

Windows 10 IoT Enterprise LTSC 2021

Deployment Guide

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 to Windows 10 IoT Enterprise LTSC 2021

Devices with Windows 10 IoT Enterprise LTSC 2021 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.

Key features of Windows 10 IoT Enterprise LTSC 2021 include:

- **Remote access**—Enables users to connect to desktops or virtual environments from various devices.
- **Local administration**—Supports on-device management and maintenance tasks.
- **Customization**—Offers optional add-ons to expand functionality and compatibility.
- **Security**—Provides a secure 64-bit environment for specialized applications.

Audience

This deployment guide is intended for administrators responsible for managing devices running Windows 10 IoT Enterprise LTSC 2021, specifically those using Dell Technologies operating system images.

 **NOTE:** It is assumed that you are logged in as an administrator when configuring the operating system or using administrative applications.

Document purpose

The document details the steps for getting started with Windows 10 IoT Enterprise LTSC 2021 using Wyse Management Suite to deploy applications and manage configurations.

Getting started with Windows 10 IoT Enterprise LTSC 2021

When you first connect your device running Windows 10 IoT Enterprise LTSC 2021 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 Omnisia 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 about configuring the UWF, see the *Unified Write Filter* section in the *Windows 10 IoT Enterprise LTSC 2021 Administrator's Guide* at [Dell | Support](#).

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.

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 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](#).

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:

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

For more information about how to validate the devices, see [Enrollment Validation](#).

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.

Dell Application Store

The Dell Application Store is a software bundle consisting of Dell value-added applications. The following applications are bundled in the Dell Application Store:

- **Wyse Device Agent (WDA)** 
 - Description—Enables you to quickly and easily deploy configurations on devices.
 - Benefits—Allows you to manage devices using WMS.
- **Wyse Easy Setup**
 - Description—Enables you to quickly and easily deploy configurations on devices.
 - 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—Provides a kiosk mode with centralized management capabilities.
 - **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.
 - 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 is configurable only using the Dell Application Control Center user interface.
 - 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 and configurable.

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

- **Overlay Optimizer**
 - Description—Works with Microsoft Unified Write Filter (UWF).
 - Benefits—Provides write protection and extends device uptime by monitoring UWF overlay space and moving unused content to the overlay of Overlay Optimizer disk.

NOTE:

- Overlay Optimizer runs in the background, and you cannot configure it.
- Overlay Optimizer will be removed when the following are installed:
 - Dell Application Store 2508.
 - Dell Imaging Manager.
 - Windows 11 IoT Enterprise LTSC 2024 Upgrade Kit Version 2.0.0.1.
 - OS images posted after September 2025.

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 repository** 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**.

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.

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.

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**.

