

Dell Wyse ThinLinux Version 1.0.x Operating System and Add-ons

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.

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Overview

Wyse ThinLinux from Dell simplifies the user management paradigm with elegant application icons and comes with a single built-in user to enhance user experience along with having the benefits of a single-operating system. ThinLinux software combines the security, flexibility, and market-leading usability of enterprise-grade Linux with Dell's thin computing optimizations in management. It is ideal for organizations that want to run server-based, Web-based, or local applications including legacy applications without the deployment and security concerns of a nonstandard Linux distribution.

NOTE: For details about the previous versions, if applicable, or to determine which version of the operating system you need to select for your thin client, see [Version matrix](#).

Version matrix

The following section lists the platforms that are supported in each ThinLinux 1.0.x release, and the add-ons required for ThinLinux 1.0.x.

Table 1. ThinLinux 1.0.x version matrix

Release version	Release date	Supported platforms	Release Notes
1.0.7 and 1.0.7.1	March 2018	<ul style="list-style-type: none"> Wyse 3030 LT thin client Wyse 3040 thin client Wyse 5020 thin client Wyse 5060 thin client Wyse 7020 thin client 	ThinLinux v1.0.7 and v1.0.7.1
1.0.6.2	November 2017	<ul style="list-style-type: none"> Wyse 3030 LT thin client Wyse 5020 thin client Wyse 5060 thin client Wyse 7020 thin client 	ThinLinux 1.0.6.2
1.0.6	June 2017	<ul style="list-style-type: none"> Wyse 3030 LT thin client Wyse 5060 thin client 	ThinLinux v1.0.6
1.0.5	May 2017	<ul style="list-style-type: none"> Wyse 3030 LT thin client Wyse 5060 thin client 	ThinLinux v1.0.5
1.0.3.1	March 2017	<ul style="list-style-type: none"> Wyse 3030 LT thin client Wyse 5020 thin client Wyse 5060 thin client Wyse 7020 thin client 	ThinLinux v1.0.3.1
1.0.3	March 2017	<ul style="list-style-type: none"> Wyse 3030 LT thin client Wyse 5020 thin client Wyse 5060 thin client Wyse 7020 thin client 	ThinLinux v1.0.3

Table 2. ThinLinux 1.0.x add-ons matrix

Add-on name	Release date	Supported platforms	Release Notes
BIOS add-on with AMD Microcode to fix Side Channel Vulnerability	July 2019	<ul style="list-style-type: none"> Wyse 5020 thin client Wyse 7020 thin client 	BIOS add-on with AMD Microcode to fix Side Channel Vulnerability on Wyse 5020 and Wyse 7020 Thin Clients
	May 2019	Wyse 5060 thin client	BIOS add-on with AMD Microcode to fix Side Channel Vulnerability on Wyse 5060 Thin Client

Add-on name	Release date	Supported platforms	Release Notes
WYSE_RDP Client add-on to resolve CredSSP Remote Code Execution security vulnerability issue	June 2018	<ul style="list-style-type: none"> • Wyse 3040 thin client with ThinLinux • Wyse 3030 LT thin client with ThinLinux • Wyse 5060 thin client with ThinLinux • Wyse 5020 thin client with ThinLinux—D50Q • Wyse 7020 thin client with ThinLinux—Z50Q 	WYSE_RDP Client add-on to resolve CredSSP Remote Code Execution security vulnerability issue
Security update add-on for Meltdown and Spectre vulnerabilities	April 2018	<ul style="list-style-type: none"> • Wyse 5060 thin client with ThinLinux • Wyse 5020 thin client with ThinLinux—D50Q • Wyse 7020 thin client with ThinLinux—Z50Q • Wyse 3030 LT thin client with ThinLinux • Wyse 3040 thin client with ThinLinux 	Security update add-on for Meltdown and Spectre vulnerabilities

ThinLinux v1.0.7 and v1.0.7.1

Release type and definition

ThinLinux v1.0.7 and v1.0.7.1 are maintenance releases that incorporate the latest connection brokers, and bug fixes for the following platforms:

