



# Dell Wyse ThinOS Lite Version 2.6

## Release Notes

Dell Wyse ThinOS software is designed to run on a broad array of Dell Wyse hardware platforms. New releases are created to support new hardware platforms, correct defects, make enhancements, or add new features. These releases are tested and supported on current, actively shipping hardware platforms, and those hardware platforms that are within their first year after their official End of Life date. Beyond the one year time period, new software releases are no longer certified for use with the older hardware, even though it is possible that they may still work. This allows us to advance our product with features and functions that might not have been supported by the previous hardware, with previous generation CPUs and supporting components.

**Current Version:** 2.6

**Release Date:** November 2018

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## Release type and definition

This release note contains information about the new features, supported platforms, and tested environment for ThinOS Lite version 2.6.

# Supported platform

The following table provides the list of supported platforms and build information:

**Table 1. Supported platform**

| Platform                    | ThinOS Lite/zero client for Citrix |
|-----------------------------|------------------------------------|
| Wyse 3010 zero client—T00X  | T00_xen.bin                        |
| Wyse 3020 zero client—T00DX | T00D_xen                           |
| Wyse 5010 zero client—D00DX | ZD00_xen                           |

## BIOS information

The following table provides the list of latest BIOS available in this release:

**Table 2. BIOS information**

| Platform                    | BIOS version    |
|-----------------------------|-----------------|
| Wyse 3010 zero client—T00X  | EC 3.02         |
| Wyse 3020 zero client—T00DX | wloader 7.1_216 |
| Wyse 5010 zero client—D00DX | 3.0U            |

## Packages

The following table provides the list of the packages that are included in ThinOS Lite version 2.6 release.

 **NOTE:** Dell recommends that you use these packages along with the released ThinOS Lite firmware.

**Table 3. Packages**

| Package name  | Version  |
|---------------|--|
| FR.i386.pkg   | 1.24.51190                                     |
| RTME.i386.pkg | 2.5.49272—based on the Citrix RTOP version 2.5 |
| TCX.i386.pkg  | 7.1.41853                                      |

## Feature support matrix

The following table provides the list of new features that are supported on each platform:

**Table 4. Feature support matrix**

| Feature                            | Wyse 3010 zero client—T00X | Wyse 3020 zero client—T00DX | Wyse 5010 zero client—D00DX |
|------------------------------------|----------------------------|-----------------------------|-----------------------------|
| Update RTME Package to version 2.5 | Not supported              | Not supported               | Limited support             |
| Package check                      | Not supported              | Not supported               | Supported                   |
| Telnet                             | Supported                  | Supported                   | Supported                   |

| Feature  | Wyse 3010 zero client—T00X | Wyse 3020 zero client—T00DX | Wyse 5010 zero client—D00DX |
|--|----------------------------|-----------------------------|-----------------------------|
| Report locally attached devices to Wyse Device Manager | Supported                  | Supported                   | Supported                   |
| Vertical Synchronization                               | Not supported              | Not supported               | Supported                   |
| Okta Integration through Citrix NetScaler              | Supported                  | Supported                   | Supported                   |
| Icon folders support for StoreFront interface mode     | Supported                  | Supported                   | Supported                   |
| Caradigm Way2Care enhancement                          | Supported                  | Supported                   | Supported                   |
| Wireless IP configuration                              | Supported                  | Supported                   | Supported                   |
| Display GUI update                                     | Supported                  | Supported                   | Not supported               |

\* Only certain features are supported.