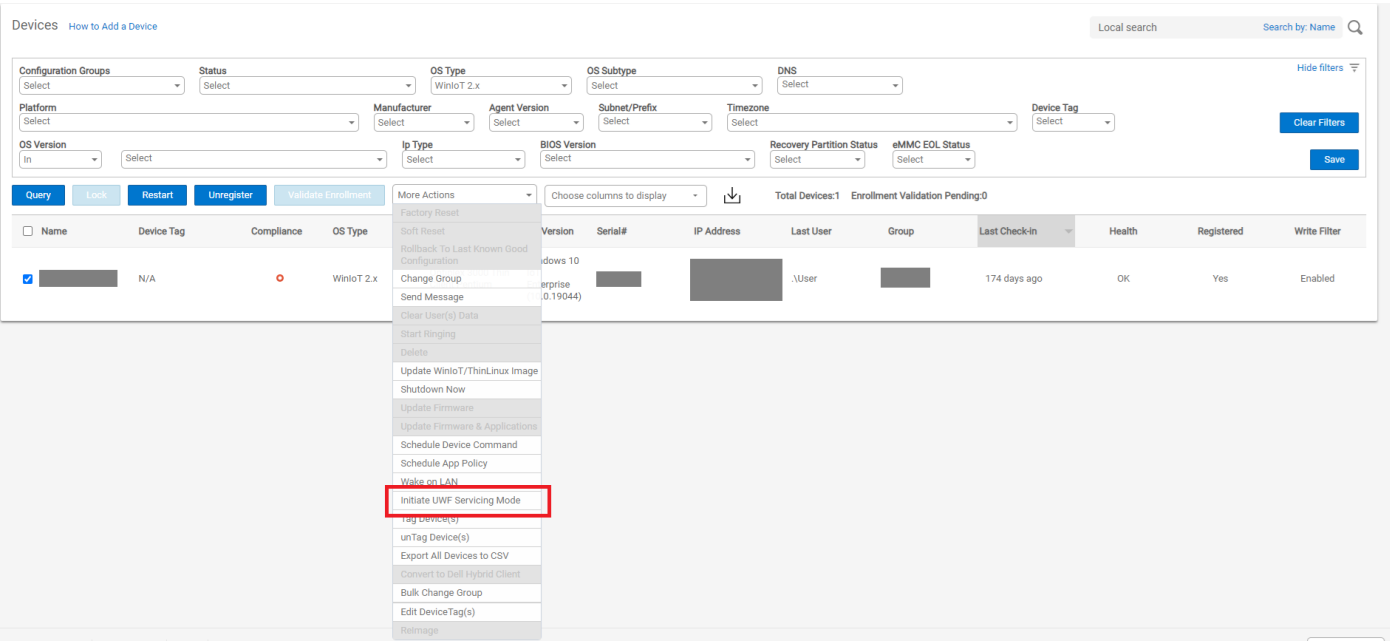


Figure 1. Initiate UWF Servicing Mode

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.

Deploying updates for Microsoft Edge using WMS

Wyse Management Suite (WMS) can be used to install Microsoft Edge updates on supported Windows 10 Enterprise LTSC 2021 devices. You must download the Microsoft Edge update package from Microsoft Update Catalog, upload the package file to the WMS repository, and deploy it to the WMS group.

Steps

1. Go to [Microsoft Update Catalog](#).
2. Enter **Microsoft Edge** and click **Search**.
3. Click **Download** to download the Microsoft Edge update package.
 **NOTE:** It is recommended to download the latest stable channel version of the Microsoft Edge update compatible with x64 processor architecture. For example, **Microsoft Edge-Stable Channel Version 138 Update for x64 based Editions (Build 138.0.3351.121)**.
- A **Download** window is displayed.
4. In the **Download** window, click the .cab link and select the location to save the .cab file.
5. Go to the location of the saved .cab file.
6. Right-click the .cab file and **Open with**.
7. Select **Windows Explorer**.
The .msi file is displayed.
8. Copy the .msi file and go to the required location in **Windows Explorer** and save it.
9. Upload the .msi file to the WMS repository. For information about how to upload the application package file to the WMS repository, see [How to add an application package to the WMS repository?](#).
10. Deploy the package to the devices using WMS. For information about how to deploy an application package using WMS, see [Deploy an application or a package using WMS](#).
 **NOTE:** For information about the silent installation parameters for the drivers, see [How to find the silent installation parameters of drivers and application packages](#).

Deploying third-party applications for Windows 10 IoT Enterprise LTSC 2021

You can deploy third-party applications and VDI plugins on Windows 10 IoT Enterprise LTSC 2021 devices using WMS. You can download the following individual third-party applications as add-ons from the [Dell | Support](#) page.

- Omnisia Horizon Client / VMware Horizon Client
- Amazon WorkSpaces
- Cisco Jabber Softphone for VDI (Virtual Desktop Infrastructure) Client
- Cisco Webex App VDI Plugin (Bundled Webex Meetings VDI plugin)
- Zoom VDI Universal plugin
- Remote Desktop client

To deploy the package to the devices using WMS, see [Deploy an application or a package using Wyse Management Suite](#).

If you are using the WMS cloud, the latest available application package 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 repository** drop-down menu.

If you are using the Wyse Management Suite on-premises environment, you must download the latest application package 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 installed components, log in to WMS and go to **Devices > Device Details page of the individual device > Installed Apps**.

Deploying driver packages for Windows 10 IoT Enterprise LTSC 2021

You can deploy and install driver packages on Windows 10 IoT Enterprise LTSC 2021 devices using WMS.

