not Included. If You purchase maintenance and support for Software, such services are identified in Your Order and will be provided under a separate services agreement.

10. Termination. For Subscription Software, this EULA automatically terminates at the end of Your subscription period unless You renew Your rights. Licensor may terminate this EULA if You or a Permitted Third Party commits a material breach of this EULA and fails to cure such breach within thirty (30) days following Your receipt of notice of the breach from Dell. This right to terminate applies accordingly if Dell or the Reseller from whom You made Your purchase does not receive timely payment for the licenses to the Software or for the hardware on which the Software is loaded, if any. When this EULA terminates, all licenses granted automatically terminate and You must immediately cease use of the Software and return or destroy all copies of the Software. Except as otherwise agreed by Dell, You will not get a refund from Dell if this EULA is terminated. Rights and obligations under Sections of this EULA that, by their nature should survive, will survive termination, as well as obligations for payment.

11. Warranty Disclaimer. Under this EULA, Licensor provides neither any warranties for the Software nor does it provide support for the Software. Your rights under any warranties and any support entitlements for Software acquired for a fee are solely between You and the Reseller or Dell entity from whom You procured the Software and related support, and are defined under the commercial terms agreed between You and such selling entity. Accordingly, except as otherwise offered by Dell, the Software is provided by Licensor under this EULA "As Is" without any warranties or conditions. To the maximum extent permitted by applicable law, Licensor, on behalf of itself and its affiliates and suppliers: (a) makes no express warranties or conditions related to the Software; (b) disclaims all implied warranties and conditions related to the Software, including merchantability, fitness for a particular purpose, title, and non-infringement; and (c) disclaims any warranty or condition arising by statute, operation of law, course of dealing or performance, or usage of trade. Licensor does not warrant uninterrupted or error-free operation of the Software. This Section does not affect or modify any of the statutory warranty rights that are available to consumers.

12. Limitation of Liability.

12.1. Limitations on Damages. The limitations, exclusions and disclaimers set forth in a Pre-Existing Agreement or Dell Terms of Sale that applies your Order (in each case, the "Order Terms") shall apply to all disputes, claims or controversies (whether in contract, tort or otherwise) between You and Licensor or Dell related to or arising out of: (a) this EULA; (b) the breach, termination or validity of this EULA; or (c) any Orders (each, a "Dispute"). In the absence of applicable Order Terms, the terms set forth in this Section shall apply to all Disputes.

The terms of this Section are agreed allocations of risk constituting part of the consideration for Licensor's licensing of Software to You and will apply even if there is a failure of the essential purpose of any limited remedy, and regardless of whether a party has been advised of the possibility of the liabilities. If applicable law prohibits any portion of the limits on liability stated below, the parties agree that such limitation will be automatically modified, but only to the extent required to make the limitation compliant with applicable law.

A. Limitation on Direct Damages. Except for Your obligation to pay for the Software, or for Your violation of the License Grant and License Conditions set forth herein or of Licensor's or Dell's intellectual property rights, the total liability of You and Licensor (including Licensor's affiliates and suppliers) arising out of any Dispute is limited to the amount You paid for the Software that is the subject of the Dispute, but excluding amounts received as reimbursement of expenses or payment of taxes. Notwithstanding anything otherwise set forth above, Licensor and its affiliates have no liability for any direct damages resulting from Your use or attempted use of Third Party Software, Free Software or Development Tools.

B. Disclaimer of Certain Other Damages. Except for Your obligation to pay for the Software, or for Your violation of the License Grant and License Conditions set forth herein or of Licensor's or Dell's intellectual property rights, neither You nor Licensor (including Licensor's affiliates and suppliers) shall have any liability under this EULA for special, consequential, exemplary, punitive, incidental or indirect damages, or for lost profits, loss of revenue, loss or corruption of data, loss of use or procurement of substitute products or services.

12.2. Regular Backups. You are solely responsible for Your data. You must back up Your data before Licensor or a third party performs any remedial, upgrade or other work on Your production systems. You acknowledge that it is a best practice to have more than one back up copy of Your data. If applicable law prohibits exclusion of liability for lost data, then Licensor will only be liable for the cost of the typical effort to recover the lost data from Your last available back up.

12.3. Limitation Period. Except as stated in this Section, all claims must be made within the period specified by applicable law. If the law allows the parties to specify a shorter period for bringing claims, or the law does not provide a time at all, then claims must be made within 18 months after the cause of action accrues.

13. Additional Terms.

13.1. Notices. The parties will provide all notices under this EULA in writing. Unless provided otherwise in an Order, You must provide notices to the local Dell entity in Your Order, or, if Your Order is not with a Dell entity, by e-mail to Dell_Legal_Notices@dell.com.

13.2. Waiver and Severability. Failure to enforce a provision of this EULA will not constitute a waiver of that or any other provision of this EULA. If a court of competent jurisdiction determines that any part of this EULA or document that incorporates this EULA by reference is unenforceable, that ruling will not affect the validity of all remaining parts.

13.3. Modifications. This EULA may only be modified in writing signed by both parties; provided, however, that Licensor may, in its sole discretion, update the Licensor Table, the OST Table, the UOM Terms and the Subscription Terms at any time. Any changes that Licensor makes to the Licensor Table, the OST Table, the UOM Terms or the Subscription Terms will only apply to Orders that occur after Licensor posts those changes online.

13.4. Governing Law and Jurisdiction. If You obtained the Software directly from Dell, then the governing law and jurisdiction provisions set forth in Your Order Terms shall apply to this EULA. Otherwise the following shall apply:

A. Subject to Section 13.4 D and 13.5, if You are domiciled in the United States or Canada: (1) this EULA and any Dispute is governed by the laws of the State of Texas (excluding the conflicts of law rules) and the federal laws of the United States; and (2) to the extent permitted by law, the state and federal courts located in Texas will have exclusive jurisdiction for any Dispute. Both parties agree to submit to the personal jurisdiction of the state and federal courts located within Travis or Williamson County, Texas, and agree to waive any and all objections to the exercise of jurisdiction over the parties by those courts and to venue in those courts.

B. Subject to Section 13.4 D, if You are domiciled outside of the United States or Canada: (1) this EULA and any Dispute is governed by the substantive laws in force in the country in which the Licensor is located (as indicated in the Licensor Table located at www.dell.com/swlicensortable), without regard to its conflict of law rules; and (2) the exclusive place of jurisdiction for any Dispute shall be in such country.

C. In any event, neither the U.N. Convention on Contracts for the International Sale of Goods, nor the Uniform Computer Information Transaction Act shall apply to this EULA or any Dispute.

D. If You are an individual consumer, this Section 13.4 does not deprive You of the protection afforded to You by the provisions of mandatory consumer protections laws that are applicable to You, nor does it prevent you from seeking remedies or enforcing your rights as a consumer under such laws.

13.5. Dispute Resolution and Binding Individual (non-class) Arbitration. This Section only applies if You are an individual consumer that resides in (or obtained the Software in) the United States or Canada. All Disputes shall be resolved exclusively and finally by binding individual arbitration. This means You and Licensor waive any right to litigate disputes in a court or before a jury and neither You nor Licensor shall be entitled to join, consolidate, or include any claims belonging to or alleged or arising from, by or on behalf of any third party to an arbitration brought hereunder, or to arbitrate any claim as a class action, class representative, class member, or in a private attorney general capacity. If You reside in (or obtained the Software in) the United States, the arbitration will be administered by the American Arbitration Association (AAA), or JAMS. If You reside in (or obtained the Software in) Canada, arbitration will be at ADR Chambers pursuant to the general ADR Chambers Rules for Arbitration located at www.adrchambers.com. The arbitration shall be conducted in the English language. The arbitration panel shall have exclusive authority to resolve any arbitrability issues including any dispute over this EULA or this arbitration provision's scope, application, meaning and enforceability. The arbitration panel shall be empowered to grant whatever relief would be available in court, including without limitation preliminary relief, injunctive relief and specific performance. Any award of the arbitration panel shall be final and binding immediately when rendered, and judgment on the award may be entered in any court of competent jurisdiction. If any portion of this arbitration agreement is found unenforceable, the unenforceable portion shall be severed and the remaining arbitration terms shall be enforced (but in no event will there be a class arbitration). Consumer claimants (individuals whose transaction is intended for personal, family or household use) may elect to pursue their claims in small-claims court rather than arbitration. Licensor will be responsible for paying any individual consumer's arbitration/arbitrator fees. Notwithstanding the foregoing, Licensor may apply to any relevant government agency or any court of competent jurisdiction to preserve its rights under this EULA and to obtain any injunctive or preliminary relief, or any award of specific performance, to which it may be entitled, either against You or against a non-party; provided, however, that no such administrative or judicial authority shall have the right or power to render a judgment or award (or to enjoin the rendering of an arbitral award) for damages that may be due to or from either party under this EULA, which right and power shall be reserved exclusively to an arbitration panel proceeding in accordance herewith.

13.6. Third Party Rights. Other than as expressly set out in this EULA, this EULA does not create any rights for any person who is not a party to it, and no person who is not a party to this EULA may enforce any of its terms or rely on any exclusion or limitation contained in it.

13.7. Entire Agreement. You acknowledge that You have read this EULA, that You understand it, that You agree to be bound by its terms, and that this EULA, along with the Order Terms into which this EULA may be incorporated (as applicable), is the complete and exclusive statement of the agreement between You and Licensor regarding Your use of the Software. All content referenced in this EULA by hyperlink is incorporated into this EULA in its entirety and is available to You in hardcopy form upon Your request. The pre-printed terms of Your purchase order or any other document that is not issued or signed by Licensor or Dell do not apply to Software. You represent that You did not rely on any representations or statements that do not appear in this EULA when accepting this EULA.

EULA (rev. 23OCT2024)

ROW OOBE file rev. 25OCT2024

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Amazon WorkSpaces Application License Agreement

THIS IS AN AGREEMENT BETWEEN YOU AND AWS MOBILE LLC (WITH ITS AFFILIATES, "AWS MOBILE" OR "WE") THAT GOVERNS YOUR USE OF THE AMAZON WORKSPACES APPLICATION FOR YOUR DEVICE (TOGETHER WITH ANY UPDATES AND ENHANCEMENTS TO IT, AND ACCOMPANYING DOCUMENTATION, THE "APPLICATION") THAT WE MAKE AVAILABLE TO YOU ON YOUR MOBILE, DESKTOP, OR OTHER SUPPORTED DEVICE (EACH, A "DEVICE"). IF YOU INSTALL OR USE THE APPLICATION, YOU WILL BE BOUND BY THIS AGREEMENT.

1. Use of the Application. We hereby grant you a personal, limited, non-exclusive, nontransferable, non-sublicenseable license to install and use the Application on your Device.
2. Limitations. You may not, and you will not encourage, assist or authorize any other person to: Incorporate any portion of the Application into your own programs or compile any portion of it in combination with your own programs. Sell, rent, lease, lend, loan, distribute, act as a service bureau, publicly communicate, transform, or sub-license the Application or otherwise assign any rights to the Application in whole or in part. Modify, alter, tamper with, repair, or otherwise create derivative works of the Application. Reverse engineer, disassemble, or decompile the Application or apply any other process or procedure to derive the source code of any software included in the Application. All rights granted to you are conditioned on your continued compliance with this Agreement, and will immediately and automatically terminate if you do not comply.
3. Reservation of Rights. You may not use the Application for any illegal purpose. The Application is the intellectual property of Amazon.com, Inc. or its affiliates, and its licensors. The structure, organization, and code of the Application are valuable trade secrets and confidential information of Amazon.com, Inc. or its affiliates. The Application is protected by law, including without limitation copyright laws and international treaty provisions. Except for the rights explicitly granted to you in this Agreement, all right, title and interest in the Application are reserved and retained by us and our licensors.

4. Updates. In order to keep the Application up-to-date, we may offer automatic or manual updates at any time and without notice to you. If we elect to provide maintenance or support of any kind, we may terminate that maintenance or support at any time without notice to you.
5. Termination. You may terminate this Agreement at any time by uninstalling or destroying all copies of the Application that are in your possession or control. In the case of termination, you must cease all use and destroy all copies of the Application. We may also terminate your right to use the Application at any time and if we do so, we may modify the Application to make it inoperable. Our failure to insist upon or enforce your strict compliance with this Agreement will not constitute a waiver of any of our rights.
6. Disclaimer of Warranties and Limitation of Liability. Use of the Application is at your sole risk. The Application is delivered "as is" with all faults and without warranty of any kind. To the extent not prohibited by law, no party will be liable to you for any incidental or consequential damages for breach of any express or implied warranty, breach of contract, negligence, strict liability, or any other legal theory related to the Application.
    a. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT INSTALLATION AND USE OF, AND ANY OTHER ACCESS TO, THE APPLICATION IS AT YOUR SOLE RISK. THE APPLICATION IS DELIVERED TO YOU "AS IS" WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND AWS MOBILE, ITS LICENSORS AND DISTRIBUTORS, WIRELESS CARRIERS OVER WHOSE NETWORK THE APPLICATION IS DISTRIBUTED, AND EACH OF THEIR RESPECTIVE AFFILIATES AND SUPPLIERS (COLLECTIVELY, THE "RELEASED PARTIES") DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, QUIET ENJOYMENT, AND NON-INFRINGEMENT. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY A RELEASED PARTY OR AN AUTHORIZED REPRESENTATIVE OF A RELEASED PARTY WILL CREATE A WARRANTY. THE LAWS OF CERTAIN JURISDICTIONS DO NOT ALLOW THE DISCLAIMER OF IMPLIED WARRANTIES. IF THESE LAWS APPLY TO YOU, SOME OR ALL OF THE ABOVE DISCLAIMERS, EXCLUSIONS, OR LIMITATIONS MAY NOT APPLY TO YOU, AND YOU MAY HAVE ADDITIONAL RIGHTS.
    b. TO THE EXTENT NOT PROHIBITED BY LAW, NO RELEASED PARTY WILL BE LIABLE TO YOU FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY RELATED TO THE APPLICATION, INCLUDING WITHOUT LIMITATION ANY DAMAGES ARISING OUT OF LOSS OF PROFITS, REVENUE, DATA, OR USE OF THE APPLICATION, EVEN IF A RELEASED PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, ANY RELEASED PARTY'S AGGREGATE LIABILITY UNDER THE AGREEMENT WILL BE LIMITED TO $50.00. THE LAWS OF CERTAIN JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. IF THESE LAWS APPLY TO YOU, SOME OR ALL OF THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU, AND YOU MAY HAVE ADDITIONAL RIGHTS.
7. Indemnification. You are liable for and will defend, indemnify, and hold harmless the Released Parties and their officers, directors, agents, and employees, from and against any liability, loss, damage, cost, or expense (including reasonable attorneys' fees) arising out of your use of the Application, violation of this Agreement, violation of applicable law, or violation of any right of any person or entity, including without limitation intellectual property rights.
8. Export Regulations. You will comply with all export and re-export restrictions and regulations of the United States Department of Commerce and other United States and foreign agencies and authorities that may apply to the Application, and not to transfer, or encourage, assist, or authorize the transfer of the Application to a prohibited country or otherwise in violation of any applicable restrictions or regulations.
9. U.S. Government End Users. The Application is a "Commercial Item" as that term is defined in 48 C.F.R. § 2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation," as the terms are used in 48 C.F.R. § 12.212 or 48 C.F.R. § 227.7202, as applicable. Consistent with these provisions, the Application is licensed to U.S. Government end users: (a) only as a Commercial Item; and (b) with only those rights as are granted to all other end users pursuant to these Terms of Use. Unpublished-rights are reserved under U.S. copyright laws.
10. Amendment. We may amend this Agreement at our sole discretion by posting the revised terms on the Amazon Web Services website (located at: http://aws.amazon.com) or within the Application. Your continued use of the Application after any amendment's effective date evidences your agreement to be bound by it.
11. Conflicts. The terms of this Agreement govern the Application and any updates or upgrades to the Application that we may provide that replace or supplement the original Application, unless the update or upgrade is accompanied by a separate license, in which case the terms of that license will govern.
12. Contact Information. For communications concerning this Agreement, please write to AWS Mobile LLC, Attn: Legal Department, 410 Terry Avenue North, Seattle, WA 98109-5210. The Application may include the WorkSpaces Streaming Protocol ("WSP") or software developed and owned by Teradici Corporation or its licensors ("PCoIP"). To determine whether the Application includes WSP or PCoIP, you should ask your Amazon WorkSpaces administrator, or look in the Support tab under About My WorkSpace after you successfully log in to the WorkSpace. The About My WorkSpace dialog box will identify WSP or PCoIP under Protocol. If the Application includes PCoIP, then Teradici Corporation and its licensors require that you agree to the following additional terms and conditions in connection with the use of PCoIP. BY SELECTING "AGREE" OR "I ACCEPT THE TERMS IN THE LICENSE AGREEMENT" AND/OR INSTALLING, ACTIVATING AND/OR USING THIS LICENSED PRODUCT (AS DEFINED BELOW), YOU OR THE ENTITY THAT YOU REPRESENT ("LICENSEE") ARE UNCONDITIONALLY CONSENTING TO BE BOUND BY AND ARE BECOMING A PARTY TO THE LICENSE AGREEMENT WITH TERADICI CORPORATION ("TERADICI") CONSISTING OF THIS PARAGRAPH AND THE FOLLOWING TERMS (THIS "AGREEMENT") WITH RESPECT TO THE LICENSED PRODUCT. PROVISION OF THE

