

Dell Hybrid Client

Version 2.5 Release Notes



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.

Chapter 1: Introduction.....	4
New and Enhanced Features of Dell Hybrid Client 2.5.....	4
Full Disk Encryption (FDE).....	4
Kernel Updates (FDE).....	5
Direct Domain Login.....	5
VDI configuration editor for Citrix.....	5
Enhanced login optimization.....	5
WMS configuration optimization.....	5
Banner message support.....	6
Support for Proxy settings in Device Settings and Quick Start Wizard.....	6
Inactive timeout.....	6
Desktop restart.....	6
Enhanced AVD client.....	6
Usability enhancements.....	7
Dell Hybrid Client 2.5 configuration user interface changes in Wyse Management Suite.....	7
Supported Platforms.....	8
Software and Package Information.....	8
Supported VDI clients and local applications.....	11
Supported Browsers.....	12
Optional Packages.....	12
Supported Languages.....	13
Peripheral Matrix.....	13
Printer Matrix.....	19
Display Matrix.....	19
Tested Broker Connections.....	21
Installation Prerequisites.....	22
Limitations and Behaviors.....	22
Fixed issues.....	22
Known issues.....	23
Chapter 2: Resources and support.....	25
Chapter 3: Contacting Dell.....	26

Introduction

Dell Hybrid Client (DHC) is a desktop solution 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.

DHC 2.5 can be deployed on two Ubuntu Dell base operating systems, Ubuntu 20.04 LTS 64-bit and Ubuntu 22.04 LTS 64-bit. It has a minimum memory (RAM) of 8 GB and disk storage of 64 GB or higher.

 **NOTE:** The user must re-configure the settings in Dell Hybrid Client 2.x WMS Config Policies from Dell Hybrid Client 1.x. WMS Config Policies, before and after upgrading from DHC 1.6 and DHC 1.8 to DHC 2.5.

Version

Dell Hybrid Client version 2.5.315

Wyse Management Suite Pro version 4.1 Build 529 and later

Wyse Management Suite Configuration UI package 1.9.950 and later versions

 **NOTE:** Use Wyse Management Suite to upgrade your Dell Hybrid Client firmware to the latest version. For detailed information, see *Dell Hybrid Client Administrator's Guide* at www.dell.com/support.

Ubuntu version

Ubuntu 20.04 LTS 64-bit

Ubuntu 22.04 LTS 64-bit

Ubuntu 22.04 LTS 64-bit (FDE)

Release date

June 2023

New and Enhanced Features of Dell Hybrid Client 2.5

Full Disk Encryption (FDE)

The solution provides Ubuntu 22.04 Full Disk Encryption operating system and ensures enhanced security for clients by encrypting their entire disk. This is the first solution Dell Technologies in collaboration with Canonical.

It protects unauthorized individuals from recovering or physically transferring any data or the complete disk of the FDE client.

To identify FDE device, go to the **About** tab in **System Information**. Full Disk Encryption value is displayed as **Yes**.

The following installation methods are supported:

- Ubuntu 22.04 FDE with DHC pre-installed from factory
- Ubuntu 22.04 FDE with DHC ISO installation using USB Drive

FDE image is supported only for OptiPlex 3000 Thin Client

 **NOTE:** To get recovery key run the command `sudo snap recovery --show-keys` in the terminal.

Kernel Updates (FDE)

DHC 2.5 supports automatic kernel updates on FDE devices.

To configure the kernel updates from Wyse Management Suite, go to **Edit Policies > Dell Hybrid Client 2.x > Advanced > Firmware > Kernel Update**.

Direct Domain Login

DHC 2.5 supports direct domain login without adding the device to the domain. You can use DHC login screen to directly log in to domain.

To configure the option from Wyse Management Suite, go to **Edit Policies > Dell hybrid Client 2.x > Advanced > Login Experience > Login Settings > Direct Domain Login**.

Direct login supports Single Sign-On for clients and application. It provides the following:

- Authentication against domain controller
- Access to network resources
- Centralized user management

We can also display a configured Banner message on the login screen for all users.

To configure the banner message from Wyse Management Suite, go to **Edit Policies > Dell hybrid Client 2.x > Advanced > Login Experience > Banner Message**.

Limitation: You requires administrator credentials to configure from Wyse Management Suite for the first time login.

VDI configuration editor for Citrix

DHC 2.5 supports Citrix VDI configuration editor. The Citrix configuration editor enables the administrator to configure the Citrix-related settings by dynamically modifying the Citrix configuration files.

The following are the VDI configurations that are supported for Citrix:

- Citrix INI settings
- Citrix XML settings
- Citrix keyboard layout settings

To configure the options from Wyse Management Suite, go to **Edit Policies > Dell Hybrid Client 2.x > Advanced > VDI Configuration Editor > Citrix Configuration Editor**.

Enhanced login optimization

In DHC 2.5 the login flow is optimized by applying only the configuration which are required during login. As a result of this optimization the following improvements can be observed:

- Minimum of 50% improvement in login time is achieved for basic configurations.
- 30% to 50% improvement in login time for complex configurations.

WMS configuration optimization

In DHC 2.5, cache logic is implemented to prevent the reapplication of unaltered configurations from Wyse Management Suite. In the earlier versions of DHC, whenever administrator modifies a configuration from WMS, all configuration including the unaltered configuration is deployed to the device every time. As a result, configuration apply takes time and delays the configuration to reflect in the device.

User-based cache is implemented in DHC 2.5 to preserve user personalization. The configurations that are deployed from WMS are applied faster. Around 80% of latency is improved which promotes better user experience.

Banner message support

Dell Hybrid Client 2.5 supports banner messages on the device login screen. You can configure the message from Wyse Management Suite.