Table 3. Platform and ThinLinux version details

Platform	Version
Wyse 3030 LT thin client	ThinLinux v1.0.7
Wyse 3040 thin client	ThinLinux v1.0.7.1
Wyse 5020 thin client	ThinLinux v1.0.7
Wyse 5060 thin client	ThinLinux v1.0.7
Wyse 7020 thin client	ThinLinux v1.0.7

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Enhanced features

The following are the changes and information about patches in this release:

VMware Horizon Client v4.7

VMware Horizon Client v4.7 connection broker provides the following new features:

- **VMware Blast network recovery**
 - The feature has been improved to be resilient against transient network failures by providing network continuity to remote desktops and applications. The applications and desktops will now resume on network connection resumption without any user intervention.
- **Session Collaboration**
 - With the session collaboration feature enabled, you can now invite or be invited for a remote desktop collaborate session.

Wyse RDP Client v8.01.04 Release 3

The feature is integrated as part of ThinLinux MR2 release and contains bug fixes from the previous Wyse RDP Client Release 2 and SDL2 version has been updated to v2.0.5.

Citrix ICA v13.8

Citrix ICA v13.8 connection broker provides the following new features and enhancements:

- **Azure Active Directory (Azure AD) authentication**
 - You can enable user access using Azure AD authentication.
- **Workspace configuration**
 - You can configure workspaces for subscribers, who might be using one or more services from Citrix Cloud.

Citrix RTME v2.4

The following are the new features in Citrix RTME:

- Logitech H.264 encoding that use simulcast video on conference calls
- Audio quality in fallback mode
- Software version flexibility during upgrades
- Microphone icon change to identify the speaker
- Enable or disable users when you login at server side or client side
- Backup files to collect logs for UCCAPI and UCCAPI files
- Highest frame rate

For more information on Citrix RTME v2.4 features, see [Citrix RTME v2.4 new features](#)

BlueBorne vulnerability support

The following patches are supported for the BlueBorne Bluetooth vulnerability support:

- CVE-2017-1000250
- CVE-2017-1000251

For more information on BlueBorne Bluetooth vulnerability patches, see [BlueBorne Bluetooth Vulnerability Patches](#)

KRACK WPA2 vulnerability support

The following patches are supported for the KRACK (WPA2) vulnerability support:

- CVE-2017-13077
- CVE-2017-13078
- CVE-2017-13079
- CVE-2017-13080
- CVE-2017-13081
- CVE-2017-13082
- CVE-2017-13086
- CVE-2017-13087
- CVE-2017-13088

For more information on the KRACK (WPA2) vulnerability patches, see [KRACK \(WPA2\) vulnerability patches](#)

Meltdown and Spectre vulnerability fixes

The following patches are released to provide support for the Meltdown and Spectre vulnerability fixes:

- CVE-2017-5753
- CVE-2017-5715
- CVE-2017-5754

For more information on the Meltdown and Spectre vulnerability fixes, see [Meltdown and Spectre Vulnerability patches](#)

INI Parameter

The following are the new INI parameters in this release:

Table 4. INI parameters

INI parameter	Type and Value	Description
ICAAudioDriver={VDCAM.DLL/ VDGSTCAM.DLL}	Text type {VDCAM.DLL/VDGSTCAM.DLL} [Default: VDCAM.DLL]	Settings to change the ICAAudio Driver to VDCAM.DLL/VDGSTCAM.DLL
FileServerAuth=yes/no	Boolean Type — Yes / NoDefault is No	Enable or Disable File Server Authentication

Fixed issues

Following are the fixed issues in this release:

Table 5. Fixed issues

CIR Number	Issue description
89885	French language support issue is fixed in this release.
89895	Error message "Unable to connect to Wyse Device Manager server when using non-standard HTTPS port in the GUI" issue is fixed in this release.
92992	ThinLinux Build 1.0.5 NTPd 4.2.8p8 vulnerability issue is fixed in this release.
93127	ThinLinux launched with Brazilian Portuguese language session that was not working correctly in a Citrix / RDP Session issue is fixed in this release.
92465, 93126	Poor audio quality using USB headset issue is fixed in this release.
92108	Communication devices not working in an ICA Session issue is fixed in this release.
92106	Error to map communication port in an ICA session issue is fixed in this release.
93124	Error message when specifying FTP server manually issue is fixed in this release.
93112	ThinLinux keyboard and mouse are not working when you upgrade to ThinLinux v1.0.5 on Wyse 7020 thin client issue is fixed in this release.
94256	ThinLinux 1.0 MR2 Firefox Browser update issue is fixed in this release.