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2. Termination. All licenses will terminate thirty days (immediately in the case of a breach of Section 1) after notice of any breach of this Agreement by Licensee that remains uncured at the end of such notice period. A license will also terminate upon the expiration of Licensee's right to use the AWS Services with which Licensee's use of the Licensed Product is authorized. Upon any termination, Licensee shall immediately cease all use of all affected Licensed Products and return or destroy all copies of all affected Licensed Products and all portions thereof and so certify to Teradici. Except as otherwise expressly provided herein, the terms hereof shall survive any termination. Termination is not an exclusive remedy and all other remedies will be available whether or not termination occurs.
3. Confidentiality.
   a. Definitions.
      i. "Confidential Information" means a Teradici's or Teradici's affiliates' non-public information (including copies, summaries, and extracts): (A) that is identified in writing as confidential at the time of disclosure, whether in printed, textual, graphic, or electronic form; or (B) that is disclosed in non-tangible form, identified as confidential at the time of disclosure, summarized in a writing labelled as "confidential", and delivered to Licensee or Licensee's affiliate (as applicable) within 15 days after disclosure. Confidential Information does not include information that:
         - A. is or becomes generally publicly available at or after the time of disclosure through no fault of either Licensee or Licensee's affiliate;
         - B. was known to Licensee or Licensee's affiliate (as applicable), free of any confidentiality obligations, before its disclosure by either Teradici or Teradici's affiliate;
         - C. becomes known to Licensee or Licensee's affiliate (as applicable), free of any confidentiality obligations, from a source other than either Teradici or Teradici's affiliate; or
         - D. is independently developed by either Licensee or Licensee's affiliate without use of Confidential Information.
      ii. No Use or Disclosure. Licensee will only use Confidential Information for the purposes of this Agreement and will not reproduce, disseminate, or disclose Confidential Information to any person, except to its affiliates, employees and authorized representatives (i.e., temporary employees, consultants, and contractors) who need to know the Confidential Information for the purposes of this Agreement and are bound by confidentiality obligations at least as restrictive as those in this Section 3 (Confidentiality). Licensee will treat all Confidential Information with at least the same degree of care as it treats its own information of similar sensitivity, but never with less than reasonable care.

iii. Required Disclosure. Licensee may disclose Confidential Information: (i) as approved in a writing signed by Teradici; (ii) as necessary to comply with any law or valid order of a court or other governmental body; or (iii) as necessary to establish the rights of either party, but only if, in the case of Section 3(c) (ii) and Section 3(c)(iii), Licensee (A) promptly notifies Teradici the particulars of the required disclosure; and (B) gives Teradici all assistance reasonably required by Teradici to enable Teradici to take available steps to prevent the disclosure or to ensure that disclosure occurs subject to an appropriate obligation of confidence.

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6. Miscellaneous. Neither this Agreement nor the licenses granted hereunder are assignable or transferable by Licensee (and any attempt to do so shall be void). A change of control (directly or indirectly) shall be defined as an assignment or transfer under this Agreement. Teradici may assign and transfer this Agreement and the licenses granted hereunder without restriction. The provisions hereof are for the benefit of the parties only and not for any other person or entity. Any notice, report, approval, authorization, agreement or consent to or by Teradici required or permitted hereunder shall be in writing addressed to: Teradici Corporation, Suite 101, 4621 Canada Way, Burnaby, BC V5G4X8, Canada. No failure or delay in exercising any right hereunder will operate as a waiver thereof, nor will any partial exercise of any right or power hereunder preclude further exercise. If any provision shall be adjudged by any court of competent jurisdiction to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so that this arrangement shall otherwise remain in full force and effect and enforceable. This agreement shall be deemed to have been made in, and shall be construed pursuant to the laws of the State of California and the United States without regard to conflicts of laws provisions thereof, and without regard to the United Nations Convention on the International Sale of Goods or the Uniform Computer Information Transactions Act. This Agreement is the complete and exclusive statement of the mutual understanding of the parties and supersedes and cancels all previous written and oral agreements and communications relating to the subject matter hereof and any waivers or amendments shall be effective only if made in writing. The substantially prevailing party in any action to enforce this agreement will be entitled to recover its attorney's fees and costs in connection with such action. The Licensed Product (i) was developed at private expense and includes trade secrets and confidential information; (ii) is a commercial item consisting of commercial computer software and commercial computer software documentation regulated under FAR 52.227-14 and DFARS Section 227.7202 and shall not be deemed to be non-commercial computer software and/or non-commercial computer software documentation under any provision of DFARS; (iii) is NOT offered to US Government agencies under the commercial computer software license set forth at FAR 52.227-19. Consistent with 48 CFR 12.212 and 48 CFR 227.7202 as applicable, the Product is licensed to government end users solely as a commercial item and with only those rights as are granted to other end users under the terms of this Agreement. Technical data relating to commercial items shall be made available to the Government consistent with the requirements and limitations of FAR 52.227-14 or DFARS 252.227-7015, as applicable. The terms "commercial computer software," "commercial computer software documentation," "technical data relating to commercial items," shall have the meanings relating to each such term as are set forth in the aforementioned FAR and DFARS clauses, as applicable. All rights not expressly granted are expressly reserved by Teradici. Licensee is responsible for all acts and omissions of its affiliates or any person or entity whom Licensee is permitted under this Agreement to allow the use of or access to the Licensed Product. Nothing in this Agreement will be construed as creating an employer-employee relationship, a partnership, or a joint venture between the parties.

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proprietary notices on or in any copies of the Software; or (h) violate or circumvent any technological restrictions within the Software or specified in this EULA, such as via software or services.

8. **Decompilation**. Notwithstanding Section 2.1, you may decompile the Software to the extent the laws of the Territory give you the express right to do so to obtain information necessary to render the Software interoperable with other software; provided, however, (a) you must first request that information from us, (b) you must provide all reasonably requested information to allow us to assess your claim, and (c) we may, in our discretion, provide that interoperability information to you, impose reasonable conditions (including a reasonable fee) on that use of the Software, or offer to provide alternatives to reduce any potential adverse impact on our proprietary rights in the Software.
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10. **Guest Operating Systems.** Some Software allows Guest Operating Systems and application programs to run on a computer system. You acknowledge that you are responsible for obtaining and complying with any licenses necessary to operate any third- party software.

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2. **RECORDS AND AUDIT.** You must maintain accurate records of your use of the Software sufficient to show compliance with the terms of this EULA. We have the right to audit those records and your use of the Software to confirm compliance with the terms of this EULA. That audit is subject to reasonable prior notice and will not unreasonably interfere with your business activities. We may conduct no more than one (1) audit in any twelve (12) month period, and only during normal business hours. You must reasonably cooperate with us and any third-party auditor and you must, without prejudice to our other rights, address any non-compliance identified by the audit by paying additional fees. You must reimburse us for all reasonable costs of the audit if the audit reveals either underpayment of more than five (5%) percent of the Software fees payable by you for the period audited, or that you have materially failed to maintain accurate records of Software use.
3. **SUPPORT SERVICES.** Support and subscription services for the Software **("Support Services**") are provided pursuant to the Support Services Terms and are not subject to this EULA. You have no rights to any updates, upgrades or extensions or enhancements to the Software unless you separately purchase Support Services or they are included with your purchase of a license to the Software as provided in the Product Guide. **WARRANTIES.**
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   c. **Defense and Indemnification.** Subject to the remainder of this Section 7, we will: (a) defend you against any Infringement Claim; and (b) indemnify you from all fines, damages, and costs finally awarded against you by a court of competent jurisdiction or a government agency, or agreed to in a settlement, with regard to any Infringement Claim. These obligations are applicable only if you: (i) provide us with notice of the Infringement Claim within a reasonable period after learning of the claim (provided that any delay in providing the notice will relieve us of our indemnification obligations only to the extent that the delay prejudices us); (ii) allow us sole control over the defense and settlement of the Infringement Claim; and (iii) reasonably cooperate in response to our requests for assistance with regard to the Infringement Claim. We will not, without your prior written consent, which may not be unreasonably withheld, conditioned, or delayed, enter into any settlement of any Infringement Claim that obligates you to admit any liability or to pay any unreimbursed amounts to the claimant. You may not settle or compromise any Infringement Claim without our prior written consent.

d. **Remedies.** If the Software becomes, or in our opinion is likely to become, the subject of an Infringement Claim, we will, at our option and expense: (a) procure the rights necessary for you to keep using the Software; or (b) modify or replace the Software to make it non- infringing; or (c) terminate the License to the affected Software and discontinue the related Support Services, and, upon your certified deletion of the affected Software, refund: (i) for a Perpetual License, the fees paid for the License to the affected Software, less straight- line depreciation over a three (3) year useful life beginning on the date of Delivery of the Software and any unused, prepaid fees for Support Services, or (ii) for Subscription Software, any prepaid fees, prorated for the remaining portion of the then-current Subscription Term.

e. **Exclusions.** We will have no obligation under this Section 7 or otherwise with respect to any Infringement Claim based on: (a) combination of the Software with non-VMware products or content; (b) use for a purpose or in a manner for which the Software was not designed; (c) use of any older version of the Software when use of a newer version would have avoided the infringement; (d) any modification to the Software other than those made by us or with our express written approval; (e) any claim that relates to open source software or freeware technology or any derivative or other adaptations thereof that is not embedded by us into the Software; or (f) any Software provided on a no charge, beta, or evaluation basis.

f. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THIS SECTION 7 STATES YOUR SOLE AND EXCLUSIVE REMEDY AND OUR ENTIRE LIABILITY FOR ANY INFRINGEMENT CLAIMS. **LIMITATION OF LIABILITY.**

g. **Disclaimer.** TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT WILL WE BE LIABLE FOR ANY LOST PROFITS OR BUSINESS OPPORTUNITIES, LOSS OF USE, LOSS OF CONTENT OR DATA FOR ANY REASON (INCLUDING POWER OUTAGES, SYSTEM FAILURES, OR OTHER INTERRUPTIONS), LOSS OF REVENUE, LOSS OF GOODWILL, BUSINESS INTERRUPTION, OR FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES UNDER ANY THEORY OF LIABILITY, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, PRODUCT LIABILITY, OR OTHERWISE. THIS LIMITATION WILL APPLY REGARDLESS OF WHETHER A PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF THOSE DAMAGES AND REGARDLESS OF WHETHER ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE FOREGOING LIMITATION MAY NOT APPLY.

h. **Cap on Monetary Liability.** OUR LIABILITY FOR ANY CLAIM UNDER THIS EULA WILL NOT EXCEED THE GREATER OF THE LICENSE FEES YOU PAID FOR THE SOFTWARE GIVING RISE TO THE CLAIM OR $5000.

i. **Exclusions.** THE LIMITATION OF LIABILITY IN SECTIONS 8.1 AND 8.2 WILL NOT APPLY TO (i) OUR INDEMNIFICATION OBLIGATIONS UNDER SECTION 7 OF THIS EULA OR (ii) ANY LIABILITY WHICH MAY NOT BE EXCLUDED BY LAW.

j. **Further Limitations.** Our suppliers have no liability of any kind under this EULA. You may not bring a claim directly against any of them under this EULA. Our liability with respect to any third-party software embedded in the Software is subject to this Section 8. You may not bring a claim under this EULA more than eighteen (18) months after the cause of action arises. **TERMINATION.**

k. **EULA Term.** The term of this EULA begins on Delivery of the Software and continues until this EULA is terminated in accordance with this Section 9.

l. **Termination for Cause.** We may terminate this EULA effective immediately upon written notice to you if: (a) any payment due under this EULA is not received within ten (10) days after receiving our written notice that payment is past due; (b) you materially breach any other provision of this EULA and fail to cure within thirty (30) days after receipt of our written notice of the breach; (c) you materially breach any provision of this EULA in a manner that cannot be cured; or (d) you terminate or suspend your business.

m. **Termination for Insolvency.** We may terminate this EULA effective immediately upon written notice to you if you become insolvent, admit in writing your inability to pay your debts as they mature, make an assignment for the benefit of creditors, become subject to control of a trustee, receiver or similar authority, or become subject to any bankruptcy or insolvency proceeding.

n. **Effect of Termination.** Upon termination of this EULA: (a) all Licenses to the Software granted to you under this EULA will immediately end; (b) you must stop all use of the Software and return to us or certify destruction of the Software and License Keys (including copies), and (c) you must return or, if we request, destroy, any of our or our suppliers' Confidential Information in your possession or under your control (other than information that must be retained pursuant to law). Any provision that, by its nature and context is intended to survive termination or expiration of the EULA, will survive, including Sections 1.6 (Open Source Software), 2 (Restrictions; Ownership), 4 (Records and Audit), 6.2 (Software Disclaimer of Warranty), 8 (Limitation of Liability), 9 (Termination), 10 (Confidential Information), 12 (General), 13 (Definitions), and 14 (Terms Applicable to U.S. Federal End Users). Except as otherwise expressly provided in this EULA or as required by applicable law or regulation, termination of this EULA will not entitle you to any refunds, credits, or exchanges. **CONFIDENTIAL INFORMATION.**

o. **Protection.** Either party may use Confidential Information of the other party disclosed to it in connection with this EULA to exercise its rights and perform its obligations under this EULA or as otherwise permitted by this EULA. The Recipient will disclose the Discloser's Confidential Information only to the Recipient's employees or contractors who have a need to know the Confidential Information for purposes of this EULA and who are under a duty of confidentiality no less restrictive than as specified in this Section 10. Recipient will protect the Discloser's Confidential Information from unauthorized use, access, or disclosure in the same manner as the Recipient protects its own confidential or proprietary information of a similar nature but with no less than reasonable care.

p. **Exceptions.** The Recipient's obligations under Section 10.1 with respect to any of the Discloser's Confidential Information will terminate if the Recipient can demonstrate that the information: (a) was already rightfully known to the Recipient at the time of disclosure by the Discloser without any obligation of confidentiality; (b) was disclosed to the Recipient by a third party who had the right to make that disclosure without any confidentiality restrictions; (c) is, or through no fault of the Recipient has become, generally available to the public; or (d) was independently developed by Recipient without access to or use of Discloser's Confidential Information. In addition, the Recipient will be allowed to disclose Confidential Information to the extent that disclosure is required by law or by order of a court or similar judicial or administrative body of competent jurisdiction, provided that the Recipient notifies the Discloser of the required disclosure promptly and in writing and cooperates with the Discloser, at the Discloser's request and expense, in any lawful action to contest or limit the scope of the required disclosure.

q. **Injunctive Relief.** Nothing in this EULA limits either party's ability to seek equitable relief.