## Citrix Receiver feature matrix

**Table 5. Citrix Receiver feature matrix**

| Features |  | Operating System—ThinOS      |
|----------|--|------------------------------|
| Content  | XenApp Applications                    | Supported                    |
|          | XenDesktop Desktops                    | Supported                    |
|          | Follow Me Apps/Subscriptions           | Supported                    |
|          | Offline Apps (App V)                   | Not applicable               |
|          | File Open In Receiver                  | Not applicable               |
|          | Desktop Viewer/Toolbar                 | Not supported                |
|          | Multitasking                           | Supported                    |
|          | Follow Me Sessions (Workspace Control) | Supported                    |
|          | URL Redirection                        | Limited support <sup>1</sup> |
| HDX      | Audio Playback                         | Supported                    |
|          | UDP Audio                              | Supported                    |
|          | Bidirectional Audio (VoIP)             | Supported                    |
|          | Web Cam (Video Chat)                   | Supported                    |
|          | Video Playback                         | Supported                    |
|          | Flash Redirection                      | Supported (x86 only)         |
|          | Skype for business Optimization pack   | Supported (x86 only)         |
|          | Windows Multimedia Redirection         | Supported                    |
|          | Local Printing                         | Supported                    |
|          | H.264-enhanced SuperCodec              | Supported                    |

| Features                   |  | Operating System—ThinOS      |
|----------------------------|--|------------------------------|
|                            | Adaptive Transport                         | Limited support <sup>2</sup> |
|                            | Framehawk                                  | Not supported                |
|                            | Client hardware acceleration               | Limited support              |
|                            | Desktop Composition redirection            | Not supported                |
|                            | 3DPro Graphics                             | Supported                    |
|                            | Remote FX                                  | Not supported                |
|                            | Location-Based Services                    | Not supported                |
|                            | Client drive mapping/File Transfer*        | Supported                    |
|                            | Generic USB redirection                    | Supported                    |
|                            | SDWAN Support                              | Verification needed          |
|                            | Local App Access                           | Not applicable               |
|                            | Multi-touch                                | Not supported                |
|                            | Mobility Pack                              | Not applicable               |
|                            | HDX Insight                                | Supported                    |
|                            | Experience Metrics                         | Supported                    |
|                            | External Monitor                           | Supported                    |
|                            | True Multi Monitor                         | Supported                    |
|                            | Session Sharing                            | Supported                    |
|                            | Session Reliability                        | Supported                    |
|                            | Auto Client reconnect                      | Supported                    |
|                            | Multi-port ICA                             | Supported                    |
| Security and communication | Receiver for Web Access                    | Not applicable               |
|                            | Remote Access via NetScaler Gateway        | Supported                    |
|                            | NetScaler Full VPN                         | Supported                    |
|                            | RSA Soft Token                             | Supported                    |
|                            | Challenge Response SMS                     | Supported                    |
|                            | User Cert Auth via NetScaler Gateway       | Supported                    |
|                            | Smart Card (CAC, PIV and so on)            | Supported                    |
|                            | Proximity/Contact less Card (Fast Connect) | Supported                    |
|                            | Pass Through Authentication                | Supported                    |
|                            | SAN Cert                                   | Verification needed          |
|                            | SHA2 Certs                                 | Supported                    |
|                            | TLS 1.1/1.2                                | Supported                    |
|                            | AES and 3DES Encryption                    | Supported                    |
|                            | Smart Access                               | Supported                    |

| Features |                                  | Operating System—ThinOS |
|----------|----------------------------------|-------------------------|
|          | IPv6                             | Supported               |
| Updates  | Auto Discovery/Configuration     | Not supported           |
|          | App Store Updates/Citrix updates | Not supported           |

\*File transfer feature applies to HTML5/Chrome Receiver only.

<sup>1</sup>HTML5 limitation

<sup>2</sup>DTLS audio limitation

For more information about Citrix Receiver features, see the Citrix documentation at [www.citrix.com](http://www.citrix.com).

## Important notes

This section contains information about firmware upgrade and system configuration that you need to know before using ThinOS Lite version 2.6.

## Firmware upgrade and downgrade notification

The Local display 16-bit color option is removed from Wyse 3010 and 3020 zero clients.

## System configuration and deployment

- ThinOS BIOS policy can be configured using Wyse Management Suite Console, Wyse Management Suite group INI, Wyse Management Suite advanced settings and FTP INI. Dell recommends that you use any one of the methods to configure the BIOS policy. Setting the BIOS policy simultaneously using different methods may cause a policy mismatch, and the device reboots repeatedly. This reboot loop issue is observed when you select the **reboot immediately** option in the **BIOS policy** settings section on the Wyse Management Suite console.
- All the installed packages are deleted when you update the ThinOS Lite version between major releases—2.5 to 2.6—using FTP, WDM, or Wyse Management Suite.

