Dell Hybrid Client

Version 1.x Conversion and Upgrade Guide



Notes, cautions, and warnings

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

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

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

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Introduction

Dell Hybrid Client is a desktop solution by Dell that follows the Software-as-a-Service (SaaS) model of software delivery. It provides a hybrid operating environment that enables you to access virtual, cloud, or local applications and resources seamlessly. It encompasses the cloud and storage aggregation for maintaining security and simplicity.

You must use a management software to configure, operate, and update devices that are powered by Dell Hybrid Client, thereby eliminating the need for IT support to visit the physical devices. You can manage the devices by using Wyse Management Suite Pro. Wyse Management Suite offers process automation and helps lower costs for large deployments of devices that are powered by Dell Hybrid Client. Using secure HTTPS-based communication and Active Directory authentication for role-based administration, Wyse Management Suite keeps your devices up to date. The Wyse Management Suite mobile application enables administrators to view critical alerts, notifications on the dashboard, and send real-time command.

This guide contains instructions to convert the devices running Windows 10 IoT Enterprise LTSB, Windows 10 IoT Enterprise LTSC, ThinLinux 2.x, and ThinOS 8.6 to Dell Hybrid Client using Wyse Management Suite Pro 3.x or later. This guide also provides information to upgrade the devices running Ubuntu 18.04 or 20.04 to Dell Hybrid Client using Wyse Management Suite Pro 3.x or later. The target audience for this guide is enterprise customers with administrator privileges.

Supported platforms for Dell Hybrid Client conversion

Table 1. Supported platforms and configurations for DHC 1.5

Dietform	Configuration			Omenation System
Platform	Processor	Memory	Storage	Operating System
Wyse 5070	Intel Celeron Dual Core	8 GB and higher		Windows 10 IoT Enterprise
	Intel Pentium Quad Core		32 GB eMMC/SSD and 64 GB SSD	LTSB, Windows 10 IoT Enterprise LTSC, Dell Hybrid Client 1.0 and Dell Hybrid
Wyse 5070 Extended	Intel Pentium Quad Core			Client 1.1
OptiPlex 7070 Ultra	8th Generation Intel Core i3/i5/i7			Ubuntu 18.04 and Windows 10
OptiPlex 3090 Ultra	11th Generation Intel Core i3/i5		32 GB eMMC/128 GB and higher capacity SSD or HDD	Ubuntu 20.04 + Dell Client Agent Enabler and Windows
OptiPlex 7090 Ultra	11th Generation Intel Core i3/i5 /i7			10
Latitude 3320	11th Generation Intel Core i3/i7			

Table 2. Supported platforms and configurations for DHC 1.1

Platform	Configuration			Operating System
	Processor	Memory	Storage	
Wyse 5070	Intel Celeron Dual Core	4 GB and higher	16 GB or higher capacity SSD or eMMC	ThinLinux 2.x and ThinOS 8.6
	Intel Pentium Quad Core			
Wyse 5070 Extended	Intel Pentium Quad Core			
Wyse 5070	Intel Celeron Dual Core	4 GB and higher	32 GB eMMC and 64 GB SSD	Windows 10 IoT Enterprise LTSB and Windows 10 IoT Enterprise LTSC
	Intel Pentium Quad Core		64 GB SSD	
Wyse 5070 Extended	Intel Pentium Quad Core		64 GB and 128 GB SSD	
OptiPlex 7070 Ultra	8th Generation Intel Core i3/i5/i7		64 GB and 128 GB SSD	Ubuntu 18.04 and Windows 10

Topics:

• Supported management software

Supported management software

Table 3. Supported management software for DHC 1.5

Supported environment		
Management software Wyse Management Suite		
Edition	Pro	
Version	3.2 and later	

Table 4. Supported management software for DHC 1.1

Supported environment		
Management software	Wyse Management Suite	
Edition	Pro	
Version	3.1 and later	

Dell Hybrid Client 1.0 or 1.1 to Dell Hybrid Client 1.5 upgrade

Prerequisites

- Download the Dell Hybrid Client 1.5 Image upgrade addon package from the Drivers and Downloads section of the Dell Hybrid Client product page or the respective hardware product pages at www.dell.com/support.
- Download the ISO image corresponding to your platform model:
 - o Dell Hybrid Client 1.5 ISO Conversion Image for Wyse 5070
 - o Dell Hybrid Client 1.5 ISO Conversion Image for 7070 Optiplex Ultra
- Extract the ISO file from the downloaded zip file.