CIR Number	Issue description
94325	Addition of RTME add-on v2.1 and later causes headset not be detected within a Citrix session and audio quality deteriorates issue is fixed in this release.
89905	Wyse Device Manager server settings when you use wlx.in that are not recognized in ThinLinux v1.0.2 on Wyse 3030LT thin client issue is fixed in this release.
89899	Language package for Spanish that does not translate all texts in the PAM Login and other views displays a combination of English and Spanish text issue is fixed in this release.

Known issues

Table 6. Known issues

Summary	Work around
In an RDP Session, dynamic resizing does not work in full screen mode when we change the rotation to left/right from the display settings.	Change the resolution on the client first, and then launch the session.
Customize credentials for RD gateway option is enabled by default in the RDP session if the connection is established using INI parameters.	Use the INI parameter <code>SameLoginForRD=no</code> to disable the Customize credentials for RD gateway option when you use RDP session to establish a connection.
The communication ports COM1 and COM2 are displayed in the device mapping even without connecting the serial COM port device.	No workaround available in this release.
When you enter a valid RD gateway server credentials in RDgateway login window, the session is launched with the RDgateway credentials instead of Remote Desktop Credentials.	Establish a RDP Connection by entering valid RD gateway user credentials in the connection manager to launch the session successfully
In a RDP session, lagging and mouse pointer flickering is observed.	No workaround available in this release.
The window opened in the Connection tab when you disconnect and log out from VMware Horizon Client drop-down menu displays an error when the session is launched in Dual Monitor Configuration.	No workaround available in this release.
Not able to establish VMware Horizon Client connection with <code>\$UN</code> , <code>\$PW</code> and <code>\$DN</code> credentials.	No Workaround available, but the user can provide its credentials in the login window.
When using PAM login credentials, the password expiry functionality does not work.	No workaround available in this release.
When you disable the smartcard login after enumerating, the smart card connection displays an error to connect the smart card.	No workaround available in this release.
You can login using PAM login credentials if you use <code>PAMLoginEnabled=No</code> INI parameter even though it should not allow you to login.	No workaround available in this release.
Unable to close the pre-login dialog window when you click Cancel button during login.	No workaround available in this release.
You cannot select a terminal type in the Ericom window and is the default window.	No workaround available in this release.

Summary	Work around
The port does not display valid output when you establish Ericom connection using INI parameter with Filepath and FileName parameter.	No workaround available in this release.
Eircom Menu bar options are not localized with the respective system languages selected.	No workaround available in this release.
Language Keyboard layout does not get mapped to the selected language in the Ericom "Keyboard Mapping".	No workaround available in this release.
Ericom Menu bar options are highlighted when you use the on-screen keyboard to type any text in the console.	No workaround available in this release.
The Message dialog box in Wyse Management Suite is not displayed during login.	No workaround available in this release.
Password field is blank on the client, when a VNC connection is created from the Wyse Management Suite server.	No workaround available in this release.
File Server credentials are not set in the thin clients when using INI parameter on Wyse Management Suite server.	No workaround available in this release.
Not able to push the Raw image from Wyse Device Manager on to the imaged client for Wyse 5020 thin client and Wyse 7020 thin client platforms.	No workaround available in this release.
The Citrix Storefront connection is not launched when a connection is created using Wyse Configuration Manager.	Push the created Citrix configuration two times along with the certificate and the connection launches successfully.
Not able to connect Wyse Device Manager server when you use non-standard HTTPS port in the Wyse Device Manager server IIS. For example 8443.)	SSL custom ports can be changed in the very first time after you install Wyse Device Manager.
DelayedUpdate.Delay and DelayedUpdate.Timeout INI parameters related to delayed update are not working.	No workaround available in this release.
The image does not work properly for ThinLinux v1.0.6.3 to ThinLinux v1.0.4.2 when you use INI parameter for Wyse 3040 thin client.	No workaround available in this release.
The PDF print preview is getting cropped when you use Mozilla Firefox browser.	Set the Shrink to fit value to 90% to view in the browser settings.
The Warning: Unresponsive script error message is displayed when you launch Mozilla Firefox and play videos.	Click on Continue button in the error message window, the Video will start without any error.
Some of the settings are not applied when you import a configuration file.	No workaround available in this release.
Retry password window is not displayed when "you type an invalid password.	No workaround available in this release.
Split screen is displayed in E2016H monitor when you change the resolution on Wyse 3030 LT thin client	No workaround available in this release.
Display is not clear in Dual Monitors when MON1 rotation is set as Right/Left.	No workaround available in this release.