Solution for updating firmware using FTP and WDM—Ensure that you have set the PKG install parameters in the WNOS.ini, and the pkg files are uploaded in the directory. After the device reboot, the packages are re-installed automatically.

Solution for updating firmware using Wyse Management Suite—Wyse Management Suite App policy works only once after the policy is created. The deleted package cannot be reinstalled using the same policy. Dell recommends that you create a new App policy to install the package after the firmware update is complete.

- WDM vulnerability is fixed in this release. You must configure either the DHCP or the DNS option/record of the WDM server fingerprint to automatically fetch and validate the fingerprint before checking in to the WDM server. However, there is no impact to the ThinOS Lite device functionality if you do not to configure the fingerprint validation environment. For more information about how to set up fingerprint using WDM, see the *Dell Wyse ThinOS Lite Version 2.6 Administrator's Guide* at [www.dell.com/support](http://www.dell.com/support).

## New and enhanced features

### Update RTME package to 2.5

RTME package—RTME.i386.pkg—is updated to version 2.5.49272. For information about installation and compatibility, see the Citrix RTOP version 2.5 documentation at [www.citrix.com/support](http://www.citrix.com/support).

#### Limitations:

- ThinOS RTME package update does not support hardware acceleration. For more information, see the Citrix documentation at [docs.citrix.com](https://docs.citrix.com).
- Answer/Hold /End call options are not supported by using Bluetooth headset button.

## Package version check

After you install packages, the ThinOS Lite client restarts and verifies the version of the installed packages. If you have not installed the latest package version, an event log is generated. You can view the logs on the **Event Log** tab in the **System Information** window.

## Telnet

Telnet is a terminal emulation client that allows you to connect to a remote host or device.

In ThinOS Lite version 2.6, the **Telnet** tab is added in the **Troubleshooting** window. When you enter the hostname and click **Connect**, the **Telnet** window is displayed and the **Troubleshooting** window is closed automatically.

## Report locally attached devices to Wyse Device Manager

This feature reports locally attached devices such as monitor and USB device details to the Wyse Device Manager (WDM) server. This information is displayed in the device detail section on the WDM console.

**Limitation**—ThinOS supports more than 20 USB devices through the USB hub. However, WDM server shows only 10 devices.

## Vertical Synchronization

Vertical Synchronization or V-Sync enables the ThinOS Lite client to synchronize the frame rate of a video with the monitor refresh rate to avoid screen tearing. Screen tearing occurs when the graphic processor delivers display frames more than your monitor can process. As a result, the image appears to be cut in half. Enabling VSync synchronizes the output video of the graphics card to the refresh rate of the monitor. In ThinOS Lite version 2.6, V-Sync is enabled by default.

**Table 6. Support matrix**

| Platform                    | ThinOS Lite   |
|-----------------------------|---------------|
| Wyse 3010 zero client—T00X  | Not supported |
| Wyse 3020 zero client—T00DX | Not supported |
| Wyse 5010 zero client—D00DX | Supported     |

**Limitation**—The ThinOS local client desktop background flashes for a second when RDP session desktop is connected with H.264-AVC444 enabled.

## Okta integration through Citrix NetScaler

ThinOS Lite supports Okta through the Citrix NetScaler Gateway 11.0 or later. The Okta RADIUS Agent is used for user authentication.

For more information about configuring Citrix NetScaler Gateway to use the Okta RADIUS Agent, see the Citrix NetScaler Gateway Radius Configuration Guide at [help.okta.com](https://help.okta.com).

### Support matrix

- Citrix environment—All XenDesktop and XenApp
- NetScaler—version 11.0 or later
- Dell Wyse 3010, 3020, and 5010 zero clients

**NOTE:** Phone authentication by using Okta is supported only in US and Canada.

**Limitation**—ThinOS Lite version 2.6 supports only Okta and NetScaler Radius mode.

## Icon folders for StoreFront interface

ThinOS Lite version 2.6 supports icon folders for StoreFront interface mode. The icon is added on the desktop, where you can manage the folders. For example, you can add applications into the folder and delete folders including internal applications.