Steps

 Go to Groups & Configs and click the device group, DHC-DEV-GRP, where the Dell Hybrid Client 1.0 or 1.1 devices are registered.

You can rename the device group.

Create two device subgroups. For example, DhcUpgradeStageNotify and DhcUpgradeStageUpgrade inside the device group, DHC-DEV-GRP.

You can rename both the device subgroups.

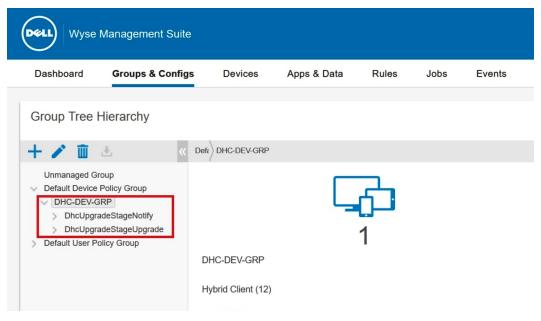


Figure 1. Device sub-groups

3. Copy the image upgrade add-on DHCImageUpgradeAddon.tar.gz and image upgrade iso file DellHybridClient_1.5_750_5070.iso or DellHybridClient_1.5_750_7070.iso corresponding to the platform model to the Wyse Management Suite local repository—<RepoPath>\repository\hybridClientApps>. For example, C: \WMSRepo3\repository\hybridClientApps.

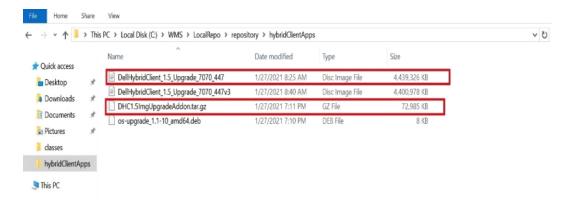


Figure 2. Wyse Management Suite local repository

4. Move the devices to be converted to the subgroup, **DhcUpgradeStageNotify**.

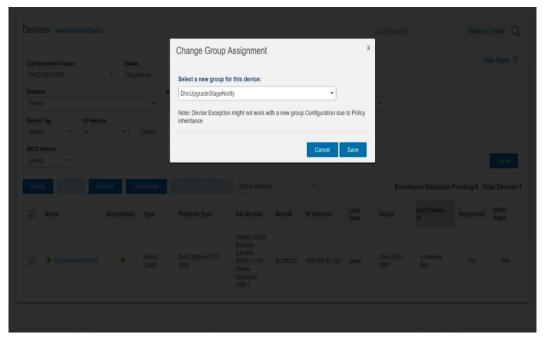


Figure 3. DhcUpgradeStageNotify

5. Select the subgroup, **DhcUpgradeStageNotify** and send notifications to the devices in the group using **SendMessage** in Wyse Management Suite for user data backup.

An administrator can confirm that all the **SendMessage** alerts are successful on the **Events** tab.

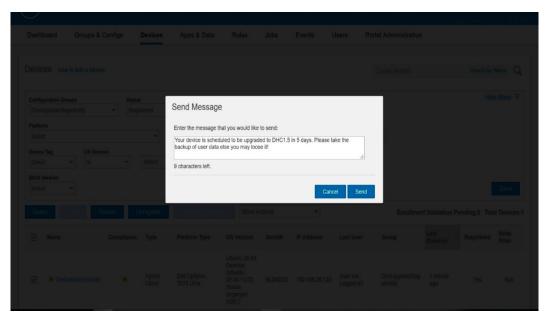


Figure 4. SendMessage

6. Once the defined number of days for user data backup elapses, the administrator can move the devices which have received the notification to the subgroup, **DhcUpgradeStageUpgrade**.

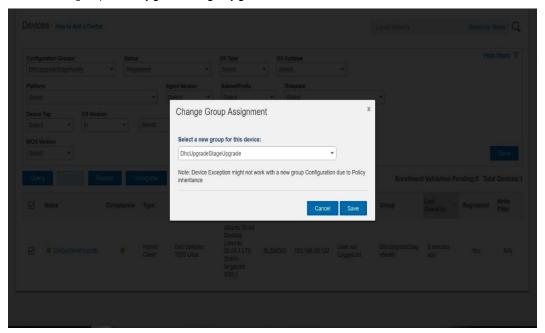


Figure 5. DhcUpgradeStageUpgrade

- 7. Go to **Apps & Data** and create the advanced app policy, **DHC1.5 Upgrade** for the subgroup, **DhcUpgradeStageUpgrade** to install Image upgrade add-on and the ISO conversion image respectively.
 - Check the **Enable app dependency** option to ensure that the image add-on is installed first followed by the ISO image.
 - NOTE: You must create the app policy for operating system subtype Ubuntu 18.04.