4. **ACCOUNT, OPERATIONS AND USAGE DATA.** We collect your contact information and information about your purchase to manage your account and fulfill your Orders. We also process (a) information necessary to facilitate the delivery of the Software, including verifying compliance with the terms of this EULA, invoicing, and providing Support Services, and (b) Software configuration, performance, and usage data for the purposes of improving VMware products and services and user experience, and other analytics purposes as set forth in the Product Guide. To the extent any of that data includes information which identifies an individual, we will process that information in accordance with VMware's Products & Services Privacy Notice available at https://www.vmware.com/help/privacy.html. **GENERAL.**

a. **Transfers; Assignment.** Except to the extent transfer may not legally be restricted or as permitted by our transfer and assignment policies and in all cases following the process set forth at www.vmware.com/support/policies/licensingpolicies.html, you must not assign this EULA, any Order, or any right or obligation pursuant to this EULA, or delegate any performance under this EULA, without our prior written consent, which consent will not be unreasonably withheld, conditioned, or delayed. Any other attempted assignment or transfer by you will be void. We may use our Affiliates or other suppliers to provide services to you, provided that we remain responsible to you for the performance of the services.

b. **Notices.** Any notice by us to you under this EULA will be given: (a) by email to the email address associated with your account, if you have subscribed to this method of receiving notices; or (b) by posting in the VMware customer portal. You must direct legal notices or other correspondence to VMware, Inc., 3401 Hillview Avenue, Palo Alto, California 94304, United States of America, Attention: Legal Department.

c. **Waiver**. Waiver of a breach of any provision of this EULA will not constitute a waiver of any later breach of that provision, or waiver of a breach of any other provision.

d. **Severability.** If any part of this EULA is held to be invalid or unenforceable, all remaining provisions will remain in force to the extent feasible to effectuate the intent of the parties.

e. **Compliance with Laws.** Each party must comply with all laws applicable to the actions contemplated by this EULA.

f. **Export Control; Government Regulations.** You acknowledge that the Software is provided subject to the U.S. Export Administration Regulations, may be subject to the export control laws of the applicable territory, and that diversion contrary to applicable export control laws is prohibited. You represent that (1) you are not, and are not acting on behalf of, (a) any person who is a citizen, national, or resident of, or who is controlled by the government of any country to which the United States has prohibited export transactions; or (b) any person or entity listed on the U.S. Treasury Department list of Specially Designated Nationals and Blocked Persons, or the U.S. Commerce Department Denied Persons List or Entity List; and (2) you will not permit the Software to be used for, any purposes prohibited by law, including, any prohibited development, design, manufacture or production of missiles or nuclear, chemical or biological weapons. The Software and Documentation are deemed to be "commercial computer software" and "commercial computer software documentation", respectively, pursuant to Defense Federal Acquisition Regulation Supplement ("**DFARS**") Section 227.7202 and Federal Acquisition Regulation ("**FAR**") Section 12.212(b), as applicable. Any use, modification, reproduction, release, performing, displaying or disclosing of the Software and Documentation by or for the U.S. Federal Government shall be governed solely by the terms and conditions of this EULA.

g. **Construction.** The headings of sections of this EULA are for convenience and are not to be used in interpreting this EULA**.** As used in this EULA, the word "including" means "including but not limited to".

h. **Language.** This EULA is in English, and the English language version governs any conflict with a translation into any other language.

i. **Governing Law.** If your billing address is in the United States, this EULA is governed by the laws of the State of California and the federal laws of the United States. If your billing address is outside the United States, this EULA is governed by the laws of Ireland. Conflict of law rules are expressly disclaimed. The U.N. Convention on Contracts for the International Sale of Goods does not apply.

j. **Third-Party Rights.** Other than as expressly provided in this EULA, this EULA does not create any rights for any person who is not a party to it, and only persons who are parties to this EULA may enforce any of its terms or rely on any exclusion or limitation contained in it.

k. **Order of Precedence.** In the event of conflict or inconsistency among the Product Guide, this EULA and the Order, the following descending order of precedence applies unless otherwise set forth in an enterprise license agreement: (a) the Product Guide, (b) this EULA and (c) the Order. This EULA supersedes any conflicting or additional terms and conditions of any purchase order, acknowledgement or confirmation, or other document issued by you for or regarding the Software.

l. **Entire Agreement.** This EULA, together with all accepted Orders and the Product Guide, contains the entire agreement of the parties with respect to the subject matter of this EULA and supersedes all previous or contemporaneous communications, representations, proposals, commitments, understandings and agreements, whether written or oral, between the parties regarding its subject matter. This EULA may be amended only in a writing signed by authorized representatives of both parties. **DEFINITIONS.**

m. "**Affiliate**" means, with respect to a party at a given time, an entity that is directly or indirectly controlled by, is under common control with, or controls that party, where "control" means an ownership, voting, or similar interest representing fifty percent (50%) or more of the total interests outstanding of that entity.

n. **"Confidential Information"** means information or materials provided by one party (**"Discloser"**) to the other party ("**Recipient**") which is in tangible form and labelled "confidential" or the like, or information which a reasonable person knew or should have known to be confidential. The following information is considered our Confidential Information whether or not marked or identified as such: (a) License Keys; (b) information regarding our pricing, product roadmaps or strategic marketing plans; and (c) non-public materials relating to the Software.

o. "**Delivery**" means either delivery of the physical media (if applicable) or the date you are notified of availability for electronic download.

p. "**Documentation**" means that documentation that we generally provide with the Software, as revised by us from time to time, and which may include end user manuals, operation instructions, installation guides, release notes, and on-line help files regarding the use of the Software.

q. **"Guest Operating Systems"** means instances of third-party operating systems licensed by you, installed in a Virtual Machine, and run using the Software.

r. "**Infringement Claim**" means any claim by a third party that the Software infringes any patent, trademark or copyright of that third party, or misappropriates a trade secret (but only to the extent that the misappropriation is not a result of your actions) under the laws of: (a) the United States; (b) Canada; (c) the European Economic Area; (d) the United Kingdom; (e) Australia; (f) New Zealand; (g) Japan; or (h) the People's Republic of China, to the extent that those countries are part of the Territory for the License.

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y. **"Perpetual License"** means a License to the Software with a perpetual term.

z. **"Product Guide"** means the current version of the VMware Product Guide at the time of your Order, which can be found through links at www.vmware.com/download/eula.

aa. **"Support Services Terms"** means our then-current support policies, copies of which are posted at www.vmware.com/support/policies.

ab. **"Software"** means the VMware computer programs listed on our commercial price list to which you acquire a license under an Order, together with any related software code we provide pursuant to a support and subscription service contract and that is not subject to a separate license agreement.

ac. **"Subscription Software"** means Software that is licensed for a specific term (**"Subscription Term"**).

ad. "**Territory**" means the country or countries in which you have been invoiced, except as otherwise provided in the Product Guide. If the Territory for your Software includes any European Economic Area member states or the United Kingdom, you may deploy that Software throughout the European Economic Area and the United Kingdom.

ae. "**Third-Party Agent**" means a third party delivering information technology services to you pursuant to a contract with you.

af. **"U.S. Federal End User"** means any of the following agencies or establishments of the U.S. Federal Government: (a) executive departments as defined by 5 U.S.C. 101, (b) military departments as defined by 5 U.S.C. 102, (c) government corporations as defined by 5 U.S.C. 103, (d) independent establishments as defined by 5 U.S.C. 104, and (e) any establishment in the legislative or judicial branch of the U.S. Federal Government (except the Senate, the House of Representatives, the Architect of the Capitol, and any activities under the Architect's direction).

ag. **"User"** means an employee, contractor, or Third-Party Agent that you have authorized to use the Software as permitted under this EULA.

ah. **"Virtual Machine"** means a software container that can run its own operating system and execute applications like a physical machine.

ai. "**VMware**", "**We**", or "**Us**" means VMware, Inc., a Delaware corporation, if the billing address for your Order is in the United States, or VMware International Unlimited Company, a company organized and existing under the laws of Ireland, if the billing address for your Order is outside the United States.

aj. **"You"** means you individually or the legal entity that you represent. If you are entering into the EULA for an entity, you represent that you have the authority to bind that entity.

5. **TERMS APPLICABLE TO U.S. FEDERAL END USERS.** If you are a U.S. Federal End User, the following terms and conditions supersede or modify the referenced provisions of this EULA.

   a. Replace the second paragraph of the preamble with the following: BY PURCHASING THE SOFTWARE UNDER A CONTRACT OR ORDER THAT INCORPORATES THIS EULA, YOU (THE U.S. FEDERAL END USER) AGREE TO BE BOUND BY THE TERMS OF THIS EULA.

   b. Replace the first sentence of Section 1.1 ("General License Grant") with the following: "We grant you a non-exclusive, non-transferable (except as set forth in Section 12.1 (Transfers; Assignment)), commercial item license to deploy the Software within the Territory and to use the Software and the Documentation during the term of the license, solely for your internal business operations, and subject to the provisions of the Product Guide."

   c. Replace Section 1.5 ("Services for Affiliates") with "Reserved."

   d. Replace subsection (a) in the first sentence of Section 2.1 ("License Restrictions") with the following: (a) use the Software in an application services provider, service bureau, hosted IT services, or similar capacity for third parties;

   e. Replace Section 3 ("Order") with the following: "Your Order is subject to this EULA. No Orders are binding on us until we accept them, and all Orders must expressly incorporate this EULA. Orders for Software are deemed accepted upon Delivery of the Software included in the Order. Purchase orders issued to us do not have to be signed by you to be valid and enforceable unless required by applicable law. All Orders are non-refundable and non- cancellable except as expressly provided in this EULA. Any refunds to which you are entitled under this EULA will be remitted to you or to the VMware channel partner from which you purchased your Software license."

   f. Replace Section 4 ("Records and Audit") with the following: "You must maintain accurate records of your use of the Software sufficient to show compliance with the terms of this EULA. We have the right to audit those records and your use of the Software, at our own expense, to confirm compliance with the terms of this EULA. That audit is subject to reasonable prior notice and will not unreasonably interfere with your business activities. We may conduct no more than one (1) audit in any twelve (12) month period, and only during normal business hours. Neither we nor any third-party auditor shall have physical access to your computing devices in connection with any such audit without your prior written consent. You must reasonably cooperate with us and any third-party auditor. We reserve the right to seek recovery of any underpayments revealed by the audit in accordance with 41 U.S.C. chapter 71 (Contract Disputes) and FAR 52.233-1 (Disputes) or other applicable agency supplement. No payment obligation shall arise on your behalf until the conclusion of the dispute process. If an audit necessitates access to classified information, as that term is defined in the National Industrial Security Program Operating Manual (NISPOM), then the audit will be conducted by auditor(s) possessing a personal security clearance as defined in the NISPOM ("PCL") at the appropriate level. In those cases, VMware and any third-party auditor will disclose Classified Information only to person(s) who both possess a PCL and have a need to know."

   g. Replace Section 7.1 ("Defense and Indemnification") with the following: "Subject to the remainder of this Section 7 and 28 U.S.C. 516, we will (a) defend you against an Infringement Claim; and (b) indemnify you from costs and damages finally awarded against you by a court of competent jurisdiction or a government agency or agreed to in a settlement approved by us. These obligations are applicable only if you: (i) provide us with notice of any Infringement Claim within a reasonable period after learning of the claim (provided that any delay in providing the notice will relieve us of our indemnification obligations only to the extent that the delay prejudices us); (ii) allow us the opportunity to participate in the claim's defense and settlement as provided in applicable laws, rules, or regulations; and (iii) reasonably cooperate in response to our requests for assistance with regard to the Infringement Claim. You must make every effort to permit us to participate fully in the defense or settlement of any Infringement Claim; however, we acknowledge that such participation will be under the control of the U.S. Department of Justice.

   h. Replace Section 7.2 ("Remedies") with the following: If the Software becomes, or in our opinion is likely to become, the subject of an Infringement Claim, we will, at our option and expense: (a)procure the rights necessary for you to keep using the Software; or (b) modify or replace the Software to make it non-infringing. If we determine that the foregoing alternatives are not reasonably available, then you agree to terminate the License to the affected Software and discontinue the related Support Services upon our written request, and, upon your certified deletion of the affected Software, we will refund: (i) for a Perpetual License, the fees paid for the License to the affected Software, less straight- line depreciation over a three (3) year useful life beginning on the date of Delivery of the Software and any unused, prepaid fees for Support Services, or (ii) for Subscription Software, any prepaid fees, prorated for the remaining portion of the then-current Subscription Term. Nothing in this Section 7.2 (Remedies) will limit our obligations under Section 7.1 (Defense and Indemnification), provided that you replace the allegedly infringing Software upon our making alternate Software available to you, or that you discontinue using the allegedly infringing Software upon receiving VMware's written request to terminate the affected License. The foregoing is subject to the U.S. Federal Government's right to require continued use of the Software pursuant to 28 U.S.C. 1498. In the event of such continued use, you agree to notify us in writing and undertake at your expense the defense of any Infringement Claim against you, and we shall have no further indemnification obligation; however, we may participate at our own expense in the defense of any Infringement Claim if the claim is against us.

i. Replace the last sentence of Section 8.4 ("Further Limitations") with the following: You may not bring a claim under this EULA more than eighteen (18) months after the cause of action arises or such longer period as is mandated by 41 U.S.C. chapter 71 (Contract Disputes). Nothing in this Section 8 will impair the U.S. Federal Government's right to recover for fraud or crimes arising out of this EULA as permitted under any applicable federal fraud statute, including the False Claims Act (31 U.S.C. 3729-3733).

j. Add the following to the beginning of Section 9.2 ("Termination for Cause"): Subject to, and to the extent not prohibited by, 41 U.S.C. chapter 71 (Contract Disputes) and FAR 52.233-1 (Disputes),

k. Replace Section 9.3 ("Termination for Insolvency") with the following: **9.3. Termination by You.** You may terminate this EULA in accordance with FAR 52.212-4(l) or FAR 52.212-4(m), if applicable."