You can configure this option using the INI parameter `SignOn=yes IconGroupStyle=Folder`. For more information, see the Dell Wyse ThinOS Lite Version 2.6 INI Reference Guide at [Dell.com/support](https://dell.com/support).

## Caradigm Way2Care enhancement

Way2Care is part of Caradigm Identity and Access Management (IAM) portfolio, and is designed to securely access patient information from multiple clinical applications.

A new INI parameter `CaradigmServer=xxx UseWay2Care=yes` is added in this release. you can also set `DisableManualLogon=yes EGPGGroup=xxx` along with the `CaradigmServer` parameter.

This feature uses Way2Care API that is different from the TapServer API. Way2Care uses decimal UID format.

For more information about the `CaradigmServer` parameter, see Dell Wyse ThinOS Lite Version 2.6 INI Reference Guide at [Dell.com/support](https://dell.com/support).

## Wireless IP configuration

When wired and wireless network share the same IP configuration, the wireless network is disabled and the wired network is enabled. From ThinOS Lite version 2.6, there is a separate wireless IP configuration.

For information about configuring Wireless IP, see the Dell Wyse ThinOS Lite Version 2.6 Administrator's Guide at [Dell.com/support](https://dell.com/support).

## Display GUI update

Only 32-bit desktop color is supported on Wyse 3010 (T00X) and 3020 (T00DX) zero clients.

For more information about configuring your display settings, see the *Dell Wyse ThinOS Lite Version 2.6 Administrator's Guide* at [www.dell.com/support](https://www.dell.com/support).

## INI parameters

The following table provides the list of newly added INI parameter in this release:

**NOTE:** Every INI parameter is associated with a parent INI parameter. Use these INI parameters along with the corresponding parent INI parameters.

**Table 7. INI parameters**

| INI parameters  | Description*   |
|---|--|
| [Week={Current, Other, 0, 1, 2, 3, 4}]  | Enables you to specify the minimum weeks required to reboot the client after configuring an INI parameter.   |
| [disabledKeys={PrtScn;SysRq}]   | Enables you to disable keys on the keyboard.   |
| [UpgradeOrder={bios, wtos}]   | Enables you to specify the upgrade order between BIOS and firmware.  |
| [Default={camera device name}]  | Enables you to set the default camera device settings.   |
| [CAGUserAsUPN={yes, no}]  | Enables you to send user details to server in the format similar to an email address (username@fqdn).  |
| [CAGExternal={yes, no}]   | Enables you to log in to csg with an external network directly without verifying beacons.  |
| [enableReminder={yes, no}]  | Enables you to postpone the reboot triggered by the Wyse Management Suite agent.   |
| SysinfoOntop={yes, no}  | Enables the <b>System Information</b> window to be displayed at the top in the Z-Order and overlaps on the nonmode switched full screen session window.  |
| [DisableSFInit={yes, no}]   | Enables you to disable the StoreFront initialize process after the device reboot.  |
| [Host={broker_url}]<br>[AutoConnectList={* host1;host2;host3...}]   | The <b>Host</b> option enables you to specify the broker server IP address or FQDN.<br>The <b>AutoConnectList</b> option specifies the VDI desktops or applications launched automatically when you use VDI to sign in to the session. |
| [OnScreen={1-6}]  | Enables you to specify which display must be in full screen in an RDP session.   |
| ManualOverride={no, yes}<br>[Components={None, display, keyboard, mouse, timezone, network, audio, printer, All}] | The <b>ManualOverride</b> option enables you to retain your personalized settings.<br><br>The <b>Components</b> option enables you to specify the component for which personalized settings are required.                              |

\*For detailed description and default values, see the *Dell Wyse ThinOS Lite Version 2.6 Administrator's Guide* at [www.dell.com/support](http://www.dell.com/support).