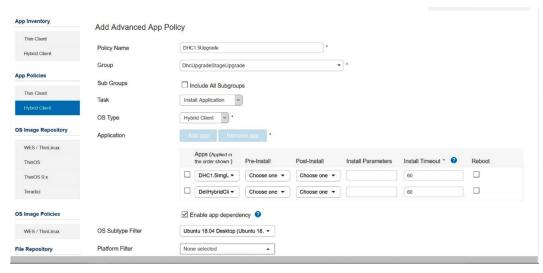


Figure 6. Install Image upgrade add-on and the ISO conversion image

8. If you have not configured the policy to apply on check-in, you can create the job for the DHC1.5 Upgrade app policy to install the add-on on the devices in the subgroup **DhcUpgradeStageUpgrade**.

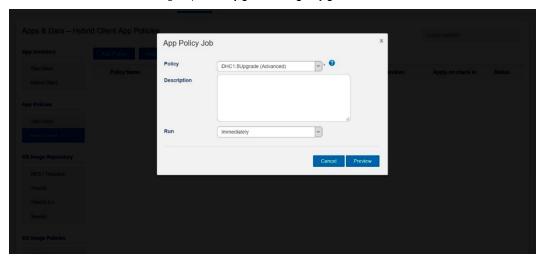


Figure 7. DhcUpgradeStageUpgrade group

9. Once the job is successful the devices will upgrade to Ubuntu 20.04 with Dell Hybrid Client 1.5 and re-register to the subgroup, **DhcUpgradeStageUpgrade**.

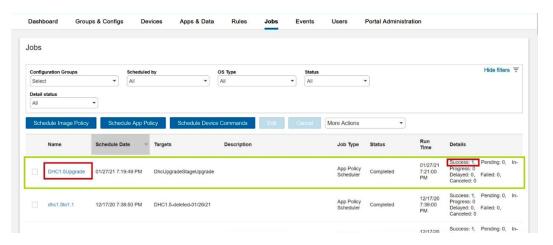


Figure 8. Upgrade successful

Convert Dell Wyse 5070 devices to Dell Hybrid Client

You can convert the Dell Wyse 5070 devices running Windows 10 IoT Enterprise LTSB, Windows 10 IoT Enterprise LTSC, ThinLinux 2.x, and ThinOS 8.6 to Dell Hybrid Client using Wyse Management Suite Pro 3.1 or later versions.

Topics:

• Dell Wyse 5070 Conversion

Dell Wyse 5070 Conversion

Prerequisites

- If the Wyse 5070 device running Windows 10 IoT does not have the latest boot agent which is equal or later than 4.0.9, download the **Merlin Boot Agent 4.0.9 for WIE10** package from the **Drivers and Downloads** section of the Wyse 5070 product page at https://www.dell.com/support. Install the boot agent on the device by following the install instructions provided on the support page.
- If the Wyse 5070 device running ThinLinux 2.x does not have the latest boot agent which is equal or later than 4.0.8, download the **Boot Agent for ThinLinux 2.2** package from the **Drivers and Downloads** section of the Wyse 5070 product page at https://www.dell.com/support. Install the boot agent on the device by following the install instructions provided on the support page.
- If the Wyse 5070 device running ThinOS 8.6_511 does not have the latest boot agent which is equal or later than 4.0.8, upgrade the ThinOS firmware to the latest version. For more information about how to update ThinOS firmware, see the latest *Dell Wyse Management Suite Administrator's guide* at https://www.dell.com/support.
 - NOTE: For Wyse 5070 devices with 16 GB configuration running ThinOS v8.6 or ThinLinux v2.x, only conversion to Dell Hybrid Client 1.1 is supported and conversion to Dell Hybrid Client v1.5 is not supported.
- If you are converting Windows 10 IoT Enterprise devices to Dell Hybrid Client 1.1, download the **Dell Hybrid Client -** Conversion Image for Wyse 5070 from the **Drivers and Downloads** section (Operating System—Ubuntu 18.04 LTS) of the Wyse 5070 product page at https://www.dell.com/support.