l. Replace Section 12.1 ("Transfers; Assignment") with the following: Except to the extent transfer may not legally be restricted or as permitted by our transfer and assignment policies and in all cases following the process set forth at www.vmware.com/support/policies/licensingpolicies.html, you must not assign this EULA, any Order, or any right or obligation pursuant to this EULA, or delegate any performance under this EULA, without our prior written consent, which consent will not be unreasonably withheld, conditioned, or delayed. We may assign our right to receive payment in accordance with the Assignment of Claims Act (31 U.S.C. 3727) and FAR 52.212-4(b), and we may assign this EULA to the extent not prohibited by the Anti- Assignment Act (41 U.S.C. 15). Subject to the requirements of FAR 42.12 (Novation and Change-of-Name Agreements), you shall recognize our successor in interest following a transfer of our assets or a change in our name. Any other attempted assignment or transfer by either party will be void. Subject to the foregoing, this EULA will be binding upon and will inure to the benefit of the parties and their respective successors and assigns. We may use our affiliates or other suppliers to provide services to you, provided that we remain responsible to you for the performance of the services."

m. Replace Section 12.9 ("Governing Law") with the following: This EULA is governed by the applicable federal laws of the United States. The U.N. Convention on Contracts for the International Sale of Goods does not apply.

n. Add the following to the end of Section 12.10 ("Third-Party Rights"): Notwithstanding the foregoing, for any Orders placed with a VMware channel partner, the VMware channel partner may bring a claim to enforce the terms of this EULA at our request and on our behalf.

o. Replace Section 12.11 ("Order of Precedence") with the following: **"2.11. Product Guide.** The Product Guide is incorporated by reference in this EULA. To the extent that any terms and conditions in this EULA or in the Product Guide are inconsistent with applicable federal law, they shall be deemed deleted and unenforceable as applied to your Order. In the event of conflict or inconsistency among the Product Guide and this EULA, the Product Guide shall take precedence unless otherwise provided in an enterprise license agreement. This EULA supersedes any conflicting or additional license terms contained in any purchase order, acknowledgement or confirmation, or other document issued by you for or regarding the Software."

p. Replace Section 12.12 ("Entire Agreement") with the following: "This EULA and the Product Guide contain the entire agreement of the parties with respect to the subject matter of this EULA and supersede all previous or contemporaneous communications, representations, proposals, commitments, understandings and agreements, whether written or oral, between the parties regarding its subject matter. This EULA may be amended only in writing signed by authorized representatives of both parties."

q. Replace Section 13.1 ("Affiliate") with "Reserved."

r. Replace Section 13.12 ("Order") with the following: **"'Order**' means a purchase order, enterprise license agreement, or other ordering document issued by you to us or to your VMware channel partner that references and incorporates this EULA and is accepted by us as set forth in Section 3 (Order)."

s. Replace Section 13.15 ("Support Services Terms") with the following: **"'Support Services Terms'** means our then-current support policies, copies of which are posted at www.vmware.com/support/policies, subject to FAR 52.212-4(u) and General Services Acquisition Manual ("GSAM") 552.232-78 (Commercial Supplier Agreements— Unenforceable Clauses)."

t. Replace Section 13.18 ("Territory") with the following: "'**Territory**' means the United States of America, including U.S. Federal Government Facilities located outside of the United States of America, except as otherwise provided in the Product Guide. For purposes of this section, "U.S. Federal Government Facilities" means buildings that are both 100% owned and controlled by the U.S. Federal Government and includes land, bases, installations, vessels, craft, and ships that are both 100% owned and controlled by the U.S. Federal Government. In the foregoing sentence, "owned" also includes leased throughout the entire term of the Order."

u. Replace Section 13.23 ("VMware," "We," or "Us") with the following:

"'VMware,' '**We,**' or '**Us**' means VMware, Inc., a Delaware corporation."

Cisco General Terms

1. Scope and applicability

1.1 These terms (the “General Terms”) govern Your access to, and use of, Cisco Offers and incorporate any Supplemental Terms and Offer Descriptions applicable to Your Order. Capitalized terms are defined in section 14 (Definitions).

1.2 You agree to these terms by accessing or using a Cisco Offer, finalizing Your Order or through Your express agreement, whichever happens first. These terms apply independently of any contract You may have with a Cisco Partner.

2. Use Rights

2.1 License and right to use. Cisco grants You, for Your direct benefit, a non-exclusive:

(a) license to use Software and Cisco Content; and

(b) right to use Subscription Offers, including Cloud Services,

in accordance with Your Order or as otherwise agreed in writing (collectively, the “Use Rights”). Your Use Rights are non-transferable (except Software as permitted under the Transfer Policies).

2.2 Limits on usage. You may not:

(a) transfer, sell, sublicense, monetize or provide the functionality of any Cisco Offer to any third party, except as authorized by Cisco;

(b) use the Software on second hand or refurbished Cisco devices or use Software licensed for a specific device on a different device unless authorized by Cisco or permitted under the Transfer Policies;

(c) remove, change, or conceal any product identification, copyright, proprietary, intellectual property notices or other marks from any Cisco Offer;

(d) reverse engineer, decompile, decrypt, disassemble, modify, or make derivative works of Cisco Offers; or

(e) use Cisco Content other than as reasonably needed to exercise Your Use Rights.

2.3 Acceptable use. You will ensure Your access or use of Software or Subscription Offers does not:

(a) violate applicable laws or the rights of any third party; or

(b) impede or interfere with the security, stability, availability or performance of any Cloud Service, or any other network or service (e.g., denial-of-service attacks, penetration testing or distribution of malware).

2.4 Suspension. Cisco may suspend Your access to Software or Subscription Offers if it reasonably believes that You or an Authorized User have materially breached sections 2.2 (Limits on usage) or 2.3 (Acceptable use).

2.5 Use by third parties. If You permit Authorized Users to access Cisco Offers on Your behalf:

(a) You will make sure all Authorized Users follow these terms; and

(b) You are liable for any breach of these terms by an Authorized User.

2.6 Interoperability requirements. If required by law, Cisco will promptly provide the information You request to achieve interoperability between applicable Cisco Offers and another independently created program on terms that reasonably protect Cisco’s proprietary interests.

2.7 Use with third party products. Cisco does not support or guarantee integration with third party technologies or services unless they are included as part of a Cisco Offer or agreed in writing.

2.8 Changes to Subscription Offers. Cisco may change its Subscription Offers, typically to enhance them or add features. These changes will not materially reduce the core functionality of the affected Subscription Offers during the Use Term.

2.9 Maintaining Subscription Offers. Cisco may occasionally perform maintenance of its Subscription Offers which may disrupt the performance or availability of affected Subscription Offers. Cisco will provide advanced notice of planned maintenance when reasonably possible. If Cisco performs emergency maintenance without notice, it will take reasonable steps to reduce any disruption of affected Subscription Offers.

2.10 Open-source technology. Separate license terms apply to third party open-source technology used in Cisco Offers. Open-source terms are found at Cisco's Open Source webpage. As long as You use Cisco Offers according to these General Terms, Cisco’s use of open-source technology in Cisco Offers will not impede Your exercise of Use Rights or cause Your software to become subject to an open-source license.

3. Free trials

3.1 Accessing Free Trials. Your Approved Source may let You access or use Cisco Offers on a trial, evaluation, beta or other free-of-charge basis ("Free Trial"). You may only access or use the Free Trial for the period specified ("Free Trial Period") and under any additional terms specified by Your Approved Source in writing. If no Free Trial Period is specified, You may only access or use the Free Trial for 60 days after the Free Trial is available to You. Free Trials may not come with support and may be incomplete or have errors. Unless agreed in writing by Cisco, You will not use the Free Trial in a production environment.

3.2 Ending Free Trials. At the end of a Free Trial, You will promptly Return the Cisco Offers as described in the Free Trial terms. Your Approved Source may change or terminate a Free Trial at its discretion with reasonable notice.

3.3 Continued use and disclaimer.

(a) If You continue accessing a Cisco Offer after a Free Trial Period or fail to Return a Cisco Offer, You will pay any applicable fees reasonably charged by Your Approved Source.

(b) Unless agreed by Cisco in writing or required by law, Free Trials are provided "AS-IS" without any express or implied warranties.

4. End of life

4.1 Notification. Cisco may end the life of Cisco Offers by providing notice at the End-of-Sale and End-of-Life Products webpage.

4.2 Pre-paid Cloud Service. If Your Approved Source is prepaid a fee for Your use of a Cloud Service that is end of life before Your then-current Use Term ends, Cisco will either (a) provide You with a generally available alternative offer, or (b) if Cisco cannot reasonably provide an alternative offer, it will credit the unused balance of fees paid for the relevant Cloud Service to Your Approved Source or You (if Cisco is the Approved Source) once You Return the Cloud Service.

4.3 Credit. Credits issued under section 4.2 (Pre-paid Cloud Service) are calculated from the last date the applicable Cloud Service is available to the end of the applicable Use Term and may be applied only towards the future purchase of Cisco Offers.

5. Paying Your Approved Source

You will pay Your Approved Source all amounts due under Your Orders, including fees for additional consumption of a Subscription Offer or under a Buying Program.

6. Confidentiality

6.1 General obligation. A recipient of Confidential Information will protect that Confidential Information using the same standard of care it uses to protect its own confidential information of a similar nature, but no less than a reasonable standard of care. This section 6 (Confidentiality) will not apply to information which:

(a) is known by the recipient without confidentiality obligations;

(b) is or has become public knowledge through no fault of the recipient; or

(c) is independently developed by, or for, the recipient.

6.2 Permitted recipients. A recipient of Confidential Information will not disclose Confidential Information to any third party, except to its employees, Affiliates and contractors who need to know. The recipient is liable for a breach of this section 6 by its permitted recipients and must ensure each of those permitted recipients have written confidentiality obligations at least as restrictive as the recipient's obligations under these terms.

6.3 Required disclosures. The recipient may reveal Confidential Information if required by law (including under a court order) but only after it notifies the discloser in writing (if legally permissible). A recipient will reasonably cooperate with a discloser's reasonably requested protective actions, at the discloser's expense.

6.4 Returning, destroying and retaining Confidential Information. The recipient will return, delete or destroy all Confidential Information and confirm in writing it has done so within 30 days of the discloser's written request unless retention is required by law or Confidential Information has been stored in a backup system in the ordinary course of business. Retained Confidential Information will continue to be subject to this section 6 for five years, or until the Confidential Information is no longer a trade secret under applicable law.

7. Privacy and security

7.1 Cisco respects Your Data and will access and use Data in accordance with the Data Briefs.

7.2 In addition, if Cisco processes Personal Data or Customer Content, Cisco will process such data according to:

(a) the Data Processing Terms for Personal Data (which are incorporated by reference);

(b) the security measures described in Cisco's Information Security Exhibit;

(c) the Privacy Data Sheets applicable to the relevant Cisco Offer; and

(d) privacy and data protection laws applicable to Cisco Offers.

7.3 You will ensure Your use of Cisco Offers (including collection, processing and use of Customer Content with Cisco Offers) complies with privacy and data protection laws applicable to Your Cisco Offers, including industry-specific requirements. You are also responsible for providing notice to, and getting consents from individuals whose data may be collected, processed, transferred and stored through Your use of Cisco Offers.

8. Ownership of intellectual property

8.1 Unless agreed in writing, nothing in these terms transfers ownership in any intellectual property rights. You keep ownership of Customer Content and Cisco keeps ownership of Cisco Offers and Cisco Content.

8.2 Cisco may use any feedback You provide in connection with Your use of Cisco Offers.

9. Intellectual property indemnity

9.1 Claims. Cisco will defend any third-party claim against You asserting that Your valid use of a Cisco Offer infringes a third party's patent, copyright or registered trademark (the "IP Claim"). Cisco will indemnify You against the final judgment entered by a court of competent jurisdiction or any settlements arising out of an IP Claim, if You:

(a) promptly notify Cisco in writing of the IP Claim (but failure to promptly notify Cisco only limits Cisco's obligations to the extent it is prejudiced by the delay);

(b) fully cooperate with Cisco in the defense of the IP Claim; and

(c) grant Cisco the right to exclusively control the defense and settlement of the IP Claim, and any appeal.

Cisco does not have to reimburse You for attorney fees and costs incurred before Cisco receives notification of the IP Claim. You may retain Your own legal representation at Your own expense.

9.2 Additional remedies. If an IP Claim prevents or is likely to prevent You from accessing or using the applicable Cisco Offer, Cisco will either get the right for You to continue using the Cisco Offer or replace or modify the applicable Cisco Offer with non-infringing functionality that is at least equivalent. If Cisco determines those options are not reasonably available, then Cisco will provide a prorated refund for the impacted Cisco Offer.

9.3 Exclusions. Cisco has no duty regarding any IP Claim to the extent based on:

(a) any designs, specifications or requirements provided by You, or on Your behalf;

(b) modification of a Cisco Offer by You, or on Your behalf;

(c) the amount or duration of use made of a Cisco Offer, revenue You earned, or services You offered;

(d) combination, operation, or use of the Cisco Offer with non-Cisco products, software, content or business processes; or

(e) Your failure to change or replace the Cisco Offer as required by Cisco.

9.4 To the extent allowed by law, this section 9 states Your only remedy regarding an IP Claim against You.

9.1 Claims. Cisco will defend any third-party claim against You asserting that Your valid use of a Cisco Offer infringes a third party's patent, copyright or registered trademark (the "IP Claim"). Cisco will indemnify You against the final judgment entered by a court of competent jurisdiction or any settlements arising out of an IP Claim, if You:

(a) promptly notify Cisco in writing of the IP Claim (but failure to promptly notify Cisco only limits Cisco's obligations to the extent it is prejudiced by the delay);

(b) fully cooperate with Cisco in the defense of the IP Claim; and

(c) grant Cisco the right to exclusively control the defense and settlement of the IP Claim, and any appeal.

Cisco does not have to reimburse You for attorney fees and costs incurred before Cisco receives notification of the IP Claim. You may retain Your own legal representation at Your own expense.

9.2 Additional remedies. If an IP Claim prevents or is likely to prevent You from accessing or using the applicable Cisco Offer, Cisco will either get the right for You to continue using the Cisco Offer or replace or modify the applicable Cisco Offer with non-infringing functionality that is at least equivalent. If Cisco determines those options are not reasonably available, then Cisco will provide a prorated refund for the impacted Cisco Offer.

9.3 Exclusions. Cisco has no duty regarding any IP Claim to the extent based on:

(a) any designs, specifications or requirements provided by You, or on Your behalf;

(b) modification of a Cisco Offer by You, or on Your behalf;

(c) the amount or duration of use made of a Cisco Offer, revenue You earned, or services You offered;

(d) combination, operation, or use of the Cisco Offer with non-Cisco products, software, content or business processes; or

(e) Your failure to change or replace the Cisco Offer as required by Cisco.

9.4 To the extent allowed by law, this section 9 states Your only remedy regarding an IP Claim against You.

10. Performance standards

10.1 Service Level Agreement. Cisco Offers will comply with applicable Service Level Agreements, as set out in the corresponding Offer Description.