## Tested environment

The following tables display the testing environment for the respective attributes:

**Table 8. Tested environment - General components**

| Component             | Version                  |
|-----------------------|--------------------------|
| Wyse Management Suite | 1.3                      |
| Wyse Device Manager   | 5.7.2                    |
| Imprivata OneSign     | 5.5.001.22               |
| NetScaler             | 10.1/11.0/11.1/12.0/12.1 |
| StoreFront            | 3.6/3.15                 |
| Web Interface         | 5.4                      |
| SecureMatrix          | 4.1.0                    |



**Table 9. Tested environment - VDI components**

|   | Windows 7 | Windows 8.1 | Windows 10 | Linux | Windows Server 2008 R2 | Windows Server 2012 R2 | Windows Server 2016 | Apps |
|---|-----------|-------------|------------|-------|------------------------|------------------------|---------------------|------|
| XenDesktop 5.6                            | ✓         |             |            |       |                        |                        |                     |      |
| XenApp 6.5                                |           |             |            |       | ✓                      |                        |                     | ✓    |
| Citrix XenDesktop/<br>XenApp 7.18         |           |             | ✓          |       |                        | ✓                      | ✓                   | ✓    |
| Citrix XenDesktop/<br>XenApp 7.15<br>LTSR | ✓         | ✓           |            |       | ✓                      | ✓                      |                     | ✓    |
| Citrix XenDesktop/<br>XenApp 7.15<br>LTSR | ✓         | ✓           | ✓          |       | ✓                      | ✓                      | ✓                   | ✓    |

\*AWS Workspace VM operating system Windows 7 style is based on 2008 R2 RDSH.

**Table 10. Tested environment - Citrix Virtual Apps and Desktops**

| XenDesktop/ XenApp | Operating System | RTME | Lync client             | Skype for Business (SFB) server |
|--------------------|------------------|------|-------------------------|---------------------------------|
| 7.15               | Windows 7        | 2.5  | Skype For Business 2016 | Skype For Business 2015         |
|                    | Windows 8.1      | 2.5  | Skype For Business2016  | Skype For Business 2015         |
|                    | Windows 10       | 2.5  | Skype For Business 2016 | Skype For Business 2015         |
|                    | Windows 2016     | 2.5  | Skype For Business 2016 | Skype For Business 2015         |

## Tested peripherals

This section lists the supported peripheral devices.

### • Keyboard/ Mouse

- Dell USB wired keyboard - KB216
- Dell USB wired laser mouse - Naruto
- Dell USB wired optical mouse - MS116
- Dell KM636 wireless keyboard and mouse
- Dell wireless keyboard/mouse KM632
- Dell wireless keyboard/mouse WK636
- Dell Keyboard KB113p
- Dell Keyboard KB216
- Dell Keyboard KB212-B
- Dell Keyboard KB216p/ mouse MS-116p
- Dell keyboard KB813—Smart card reader
- Dell Mouse MS111-P
- Dell Mouse MS116-P
- Dell Keyboard SK-3205—Smart card reader
- Dell Optical Wireless Mouse - WM123

- Dell Optical Wireless Mouse - WM122
- Dell wireless mouse - WM324
- Dell wireless bluetooth travel mouse - WM524
- Dell premier wireless keyboard and mouse
- Dell wireless tablet keyboard/bluetooth
- Logitech Ultrathin touch mouse T630/bluetooth
- Logitech M310 wireless mouse
- Logitech K380 keyboard/bluetooth
- Logitech K480 Keyboard/bluetooth
- Logitech K400 Plus
- Logitech T400 zone touch mouse
- Logitech M557 mouse/bluetooth
- Microsoft wireless mouse 1453
- Microsoft Arc Touch Mouse 1428
- Microsoft ARC mouse 1350
- Microsoft ARC touch mouse 1592/bluetooth
- Microsoft designer bluetooth keyboard/mouse
- Thinkpad compact bluetooth keyboard—bluetooth
- Rapoo E6100, bluetooth
- SpaceNavigator 3D space mouse
- **USB Webcam**
  - Logitech C525 HD Webcam
  - Logitech C920 HD Pro Webcam
  - Logitech C930e HD Webcam
  - Logitech BCC950 ConferenceCam
  - Logitech USB Webcam 9000
  - Logitech C922 Pro Stream Webcam
  - Logitech C925e Webcam
  - Microsoft LifeCam HD-3000
  - Microsoft LifeCam Studio
- **Printer**
  - Dell B1163 Mono Multifunction printer—no support for Generic/Text only
  - Dell B1165nfw Mono Multifunction printer—no support for Generic/Text only
  - Dell B1260dn laser printer
  - Dell B1265dnf Multifunction laser printer
  - Dell B2360d laser printer
  - Dell B2360dn laser printer
  - HP LaserJet P2055d
  - HP LaserJet P2035
  - HP LaserJet 1022n
  - HP Color LaserJet CM1312MFP
  - EPSON PLQ-20K
- **Mobile device**
  - Samsung Galaxy S7
  - iPhone XR
  - iPhone 7
  - iPhone 8 plus
  - HTC one-XL—Android 4.2.2
- **USB headset**