If you are converting Windows 10 IoT Enterprise devices to Dell Hybrid Client v1.5, download the **Dell Hybrid Client 1.5 - Merlin Conversion Image for Wyse 5070** from the **Drivers and Downloads** section (Operating System—Ubuntu 20.04 LTS) of the Wyse 5070 product page at https://www.dell.com/support.

After you download the .zip file, you must extract the EXE file.

- If you are converting ThinLinux 2.x or ThinOS 8.6 devices, download the Dell Hybrid Client Conversion Image for Wyse
 5070 16 GB from the Drivers and Downloads section of the Wyse 5070 product page at https://www.dell.com/support.
- Ensure that you use Wyse Management Suite Pro version for thin clients in addition to the Dell Hybrid Client license. Dell Hybrid Client v1.5 supports Wyse Management Suite Pro version 3.2 or later.
- Ensure that the number of Hybrid Client licenses is equal or more than the number of devices that need to be converted to Dell Hybrid Client. The Dell Hybrid Client licenses can be imported into Wyse Management Suite.
- If Wyse Management Suite is set up on a public cloud and you want to register the conversion image to a public cloud, the local repository should be set up and configured locally. For more information about this feature, see the latest *Dell Wyse Management Suite Administrator's guide* at https://www.dell.com/support.

About this task

The process of converting Windows 10 IoT Enterprise LTSB, Windows 10 IoT Enterprise LTSC, ThinLinux 2.x and ThinOS 8.6 to Dell Hybrid Client removes the contents and partition structure of the existing drive. The conversion process preserves only the certificates and settings relevant to register the device to Wyse Management Suite. All other data, certificates and configuration settings are not preserved. After the conversion to Dell Hybrid Client, it is not possible to convert the device back to the original state. However, you can restore the original operating system using the Dell Wyse USB Imaging Tool 3.4 or later from the https://www.dell.com/support. The existing data and settings are not restored.

Steps

- 1. Register the Dell Hybrid client image to Wyse Management Suite. For details about how to register, see Adding Hybrid Client images to repository.
 - If the storage size of the device is more than 16 GB, use DHC_CONVERSION_5070.exe.
 - If the storage size of the device is 16 GB, use DHC_CONVERSION_5070_16GB.exe.
- 2. Create the Dell Hybrid Client image policy. For details on how to create Hybrid Client image policy, see Creating Hybrid Client image policies.
- 3. Convert the device to Dell Hybrid Client. For details on how to schedule an image, see Scheduling the image policy.
 - The device receives an image update notification. The boot agent downloads the image from the Wyse Management Suite repository and installs the Dell Hybrid Client image by internally triggering the Dell Recovery Tool. After the imaging is completed, the device boots to Dell Hybrid Client.
 - Dell Client Agent registers the device, as Dell Hybrid Client to Wyse Management Suite.
 - Wyse Management Suite manages the device as a Dell Hybrid Client device.

Adding Dell Hybrid Client images to repository

Steps

- Copy the Dell Hybrid Client conversion image to the repository location or the operating system images folder using Wyse Management Suite.
 - NOTE: Dell Technologies recommends to copy the image file to the local system and then copy the file to Wyse Management Suite repository location. Wyse Management Suite extracts the files from the zipped folder and uploads the files to the repository location or operating system images folder.

The image is added to the repository.