10.2 Warranties. Cisco provides these warranties for Cisco Offers:

Table 19. Cisco provides these warranties for Cisco Offers

Warranty	Hardware	Software	Subscription Offers
• Cisco warrants that the Cisco Offer substantially complies with the Documentation as follows: • (a) if the Cisco Offer is a Subscription Offer, starting from commencement of the service, for the duration of the services; and • (b) if the Cisco Offer is Hardware or Software, for 90 days from shipment or longer as stated in Documentation, or as set out in Product Warranties webpage.	YES	YES	YES
Cisco warrants it will use commercially reasonable efforts and methods to deliver the Cisco Offer free from Malicious Code.	N/A	YES	YES
Cisco warrants that the Cisco Offer is free from defects in material and workmanship for 90 days from shipment or longer as stated in Documentation or as set out in Product Warranties webpage.	YES	N/A	N/A

To make a claim for breach of these warranties, promptly notify both Cisco and Cisco Partner (if they are Your Approved Source) within any specified warranty period.

10.3 Qualifications

(a) You may have legal rights in Your country that prohibit or restrict the limitations set out in this section 10. This section 10 applies only to the extent permitted under applicable law.

(b) Section 10.2 does not apply if Your breach of the General Terms contributes to the breach of warranty, or if the Cisco Offer:

(1) has not been used according to its Documentation;

(2) has been altered, except by Cisco or its authorized representative;

(3) has been subjected to abnormal or improper environmental conditions, accident or negligence, or installation or use inconsistent with Cisco's instructions or the terms on which it is supplied by Cisco;

(4) is provided under a Free Trial; or

(5) has not been provided by an Approved Source.

(c) Your sole remedy for breach of a warranty under section 10.2 is, at Cisco's option, either:

(1) repair or replacement of the applicable Cisco Offer; or

(2) a refund of either:

(A) the fees paid for Use Rights in the non-conforming Software;

(B) the fees paid for the period in which the Subscription Offer did not conform less any amounts paid or owed under a Service Level Agreement; or

(C) the fees paid for the non-conforming Hardware.

(d) Except as provided in Section 10.2 above, and to the extent allowed by law, Cisco makes no express or implied warranties of any kind regarding the Cisco Offers. This disclaimer includes any warranty, condition or other term as to merchantability, merchantable quality, fitness for purpose or use, course of dealing, usage of trade, or non-infringement. Cisco does not warrant that Cisco Offers will be secure, uninterrupted or error-free.

11. Liability

11.1 Excluded liability. Neither party is liable for:

(a) indirect, incidental, reliance, consequential, special or exemplary damages; or

(b) loss of actual or anticipated revenue, profit, business, savings, data, goodwill or use, business interruption, damaged data, wasted expenditure or delay in delivery (in all cases, whether direct or indirect).

11.2 Liability cap. Each party's entire liability for all claims relating to these terms will not exceed the greater of: (a) the fees paid to Cisco for the specific Cisco Offer that is the subject of the claim in the 12 months before the first incident giving rise to such liability; or (b) $100,000 USD. This cap is cumulative for all claims (not per incident) and applies collectively to each party and its Affiliates (not per Affiliate).

11.3 Unlimited liability. Nothing in this section 11 limits or excludes liabilities that cannot be excluded or limited under applicable law, or for:

(a) bodily injury or death resulting directly from the other party's negligence;

(b) fraudulent misrepresentation or wilful misconduct;

(c) breach of confidentiality obligations, unless the breach relates to section 7 (Privacy and security);

(d) failure to pay for Cisco Offers;

(e) misuse or misappropriation by a party of the other party's intellectual property rights; or

(f) failure to comply with export control obligations.

12. Termination

12.1 Material breach. Either party may provide written notice to the other party if the other party materially breaches these terms or any written terms otherwise agreed under an affected Order. If the breach remains uncured after 30 days of the date of that notice, the non-breaching party may immediately terminate the affected Orders, in whole or in part.

12.2 Termination for Compliance with Laws. Cisco may terminate these terms and affected Orders immediately upon written notice if continued provision of the Cisco Offers will result in a violation of section 13.7 (Compliance with Laws).

12.3 Effect of termination or expiration. You will Return applicable Cisco Offers (except any Cisco Offer in which title has transferred to You) at the end of Your Use Term or upon termination of an Order.

13. General provisions

13.1 Survival. Sections 5 (Paying Your Approved Source), 6 (Confidentiality), 7 (Privacy and security), 8 (Ownership of intellectual property), 9 (IP Indemnity), 10 (Performance standards), 11 (Liability), 12 (Termination) and 13 (General provisions) survive termination of these terms.

13.2 No agency. These terms do not create any agency, partnership, joint venture, or franchise relationship.

13.3 Assignment and subcontracting.

(a) Except as set out below, neither party may assign or novate these terms in whole or in part without the other party's written consent which will not be unreasonably withheld. Cisco may assign these terms in connection with the sale of a part of its business, or to its Affiliates if it provides prior written notice to You.

(b) Cisco may subcontract any performance associated with any Cisco Offer to third parties if such subcontract is consistent with these terms and does not relieve Cisco of any of its obligations under these terms.

13.4 Third party beneficiaries. These terms do not grant any right or cause of action to any third party.

13.5 Use records. You will keep reasonable records of your use of the Cisco Offers. You will let Cisco and its auditors who are under a written obligation of confidentiality access records of Your use of the Cisco Offers (including books, systems, and accounts) within 30 days' notice from Cisco. Cisco may not give this notice more than once in any 12-month period and will conduct any audit during Your normal business hours. If the verification process reveals underpayment of fees, You will pay these fees within 30 days.

13.6 Changes to these terms. The version of the General Terms applicable to Your Order is the version published at the Cisco General Terms webpage when the Order is placed. If Cisco changes these terms or any of its parts, these changes will be published at the Cisco General Termswebpage. These changes will only apply to Cisco Offers Ordered or renewed after the date of the change.

13.7 Compliance with laws

(a) General. Cisco will comply with all applicable laws relating to providing Cisco Offers under these terms. You will comply with all applicable laws relating to Your receipt and use of Cisco Offers, including sector-specific requirements and obtaining required licenses or permits (if any).

(b) Trade Compliance. Cisco Offers are subject to US and other export control and sanctions laws around the world. These laws govern the use, transfer, export and re-export of Cisco Offers. Each party will comply with such laws and obtain all licenses or authorizations it is required to maintain. Please refer to Cisco's trade compliance policies at the General Export Compliance webpage.

13.8 Governing law and venue. These terms, and any disputes arising from them, are subject to the governing law and exclusive jurisdiction and venue listed below, based on Your primary place of business. Each party consents and submits to the exclusive jurisdiction of the courts in the listed venue. These laws apply despite conflicts of laws rules or the United Nations Convention on Contracts for the International Sale of Goods. Despite the below, either party may seek interim injunctive relief in any court of appropriate jurisdiction regarding any alleged breach of confidentiality obligations or intellectual property or proprietary rights.

Table 20. Jurisdiction and Venue

Your Primary Place of Business	Governing Law	Jurisdiction and Venue
United States, Latin America or the Caribbean, or a location not specified below	State of California, United States	Superior Court of California, County of Santa Clara and Federal Courts of the Northern District of California
Africa, Asia*, Europe*, Middle East, Oceania*	England	English Courts
Australia	State of New South Wales, Australia	State and Federal Courts in New South Wales
Canada	Province of Ontario, Canada	Courts of the Province of Ontario
Mainland China	People's Republic of China	Hong Kong International Arbitration Center
Italy	Italy	Court of Milan
Japan	Japan	Tokyo District Court of Japan

* Excluding locations listed separately in this table.

If You are a US State, Local and Education ("SLED") Government end user, these terms, and any disputes arising from them, are subject to the laws of the primary jurisdiction in which You are located.

If You are a US Federal Government end user, these terms, and any disputes arising from them, are subject to the laws of the United States.

13.9 US Government end users

(a) US SLED Government. These terms govern all access to Software, Subscription Offers and Documentation by US SLED Government end users. No other rights are granted by Cisco.

(b) US Federal Government. The Software, Subscription Offers and Documentation are considered “commercial computer software” and “commercial computer software documentation” under FAR 12.212 and DFARS 227.7202. These terms govern all access to Software, Subscription Offers and Documentation by US Federal Government end users. No other rights are granted by Cisco, but any inconsistency in these terms with federal procurement regulations is not enforceable against the US Federal Government.

13.10 Notice. Unless provided in these terms, applicable Offer Description, or an Order, notices to Cisco (a) should be sent to Cisco Systems, Legal Department, 170 West Tasman Drive, San Jose, CA 95134 or by email to contract-notice@cisco.com, and (b) are considered effective (i) upon delivery, if personally delivered, (ii) the next day, if sent by overnight mail, (iii) 3 business days after deposit, postage prepaid, if mailed, or (iv) the same day receipt is acknowledged, if sent by e-mail. Cisco may deliver notice to You under these terms via email or regular mail, but it may provide notices of a general nature applicable to multiple customers on cisco.com.

13.11 Force majeure. Neither party is responsible for delay or failure to perform its obligations to the extent caused by events beyond a party’s reasonable control including severe weather events, acts of God, supply shortages, labor strikes, epidemic, pandemic, acts of government, war, acts of terrorism or the stability or availability of utilities (including electricity and telecommunications). The affected party must make commercially reasonable efforts to mitigate the impact of the force majeure event.

13.12 No waiver. Failure by either party to enforce any right under these terms will not waive that right.

13.13 Severability. If any term in these terms is invalid or unenforceable, then the rest of these terms will continue with full force and effect to the extent possible.

13.14 Entire agreement. These terms are the complete agreement between the parties regarding the subject of these terms and replace all previous communications, understandings or agreements (whether written or oral).

13.15 Translations. Cisco may provide local language translations of these terms in some locations. Those translations are provided for informational purposes only. If there is any inconsistency in those translations, the English version of these terms will prevail.

13.16 No publicity. Neither party will issue any press release or other publications regarding Your use of Cisco Offers without the other party’s advance written permission.

13.17 Order of precedence.

(a) If there is any conflict between these General Terms, Supplemental Terms or any Offer Descriptions, the order of precedence (from highest to lowest) is:

(1) Regional terms;

(2) Data Processing Terms;

(3) Offer Descriptions;

(4) Supplemental Terms (other than Regional Terms);

(5) these General Terms; then

(6) any applicable Cisco policy referenced in these General Terms.

(b) As between You and Cisco, these terms prevail over any inconsistencies with Your contract with any Cisco Partner.

14. Definitions

Table 21. Definitions

Term	Meaning
Affiliate	Any corporation or company that directly or indirectly controls, or is controlled by, or is under common control with the relevant party, where “control” means to: (a) own over 50% of the relevant party; or (b) be able to direct the affairs of the relevant party through voting rights or other lawful means (e.g., a contract that allows control).
Approved Source	Cisco, a Cisco Partner, or a fulfillment agent (e.g., public cloud marketplaces) as may be appointed by Cisco from time to time.
Authorized Users	Your users including Affiliates, Your third-party service providers, and each of their respective Users.

Table 21. Definitions (continued)

Term	Meaning
Buying Program	Cisco's consumption-based programs for buying Cisco Offers such as the Cisco Enterprise Agreement.
Cisco, we, our or us	Cisco Systems, Inc. or its applicable Affiliates.
Cisco Content	Systems Information and data, materials or other content provided by Cisco directly or through Your Approved Source to You as part of Your access to Cisco Offers.
Cisco Offer	Cisco-branded (a) Hardware, (b) Use Rights in Software or Cloud Services, (c) technical support included in a Subscription Offer and (d) incidental technology and resources.
Cisco Partner	A Cisco authorized reseller, distributor, systems integrator or other third party authorized by Cisco to sell Cisco Offers.
Cloud Service	An on-demand service provided by Cisco accessible via the internet and provides software, platform, infrastructure and network products and services on an 'as-a-service' basis as described in the applicable Offer Description.
Confidential Information	Non-public proprietary information of the discloser obtained by the recipient in connection with these terms, which: (a) is conspicuously marked as confidential if written or clearly stating the information is confidential when (or promptly after) it is verbally disclosed; or (b) is information which by its nature should reasonably be considered confidential whether disclosed in writing or orally.
Customer Content	As defined in the Data Brief at the Customer Content - Data Brief webpage.
Data	Personal Data, Customer Content and Systems Information.
Data Briefs	Documents describing each type of Data (e.g., Personal Data, Customer Content and Systems Information) that Cisco Offers collect, how it is collected, and when it is used, available at the Trust Portal webpage.
Data Processing Terms	Cisco's data processing terms in the Data Protection Agreement, or terms agreed between You and Cisco covering the same scope.
Documentation	The technical specifications and use materials officially published by Cisco specifying the functionalities and capabilities of the applicable Cisco Offer as updated from time to time.
Free Trial	As defined in section 3.1 (Accessing free trials).
Free Trial Period	As defined in Section 3.1 (Accessing free trials).
Hardware	Tangible Cisco-branded hardware products as generally available on the Price List. Hardware does not include any tangible product listed on the Price List in the name of a third party.
Information Security Exhibit	A document describing the security measures that Cisco implements to secure Personal Data and Customer Content, available at the Information Security Exhibit webpage.
Malicious Code	Code designed or intended to disable or impede the normal operation of, or provide unauthorized access to, networks, systems, Software or Cloud Services other than as intended by the Cisco Offer (e.g., as part of Cisco's security products).

Table 21. Definitions (continued)

Term	Meaning
Offer Description	A document published by Cisco as an 'Offer Description' that has more information or related terms specific to a Cisco Offer or Buying Program, available at the Product Specific Terms webpage.
Order	The transaction through which You acquire a Cisco Offer from an Approved Source, including through buying and ordering documents, signing an agreement or statement of work, or transacting through an online ordering tool or marketplace.
Personal Data	Any information about, or relating to, an identifiable individual. It includes any information that can be linked to an individual or used to, directly or indirectly, identify an individual, natural person. Further information regarding Personal Data is on the Personal Data - Data Brief webpage.
Price List	The price lists published at Cisco.com corresponding to the Cisco entity that sells the applicable Cisco Offer.
Privacy Data Sheet	The privacy data sheet applicable to a Cisco Offer available on the Trust Portal - Privacy Data Sheet webpage.
Return	Stopping all use of, destroying or returning applicable Cisco Offers to Your Approved Source, as directed by Cisco or Your Approved Source.
Service Level Agreement	The service level agreement applicable to a Subscription Offer (if applicable) as set out in the applicable Offer Description.
Software	Cisco-branded computer programs, including Upgrades and firmware.
Subscription Offer	Cisco Offers provided on a term, or subscription, basis under Your Order.
Supplemental Terms	Any additional terms applicable to Your Order (including those applying to a specific region or Buying Program).
Systems Information	As defined in the Systems Information – Data Brief webpage.
Transfer Policies	Cisco policies for movement of Use Rights as set out in the Cisco Software Transfer and Re-licensing Policy and the Software License Portability Policy.
Upgrades	All updates, upgrades, bug fixes, error corrections, enhancements and other modifications to the Software.
Use Term	The period You may exercise Use Rights in the Cisco Offer under Your Order.
Use Rights	As set out in section 2.1.
You, Your	The individual or legal entity acquiring access to Cisco Offers.

Important Links

Links to various Cisco data briefs, agreements, and policies.