- Dell Pro Stereo Headset - Skype for Business - UC350
- Dell 2.0 speaker system - AE215
- Dell Pro Stereo Headset - Skype for Business - UC150
- Microsoft Corporation LifeChat LX-6000 headset
- Dell Pro Stereo Headset UC350
- Jabra PRO 935 MS
- Jabra PRO 9450
- Jabra Speak 510 MS, Bluetooth—Bluetooth
- Jabra Evolve 75
- Jabra Evolve 40 MS Mono
- Jabra UC SUPREME MS /LINK 360, Bluetooth
- Jabra GN2000
- Jabra UC VOICE 750 MS
- Jabra Evolve ENC010 MS Link USB headset
- Jabra EVOLVE HSC040W
- Plantronics SAVI W740/Savi W745—this bluetooth is not supported on ThinOS
- Plantronics Calisto P240 D1K3 USB handset
- Plantronics Blackwire C5210
- Plantronics BLACKWIRE C710, Bluetooth
- Plantronics SAVI W740/Savi W745

 **NOTE: Bluetooth is not supported on ThinOS.**

- Plantronics Calisto P240 D1K3 USB handset
- Plantronics Calisto 620 M, Bluetooth
- Plantronics USB DSP DA40(B)
- SENNHEISER USB SC230

 **NOTE: Volume button does not work correctly with RTME.**

- SENNHEISER SC 260 USB MS II

 **NOTE: Volume button does not work correctly with RTME.**

- SENNHEISER SP 10 ML Speakerphone for Lync
- SENNHEISER SP 20 ML Speakerphone for Lync and mobile devices
- SENNHEISER SC 75 USB MS

 **NOTE: Volume button does not work correctly with RTME.**

- SENNHEISER SC 40 USB MS

 **NOTE: Volume button does not work correctly with RTME.**

- SENNHEISER SDW 5016-EU

 **NOTE: Volume button does not work correctly with RTME.**

- Plantronics Blackwire 3220 USB-A

#### • **Analog headset**

- Logitech h150
- Philips
- Dell USB SoundBar AC511

#### • **Monitor**

- Dell 24 Monitor - E2417H
- Dell 24 Monitor - P2417H
- Dell 20 Monitor - E2216H
- Dell 22 Monitor - E2218HN

- Dell 22 Monitor - P2219H
- Dell 22 Monitor - P2219HC
- Dell 23 Monitor - P2319H
- Dell 24 Monitor - P2415Q 4K2K (UHD) monitor
- Dell P2418D—2560x1440
- Dell UltraSharp 34 Monitor - P3418HW
- Dell UltraSharp 27 Monitor - U2518D
- Dell UltraSharp 27 Monitor - U2718Q—4K
- Dell UltraSharp 24 Monitor - U2419H/HC
- Dell UltraSharp 24 Monitor - U2719D/DC
- Dell UltraSharp 24 Monitor - U2719D/DC—310-7225-AO
- Dell E2416Hb—1920x1080
- Dell E2715Hf—1920 x 1080
- Dell E2318H—1920 x 1080
- Dell UP2715K—3840 x 2160/2560 x 1440
- Dell UP3216Qt—3480 x 2160
- Dell P2415Q 4K2K (UHD) monitor
- Dell P2418HZ—1920 x 1080
- Dell P2714Hc—1920 x 1080
- Dell P2715Q—3840 x 2160
- Dell P2815Qf—3840 x 2160
- Dell 43 Monitor - P4317Q
- Dell P4317Qc—3480 x 2160
- Dell U2414HB—1920 x 1080
- Dell U2415—1920 x 1200
- Dell U2713HM—2560 x 1440
- Dell U2518D—2560 x 1440
- Dell U2713HMT—2560 x 1440
- Dell U3415W—3440 x 1440
- Dell U3419W—3440 x1440
- Dell U2718Qb—3840 x 2160
- Dell U2718Q—3480 x 2160
- Dell U2913 WM—2560 x 1080
- Dell S2718D—2560 x 1440
- Dell 23 Monitor - P2419H
- Dell 24 Monitor - P2419HC
- Dell P2418HZ—1920 x 1080
- Dell P2719H—1920 x 1080
- Dell P2719HC—1920 x 1080
- Dell S2817Q—3840 x 2160
- Add On 1000 Base-T SFP transceiver (RJ-45)—310-7225-AO