Steps

1. Locate the required driver package:
 - a. Go to [Dell | Support](#) and identify the device.
 - b. On the **Drivers & Downloads** page, use the following options to locate and download the driver:
 - **Keyword**
 - **Operating System**—Select **Windows 10 IoT Enterprise LTSC 2021** from the drop-down list.
 - **Category**—Select the required driver category from the **Category** drop-down list. For example, select **Audio**, **Chipset**, **Network**, **Ethernet & Wireless**, and **Video** from the list.
 - **Release Date**—Select the release date if required.
 2. Download the necessary driver files.
 3. Upload the downloaded driver files to the WMS repository. For information about how to upload the driver files to the WMS repository, see [How to add an application package to the WMS repository?](#).
 4. Deploy the package to the devices using WMS. For information about how to deploy an application or package using WMS, see [Deploy an application or a package using WMS](#).
-  **NOTE:** For information about the silent installation parameters for the drivers, see [How to find the silent installation parameters of drivers and application packages](#).

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

- Go to **Apps & Data > App Policies > Thin Client**.
- Click **Add Advanced Policy**.
The **Add Advanced App Policy** page is displayed.
- Enter the **Policy Name**.
- From the **Group** drop-down list, select one or more groups to which you want to deploy the application.
- Select the **Include All Subgroups** checkbox to apply the policy to subgroups.
- From the **Task** drop-down list, select **Install Application**.
- 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.

- 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.
- 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.
- 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

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

Application name	Silent installation parameters
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
Windows 11 IoT Enterprise LTSC 2024 Upgrade Kit	--silent
Remote Desktop client	/qn /norestart

NOTE:

- Silent installation is supported for Dell Application Store, Wyse Device Agent, Omnisca Horizon Client, Citrix Workspace app, and Amazon WorkSpaces when Wyse Device Agent v14.6.9.26 or later is installed on the device.
- You must install Dell Application Store 2508 on the device before you deploy the Omnisca 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 Omnisca Horizon Client, Citrix Workspace app, Amazon WorkSpaces, Cisco Jabber Softphone for VDI (Virtual Desktop Infrastructure) Client, Cisco Webex App VDI Plugin (Bundled Webex Meetings 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 **WIE10 (Windows 10 IoT Enterprise)**.

- **OS Subtype Filter:** Select **WIE10 (Windows 10 IoT Enterprise)**.
- **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.

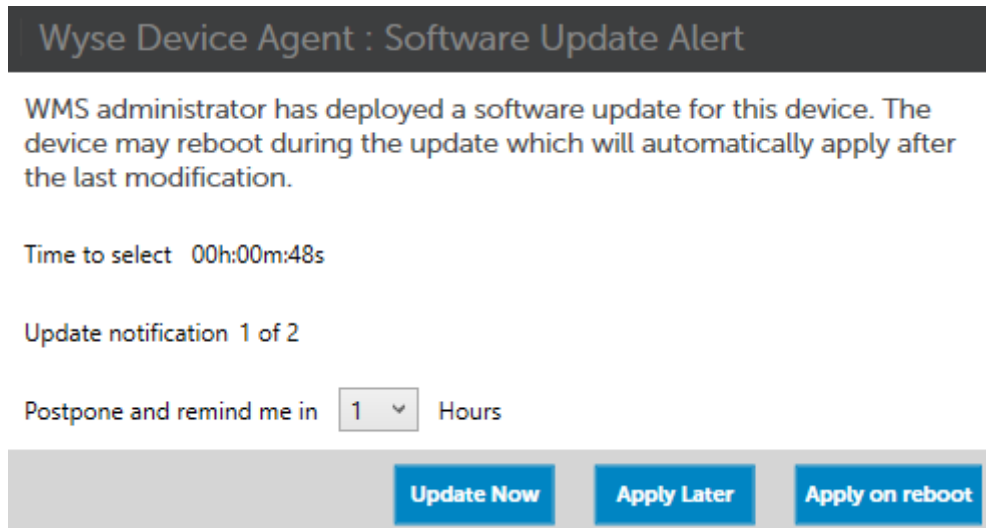


Figure 2. Wyse Device Agent : Software Update Alert

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 10 IoT Enterprise LTSC 2021 devices 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.

Frequently asked questions

How to find and download any package on Dell support?

About this task

You can locate a driver, application, BIOSupdate, or any other package from the Dell support site, by following these steps:

Steps

1. Go to [Dell | Support](#).
2. Enter the name of the device in **Identify your product or search support**.
The **Overview** page of the product is displayed.
3. Go to **Drivers & Downloads**.
4. Select **Windows 10 IoT Enterprise LTSC 2021** as the **Operating system**.
5. Select the application or package and click **Download**.
The file download window is displayed.