To configure the banner message from Wyse Management Suite, go to **Edit Policies > Dell Hybrid Client 2.x > Advanced > Login Experience > Banner Message**.

Support for Proxy settings in Device Settings and Quick Start Wizard

From DHC 2.5, you can configure proxy configurations from device settings. You can add or modify proxy details when device is unregistered. The proxy details are disabled when the device is registered. You can also configure proxy settings from the Quick Start Wizard. You can then register the device to Wyse Management Suite.

Inactive timeout

From DHC 2.5, you can dynamically configure inactive timeout period from 15 to 300 minutes. You can configure the settings from Wyse Management Suite.

To configure the setting from Wyse Management Suite, go to **Edit Policies > Dell Hybrid Client 2.x > Advanced > Power Settings > Suspend & Power Button**. The option is displayed when you enable **Inactivity Action** option.

Desktop restart

From DHC 2.5, a restart option for Windows desktops under Citrix Workspace app is enabled so that you can start a new session every time you log in to a Citrix session even though you are connected to the same Citrix desktop.

For more information, see *How to Enable the Citrix XenDesktop Restart Option for Dell Hybrid Client* at <https://www.dell.com/support/>.

Enhanced AVD client

From DHC 2.5, AVD Multimonitor and improved session performance is supported. This feature is supported on AVD on-premise for Ubuntu 22.04. Span and mirror mode configurations are supported and tested up to three monitors.

NOTE:

- Multimonitor functionality is not supported for Application resource.
- Title bar modification (revealed on hover) for desktop resource launch is supported only on primary screen.

The following are the supported AVD shortcuts:

Table 1. AVD shortcuts support

Windows shortcut	Remote Desktop shortcut	Description	DHC AVD shortcut
ALT+TAB	ALT+PAGE UP	Switches between programs from left to right.	WIN + ALT + TAB
ALT+SHIFT+TAB	ALT+PAGE DOWN	Switches between programs from right to left.	WIN + ALT + SHIFT+TAB
Windows key or CTRL+ESC	ALT+HOME	Displays the Start menu.	CTRL + ESC
ALT+SPACE BAR	ALT+DELETE	Displays the system menu.	ALT + SPACE BAR
ALT+PRINT SCREEN	CTRL+ALT+MINUS SIGN	Places a snapshot of the active window, within the client, on the clipboard.	FN+ALT+PRINT SCREEN

Table 1. AVD shortcuts support (continued)

Windows shortcut	Remote Desktop shortcut	Description	DHC AVD shortcut
PRINT SCREEN	CTRL+ALT+PLUS SIGN	Places a snapshot of the entire client windows area on the clipboard	FN+PRINT SCREEN

Usability enhancements

The following usability enhancements are part of the Dell Hybrid Client 2.5 release:

- Dell File Explorer
 - Double-click support to extract .zip files.
 - Background visibility improvement for better user experience
 - Enhanced list view to support folders with . in the name
 - Support for disable file format change from DFE with error messages
 - Security enhancement for **Zip Bomb** detection
- Device settings
 - Device Settings wizard UX alignment
 - Discard change support under Ethernet settings.
- Quick Start wizard
 - Quick start wizard UX alignment
 - Ability to select preconfigured WMS Cloud URLs—select **US** or **EU** from **Enter server URL** drop-down in the Quick Start Wizard screen.
 - Support for WPA3 (Wi-Fi Protected Access 3) Personal Wi-Fi connection added in Quick Start Wizard and from WMS under **Network Configuration > Wireless > Wireless Connection**.
- VMware Session Launch from browser
- Teradici connection launch using IP Address
- Display MQTT status in **System Information**

Dell Hybrid Client 2.5 configuration user interface changes in Wyse Management Suite

The following are the enhancements to the configuration user interface in Wyse Management Suite for Dell Hybrid Client 2.5 release.

DHC configuration	Wyse Management Suite Config UI path
Citrix configuration editor	Edit Policies > Dell Hybrid Client 2.x > Advanced > VDI Configuration Editor > Citrix Configuration Editor
Direct Domain login	Edit Policies > Dell hybrid Client 2.x > Advanced > Login Experience > Login Settings > Direct Domain Login
Configure banner message	Edit Policies > Dell Hybrid Client 2.x > Advanced > Login Experience > Banner Message
Log configuration	Edit Policies > Dell Hybrid Client 2.x > Advanced > Troubleshooting > Log Configuration
Kernel updates	Edit Policies > Dell Hubrid Client 2.x > Advanced > Firmware > Kernel Update
Inactive Timeout	Edit Policies > Dell Hybrid Client 2.x > Advanced > Power Settings > Suspend & Power Button. The option is displayed when you enable Inactivity Action option.

Supported Platforms

Table 2. Supported Platforms (DHC Pre-Installed)

Platform	Processor	RAM	eMMC/SSD/HDD
OptiPlex 3000 Thin Client	11 th Generation Pentium and Celeron	8 GB and above	64 GB and above
OptiPlex 5400 AIO	12th Gen Intel Core i3/i5/i7	8 GB and above	128 GB and above
Latitude 3330	11th Generation Intel Core i3/i5/i7	8 GB and above	128 GB and above
Precision 3260	12th Gen Intel Core i3/i5/i7	8 GB and above	128 GB and above
Latitude 3440	12th Gen Intel Core i3/i5/i7	8 GB and above	128 GB and above
Latitude 5440	12th Gen Intel Core i3/i5/i7	8 GB and above	128 GB and above