#### • **DVD ROM**

- BENQ DVD Drive
- Samsung portable DVD Writer SE-208
- Dell external DVDRW Drive
- Dell DW316

#### • **Cable/Converter**

- Dell miniDP-VGA convertor
- Dell TYPE-C-VGA convertor

- Dell DP-VGA convertor
- Dell DP-DVI convertor
- Dell TYPE-C-DP convertor
- Dell TYPE-C-HDMI convertor
- USB to Serial converter
- DisplayPort to HDMI adapter
- DisplayPort to VGA adapter
- USB Type-C to DisplayPort adapter
- USB Type-C to HDMI
- USB Type-C to VGA adapter
- USB to Serial adapter—Trendnet
- USB to Serial adapter—Cables-2-Go
- **Smart card reader**
  - OMNIKEY HID 3021
  - OMNIKEY OK CardMan3121
  - HID OMNIKEY 5125—Proximity/Smart card reader
  - HID OMNIKEY 5421—Proximity/Smart card reader
  - HID OMNIKEY 5325 CL—Proximity/Smart card reader
  - SmartOS powered SCR335
  - Cherry keyboard RS 6600 with smart card
  - Cherry keyboard KC 1000 SC with smart card
  - Dell keyboard KB813—smart card reader
  - Dell Keyboard SK-3205—smart card reader
  - Gemalto IDBridge CT710
  - Gemalto PC Twin
  - OMNIKEY 5326 DFR—Proximity/Smart card reader
  - RDR-80581AKU—Proximity/Smart card reader
  - RDR-6082AKU—Proximity/Smart card reader
  - OMNIKEY 5025 CL—Proximity/Smart card reader
  - OMNIKEY 5321 v2—Proximity/Smart card reader
- **Finger Print Reader**
  - HDW-IMP-1C
  - Keyboard KSI 1700
- **Touch screen**
  - Elo Touch Screen USB
  - Elo Touch Screen Serial
  - Dell P2418HT—1920x1080
- **USB drive**
  - SanDisk USB 3.0 16 GB
  - Sandisk cruzer 8 GB
  - SanDisk USB3.1 and Type-C 16 GB
  - Kingston USB3.1 and Type-C 32 GB

 **NOTE:** Do not restart your thin client when Kingston USB3.1 and Type-C 32 GB is connected.

- Kingston DataTraveler G3 8 GB
- Kingston DataTraveler Elite 3.0 16 GB
- ADATA S107/16 GB
- PNY USB3.0 16 GB
- Sony N50 16 GB

- Tripp Lite USB2.0 Hub
- **Networking**
  - Cisco GLC-T=30-1301-03
- **SpeechMike Premium**
  - LFH3610/00 SpeechMike Premium—only redirect
  - LFH3200/00 SpeechMike Premium—only redirect