Here are some important links related to Cisco data briefs, agreements, and policies:

- Customer Content - Data Brief
- Trust Portal
- Data Protection Agreement
- Information Security Exhibit
- Product Specific Terms

- Personal Data - Data Brief
- Trust Portal - Privacy Data Sheet
- Systems Information – Data Brief
- Cisco Software Transfer and Re-licensing Policy
- Software License Portability Policy

Citrix Workspace End User License Agreement

1. Use of this component is subject to the Citrix license or terms of service covering the Citrix product(s) and/or service(s) with which you will be using this component. This component is licensed for use only with such Citrix product(s) and/or service(s;

- 1. (General License Grant) above, You may permit Your Third Party Agents to access, use and/or operate the Software on Your behalf for the sole purpose of delivering services to You, provided that You will be fully responsible for Your Third Party Agents' compliance with terms and conditions of this EULA and any breach of this EULA by a Third Party Agent shall be deemed to be a breach by You
  2. Third Party Agents. Under the License granted to You in Section;
  3. Copying Permitted. You may copy the Software and Documentation as necessary to install and run the quantity of copies licensed, but otherwise for archival purposes only
  4. Benchmarking. You may use the Software to conduct internal performance testing and benchmarking studies. You may only publish or otherwise distribute the results of such studies to third parties as follows: (a) if with respect to VMware's Workstation or Fusion products, only if You provide a copy of Your study to benchmark@vmware.com prior to distribution; (b) if with respect to any other Software, only if VMware has reviewed and approved of the methodology, assumptions and other parameters of the study (please contact VMware at benchmark@vmware.com to request such review and approval) prior to such publication and distribution
  5. VMware Tools. You may distribute the VMware Tools to third parties solely when installed in a Guest Operating System within a Virtual Machine. You are liable for compliance by those third parties with the terms and conditions of this EULA
  6. Open Source Software. Notwithstanding anything herein to the contrary, Open Source Software is licensed to You under such OSSs own applicable license terms, which can be found in the open_source_licenses.txt file, the Documentation or as applicable, the corresponding source files for the Software available at www.vmware.com/download/open_source.html. These OSS license terms are consistent with the license granted in Section 2 (License Grant), and may contain additional rights benefiting You. The OSS license terms shall take precedence over this EULA to the extent that this EULA imposes greater restrictions on You than the applicable OSS license terms. To the extent the license for any Open Source Software requires VMware to make available to You the corresponding source code and/or modifications (the;Source Files;), You may obtain a copy of the applicable Source Files from VMwares website at www.vmware.com/download/open_source.html or by sending a written request, with Your name and address to: VMware, Inc., 3401 Hillview Avenue, Palo Alto, CA 94304, United States of America. All requests should clearly specify: Open Source Files Request, Attention: General Counsel. This offer to obtain a copy of the Source Files is valid for three years from the date You acquired this Software.

RESTRICTIONS; OWNERSHIP

- 1. License Restrictions. Without VMware's prior written consent, You must not, and must not allow any third party to: (a) use Software in an application services provider, service bureau, or similar capacity for third parties, except that You may use the Software to deliver hosted services to Your Affiliates; (b) disclose to any third party the results of any benchmarking testing or comparative or competitive analyses of VMware's Software done by or on behalf of You, except as specified in Section 2.4 (Benchmarking); (c) make available Software in any form to anyone other than Your employees or contractors reasonably acceptable to VMware and require access to use Software on behalf of You in a matter permitted by this EULA, except as specified in Section 2.2 (Third Party Agents); (d) transfer or sublicense Software or Documentation to an Affiliate or any third party, except as expressly permitted in Section 12.1 (Transfers; Assignment); (e) use Software in conflict with the terms and restrictions of the Software's licensing model and other requirements specified in Product Guide and/or VMware quote; (f) except to the extent permitted by applicable mandatory law, modify, translate, enhance, or create derivative works from the Software, or reverse engineer, decompile, or otherwise attempt to derive source code from the Software, except as specified in Section 3.2 (Decompilation); (g) remove any copyright or other proprietary notices on or in any copies of Software; or (h) violate or circumvent any technological restrictions within the Software or specified in this EULA, such as via software or services

;3.2. Decompilation. Notwithstanding the foregoing, decompiling the Software is permitted to the extent the laws of the Territory give You the express right to do so to obtain information necessary to render the Software interoperable with other software; provided, however, You must first request such information from VMware, provide all reasonably requested information to allow VMware to assess Your claim, and VMware may, in its discretion, either provide such interoperability information to You, impose reasonable conditions, including a reasonable fee, on such use of the Software, or offer to provide alternatives to ensure that VMware's proprietary rights in the Software are protected and to reduce any adverse impact on VMware's proprietary rights

;3.3. Ownership. The Software and Documentation, all copies and portions thereof, and all improvements, enhancements, modifications and derivative works thereof, and all Intellectual Property Rights therein, are and shall remain the sole and exclusive property of VMware and its licensors. Your rights to use the Software and Documentation shall be limited to those expressly granted in this EULA and any applicable Order. No other rights with respect to the Software or any related Intellectual Property Rights are implied.

You are not authorized to use (and shall not permit any third party to use) the Software, Documentation or any portion thereof except as expressly authorized by this EULA or the applicable Order.

VMware reserves all rights not expressly granted to You. VMware does not transfer any ownership rights in any Software

;3.4. Guest Operating Systems. Certain Software allows Guest Operating Systems and application programs to run on a computer system. You acknowledge that You are responsible for obtaining and complying with any licenses necessary to operate any such third- party software

;4. ORDER. Your Order is subject to this EULA. No Orders are binding on VMware until accepted by VMware. Orders for Software are deemed to be accepted upon VMware's delivery of the Software included in such Order. Orders issued to VMware do not have to be signed to be valid and enforceable

;5. RECORDS AND AUDIT. During the License Term for Software and for two (2) years after its expiration or termination, You will maintain accurate records of Your use of the Software sufficient to show compliance with the terms of this EULA. During this period, VMware will have the right to audit Your use of the Software to confirm compliance with the terms of this EULA. That audit is subject to reasonable notice by VMware and will not unreasonably interfere with Your business activities. VMware may conduct no more than one (1) audit in any twelve (12) month period, and only during normal business hours. You will reasonably cooperate with VMware and any third party auditor and will, without prejudice to other rights of VMware, address any non-compliance identified by the audit by promptly paying additional fees. You will promptly reimburse VMware for all reasonable costs of the audit if the audit reveals either underpayment of more than five (5%) percent of the Software fees payable by You for the period audited, or that You have materially failed to maintain accurate records of Software use

;6. SUPPORT AND SUBSCRIPTION SERVICES. Except as expressly specified in the Product Guide, VMware does not provide any support or subscription services for the Software under this EULA. You have no rights to any updates, upgrades or extensions or enhancements to the Software developed by VMware unless you separately purchase VMware support or subscription services. These support or subscription services are subject to the Support Services Terms

7. WARRANTIES

;7.1. Software Warranty, Duration and Remedy. VMware warrants to You that the Software will, for a period of ninety (90) days following notice of availability for electronic download or delivery (;Warranty Period;), substantially conform to the applicable Documentation, provided that the Software: (a) has been properly installed and used at all times in accordance with the applicable Documentation; and (b) has not been modified or added to by persons other than VMware or its authorized representative.

VMware will, at its own expense and as its sole obligation and Your exclusive remedy for any breach of this warranty, either replace that Software or correct any reproducible error in that Software reported to VMware by You in writing during the Warranty Period. If VMware determines that it is unable to correct the error or replace the Software, VMware will refund to You the amount paid by You for that Software, in which case the License for that Software will terminate

;7.2. Software Disclaimer of Warranty. OTHER THAN THE WARRANTY ABOVE, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, VMWARE AND ITS SUPPLIERS MAKE NO OTHER EXPRESS WARRANTIES UNDER THIS EULA, AND DISCLAIM ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT, AND ANY WARRANTY ARISING BY STATUTE, OPERATION OF LAW, COURSE OF DEALING OR PERFORMANCE, OR USAGE OF TRADE. VMWARE AND ITS LICENSORS DO NOT WARRANT THAT THE SOFTWARE WILL OPERATE UNINTERRUPTED OR THAT IT WILL BE FREE FROM DEFECTS OR THAT IT WILL MEET YOUR REQUIREMENTS

8. INTELLECTUAL PROPERTY INDEMNIFICATION

;8.1. Defense and Indemnification. Subject to the remainder of this Section 8 (Intellectual Property Indemnification), VMware shall defend You against any third party claim that the Software infringes any patent, trademark or copyright of such third party, or misappropriates a trade secret (but only to the extent that the misappropriation is not a result of Your actions) under the laws of: (a) the United States and Canada; (b) the European Economic Area; (c) Australia; (d) New Zealand; (e) Japan; or (f) the People's Republic of China, to the extent that such countries are part of the Territory for the License ('Infringement Claim') and indemnify You from the resulting costs and damages finally awarded against You to such third party by a court of competent jurisdiction or agreed to in settlement. The foregoing obligations are applicable only if You: (i) promptly notify VMware in writing of the Infringement Claim; (ii) allow VMware sole control over the defense for the claim, any settlement negotiations and any related action challenging the validity of the allegedly infringed patent, trademark, or copyright; and (iii) reasonably cooperate in response to VMware requests for assistance. You may not settle or compromise any Infringement Claim without the prior written consent of VMware

8.2 Remedies. If the alleged infringing Software become, or in VMware's opinion be likely to become, the subject of an Infringement Claim, VMware will, at VMware's option and expense, do one of the following: (a) procure the rights necessary for You to make continued use of the affected Software; (b) replace or modify the affected Software to make it non-infringing;

or (c) terminate the License to the affected Software and discontinue the related support services, and, upon Your certified deletion of the affected Software, refund: (i) the fees paid by You for the License to the affected Software, less straight-line depreciation over a three (3) year useful life beginning on the date such Software was delivered; and (ii) any pre-paid service fee attributable to related support services to be delivered after the date such service is stopped. Nothing in this Section 8.2 (Remedies) shall limit VMware's obligation under Section 8.1 (Defense and Indemnification) to defend and indemnify You, provided that You replace the allegedly infringing Software upon VMware's making alternate Software available to You and/or You discontinue using the allegedly infringing Software upon receiving VMware's notice terminating the affected License

;8.3. Exclusions. Notwithstanding the foregoing, VMware will have no obligation under this Section 8 (Intellectual Property Indemnification) or otherwise with respect to any claim based on: (a) a combination of Software with non-VMware products (other than non-VMware products that are listed on the Order and used in an unmodified form); (b) use for a purpose or in a manner for which the Software was not designed; (c) use of any older version of the Software when use of a newer VMware version would have avoided the infringement; (d) any modification to the Software made without VMware's express written approval; (e) any claim that relates to open source software or freeware technology or any derivatives or other adaptations thereof that is not embedded by VMware into Software listed on VMware's commercial price list; or (f) any Software provided on a no charge, beta or evaluation basis. THIS SECTION 8 (INTELLECTUAL PROPERTY INDEMNIFICATION) STATES YOUR SOLE AND EXCLUSIVE REMEDY AND VMWARE'S ENTIRE LIABILITY FOR ANY INFRINGEMENT CLAIMS OR ACTIONS

9. LIMITATION OF LIABILITY

9.1. Limitation of Liability. TO THE MAXIMUM EXTENT MANDATED BY LAW, IN NO EVENT WILL VMWARE AND ITS LICENSORS BE LIABLE FOR ANY LOST PROFITS OR BUSINESS OPPORTUNITIES, LOSS OF USE, LOSS OF REVENUE, LOSS OF GOODWILL, BUSINESS INTERRUPTION, LOSS OF DATA, OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES UNDER ANY THEORY OF LIABILITY, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, PRODUCT LIABILITY, OR OTHERWISE. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE PRECEDING LIMITATION MAY NOT APPLY TO YOU. VMWARE'S AND ITS LICENSORS' LIABILITY UNDER THIS EULA WILL NOT, IN ANY EVENT, REGARDLESS OF WHETHER THE CLAIM IS BASED IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE, EXCEED THE GREATER OF THE LICENSE FEES YOU PAID FOR THE SOFTWARE GIVING RISE TO THE CLAIM OR $5000. THE FOREGOING LIMITATIONS SHALL APPLY REGARDLESS OF WHETHER VMWARE OR ITS LICENSORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND REGARDLESS OF WHETHER ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE

9.2.Further Limitations. VMware's licensors shall have no liability of any kind under this EULA and VMware's liability with respect to any third party software embedded in the Software shall be subject to Section 9.1 (Limitation of Liability). You may not bring a claim under this EULA more than eighteen (18) months after the cause of action arises

10.TERMINATION

10.1. EULA Term. The term of this EULA begins on the notice of availability for electronic download or delivery of the Software and continues until this EULA is terminated in accordance with this Section 10

10.2. Termination for Breach. VMware may terminate this EULA effective immediately upon written notice to You if: (a) You fail to pay any portion of the fees under an applicable Order within ten (10) days after receiving written notice from VMware that payment is past due; or (b) You breach any other provision of this EULA and fail to cure within thirty (30) days after receipt of VMware's written notice thereof

10.3. Termination for Insolvency. VMware may terminate this EULA effective immediately upon written notice to You if You: (a) terminate or suspend your business; (b) become insolvent, admit in writing Your inability to pay Your debts as they mature, make an assignment for the benefit of creditors; or become subject to control of a trustee, receiver or similar authority; or (c) become subject to any bankruptcy or insolvency proceeding

10.4.Effect of Termination. Upon VMware's termination of this EULA: (a) all Licensed rights to all Software granted to You under this EULA will immediately cease; and (b) You must cease all use of all Software, and return or certify destruction of all Software and License Keys (including copies) to VMware, and return, or if requested by VMware, destroy, any related VMware Confidential Information in Your possession or control and certify in writing to VMware that You have fully complied with these requirements. Any provision will survive any termination or expiration if by its nature and context it is intended to survive, including Sections 1 (Definitions), 2.6 (Open Source Software), 3 (Restrictions; Ownership), 5 (Records and Audit), 7.2 (Software Disclaimer of Warranty), 9 (Limitation of Liability), 10 (Termination), 11 (Confidential Information) and 12 (General)

11.CONFIDENTIAL INFORMATION

11.1.Definition. 'Confidential Information' means information or materials provided by one party ('Discloser') to the other party ('Recipient') which are in tangible form and labelled 'confidential' or the like, or, information which a reasonable person knew or should have known to be confidential. The following information shall be considered Confidential Information whether or not marked or identified as such: (a) License Keys; (b) information regarding VMware's pricing, product roadmaps or strategic marketing plans; and (c) non-public materials relating to the Software

11.2. Protection. Recipient may use Confidential Information of Discloser; (a) to exercise its rights and perform its obligations under this EULA; or (b) in connection with the parties' ongoing business relationship. Recipient will not use any Confidential Information of Discloser for any purpose not expressly permitted by this EULA, and will disclose the Confidential Information of Discloser only to the employees or contractors of Recipient who have a need to know such Confidential Information for

purposes of this EULA and who are under a duty of confidentiality no less restrictive than Recipient's duty hereunder. Recipient will protect Confidential Information from unauthorized use, access, or disclosure in the same manner as Recipient protects its own confidential or proprietary information of a similar nature but with no less than reasonable care