Software and Package Information

Table 3. Dell Hybrid Client Bundle 20.04 Package

File Name	DellHybridClient_2.5_315_U20.04.tar.gz
Size (bytes)	915,352,145

Table 4. Dell Hybrid Client Bundle 22.04 Package

File Name	DellHybridClient_2.5_315_U22.04.tar.gz
Size (bytes)	968,355,286

Table 5. Dell Hybrid Client Citrix Client Package 20.04

File Name	DHC2.5-VDI-citrixclient_23.05.0.58-23_20.04.tar.gz
Size (bytes)	446,339,914

Table 6. Dell Hybrid Client Citrix Client Package 22.04

File Name	DHC2.5-VDI-citrixclient_23.05.0.58-23_22.04.tar.gz
Size (bytes)	445,616,189

Table 7. Dell Hybrid Client Custom Connections Package 20.04

File Name	DHC2.5-customconnection_00-04_20.04.tar.gz
Size (bytes)	293,900

Table 8. Dell Hybrid Client Custom Connections Package 22.04

File Name	DHC2.0-customconnection_00-03_22.04.tar.gz
Size (bytes)	182,424

Table 9. Dell Hybrid Client Smartcard Login Enabler Package 20.04

File Name	DHC2.5-OS-smartcardloginenabler_00-05_20.04.tar.gz
Size (bytes)	14,084,565

Table 10. Dell Hybrid Client Azure Virtual Desktop 20.04

File Name	DHC2.5-VDI-avd_2.5-06_20.04.tar.gz
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Table 10. Dell Hybrid Client Azure Virtual Desktop 20.04 (continued)

Size (bytes)	395,022,992
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Table 11. Dell Hybrid Client Azure Virtual Desktop 22.04

File Name	DHC2.5-VDI-avd_2.5-06_22.04.tar.gz
Size (bytes)	469,437,408

Table 12. Dell Hybrid Client Multimedia Extension VDI Package 20.04

File Name	DHC2.5-VDI-multimediaextension_00-03_20.04.tar.gz
Size (bytes)	77,640,302

Table 13. Dell Hybrid Client Multimedia Extension VDI Package 22.04

File Name	DHC2.0-VDI-multimediaextension_00-03_22.04.tar.gz
Size (bytes)	237,231,473

Table 14. Dell Hybrid Client RDP Package 20.04

File Name	DHC2.5-VDI-rdpclient_8.1.08-27_20.04.tar.gz
Size (bytes)	1,572,864

Table 15. Dell Hybrid Client RDP Package 22.04

File Name	DHC2.5-VDI-rdpclient_8.1.08-27_22.04.tar.gz
Size (bytes)	1,443,549

Table 16. Dell Hybrid Client SSH Server Package 20.04

File Name	DHC2.5-RDS-sshserver_8.2p1-4-03_20.04.tar.gz
Size (bytes)	1,652,823

Table 17. Dell Hybrid Client SSH Server Package 22.04

File Name	DHC2.5-RDS-sshserver_8.2p1-4-03_22.04.tar.gz
Size (bytes)	1,573,507

Table 18. Dell Hybrid Client VNC Server Package 20.04

File Name	DHC2.5-RDS-vncserver_0.9.16-3-03_20.04.tar.gz
Size (bytes)	3,441,045

Table 19. Dell Hybrid Client VNC Server Package 22.04

File Name	DHC2.0-RDS-vncserver_0.9.16-3-03_22.04.tar.gz
Size (bytes)	3,514,318

Table 20. Dell Hybrid Client Zoom Citrix Package

File Name	DHC2.5-VDI-zoomcitrix_5.14.0-07_all.tar.gz
Size (bytes)	64,611,553

Table 21. Dell Hybrid Client Zoom VMware Package

File Name	DHC2.5-VDI-zoomVMware_5.14.0-07_all.tar.gz
Size (bytes)	64,592,822

Table 22. Dell Hybrid Client Cisco Webex Package

File Name	DHC2.5-VDI-webexoffload_43.4.0-04_all.tar.gz
Size (bytes)	87,480,282

Table 23. Dell Hybrid Client Cisco Jabber Package

File Name	DHC2.5-VDI-jabberoffload_14.1.2-03_all.tar.gz
Size (bytes)	52,867,750

Table 24. Dell Hybrid Client Full Language Package 20.04

File Name	DHC2.5-LP-fulllanguage_00-03_20.04.tar.gz
Size (bytes)	390,375,079

Table 25. Dell Hybrid Client Full Language Package 22.04

File Name	DHC2.5-LP-fulllanguage_00-05_22.04.tar.gz
Size (bytes)	429,356,962

Table 26. Dell Hybrid Client Imprivata Package 20.04

File Name	DHC2.5-VDI-imprivata_7.8.1.641901-08_20.04.tar.gz
Size (bytes)	52,761,797

Table 27. Dell Hybrid Client Teradici Package 20.04

File Name	DHC2.5-VDI-teradici_22.09.4-06_20.04.tar.gz
Size (bytes)	136,526,433

Table 28. Dell Hybrid Client Teradici Package 22.04

File Name	DHC2.5-VDI-teradici_22.09.4-05_22.04.tar.gz
Size (bytes)	53,929,296

Table 29. Dell Hybrid Client VMware Client Package 20.04

File Name	DHC2.5-VDI-VMwareclient_2303-8.9.0-09_20.04.tar.gz
Size (bytes)	206,453,302

Table 30. Dell Hybrid Client VMware Client Package 22.04

File Name	DHC2.5-VDI-VMwareclient_2303-8.9.0-09_22.04.tar.gz
Size (bytes)	206,192,144

Table 31. Dell Hybrid Client ISO Package for 5400 AIO 20.04

File Name	DellHybridClient_2.5_315_U20.04_5400.iso
Size (bytes)	4,974,424,064

Table 32. Dell Hybrid Client ISO Package for Latitude 3330 20.04

File Name	DellHybridClient_2.5_315_U20.04_L3330.iso
Size (bytes)	4,938,346,496

Table 33. Dell Hybrid Client ISO Package for Optiplex 3000 Thin Client 20.04

File Name	DellHybridClient_2.5_315_U20.04_3000_TC.iso
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Table 33. Dell Hybrid Client ISO Package for Optiplex 3000 Thin Client 20.04 (continued)