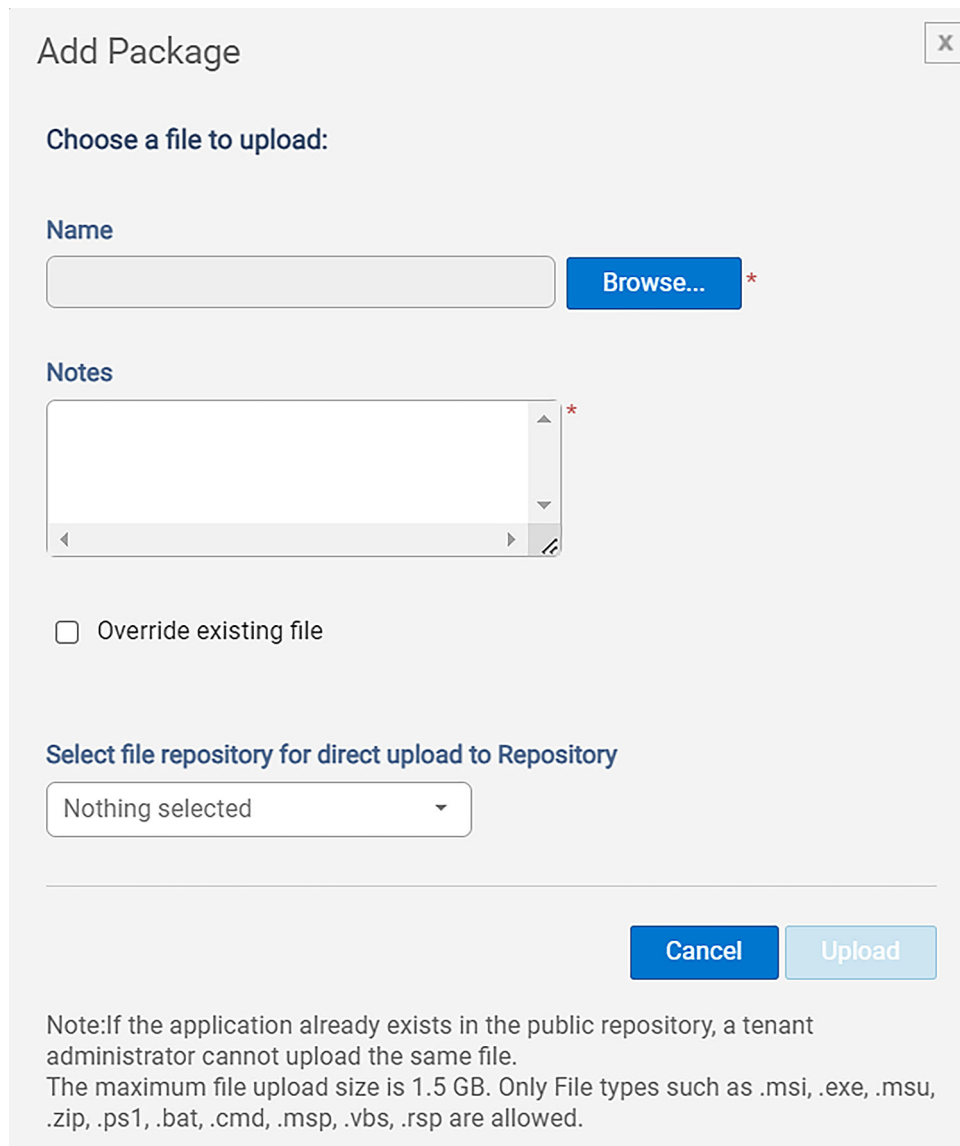
How to add an application package to the WMS repository?

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.



Add Package

Choose a file to upload:

Name

Browse...

Notes

☐ Override existing file

Select file repository for direct upload to Repository

Nothing selected

Cancel Upload

Note: If the application already exists in the public repository, a tenant administrator cannot upload the same file. The maximum file upload size is 1.5 GB. Only File types such as .msi, .exe, .msu, .zip, .ps1, .bat, .cmd, .msp, .vbs, .rsp are allowed.

Figure 3. 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 to find the silent installation parameters of drivers and application packages

Steps

1. Open **Command Prompt** as an administrator.
2. Locate the executable file and add `/?` or `--help`.
3. Press **Enter**.
The silent installation parameters (if any) are displayed.

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.

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.

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
}

```