2. Go to Apps & Data > OS Image Repository > Hybrid Client to view the saved image.

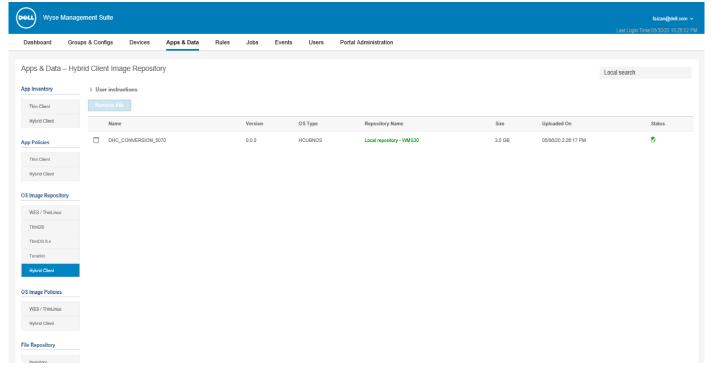


Figure 9. Adding Dell Hybrid Client images to repository

Creating Hybrid Client image policies

Steps

- 1. Go to Apps & Data, click Hybrid Client under OS Image Policies.
- 2. Click Add Policy and go to Edit Hybrid Client Policy tab.
- $\textbf{3.} \ \ \, \text{Enter the \textbf{Policy name}} \ \, \text{and select a group from the drop-down menu of the } \ \, \textbf{Group} \ \, \text{tab.}$
- 4. Select the operating system type from the drop-down menu of the OS Type tab.
- 5. Select an operating system subtype filter from the drop-down menu of the OS Subtype Filter tab.
 - NOTE: If you want to deploy an image to a specific operating system or platform, select either OS Subtype Filter or Platform Filter.
- 6. Select an image file from the drop-down menu of the OS image tab.
- 7. Select Force this version from the drop-down menu of the Rule tab.
- 8. Select one of the following option from the drop-down menu of the Apply Policy Automatically tab:
 - 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.
- 9. Click Save.

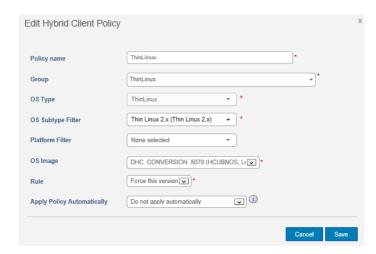


Figure 10. Creating Hybrid Client image policies

Scheduling the image policy

Steps

- 1. Go to Jobs and click the Schedule Image Policy tab.
 - The Image Update Job tab is displayed.
- 2. Select a policy from the drop down menu of the **Policy** tab.
- **3.** Enter the job description on the **Description** tab.
- 4. Select the date or time from the drop down list of the Run tab as following:
 - Effective— Enter the start and end date
 - Start between— Enter the start and end time
 - On day(s)— Select the days of the week
- 5. Click **Preview** to view details of the scheduled job.
- 6. Click **Schedule** to initiate the job.

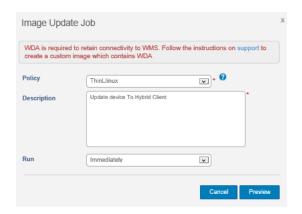


Figure 11. Schedule a job

Convert Dell Generic Client to Dell Hybrid Client

You can convert the Dell OptiPlex 7070 Ultra systems running Ubuntu and Windows 10 to Dell Hybrid Client using Wyse Management Suite Pro 3.2 or later versions.

Prerequisites

If your device has DCA-Enabler installed, it will connect and register to Wyse Management Suite. DCA-Enabler version 1.2 is required to convert Ubuntu 18.04 or 20.04 on Dell Ubuntu Generic device to Dell Hybrid Client. You can check the DCA-Enabler version after your device is registered to Wyse Management Suite. If the DCA-Enabler version is 1.1.0-17 or lower, Dell Ubuntu devices are registered to Wyse Management Suite as Dell Hybrid Client. If the DCA-Enabler version is 1.2.0-xx or greater, the devices are registered as Dell Generic Client.

To upgrade to DCA-Enabler 1.2, you can download the **DCA-Enabler version 1.2.0-xx package** from the **Drivers and Downloads** section of the Dell Wyse Management Suite product page at www.dell.com/support. You must register the device to Wyse Management Suite 3.2 and follow the Install Instructions mentioned on the support page to deploy the **DCA-Enabler version 1.2.0-xx package** to the device.

Steps

- 1. Register the device to Wyse Management Suite using DCA-Enabler version 1.2.
- 2. Convert the generic client to Dell Hybrid Client using any of the following methods:
 - Using the command to convert to Dell Hybrid Client—See the Convert your Dell Generic Client to Hybrid Client section in the Dell Wyse Management Suite Administrator's Guide at www.dell.com/support.
 - Deploying the Dell Hybrid Client 1.1/1.5 bundles or ISO Image files to convert Dell Generic Clients running Ubuntu 18.04 LTS:
 - To convert to Dell Hybrid Client 1.0 or 1.1, you must push the Dell Hybrid Client 1.0 or 1.1 bundle package files using
 the application policy. You can download the **Dell Hybrid Client Bundle package** from the **Drivers and Downloads**section of the respective hardware product pages at www.dell.com/support.
 - o To convert to Dell Hybrid Client 1.5, you must push the Dell Hybrid Client ISO package using the application policy. You must first push the **Dell Hybrid Client 1.5 OS Upgrade pack for DCA Enabler** package, and then push the **Dell Hybrid Client 1.5 ISO** package file. You can download the os-upgrade_1.1-16_amd64.zip and the **Dell Hybrid Client 1.5 ISO for Wyse 7070** package from the **Drivers and Downloads** section of the Dell Hybrid Client page or the Wyse 7070 product page at www.dell.com/support.