11.3.Exceptions. Recipient's obligations under Section 11.2 (Protection) with respect to any Confidential Information will terminate if Recipient can show by written records that such information: (a) was already known to Recipient at the time of disclosure by Discloser; (b) was disclosed to Recipient by a third party who had the right to make such disclosure without any confidentiality restrictions; (c) is, or through no fault of Recipient has become, generally available to the public; or (d) was independently developed by Recipient without access to, or use of, Discloser's Information. In addition, Recipient will be allowed to disclose Confidential Information to the extent that such disclosure is required by law or by the order of a court of similar judicial or administrative body, provided that Recipient notifies Discloser of such required disclosure promptly and in writing and cooperates with Discloser, at Discloser's request and expense, in any lawful action to contest or limit the scope of such required disclosure

11.4.Data Privacy. You agree that VMware may process technical and related information about Your use of the Software which may include internet protocol address, hardware identification, operating system, application software, peripheral hardware, and non-personally identifiable Software usage statistics to facilitate the provisioning of updates, support, invoicing or online services and may transfer such information to other companies in the VMware worldwide group of companies from time to time. To the extent that this information constitutes personal data, VMware shall be the controller of such personal data. To the extent that it acts as a controller, each party shall comply at all times with its obligations under applicable data protection legislation

12.GENERAL

12.1.Transfers; Assignment. Except to the extent transfer may not legally be restricted or as permitted by VMware's transfer and assignment policies, in all cases following the process set forth at www.vmware.com/support/policies/licensingpolicies.html, You will not assign this EULA, any Order, or any right or obligation herein or delegate any performance without VMware's prior written consent, which consent will not be unreasonably withheld. Any other attempted assignment or transfer by You will be void. VMware may use its Affiliates or other sufficiently qualified subcontractors to provide services to You, provided that VMware remains responsible to You for the performance of the services

12.2. Notices. Any notice delivered by VMware to You under this EULA will be delivered via mail, email or fax

12.3. Waiver. Failure to enforce a provision of this EULA will not constitute a waiver

12.4. Severability. If any part of this EULA is held unenforceable, the validity of all remaining parts will not be affected

12.5. Compliance with Laws; Export Control; Government Regulations. Each party shall comply with all laws applicable to the actions contemplated by this EULA. You acknowledge that the Software is of United States origin, is provided subject to the U.S. Export Administration Regulations, may be subject to the export control laws of the applicable territory, and that diversion contrary to applicable export control laws is prohibited. You represent that (1) you are not, and are not acting on behalf of, (a) any person who is a citizen, national, or resident of, or who is controlled by the government of any country to which the United States has prohibited export transactions; or (b) any person or entity listed on the U.S. Treasury Department list of Specially Designated Nationals and Blocked Persons, or the U.S. Commerce Department Denied Persons List or Entity List; and (2) you will not permit the Software to be used for, any purposes prohibited by law, including, any prohibited development, design, manufacture or production of missiles or nuclear, chemical or biological weapons. The Software and accompanying documentation are deemed to be 'commercial computer software' and 'commercial computer software documentation', respectively, pursuant to DFARS Section 227.7202 and FAR Section 12.212(b), as applicable. Any use, modification, reproduction, release, performing, displaying or disclosing of the Software and documentation by or for the U.S. Government shall be governed solely by the terms and conditions of this EULA ;

12.6. Construction. The headings of sections of this EULA are for convenience and are not to be used in interpreting this EULA. As used in this EULA, the word 'including' means 'including but not limited to' ;

12.7. Governing Law. This EULA is governed by the laws of the State of California, United States of America (excluding its conflict of law rules), and the federal laws of the United States. To the extent permitted by law, the state and federal courts located in Santa Clara County, California will be the exclusive jurisdiction for disputes arising out of or in connection with this EULA. The U.N. Convention on Contracts for the International Sale of Goods does not apply ;

12.8. Third Party Rights. Other than as expressly set out in this EULA, this EULA does not create any rights for any person who is not a party to it, and no person who is not a party to this EULA may enforce any of its terms or rely on any exclusion or limitation contained in it ;

12.9. Order of Precedence. In the event of conflict or inconsistency among the Product Guide, this EULA and the Order, the following order of precedence shall apply unless otherwise set forth in an enterprise license agreement: (a) the Product Guide, (b) this EULA and (c) the Order. With respect to any inconsistency between this EULA and an Order, the terms of this EULA shall supersede and control over any conflicting or additional terms and conditions of any purchase order, acknowledgement or confirmation or other document issued by You ;

12.10. Entire Agreement. This EULA, including accepted Orders and any amendments hereto, and the Product Guide contain the entire agreement of the parties with respect to the subject matter of this EULA and supersede all previous or contemporaneous

communications, representations, proposals, commitments, understandings and agreements, whether written or oral, between the parties regarding the subject matter hereof. This EULA may be amended only in writing signed by authorized representatives of both parties

12.11. Contact Information. Please direct legal notices or other correspondence to VMware, Inc., 3401 Hillview Avenue, Palo Alto, California 94304, United States of America, Attention: Legal Department 'This is a legal agreement (;AGREEMENT;) between the end-user customer (;you;), and the providing Citrix entity (the applicable providing entity is hereinafter referred to as;CITRIX;). This AGREEMENT includes the Data Processing Agreement, the Citrix Services Security Exhibit and any other documents incorporated herein by reference. Your location of receipt of the Citrix product (hereinafter;PRODUCT;) and maintenance (hereinafter;MAINTENANCE;) determines the providing entity as identified at https://www.citrix.com/buy/licensing/citrix-providing- entities.html. BY INSTALLING AND/OR USING THE PRODUCT, YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, DO NOT INSTALL AND/OR USE THE PRODUCT. Nothing contained in any purchase order or any other document submitted by you shall in any way modify or add to the terms and conditions contained in this AGREEMENT.'

1. PRODUCT LICENSES

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Updated April 2024

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- Multiple or pooled connections. Hardware or software you use to multiplex or pool connections, or reduce the number of devices or users that access or use the software, does not reduce the number of licenses you need. You may only use such hardware or software if you have a license for each instance of the software you are using.
- Device connections. You may allow up to 20 other devices to access the software installed on the licensed device solely to use the following software features for personal or internal purposes: file services, print services, Internet information services, and Internet connection sharing and telephony services on the licensed device. The 20 connection limit applies to devices that access the software indirectly through "multiplexing" or other software or hardware that pools connections. You may allow any number of devices to access the software on the licensed device to synchronize data between devices. This subsection does not mean, however, that you have the right to install the software, or use the primary function of the software (other than the features listed in this subsection), on any of these other devices.
- Remote access. Users may access the licensed device from another device using remote access technologies, but only on devices separately licensed to run the same or higher edition of this software.
- Remote assistance. You may use remote assistance technologies to share an active session without obtaining any additional licenses for the software. Remote assistance allows one user to connect directly to another user's computer, usually to correct problems.
- POS application. If the software is installed on a retail point of service device, you may use the software with a point of service application ("POS Application"). A POS Application is a software application which provides only the following functions: (i) process sales and service transactions, scan and track inventory, record and/or transmit customer information, and perform related management functions, and/or (ii) provide information directly and indirectly to customers about available products and services. You may use other programs with the software as long as the other programs: (i) directly support the manufacturer's specific use for the device, or (ii) provide system utilities, resource management, or anti-virus or similar protection. For clarification purposes, an automated teller machine ("ATM") is not a retail point of service device.
- Cloud Computing Devices. If your device uses Internet browsing functionality to connect to and access cloud hosted applications: (i) no desktop functions may run locally on the device, and (ii) any files that result from the use of the desktop functions may not be permanently stored on the system. "Desktop functions," as used in this agreement, means a consumer or business task or process performed by a computer or computing device. This includes but is not limited to email, word processing, spreadsheets, database, scheduling, network or internet browsing and personal finance.
- Desktop Functions. If your system performs desktop functions, then you must ensure that they: (i) are only used to support the application, and (ii) operate only when used with the application.

e. **Specific Use**—The manufacturer designed the licensed device for a specific use. You may only use the software for that use.

f. **High Risk Use**—
i. WARNING: THE SOFTWARE IS NOT DESIGNED OR INTENDED FOR USE WHERE FAILURE OR FAULT OF ANY KIND OF THE SOFTWARE COULD RESULT IN DEATH OR SERIOUS BODILY INJURY, OR IN PHYSICAL OR ENVIRONMENTAL DAMAGE (collectively "High Risk Use"). Accordingly, You must design and implement Your hardware and software such that, in the event of any interruption, defect, error, or other failure of the software, the safety of people, property, and the environment are not reduced below a level that is reasonable, appropriate, and legal, whether in general or for a specific industry. Your High Risk Use of the software is at Your own risk.
ii. Indemnification. You agree to indemnify, defend and hold harmless Microsoft from any claims, including claims arising from any High Risk Uses, and inclusive of attorneys' fees, related to the distribution or use of Your devices, except to the extent that any intellectual property claim is based solely on the unmodified software.

3. **Privacy**; **Consent to Use of Data**—Your privacy is important to us. Some of the software features send or receive information when using those features. Many of these features can be switched off in the user interface, or you can choose not to use them. By accepting this agreement and using the software you agree that Microsoft may collect, use, and disclose the information as described in the Microsoft Privacy Statement available at https://aka.ms/privacy, and as may be described in the user interface associated with the software features.
4. **Authorized Software and Activation**—You are authorized to use this software only if you are properly licensed and the software has been properly activated with a genuine product key or by other authorized method. When you connect to the Internet while using the software, the software will automatically contact Microsoft or its affiliate to confirm the software is genuine and the license is associated with the licensed device. You can also activate the software manually by Internet or telephone. In either case, transmission of certain information will occur, and Internet, telephone and SMS service charges may apply. During activation (or reactivation that may be triggered by changes to your device's components), the software may determine that the installed instance of the software is counterfeit, improperly licensed or includes unauthorized changes. If activation fails the software will attempt to repair itself by replacing any tampered Microsoft software with genuine Microsoft software. You may also receive reminders to obtain a proper license for the software. Successful activation does not confirm that the software is genuine or properly licensed. You may not bypass or circumvent activation. To help determine if your software is genuine and whether you are properly licensed, see https://aka.ms/genuine. Certain updates, support, and other services might be offered only to users of genuine Microsoft software.
5. **Updates**—The software periodically checks for system and app updates, and may download and install them for you. You may obtain updates only from Microsoft or authorized sources, and Microsoft may need to update your system to provide you with those updates. To the extent automatic updates are enabled on your device, by accepting this agreement, or using the software, you agree to receive these types of automatic updates without any additional notice.
6. **Geographic and Export Restrictions**—If your software is restricted for use in a particular geographic region, then you may activate the software only in that region. You must also comply with all domestic and international export laws and regulations that apply to the software, which include restrictions on destinations, end users, and end use. For further information on geographic and export restrictions, visit https://aka.ms/exporting.
7. **Device Manufacturer and Installer Support and Refund Procedures**—For the software generally, contact the device manufacturer or installer for support options. Refer to the support number provided with the software. For updates and supplements obtained directly from Microsoft, Microsoft may provide limited support services for properly licensed software as described at https://aka.ms/mssupport. If you are seeking a refund, contact the device manufacturer or installer to determine its refund policies. You must comply with those policies, which might require you to return the software with the entire device on which the software is installed for a refund.
8. **Binding Arbitration and Class Action Waiver if You Live in (or**, **if a Business**, **Your Principal Place of Business is in) the United States**—We hope we never have a dispute, but if we do, you and we agree to try for 60 days, upon receipt of a Notice of Dispute, to resolve it informally. If we can't, you and we agree to binding individual arbitration before the American Arbitration Association ("AAA") under the Federal Arbitration Act ("FAA"), and not to sue in court in front of a judge or jury. Instead, a neutral arbitrator will decide and the arbitrator's decision will be final except for a limited right of appeal under the FAA. Class action lawsuits, class-wide arbitrations, private attorney-general actions, request for public injunctions, and any other proceeding or request for relief where someone acts in a representative capacity aren't allowed. Nor is combining individual proceedings without the consent of all parties. "We," "our," and "us" includes Microsoft, the device manufacturer, software installer, and our affiliates.
    a. **Disputes covered—everything except IP**. The term "dispute" is as broad as it can be. It includes any claim or controversy between you and the device manufacturer or installer, or you and Microsoft, concerning the software (or software to which this agreement applies including other Windows apps), its price, marketing, communications, your purchase transaction, billing, or this agreement, under any legal theory including contract, warranty, tort, statute, or regulation, except disputes relating to the enforcement or validity of your, your licensors', our, or our licensors' intellectual property rights.
    b. **Send a Notice of Dispute before arbitration**. If you have a dispute that our customer service representatives can't resolve and you wish to pursue arbitration, you must first send an individualized Notice of Dispute by U.S. Mail to the device manufacturer or installer, ATTN: LEGAL DEPARTMENT. If your dispute is with Microsoft, you must first mail it to Microsoft Corporation, ATTN: CELA ARBITRATION, One Microsoft Way, Redmond, WA 98052-6399, or submit the form electronically. The Notice of Dispute form is available at https://go.microsoft.com/fwlink/?LinkId=245499. Complete that form in full, with all the information it requires. We'll do the same if we have a dispute with you. Any applicable statute of limitations will be tolled from the date of a properly submitted individualized Notice of Dispute through the first date on which an arbitration may properly be filed under this Section 8.
    c. **Small claims court option**. Instead of sending a Notice of Dispute, either you or we may sue the other party in small claims court seeking only individualized relief, so long as the action meets the small claims court's requirements and remains an individual action seeking individualized relief. The small claims court must be in your county of residence (or, if a business, your principal place of business).
    d. **Arbitration procedure**. The AAA will conduct any arbitration under its Commercial Arbitration Rules (or if you are an individual and use the software for personal or household use, or if the value of the dispute is less than $75,000 USD whether or not you are an individual or how you use the software, its Consumer Arbitration Rules). For more information, see https://aka.ms/adr. This agreement governs to the extent it conflicts with any applicable AAA rules. To initiate an arbitration, submit the Demand for Arbitration form available at https://go.microsoft.com/fwlink/?LinkId=245497 to the

AAA and mail a copy to the device manufacturer or installer (or to Microsoft if your dispute is with Microsoft). The form must contain information that is specific to you and your claim. In a dispute involving $25,000 USD or less, any hearing will be telephonic or by videoconference unless the arbitrator finds good cause to hold an in-person hearing instead. Any in-person hearing will take place in your county of residence (or, if a business, your principal place of business). The arbitrator may award the same damages to you individually as a court could. The arbitrator may award declaratory or injunctive relief only to you individually to satisfy your individual claim, but not relief that would affect non-parties. The arbitrator rules on all issues except that a court has exclusive authority: (i) to decide arbitrability, as well as formation, existence, scope, validity, and enforceability of this arbitration agreement; (ii) to decide whether the parties have complied with the pre-arbitration requirements (including the individualized Notice of Dispute and Demand for Arbitration forms); (iii) to enforce the prohibition on class, representative, private attorney-general, or combined actions or proceedings, or public injunctive relief; and (iv) to enjoin an arbitration from proceeding if it does not comply with this agreement. If your Notice of Dispute involves claims similar to those of at least 24 other customers, and if you and those other customers are represented by the same lawyers, or by lawyers who are coordinating with each other, you and we agree that these claims will be "Related Cases." Related Cases may only be filed in batches of up to 50 individual arbitrations at a time, and those individual arbitrations will be resolved in the following manner: (i) for the first batch, each side may select up to 25 of these Related Cases to be filed and resolved in individual arbitrations under this Section 8; (ii) none of the other Related Cases may be filed or prosecuted in arbitration until the first batch of up to 50 individual arbitrations is resolved; and (iii) if, after that first batch, the parties are unable to informally resolve the remaining Related Cases, a second batch of Related Cases may be filed, where each side may select up to 25 of the Related Cases to be resolved in individual arbitrations under this Section 8. This process of batched individual arbitrations will continue until the parties resolve all Related Cases informally or through individual arbitrations. A court has exclusive authority to enforce this paragraph, including whether it applies to a given set of claims, and to enjoin the filing or prosecution of arbitrations that do not comply with this paragraph.