Size (bytes)	4,522,457,088
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Table 34. Dell Hybrid Client ISO Package for 3260 22.04

File Name	DellHybridClient_2.5_315_U22.04_3260.iso
Size (bytes)	5,600,716,800

Table 35. Dell Hybrid Client ISO Package for Optiplex 3000 Thin Client 22.04

File Name	DellHybridClient_2.5_315_U22.04_3000_TC.iso
Size (bytes)	5,768,263,680

Table 36. Dell Hybrid Client ISO Package for Latitude 3440 22.04

File Name	DellHybridClient_2.5_315_U22.04_3440.iso
Size (bytes)	6,288,666,624

Table 37. Dell Hybrid Client ISO Package for Latitude 5440 22.04

File Name	DellHybridClient_2.5_315_U22.04_5440.iso
Size (bytes)	6,008,754,176

Table 38. Dell Hybrid Client ISO Package for 7410 AIO 22.04

File Name	DellHybridClient_2.5_315_U22.04_7410.iso
Size (bytes)	6,182,895,616

Table 39. Dell Hybrid Client ISO Package for Optiplex 3000 Thin Client FDE_22.04

File Name	DellHybridClient_2.5_315_FDE_U22.04_3000_TC.iso
Size (bytes)	7,174,463,488

Supported VDI clients and local applications

Table 40. Common local applications and VDI client versions

Description	Version
Dell RDP	8.1.08
Citrix Workspace App	23.05
VMware Horizon Client	2303
Zoom Client	5.14.0
VLC Media Player	3.0.9.2 (Ubuntu 20.04) 3.0.16 (Ubuntu 22.04)
Teradici PCoIP Client	22.09
Azure Virtual Desktop	2.5-06
Imprivata	7.8.1 (Ubuntu 20.04)

Supported Browsers

Table 41. Browser Versions 20.04

Browser	Version
Firefox	111.0.1 (64-bit)
Chrome	112.0.5615.165 (64-bit)

Table 42. Browser Versions 22.04 (FDE and Non FDE)

Browser	Version
Firefox	110.0 (64-bit)
Chrome	110.0.5481.177 (64-bit)

Optional Packages

Table 43. Optional Packages 20.04

Packages	Comments
DHC2.5-customconnection_00-04_20.04.tar.gz	To create a custom connection from WMS
DHC2.5-RDS-sshserver_8.2p1-4-03_20.04.tar.gz	To access SSH for the device
DHC2.5-RDS-vncserver_0.9.16-3-03_20.04.tar.gz	To support VNC Remote access
DHC2.5-LP-fulllanguage_00-03_20.04.tar.gz	Package installs supported multi-lingual languages
DHC2.5-VDI-citrixclient_23.03.0.32-22_20.04.tar.gz	Packages Installs Citrix client
DHC2.5-VDI-vmwareclient_2303-8.9.0-07_20.04.tar.gz	Package Installs VMware client
DHC2.5-VDI-imprivata_7.8.1.641901-08_20.04.tar.gz	Package installs Imprivata client
DHC2.5-VDI-teradici_22.09.4-06_20.04.tar.gz	Package Installs Teradici client
DHC2.5-VDI-rdpclient_8.1.08-26_20.04.tar.gz	Package installs Remote desktop protocol
DHC2.5-VDI-multimediaextension_00-03_20.04.tar.gz	Package installs Multimedia Extension plugin
DHC2.5-VDI-avd_2.5-04_20.04.tar.gz	Package installs Azure Virtual Desktop
DHC2.5-OS-smartcardloginenabler_00-05_20.04.tar.gz	Package to Enable Device Smartcard login

Table 44. Optional Packages 22.04

Packages	Comments
DHC2.5-customconnection_00-03_22.04.tar.gz	To create a custom connection from WMS
DHC2.5-RDS-sshserver_8.2p1-4-03_22.04.tar.gz	To access SSH for the device
DHC2.5-RDS-vncserver_0.9.16-3-03_22.04.tar.gz	To support VNC Remote access
DHC2.5-LP-fulllanguage_00-05_22.04.tar.gz	Package installs supported multi-lingual languages
DHC2.5-VDI-citrixclient_23.03.0.32-22_22.04.tar.gz	Packages Installs Citrix client
DHC2.5-VDI-vmwareclient_2303-8.9.0-07_22.04.tar.gz	Package Installs VMware client
DHC2.5-VDI-teradici_22.09.4-05_22.04.tar.gz	Package Installs Teradici client
DHC2.5-VDI-rdpclient_8.1.08-26_22.04.tar.gz	Package installs Remote desktop protocol
DHC2.5-VDI-multimediaextension_00-03_22.04.tar.gz	Package installs Multimedia Extension plugin
DHC2.5-VDI-avd_2.5-05_22.04.tar.gz	Package installs Azure Virtual Desktop

Table 45. Common Packages for Ubuntu 20.04 and 22.04

Packages	Comments
DHC2.5-VDI-jabberoffload_14.1.2-03_all.tar.gz	Package installs Cisco Jabber plugins
DHC2.5-VDI-webexoffload_43.4.0-04_all.tar.gz	Package installs Cisco Webex plugins
DHC2.5-VDI-zoomcitrix_5.14.0-07_all.tar.gz	Package installs Citrix zoom plugins
DHC2.5-VDI-zoomvmware_5.14.0-07_all.tar.gz	Package installs VMware zoom plugins