For information about how to deploy an application policy using Wyse Management Suite, see the *Create and deploy standard application policy to Dell Generic Clients* section and the *Create and deploy advanced application policy to Dell Generic Clients* section in the Dell Wyse Management Suite Administrator's Guide at www.dell.com/support.

NOTE: Before the device conversion is initiated, DCA-Enabler backs-up Wyse Management Suite connection data and then triggers the Dell Hybrid Client ISO or installer bundle.

The installer completes the conversion and device restarts automatically. After the conversion, the device boots into the converted Dell Hybrid Client operating system. Dell Client Agent reads the backed-up Wyse Management Suite connection data and registers to Wyse Management Suite server as a Dell Hybrid Client device.

Upgrade from Dell Hybrid Client version 1.0 to 1.1

Dell Technologies recommends that you use the Wyse Management Suite version 3.1 or later to upgrade your Dell Hybrid Client version to 1.1.

The overall upgrade process using Wyse Management Suite includes the following tasks:

- 1. Download the Dell Hybrid Client 1.1 installation file from Dell support site. See, Download the installation file from Dell support site.
- 2. Use Wyse Management Suite to create and deploy the application policy to Dell Hybrid Client.
 - Install the application using Wyse Management Suite with on-premise deployment. See, Install the application using on-premises Wyse Management Suite.
 - Install the application using Wyse Management Suite with public cloud deployment. See, Install the application using
 public cloud Wyse Management Suite.

Topics:

- Install the application using public cloud Wyse Management Suite
- Install the application using on-premises Wyse Management Suite
- Download the installation file from Dell support site

Install the application using public cloud Wyse Management Suite

Prerequisites

Ensure that you have downloaded the **Dell Hybrid Client Application Version 1.1** installation file from www.dell.com/support.

Steps

- Download and install the Wyse Management Suite local repository.
 For more information about the Wyse Management Suite remote repository, see the Dell Wyse Management Suite Administrator's Guide at www.dell.com/support.
- 2. Register the repository to the Wyse Management Suite public cloud.
- 3. Copy the DellHybridClient_1.1_1618.tar.gz file to \repository\hybridClientApps.

For example, C:\WMSRepo3\repository\hybridClientApps.

- 4. Log in to Wyse Management Suite.
- Go to Apps & Data > App Inventory > Hybrid Client and ensure that the application entry for DellHybridClient_1.1_1618.tar.gz is present.
- 6. Go to Apps & Data > App Policies > Hybrid Client > Add Policy.
- 7. Enter the policy name.
- 8. From the **Group** drop-down list, select the group.
- 9. From the Task drop-down list, select Install Application.
- 10. From the OS Type drop-down list, select Hybrid Client.
- 11. From the Application drop-down list, select DellHybridClient_1.1_1618.tar.gz.
- 12. Click Save to create a policy.
- 13. Click Yes to schedule the job.
- 14. Select any of the following options:
 - Immediately—Server runs the job immediately.

- On device time zone—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 time zone—Server creates one job to run at the date or time of the designated time zone.
- 15. Check the status of the job on the Jobs page.
- 16. On the device, an upgrade notification window is displayed. Click Update Now. The device reboots after the installation.

Install the application using on-premises Wyse Management Suite

Prerequisites

Ensure that you have downloaded the **Dell Hybrid Client Application Version 1.1** installation file from www.dell.com/support.

Steps

- Copy the DellHybridClient_1.1_1618.tar.gz file to \repository\hybridClientApps.
 For example, C:\WMS\LocalRepo\repository\hybridClientApps.
- 2. Log in to Wyse Management Suite.
- 3. Go to Apps & Data > App Inventory > Hybrid Client and ensure that the application entry for DellHybridClient_1.1_1618.tar.gz is present.
- 4. Go to Apps & Data > App Policies > Hybrid Client > Add Policy.
- 5. Enter the policy name.
- 6. From the **Group** drop-down list, select the group.
- 7. From the Task drop-down list, select Install Application.
- 8. From the OS Type drop-down list, select Hybrid Client.
- 9. From the Application drop-down list, select DellHybridClient_1.1_1618.tar.gz.
- 10. Click Save to create a policy.
- 11. Click Yes to schedule the job.
- 12. Select any of the following options:
 - Immediately—Server runs the job immediately.
 - On device time zone—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 time zone—Server creates one job to run at the date or time of the designated time zone.
- 13. Check the status of the job on the Jobs page.
- **14.** On the device, an upgrade notification window is displayed. Click **Update Now**. The device reboots after the installation.