e. **Arbitration fees and payments**—
   i. Disputes involving less than $75,000 USD. The device manufacturer or installer (or Microsoft if your dispute is with Microsoft) will promptly reimburse your filing fees and pay the AAA's and arbitrator's fees and expenses. If (i) the dispute involves less than $75,000 USD; and before initiating arbitration (ii) you complied with all pre-arbitration requirements in this Section 8, including, if applicable, the Related Cases paragraph. Otherwise, the AAA rules will govern payment of filing fees and the AAA's and arbitrator's fees and expenses. If, at the conclusion of the arbitration, the arbitrator awards you more than our last written offer made before the arbitrator was appointed, the device manufacturer or installer (or Microsoft if your dispute is with Microsoft) will pay you: (i) the amount of the award or $1,000 USD (whichever is more); (ii) any reasonable attorney's fees you incurred; and (iii) any reasonable expenses (including expert witness fees and costs) that your attorney accrued in connection with your individual arbitration.
   ii. Disputes involving $75,000 USD or more. The AAA rules will govern payment of filing fees and the AAA's and arbitrator's fees and expenses.

f. **Severability**—If, after exhaustion of all appeals, a court finds any part of this Section 8 unenforceable as to any claim or request for a remedy, then the parties agree to arbitrate all claims and remedies subject to arbitration before litigating in court any remaining claims or remedies (such as a request for a public injunction remedy, in which case the arbitrator issues an award on liability and individual relief before a court considers that request). Otherwise, if any other part of Section 8 is found to be unenforceable, the remainder will remain in effect (with an arbitration award issued before any court proceeding begins).

g. **Microsoft as party or third-party beneficiary**—If Microsoft is the device manufacturer or if you acquired the software from a retailer, Microsoft is a party to this agreement. Otherwise, Microsoft is not a party but is a third-party beneficiary of your agreement with the device manufacturer or installer to resolve disputes through informal negotiation and arbitration.

9. **Governing Law**—The laws of the state or country where you live (or, if a business, where your principal place of business is located) govern all claims and disputes concerning the software, its price, or this agreement, including breach of contract claims and claims under state consumer protection laws, unfair competition laws, implied warranty laws, for unjust enrichment, and in tort, regardless of conflict of law principles. In the United States, the FAA governs all provisions relating to arbitration.

10. **Consumer Rights**, **Regional Variations**— This agreement describes certain legal rights. You may have other rights, including consumer rights, under the laws of your state or country. You may also have rights with respect to the party from which you acquired the software. This agreement does not change those other rights if the laws of your state or country do not permit it to do so. For example, if you acquired the software in one of the below regions, or mandatory country law applies, then the following provisions apply to you:

    a. **Australia**—References to "Limited Warranty" are references to the express warranty provided by Microsoft or the device manufacturer or installer. This warranty is given in addition to other rights and remedies you may have under law, including your rights and remedies under the Australian Consumer Law consumer guarantees. Nothing in this agreement limits or changes those rights and remedies. In particular: (i) support and refund policies referred to in Section 7 are subject to the Australian Consumer Law; (ii) the Australian Consumer Law consumer guarantees apply to the evaluation software described in Section 11(d)(i); and (iii) our goods come with guarantees that cannot be excluded under the Australian Consumer Law. In this subsection, "goods" refers to the software for which Microsoft, or the device

manufacturer or installer provides the express warranty. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. To learn more about your rights under the Australian Consumer Law, please review the information at https://aka.ms/acl.

b. **Canada**—You may stop receiving updates on your device by turning off Internet access. If and when you re-connect to the Internet, the software will resume checking for and installing updates.

c. **Germany and Austria**—

   i. Warranty. The properly licensed software will perform substantially as described in any Microsoft materials that accompany the software. However, the device manufacturer or installer, and Microsoft, give no contractual guarantee in relation to the licensed software.

   ii. Limitation of Liability. In case of intentional conduct, gross negligence, claims based on the Product Liability Act, as well as, in case of death or personal or physical injury, the device manufacturer or installer, or Microsoft is liable according to the statutory law. Subject to the preceding sentence, the device manufacturer or installer, or Microsoft will only be liable for slight negligence if the device manufacturer or installer or Microsoft is in breach of such material contractual obligations, the fulfillment of which facilitate the due performance of this agreement, the breach of which would endanger the purpose of this agreement and the compliance with which a party may constantly trust in (so-called "cardinal obligations"). In other cases of slight negligence, the device manufacturer or installer or Microsoft will not be liable for slight negligence.

d. **Other regions**—See https://go.microsoft.com/fwlink/?LinkId=534978 for a current list of regional variations

11. **Additional Notices** —

a. **Networks**, **data and Internet usage**—Some features of the software and services accessed through the software may require your device to access the Internet. Your access and usage (including charges) may be subject to the terms of your cellular or internet provider agreement. Certain features of the software may help you access the Internet more efficiently, but the software's usage calculations may be different from your service provider's measurements. You are always responsible for (i) understanding and complying with the terms of your own plans and agreements, and (ii) any issues arising from using or accessing networks, including public/open networks. You may use the software to connect to networks, and to share access information about those networks, only if you have permission to do so.

b. **Codec Notices**—

   i. H.264/AVC Video Standard. This product includes AVC coding technology. MPEG LA LLC requires this notice:

      i. This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to:

         Ordered List Number 5 Encode video in compliance with the AVC standard ("AVC VIDEO").

         Ordered List Number 5 Decode AVC video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC video.

      ii. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA LLC. See http://www.MPEGLA.COM.

      iii. For clarification purposes, this notice does not limit or inhibit the use of the product for normal business uses that are personal to that business which do not include:

         Ordered List Number 5 Redistribution of the product to third parties.

         Ordered List Number 5 Creation of content with AVC Standard compliant technologies for distribution to third parties.

   ii. VC-1 Video Standard. This product includes VC-1 coding technology. MPEG LA LLC requires this notice:

      i. This product is licensed under the VC-1 Patent Portfolio license for the personal and non-commercial use of a consumer to:

         Ordered List Number 5 Encode video in compliance with the VC-1 standard ("VC-1 Video").

         Ordered List Number 5 Decode VC-1 video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide VC-1 video.

      ii. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA LLC. See http://www.MPEGLA.COM.

   For clarification purposes, this notice does not limit or inhibit the use of the product for normal business uses that are personal to that business which do not include (i) redistribution of the product to third parties, or (ii) creation of content with VC-1 Standard compliant technologies for distribution to third parties.

c. **Malware protection**—Microsoft cares about protecting your device from malware. The software will turn on malware protection if other protection is not installed or has expired. To do so, other antimalware software will be disabled or may have to be removed.

d. **Limited rights versions**—If the software version you acquired is marked or otherwise intended for a specific or limited use, then you may only use it as specified. You may not use such versions of the software for commercial, non-profit, or revenue-generating activities.

   i. Evaluation—For evaluation (or test or demonstration) use, you may not sell the software, use it in a live operating environment, or use it after the evaluation period. Notwithstanding anything to the contrary in this Agreement, evaluation software is provided "AS IS" and no warranty, implied or express (including the Limited Warranty), applies to these versions.

12. **Entire Agreement**—This agreement (together with the printed paper license terms or other terms accompanying any software supplements, updates, and services that are provided by the device manufacturer or installer, or Microsoft, and that you use), and the terms contained in web links listed in this agreement, are the entire agreement for the software and any such supplements, updates, and services (unless the device manufacturer or installer, or Microsoft, provides other terms with such supplements, updates, or services). You can review this agreement after your software is running by going to https://aka.ms/useterms or going to Settings - System - About within the software. You can also review the terms at any of the links in this agreement by typing the URLs into a browser address bar, and you agree to do so. You agree that you will read the terms before using the software or services, including any linked terms. You understand that by using the software and services, you ratify this agreement and the linked terms. There are also informational links in this agreement. The links containing notices and binding terms are:
    - Windows Privacy Statement
    - Microsoft Services Agreement

A

Post-Install PowerShell Script

You can create PowerShell script to modify **Registry Settings**.

NOTE: This PowerShell script applies only to the Citrix Workspace app downloaded directly from the Citrix website.

Post-install PowerShell script for Citrix

```
#Give sleep to install the plugins required
Start-Sleep -Seconds 30

# 1. Add or modify AddScanCodes value
$icaClientPath = "HKLM:\SOFTWARE\Wow6432Node\Citrix\ICA Client"
$propertyName = "AddScanCodes"
$propertyValue = 1

Try {
    If (Test-Path $icaClientPath) {
        Set-ItemProperty -Path $icaClientPath -Name $propertyName -Value $propertyValue
-Type DWord

    } Else {
        New-Item -Path $icaClientPath -Force | Out-Null
        New-ItemProperty -Path $icaClientPath -Name $propertyName -Value $propertyValue
-PropertyType DWord

    }
} Catch {
    Write-Host "Error setting AddScanCodes: $_"
}

# 2. Remove specified keys from Run path
$runPath = "HKLM:\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Run"
$keysToRemove = @("ConnectionCenter", "Redirector")

Foreach ($key in $keysToRemove) {
    Try {
        If (Get-ItemProperty -Path $runPath -Name $key -ErrorAction SilentlyContinue) {
            Remove-ItemProperty -Path $runPath -Name $key

        }
    } Catch {
        Write-Host "Error removing $key $_"
    }
}
```

PowerShell script for Remove Remote Desktop

```
$programs = Get-ChildItem
-Path HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall,HKLM:
\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Uninstall | Get-ItemProperty |
Where-Object {$_.DisplayName -match "Remote Desktop"} | Select-Object -Property
DisplayName,UninstallString
```

```
# for each registry entry in the collection, run the uninstall command

foreach ($program in $programs) {

    start-process cmd.exe -ArgumentList "/c""$($program.uninstallstring) /quiet /
norestart""" -Wait

}
```

PowerShell script for TightVNC

```
# Removal Functions
function Stop-TightVNCService {
    $serviceName = "TightVNC Server"
    $tvnServerPath = "C:\Program Files\TightVNC\tvnserver.exe"

    if (Test-Path $tvnServerPath) {
        $service = Get-Service -Name $serviceName -ErrorAction SilentlyContinue
        if ($service -and $service.Status -eq 'Running') {
            Stop-Service -Name $serviceName -Force
            Start-Sleep -Seconds 5
        }
    }
}

function Unregister-TightVNCService {
    $serviceName = "TightVNC Server"
    $tvnServerPath = "C:\Program Files\TightVNC\tvnserver.exe"

    if (Test-Path $tvnServerPath) {
        $service = Get-Service -Name $serviceName -ErrorAction SilentlyContinue
        if ($service) {

            $service_by_name = Get-WmiObject -Class Win32_Service -Filter
"Name='tvnserver'"
            $ret = $service_by_name.stopservice()
            $ret = $service_by_name.delete()


            Start-Sleep -Seconds 5
        }
    }
}

function Remove-TightVNCStartMenu {
    $startMenuPath = "C:\ProgramData\Microsoft\Windows\Start Menu\Programs\TightVNC"
    if (Test-Path $startMenuPath) {

        Remove-Item -Recurse -Force $startMenuPath
        Start-Sleep -Seconds 3
    }
}

function Remove-TightVNCFolder {
    $installPath = "C:\Program Files\TightVNC"
    if (Test-Path $installPath) {

        Remove-Item -Recurse -Force $installPath
        Start-Sleep -Seconds 5
    }
}

function Remove-TightVNCFromStartup {
    $startupKey = "HKLM:\Software\Microsoft\Windows\CurrentVersion\Run"
    $startupApp = "tvncontrol"

    if (Test-Path $startupKey) {
```

```
        $currentApps = Get-ItemProperty -Path $startupKey
        if ($currentApps.PSObject.Properties.Name -contains $startupApp) {

            Remove-ItemProperty -Path $startupKey -Name $startupApp
            Start-Sleep -Seconds 3
        }
    }
}

# Define the registry path
$regPath = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall"

# Search for TightVNC in the uninstall registry keys
$tightVNCKey = Get-ChildItem $regPath | ForEach-Object {
    Get-ItemProperty $_.PSPath
} | Where-Object { $_.DisplayName -like "*TightVNC*" }



if ($tightVNCKey) {

    $uninstallString = $tightVNCKey.UninstallString

    if ($uninstallString) {


            # Replace /i with /x (case-insensitive)
            if ($uninstallString -match "Msiexec\.exe") {
                $uninstallString = $uninstallString -replace "(?i)/i", "/x"
            }

        # Add silent switch if not present
        if ($uninstallString -notmatch "/quiet|/silent") {
            $uninstallString += " /qn"
        }


        # Execute uninstall command
        Start-Process -FilePath "cmd.exe" -ArgumentList "/c $uninstallString" -Wait
        Start-Sleep -Seconds 5

    }
} else {
    # Main Execution

    Stop-TightVNCService
    Unregister-TightVNCService
    Remove-TightVNCStartMenu
    Remove-TightVNCFromStartup
    Remove-TightVNCFolder
}

# Final Validation + Auto-Fix
$validationPassed = $true

# Validate Service
$service = Get-Service -Name "TightVNC Server" -ErrorAction SilentlyContinue
if ($service) {

    try {
        Stop-Service -Name "TightVNC Server" -Force -ErrorAction SilentlyContinue
        $service_by_name = Get-WmiObject -Class Win32_Service -Filter "Name='tvnserver'"
        $service_by_name.stopservice()
        $service_by_name.delete() | Out-Null

    } catch {
        # This catch block is empty, meaning no explicit actions are taken when an error
is caught.
        # The error message will not be displayed, and the script will continue after
the catch block.
    }
    $validationPassed = $false
}
```

```
# Validate Start Menu
$startMenuPath = "C:\ProgramData\Microsoft\Windows\Start Menu\Programs\TightVNC"
if (Test-Path $startMenuPath) {

    Remove-Item -Recurse -Force $startMenuPath -ErrorAction SilentlyContinue

    $validationPassed = $false
}

# Validate Startup Entry
$startupKey = "HKLM:\Software\Microsoft\Windows\CurrentVersion\Run"
$currentApps = Get-ItemProperty -Path $startupKey
if ($currentApps.PSObject.Properties.Name -contains "tvncontrol") {

    Remove-ItemProperty -Path $startupKey -Name "tvncontrol" -ErrorAction
SilentlyContinue
    $currentApps = Get-ItemProperty -Path $startupKey
    $validationPassed = $false
}

# Validate Installation Folder
$installPath = "C:\Program Files\TightVNC"
if (Test-Path $installPath) {

    Remove-Item -Recurse -Force $installPath -ErrorAction SilentlyContinue

    $validationPassed = $false
}
```