Supported Languages

- English (US)
- French (France)
- German
- Italian
- Spanish Latin (America)
- Korean
- Japanese
- Chinese Simplified
- Chinese Traditional
- Russian
- Portuguese (Brazil)
- Hebrew
- Danish
- Finnish
- Norwegian
- Swedish

Peripheral Matrix

Table 46. Peripheral Matrix OptiPlex 3000

Product Category (Module)	Product Description	OptiPlex 3000 Status
Audio/Video	Dell Pro Stereo Headset - Cortez - WH3022	✓
	Dell Slim Soundbar - Ariana - SB521A	✓
	Logitech BRIO 4K Ultra HD Webcam - 960-001105 - 960-001105	✓
	Logitech C525 HD Webcam - 960-000715 - 960-000715	✓
	Logitech C930e HD Webcam - 960-000971 - 960-000971	✓
	Dell Pro Stereo Soundbar - AE515M - AE515M - AE515M - Nirvana M	✓
	Dell Stereo Soundbar - AC511M - AC511M - AC511M - Potential M	✓
	Jabra Engage 65 MS Wireless Headset - 9559-553-125 Dell part #: AA143343 - 9559-553-125 Dell part #: AA143343	✓
	Jabra Evolve 65 MS Stereo - Headset - 6599-823-309 - 6599-823-309	✓

Table 46. Peripheral Matrix OptiPlex 3000 (continued)

Product Category (Module)	Product Description	OptiPlex 3000 Status
	Dell Mobile Adapter Speakerphone - MH3021P - Apollo - MH3021P	✓
	Dell Premier Wireless ANC Headset - Blazer - WL7022	✓
	Dell Pro Wireless Headset - Daybreak - WL5022	✓
	Dell Slim Conferencing Soundbar - Lizzo - SB522A	✓
	Dell Speakerphone - Mozart - SP3022	✓
	Plantronics Savi W440M-400 Series convertible wireless headset - DECT 6.0 - 203947-01 - 203947-01	✓
	Plantronics Voyager Focus UC B825-M headset for Microsoft Lync - 202652-02 - 202652-02	✓
	Dell Pro Stereo Headset - Presto - WH1022	✓
	Dell Pro Webcam - Falcon - WB5023	✓
	Dell UltraSharp Webcam - Acadia Webcam - WB7022	✓
Cables/Dongles/Adapters	Dell USB-C Mobile Adapter - DA310 - Slayer 3 MLK - DA310	✓
External Data Storage	Dell USB Slim DVD +/- RW Drive - DW316 - DW316 - Agate - DW316	✓
	Apricorn 1TB Aegis Padlock 256-bit AES Encrypted Hard Drive	✓
	Western Digital My Passport Ultra 1TB , Black - WDBYNN0010BBK-WESN - WDBYNN0010BBK-WESN	✓
Input Devices	Dell Pro Wireless Keyboard and Mouse - Tasman (previous Windsor) - KM5221W	✓
	Dell Laser Wired Mouse - MS3220_Black - Morty - MS3220	✓
	Dell Business Multimedia Keyboard - KB522 - KB522 - KB522 - Scarlet	✓
	Dell Mobile Wireless Mouse - MS3320W_Black - Dawson - MS3320W	✓
	Dell Premier Multi-Device Wireless Keyboard and Mouse - Acadia IO - KM7321W	✓
	Dell Multi-Device Wireless Keyboard and Mouse Combo - KM7120W - KM7120W - Felix	✓
	Dell Multi-Device Wireless Mouse - MS5320W - MS5320W - Comet	✓

Table 46. Peripheral Matrix OptiPlex 3000 (continued)

Product Category (Module)	Product Description	OptiPlex 3000 Status
	Dell Optical Mouse - MS116	✓
	Dell KB813 Smartcard Keyboard - KB813 - KB813 - Cardinal	✓
	Dell Mobile Pro Wireless Mice - MS5120W_Black - Splinter - MS5120W	✓
	Dell Multimedia Keyboard - KB216	✓
	Dell Wired Mouse with Fingerprint Reader - MS819 - Ultramarine - MS819	✓
	Dell Wireless Keyboard and Mouse - Auburn MLK - KM3322W	✓
	Dell Mouse MS700	✓
Monitors	Dell 24 Monitor - P2422H - P2422H	✓
	Dell UltraSharp 24 Monitor - U2422H - U2422H	✓
	Dell UltraSharp 24 USB-C HUB Monitor - U2422HE - U2422HE	✓
	Dell Collaboration 24 USB-C Hub Monitor - C2422HE	✓
	Dell 24 USB-C Hub Monitor - P2422HE - P2422HE	✓
	Dell UltraSharp 27 USB-C HUB Monitor - U2722DE	✓
	Dell 27 USB-C Hub Monitor - P2722HE - P2722HE	✓
	Dell UltraSharp 27 Monitor - U2722D - U2722D	✓
	Dell Collaboration 27 USB-C Hub Monitor - C2722DE - C2722DE	✓
	Dell 27 Monitor - P2722H - P2722H	✓
	Dell 22 Monitor - P2222H - P2222H	✓
	Dell 24 Monitor - P2421 - P2421 - P2421	✓
	Dell 24 Monitor - P2421D - P2421D - P2421D	✓
	Dell 27 Monitor - P2720D - P2720D	✓
	Dell 27 USB-C Monitor - P2720DC - P2720DC	✓
	Dell UltraSharp 25 USB-C Monitor - U2520D - U2520D	✓
	Dell Collaboration 34 USB-C Hub Monitor - C3422WE - C3422WE	✓
	Dell UltraSharp 34 Curved USB-C HUB Monitor - U3421WE - U3421WE	✓

Table 46. Peripheral Matrix OptiPlex 3000 (continued)