Download the installation file from Dell support site

Steps

- **1.** Go to www.dell.com/support.
- 2. In the Enter a Service Tag, Serial Number, Service Request, Model, or Keyword field, type the model number of your device or type Dell Hybrid Client.
- ${\bf 3.}\;$ Click the product from search results to open the product support page.
- 4. On the product support page, click **Drivers & downloads**.
- 5. Select the operating system as Ubuntu 18.04 LTS.
- 6. From the list, locate the **Dell Hybrid Client Application Version 1.1** entry and click the download icon. The **DellHybridClient_1.1_1618.tar.gz** file is downloaded to your system.

Dell OptiPlex and Latitude conversions

Prerequisites

- Ensure that you have configured the USB bootable drive with the ISO image.
 - 1. Go to https://www.dell.com/support and search for the device product page or the Dell Hybrid Client product page.
 - 2. Click Drivers and Downloads and download the zip file.
 - 3. Extract the ISO file from the zip file.
 - 4. Create a USB bootable media using one of the following methods:
 - o If using Windows, do the following:
 - a. Download and install the OS Recovery tool from https://www.dell.com/support/home/en-in/drivers/osiso/recoverytool.
 - b. Open the Dell OS Recovery Tool and select the SWITCH TO ADVANCED RECOVERY option.
 - c. Under Select an OS Image, browse to the ISO file and open.
 - d. Click NEXT.
 - e. Plug in a USB drive and select the USB drive on the screen.
 - f. Click BURN OS.
 - o If using Linux, you can follow the steps mentioned in https://www.dell.com/support/article/en-in/sln301761/how-to-use-the-dell-hosted-recovery-image-of-linux.
 - o You can also use other Third party tools to prepare a bootable USB drive with the ISO.
- Ensure that the number of Hybrid Client licenses is more than the number of devices to be converted to Dell Hybrid Client. The Dell Hybrid Client licenses can be imported into Wyse Management Suite.

About this task

The process of converting Ubuntu and Windows 10 to Dell Hybrid Client does not preserve any data, certificates or configuration settings from the original operating system. However, you can restore the original operating system using the OS Recovery Tool from the https://www.dell.com/support. The existing data and settings are not restored.

Steps

- 1. Go to BIOS setup > Secure Boot and uncheck Secure Boot Enable.
- 2. Go to BIOS setup > System Configuration and select SATA Operation as AHCI.
- 3. Plug in the bootable USB drive into the device and boot the device to USB drive.
- 4. Select **restore entire hard drive** option on the Dell recovery screen and continue.
 - (i) NOTE: Select a drive, if device has multiple drives available.

The device boots into Dell Hybrid Client when the installation is completed. The device registers to Wyse Management Suite by the auto discovery method. Alternatively, you can register the device manually to Wyse Management Suite using the Dell Client Agent user interface.

For information about how to use the Dell Client Agent window to manually register the device to Wyse Management Suite, see the Dell Hybrid Client Administrator's Guide at https://www.dell.com/support.

Frequently asked questions

The FAQs mentioned in this section are applicable to Wyse 5070 devices with 16 GB storage capacity.

1. Why is the 16 GB image required separately?

The existing Dell Hybrid Client 1.0 image when deployed to a 16 GB eMMC, provides a free space of approximately 1.9 GB or less. This amount of space is not sufficient to install your local applications or store your local files, or cache requirements.

2. How do I create additional free space on my USB drive?

Uninstall or delete applications and files that are not in use.

3. Which are the default VDI applications available on Wyse 5070 devices with 16 GB storage?

By default, no VDI applications are preinstalled in the Dell Hybrid Client image for Wyse 5070 devices with 16 GB storage. The following VDI applications are available as Dell-signed add-on packages:

- Citrix Workspace App
- VMWare View Horizon client
- Zoom Client

4. What is the amount of free space available after the conversion process?

The amount of free space available after the conversion process is around 4.5 GB.