**Table 11. Smart card information from ThinOS event log**

| Smart Card information from ThinOS event log | Driver                                | Provider (CSP)                                   | Card type                         |
|--|---------------------------------------|--|-----------------------------------|
| ActivIdentity V1 (IDClassic 230)             | ActivClient 6.2                       | ActivClient Cryptographic Service Provider       | Gemalto Cyberflex Access 64 K V2c |
| ActivIdentity V2                             | ActivClient 6.2                       | ActivClient Cryptographic Service Provider       | Oberthur CosmopolC 64k V5.2       |
| Gemalto/IDPrime.NET (Gemalto .net 510)       | Gemalto Mini driver 1.21              | Microsoft Base Smart Card Crypto Provider        | Axalto Cryptoflex.NET (V7.2.1.0)  |
| ID Prime MD v 4.0.2 (Gemalto 840)            | Gemalto Mini driver 1.21              | Microsoft Base Smart Card Crypto Provider        | IDPrime MD T = 0 (V 7.3.2.11)     |
| ID Prime MD v 4.1.0 (Gemalto 3810)           | Gemalto Mini driver 1.21              | Microsoft Base Smart Card Crypto Provider        | IDPrime MD T = 0 (V 7.4.0.7)      |
| ID Prime MD v 4.1.1 (Gemalto 830)            | Gemalto Mini driver 1.21              | Microsoft Base Smart Card Crypto Provider        | IDPrime MD T = 0 (V 7.4.1.7)      |
| Etoken CardOS                                | SafeNet Authentication Client 8.2.133 | eToken Base Cryptographic Provider               | Siemens CardOS V4.2B              |
| Etoken CardOS (white USB key)                | SafeNet Authentication Client 8.2.133 | eToken Base Cryptographic Provider               | Siemens CardOS V4.2               |
| Etoken Java(aladdin) (blue USB key)          | SafeNet Authentication Client 8.2.133 | eToken Base Cryptographic Provider               | eToken PRO Java 72 K OS755        |
| Etoken Java(aladdin) (black USB key)         | SafeNet Authentication Client 8.2.133 | eToken Base Cryptographic Provider               | SafeNet eToken 510x               |
| Etoken Java(aladdin) (black USB key)         | SafeNet Authentication Client 8.2.133 | eToken Base Cryptographic Provider               | SafeNet eToken 5110               |
| A.E.T. Europe B.V.                           | SafeSign-Identity-Client-3.0.76       | SafeSign Standard Cryptographic Service Provider | G&D STAb dRCOS 3.0 T =0/1 0V300   |
| A.E.T. Europe B.V.                           | SafeSign-Identity-Client-3.0.76       | SafeSign Standard Cryptographic Service Provider | Giesecke and Devrient StarCos 3.2 |
| PIV (Yubico) (black USB key)                 | YubiKey PIV Manager                   | Microsoft Base Smart Card Crypto Provider        | YubiKey 4.3.3                     |
| cv cryptovision gmbh (c) v1.0ns              | cv_act_scinterface_6.1.6              | cv act sc/interface CSP                          | G&D STARCOS 3.2                   |

# Known issues

This section describes the known issues in this release.

**Table 12. Known issues**

| Issue number | Description  | Workaround  |
|--------------|--|---|
| TIR98812     | You cannot click OK to change the resolution when you set the <b>Left turn 90 degrees</b> screen as a main display.  | There is no workaround in this release.   |
| TIR98790     | Background is filled with color when you start an application and move the application while previewing the image with two cameras.                              | There is no workaround in this release.   |
| TIR98768     | Image upgrade using Wyse Management Suite deletes the existing packages while the existing Wyse Management Suite App policy does not install the packages again. | Create a Wyse Management Suite App policy to install the package after upgrading. |
| TIR98755     | Wyse Management Suite BIOS policy settings, and ini BIOS settings may be incompatible that results in a device reboot loop.                                      | Disable either the DellCmos INI or the BIOS setting from Wyse Management Suite.   |
| TIR98714     | Pulse audio is missing and you cannot open any device file.  | Reboot the thin client.   |
| TIR98580     | You must create a new INI parameter to disable the Vertical Synchronization.   | There is no workaround in this release.   |
| TIR98561     | Trap (winmgr) error occurs when you wake up the monitor from screen saver.   | Reboot the thin client.   |
| TIR98550     | You cannot log in to the VDI desktop with Geomalto MD830B L3 smart card through Microsoft Windows Server 2012 Remote Desktop Service.                            | There is no workaround in this release.   |
| TIR98143     | CAC is not found on the login page of XenApp 7.18 Desktop Server 2016 R2.  | There is no workaround in this release.   |