Product Category (Module)	Product Description	OptiPlex 3000 Status
	Dell 20 Monitor E2020H - E2020H	✓
	Dell 19 Monitor E1920H - E1920H	✓
	Dell 24 Monitor E2420H - E2420H	✓
	Dell 24 Monitor E2420HS - E2420HS	✓
	Dell 27 Monitor E2720H - E2720H	✓
	Dell 27 Monitor E2720HS - E2720HS	✓
	Dell 23 Monitor - P2319H - P2319H - P2319H	✓
	Dell UltraSharp 32 4K USB-C Monitor - U3219Q - U3219Q	✓
	Dell 24 Touch Monitor - P2418HT - P2418HT - P2418HT	✓
	Dell 22 Monitor - E2223HN - E2223HN	✓
	Dell 27 4K USB-C Monitor - P2721Q - P2721Q	✓
	Dell 32 USB-C Monitor - P3221D - P3221D	✓
	Dell 34 Curved USB-C Monitor - P3421W - P3421W	✓
	Dell Collaboration 32 Monitor - U3223QZ - U3223QZ	✓
	Dell UltraSharp 24 Hub Monitor U2421E - U2421E	✓
	Dell UltraSharp 27 4K USB-C HUB Monitor - U2723QE - U2723QE	✓
	Dell UltraSharp 30 USB-C HUB Monitor - U3023E - U3023E	✓
	Dell UltraSharp 38 Curved USB-C HUB Monitor - U3821DW - U3821DW	✓
	Dell 17 Monitor - E1715S - E1715S - E1715S	✓
	Dell 19 Monitor - P1917S - P1917S - P1917S	✓
	Dell 24 USB-C Monitor - P2421DC - P2421DC - P2421DC	✓
	Dell UltraSharp 27 4K USB-C Monitor - U2720Q - U2720Q	✓
	Dell 21 Monitor - E2221HN	✓
	Dell 24 Monitor - E2421HN	✓

Table 47. Peripheral Matrix OptiPlex 5400 AIO

Product Category (Module)	Product Description	OptiPlex 5400(AIO) Status
Audio Devices	Dell Pro Stereo Headset - UC150 - Skype for Business	✓

Table 47. Peripheral Matrix OptiPlex 5400 AIO (continued)

Product Category (Module)	Product Description	OptiPlex 5400(AIO) Status
	Dell Pro Stereo Headset - Skype for Business - UC350	✓
	Jabra PRO 935 USB MS Lync Headset - 935-15-503-185	✓
	Dell 2.0 Speaker System - AE215	✓
	Dell Wired 2.1 Speaker System - AE415	✓
	Jabra Evolve 65 MS Stereo - Headset	✓
	Jabra Engage 65 Stereo Headset	✓
	Plantronics Savi W440M-400 Series convertible wireless headset - DECT 6.0	✓
	Dell Pro Stereo Headset - Cortez - WH3022	✓
	Plantronics Voyager Focus UC B825-M headset for Microsoft Lync	✓
	Plantronics Voyager Focus UC B825-M headset for Microsoft Lync	✓
Input Devices	Dell Laser Scroll USB 6-Buttons Silver and Black Mouse - Naruto	✓
	Dell Laser Wired Mouse - MS3220 - Morty	✓
	Dell USB Wired Keyboard - KB216	✓
	Dell USB Wired Optical Mouse - MS116	✓
	Dell Premier Wireless Mouse - WM527	✓
	Dell Wireless Keyboard and Mouse - KM636	✓
	Dell Wireless Mouse - WM326	✓
	Dell Premier Multi-Device Wireless Keyboard and Mouse - Acadia IO - KM7321W	✓
	Dell Wireless Mouse MS-700	✓
Adapters / Cables / Dongles	C2G - USB 2.0 A (Male) to DB9 (Serial) (Male) Adapter	✓
	StarTech.com 1 Port USB to RS232 DB9 Serial Adapter Cable - Serial adapter - USB 2.0 - RS-232	✓
	Dell Adapter - DisplayPort to HDMI 2.0 (4K) - DANAUBC087 - DANAUBC087	✓
External data storage	SD Card Port	x
	Apricorn 1TB Aegis Padlock 256-bit AES Encrypted Hard Drive	✓
	Western Digital My Passport Ultra 1TB , Black - WDBYNN0010BBK-WESN - WDBYNN0010BBK-WESN	✓
Display / Monitors	Dell 19 Monitor E1916H	✓
	Dell 19 Monitor E1916H	✓

Table 47. Peripheral Matrix OptiPlex 5400 AIO (continued)

Product Category (Module)	Product Description	OptiPlex 5400(AIO) Status
	Dell 20 Monitor E2016H	✓
	Dell 20 Monitor E2020H	✓
	Dell 22 Monitor E2216H	✓
	Dell 22 Monitor E2218HN	✓
	Dell 22 Monitor E2220H	✓
	Dell 23 Monitor E2318H	✓
	Dell 24 Monitor E2417H	✓
	Dell 24 Monitor E2420H	✓
	Dell 24 Monitor E2420HS	✓
	Dell 24 Monitor E2422H	✓
	Dell 24 Monitor E2422HN	✓
	Dell 24 Monitor E2422HS	✓
	Dell 27 Monitor E2720H	✓
	Dell 27 Monitor E2720HS	✓
	Dell 24 Monitor P2415Q	✓
	Dell 24 Monitor P2418HT	✓
	Dell 24 Monitor P2419H	✓
	Dell 24 Monitor P2421	✓
	Dell 24 Monitor P2421D	✓
	Dell 24 Monitor P2422H	✓
	Dell 24 Monitor P2423	✓
	Dell 24 Monitor P2423D	✓
	Dell 27 Monitor P2719H	✓
	Dell 34 Monitor P3418HW	✓
	Dell 43 Monitor P4317Q	✓
	Dell Ultra-Sharp 24 Monitor U2415	✓
	Dell Ultra-Sharp 24 Monitor U2419H	✓
	Dell Ultra-Sharp 24 Monitor U2422H	✓
	Dell Ultra-Sharp 25 Monitor U2518D	✓
	Dell Ultra-Sharp 25 Monitor U2520D	✓
	Dell Ultra-Sharp 27 Monitor U2718Q (4K)	✓
	Dell Ultra-Sharp 27 Monitor U2719D	✓
	Dell Ultra-Sharp 27 Monitor U2720Q	✓
	Dell Ultra-Sharp 27 Monitor U2721DE	✓
	Dell Ultra-Sharp 43 Monitor U4320Q	✓
	Dell 27 Monitor E2724HS	✓
	Dell 24 Monitor U2424H	✓