5. Is there a separate guide provided for 16 GB kit?

There is no separate guide provided for the 16 GB kit.

NOTE: Ensure that you deploy the correct size image based on the device storage size.

6. What happens if there is a network failure or an interruption during the conversion process?

If there is a network failure or an interruption during the conversion process, the device gets corrupted. The following steps restores the device to its original state:

- a. Unregister and delete the device from Wyse Management Suite.
- **b.** The device can be imaged with the conversion image using USB Imaging Tool 3.4 and later. This applies only when DHC_CONVERSION_5070.exe or DHC_CONVERSION_5070_16GB.exe is downloaded.
 - NOTE: For information about how to use USB Imaging Tool, see the *Dell Wyse USB Imaging Tool v3.4 User's Guide* that is available on the Wyse 5070 manuals page at www.dell.com/support.
- c. Cancel the existing Image Conversion Job from Wyse Management Suite.
- d. Device registers to Wyse Management Suite by the auto discovery method. However, you must register the device manually using the Dell Client Agent user interface to Wyse Management Suite. The Dell Hybrid Client license is used after the device is registered. For more information on how to register the device manually, see the USB Imaging Tool 3.4 User's Guide at https://www.dell.com/support.

7. What changes are made on a 16 GB device to provide free space?

The following are the modules that are deleted as they are not part of the minimal installation of Ubuntu along with other related icon and png files:

- Aisleriot
- Baobab
- Branding-Ubuntu
- Cheese
- deja-dup
- example-content
- gir1.2-rb-3.0:amd64
- gir1.2-totem-1.0:amd64
- gnome-calendar
- gnome-mahjongg
- gnome-mines

- gnome-sudoku
- gnome-todo
- gnome-todo-common
- gnome-video-effects
- guile-2.0-libs
- hyphen-en-us
- libavahi-ui-gtk3-0
- libgnome-games-support-1-3
- libgnome-games-support-common
- libgnome-todo
- libmessaging-menu0
- libminiupnpc10
- libnatpmp1
- librhythmbox-core10
- libtotem0
- mythes-en-us
- python3-uno
- remmina
- remmina-common
- remmina-plugin-rdp
- remmina-plugin-secret
- remmina-plugin-vnc
- rhythmbox
- rhythmbox-data
- rhythmbox-plugin-alternative-toolbar
- rhythmbox-plugins
- Shotwell
- shotwell-common
- simple-scan
- citrix-client
- thunderbird
- thunderbird-gnome-support
- thunderbird-locale-en
- thunderbird-locale-en-us
- totem
- totem-common
- totem-plugins
- transmission-common
- transmission-gtk
- ubuntu-web-launchers
- usb-creator-gtk
- vino
- vmware-client
- zeitgeist-core
- adium-theme-ubuntu
- bolt
- command-not-found-data
- dmz-cursor-theme
- evince-common
- friendly-recovery
- gnome-software
- gnome-software-common
- gnome-accessibility-themes
- gnome-themes-extra-data
- imagemagick-6-common
- netpbm

- speech-dispatcher-audio-plugins
- tcpdump
- ubuntu-release-upgrader-core
- ubuntu-report
- unattended-upgrades
- whoopsie
- xcursor-themes
- yelp-xsl
- gdb
- gnome-mahjongg
- gnome-sudoku
- libqqwing2v5
- gnome-mines
- netcat-openbsd
- vim
- vim-runtime

The following documents are removed to provide free space on a 16 GB device:

- /usr/share/man
- /usr/share/groff
- /usr/share/info
- /usr/share/lintian
- /usr/share/linda
- /var/cache/man

The following steps and commands have been performed to provide free space on a 16 GB device:

- Delete dependent packages that were automatically installed and are no longer needed.
- Clean the local repository of retrieved packages.
- Delete Snap, as it is replaced by Apt-get
- Delete local cache.
- Delete and disable the dpkg log to avoid dynamic memory increase.
- Delete apt caches to avoid dynamic increase of memory utilization.
- Delete the existing cache of Google Chrome and Firefox.
- Limit the cache of Google Chrome and Firefox to 150 MB for future use.

Contacting Dell

Prerequisites

NOTE: If you do not have an active internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

About this task

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell sales, technical support, or customer service issues:

Steps

- 1. Go to www.dell.com/support.
- 2. Select your support category.
- 3. Verify your country or region in the Choose a Country/Region drop-down list at the bottom of the page.
- 4. Select the appropriate service or support link based on your need.