Table 47. Peripheral Matrix OptiPlex 5400 AIO (continued)

Product Category (Module)	Product Description	OptiPlex 5400(AIO) Status
	Dell 24 Monitor P2424HT	✓
Smart Card & Readers	Dell Smartcard Keyboard - KB813	✓
	Dell keyboard KB813t	✓
	Cherry Smart Terminal ST-1144 SMART Card Reader - USB 2.0	✓
	Card_IDPrimeMD840B_white_PVC	✓
	YubiKey Neo 5.0	✓

Printer Matrix

Table 48. Printer Matrix

Printing Type	Printer Type	USB	LPD	SMB	URI
Local	Firefox	✓	✓	✓	✓
	Chrome	✓	✓	✓	✓
	Libre Office	✓	✓	✓	✓
	File Explorer	✓	✓	✓	✓
WMS	Printer push from WMS	N/A	✓	✓	✓
VDI Sessions	RDP	x	x	x	x
	VMware RDP	x	x	x	x
	VMware PCoIP	✓	✓	✓	✓
	VMware Blast	✓	✓	✓	✓
	Citrix	✓	✓	✓	✓
	Citrix Apps	✓	✓	✓	✓
	Teradici	x	x	x	x
	AVD	x	x	x	x

Display Matrix

Table 49. Display Matrix

Hardware	Monitors	VDI Sessions					
		RDP	VMWare RDP	VMWare PCoIP	VMWare Blast	Citrix	AVD
OptiPlex 3000 Thin Client	2-4K Monitors: DP1:P2721Q(DP-cable) DP2:P2721Q(DP-cable)	✓	✓	✓	✓	✓	✓
OptiPlex 3000 Thin Client	3-4K Monitors:	X	✓	✓	✓	✓	✓

Table 49. Display Matrix (continued)

Hardware	Monitors	VDI Sessions					
		RDP	VMWare RDP	VMWare PColP	VMWare Blast	Citrix	AVD
	DP1:P2721Q(DP-cable) DP2:U2723QE(DP-cable) DP4:P2721Q(C-Type)						
Precision 3260	6-2K Monitors: DP1:P2217(DP-cable) DP2:P2217(DP-cable) DP3:P2722H(DP-cable) NVIDIA DP4:P2417H(DP to mDP cable) NVIDIA DP5:P2417H (DP to mDP cable) NVIDIA DP6:P2722H(DP to mDP cable)	✓	✓	X	✓	✓	✓
Precision 3260	2-4K Monitors: DP1:P2721Q(DP-cable) DP2:P2721Q(DP-cable) 2-2K Monitors: DP3:P2217(DP-cable) NVIDIA mDP6:P2217(DP to mDP cable)	✓	✓	✓	✓	✓	✓
Precision 3260	2-4K Monitors: DP1:P2721Q(DP-cable) DP2:P2721Q(DP-cable) 3-2K Monitors: DP3:P2217(DP-cable) NVIDIA DP6:P2217(DP to mDP cable) NVIDIA DP5:P2417H (DP to mDP cable)	✓	✓	X	✓	✓	✓
Precision 3260	1-4K Monitors: DP1:P2723QE(DP-cable)	✓	✓	X	✓	✓	✓

Table 49. Display Matrix (continued)

Hardware	Monitors	VDI Sessions					
		RDP	VMWare RDP	VMWare PColP	VMWare Blast	Citrix	AVD
	5-2K Monitors: DP2:P2217(DP-cable) DP3:P2217(DP-cable) NVIDIA DP6:P2722H(DP to mDP cable) NVIDIA DP4:P2417H (DP to mDP cable) NVIDIA DP5:P2417H (DP to mDP cable)						

Tested Broker Connections

VDI and Server Environment Details

The tables below consists of various server and desktop information for different protocols testing.

VMWare

Table 50. VMWare

VDI Version	Desktop	RDS Server	
	WIN10 ENT	WIN 2016/2019/2022	Apps WIN 2016/2019/2022
VMware Horizon 8 2303	✓	✓	✓

Citrix Virtual Applications and Desktops

Table 51. Citrix Virtual Applications and Desktops

VDI Version	Desktop	Server	Apps
	WIN10/11 ENT	WIN 2016/2K19/2K22	WIN 2016/2K19/2K22
Citrix Virtual Desktops 7 2305	✓	✓	✓

Microsoft RDP

Table 52. Microsoft RDP

VDI Version	Desktop	Server Operating System		
	WIN 10/11 ENT	WIN 2016	WIN 2K19	WIN 2K22
Microsoft RDP	✓	✓	✓	✓

Installation Prerequisites

For installation prerequisites and installation procedure, see Imaging Instructions section in the Administrator Guide at <https://www.dell.com/support/home>.

Limitations and Behaviors

- Non-FDE to FDE conversion not supported from WMS and DCA-Enabler is not supported for FDE devices.
- BIOS Update from WMS not supported for Ubuntu 22.04 FDE.
- In PIW (Connection Mode), you cannot use other application. You must close Imprivata and restart the client to use other application.
- Fingerprint authentication is not supported for Imprivata.
- After you launch and close Imprivata applications in PIE mode, you must manually restart the client to view the authentication screen.
- Imprivata Smart card does not work for logoff function from the connection mode until you restart your system.
- In Imprivata, you must remove configuration settings from WMS and restart it manually, in order to move to DHC from the PIE mode.
- Imprivata is not supported on Ubuntu 22.04.
- Smart card device login is not supported on Ubuntu 22.04. `DHCX.X-OS-smartcardloginenabler` add-on must be installed on Ubuntu 20.04 to enable Smartcard device login.
- In Latitude 3330, for a guest user, when the device prompts for password, the user must press **Enter**.
- Base operating system upgrade from 20.04 to 22.04 using **apt update & apt upgrade** is not recommended in DHC.
- Ubuntu 22.04 screen recorder is not supported for multiple tab or actions.
- Plugins must be installed only after installing VDI client.
- After upgrading from 2.0 to 2.5, icons are not displayed on the desktop.
- AVD applications are not supported in multi monitor setup.
- Monitor hot plug-in is not supported for AVD and RDP.

Fixed issues

Table 53. Fixed issues

Issue ID	Description
DHC-71	DHC failed to convert OptiPlex 3000 after recovery issues when system is in Secure boot deployed mode.
DHC-70	DHC cannot be installed on a device restored by Dell Recovery image.
DHC-66	Unable to set RDS session to Windows mode after DHC 1.8 version of upgrade.
DHC-62	Teams optimization is nonfunctional in DHC.

Known issues

Table 54. Known issues

Issue ID	Description
HC-13770	Display configuration pushed from WMS are not applied accurately in Precision 3460.
HC-13453	Screen Recording not working in DHC 22.04 builds.
HC-14694	Unable to push the Citrix keyboard layout settings in Citrix config editor because of the Citrix update.
HC-14689	Auto-refresh does not happen when new folder is added in Azure OneDrive in DFE.
HC-14645	SCEP certificates are not deleted after Factory Reset.
HC-14615	When you configure both wired and wireless network and change DNS manually, Direct Domain login does not work.
HC-14599	Selected Keyboard layout language pushed from WMS are not listed in client along with the languages selected from the device settings.
HC-14566	After unregistering the device from WMS/DCA, configurations are not removed until manual restart/logout—do not get reboot notification.
HC-14510	Minimizing the published applications displays a blank screen. You cannot restore the minimized application for both cloud and on-premises connection.
HC-14407	Shortcut keys are do not work in a desktop session.
HC-14404	After exporting logs from Troubleshooting, logs are not showing in DFE(Downloads) for other than English language.
HC-14400	In cloud desktop session, performing drag and drop applications from primary monitor to secondary monitor, the mouse events are do not work as expected.
HC-14388	In box account, when you copy a file in the same location and select one of the copied file, two files are selected.
HC-14376	Reset Policy from WMS for USB lockdown do not work.
HC-14270	Few strings are not updated in Device Settings after language change.
HC-14268	File type strings in DFE do not change for any language.
HC-14202	After changing language and updating folder names with folder language change pop-up, the files/folders created in DFE Local files (Documents, Downloads) in English language are not displayed in other languages.
HC-14200	Default Browser changes are not applied after you reset to default.
HC-14195	Multi monitor configuration with span mode on performing lid close should fall back to the default span mode.
HC-14191	Firefox and Google Chrome browsers are getting crashed after installing zoom-Citrix and Citrix add-on.
HC-14176	Under Network Configuration > Ethernet section, after discarding the changes, if we add new DNS IP settings are not saved.

Table 54. Known issues (continued)

Issue ID	Description
HC-14043	After you clear proxy settings values (text fields) from automation script, Save and Apply button is not enabled.
HC-14018	Device settings tabs are cropped and Device settings menu overlaps on dock.
HC-13956	Added Desktop Icons are not shifted to respective primary monitor on changing primary monitor and not able to drag the icons to respective monitor.
HC-13907	The launched application is not transferred to primary monitor on powering off secondary monitor and vice versa.
HC-13788	Device Settings tabs are not displayed, when the client is in un-registered state for Domain users.
HC-13665	Device stops responding in OOB Setup Wizard after installation when subnet does not have DHCP.
HC-13515	DHC numbering and Gnome numbering on multi-monitor do not match.
HC-13408	Occasionally, you cannot select the user list on GDM login screen.
HC-13317	DFE files do not open and saved properly with Citrix FTA configuration from WMS.
HC-13119	Keyboard layout for all languages are not displayed in RDP broker connections.
HC-12839	You cannot stop the Move operation of System Information after the Move function is enabled.
HC-12830	Fail to display EULA to other monitor when we remove primary monitor cable in multiple monitor scenario.
HC-9961	After resetting, the machine password for the computer object (802.1x - PEAP Machine mode), through rdp, you can login with previously logged in domain users but, unable to login with remaining new domain users.
HC-9386	UEFI Network Stack options are not the same in WMS BIOS page and Client BIOS page and default values of both sides are different in DHC 1.6.
HC-8032	USB Redirection not working for Domain users in a VMware session in DHC 2.0.

Resources and support

1. Go to www.dell.com/support.
2. In the **Enter a Service Tag, Serial Number, Service Request, Model, or Keyword** search box, type the product name or the product model. For example, **Dell Hybrid Client**.

A list of matching products is displayed.
3. Click your product from the list.
4. Click **DOCUMENTATION**.

Contacting Dell

 **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.

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:

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.