Summary	Work around
The Plantronics USB headsets volume controls does not work when connected directly to a thin client but works when you connect using the user interface settings.	Adjust the volume controls sound menu using Microsoft Windows task bar.
The strings get overlapped when the language setting is changed to Dutch .	No workaround available in this release.
The thin client fails to boot when the display resolution is changed and rebooted	There is no workaround, but a possible solution is to do a factory reset to reboot the thin client.
802.1x: TLS user and machine authentication works even when you use the invalid <code>privatekeypassword</code> .	No workaround available in this release.
The thin client checks for updates three times if the INI parameter <code>DelayedUpdate.Recheck=Yes</code> is used.	Use <code>DelayedUpdate.recheck=No</code> INI parameter which will enable system check only on reboot.
The IPV6: Traceroute is enabled even if the IPV6 Switch is in OFF state.	No workaround available in this release.
The auto power option does not work in Wyse 5060 thin client even if the <code>AutoPower=Yes</code> INI parameter is used in Wyse Management Suite and Wyse Device Manager.	No workaround available in this release.

Supported platforms

The following are the platforms supported in this release:

Table 7. Supported platforms

Thin client	Memory configuration—Flash/RAM	BIOS Version
Wyse 5020 thin client—D50Q	8GB / 2GB	2.0F
Wyse 7020 thin client—Z50Q	8GB / 2GB	2.0F
Wyse 3030 LT thin client	4GB / 2GB	1.0G
Wyse 5060 thin client	16GB / 4GB	1.0G
Wyse 3040 thin client	16GB / 2GB	1.2.3

Supported peripherals

This section contains the supported peripherals for Wyse 3040 thin client and general peripherals in this release.

Table 8. Supported peripherals for Wyse 3040 thin client

Type	Model	Description
Headset	UC300	Dell Pro Stereo Headset UC300 - Lync Certified
Headset	Pro 935	Jabra Pro 935 MS Wireless headset (Mono) - Office Centric
Monitors	E2316H	Dell 23 Monitor- E2316H

Type	Model	Description
Monitors	E2216H	Dell 22 Monitor - E2216H
Monitors	E2016	Dell 20 Monitor - E2016
Monitors	E2417H	Dell 24 Monitor - E2417H
Monitors	E1916H	Dell 19 Monitor - E1916H
Monitors	P2016	Dell 20 Monitor - P2016
Monitors	P2417H	Dell 24 Monitor - P2417H
Monitors	P2317H	Dell 23 Monitor - P2317H
Monitors	P2217H	Dell 22 Monitor - P2217H
Monitors	P2017H	Dell 20 Monitor - P2017H
Monitors	P1917S	Dell 19 Monitor - P1917S
Monitors	U2415	Dell 24 Monitor – U2415
Keyboard	KB813	Dell USB Wired Keyboard with Smart Card reader - KB813
Keyboard	KM636	Dell Wireless Keyboard and Mouse - KM636
Keyboard	KB216	Dell USB Wired Keyboard - KB216
Mouse	Naruto	Dell Laser USB mouse (Silver and Black) - Naruto
Mouse	MS116	Dell USB Wired Optical Mouse - MS116
Printers	E515dn	Dell Mono Unmanaged Printer - E515dn
Printers	E525w	Dell Color Unmanaged Printer - E525w
Printers	C2660dn	Dell Mono Managed Printer - C2660dn

Supported peripherals — general

Table 9. Supported peripherals

Type	Model	Description
USB Storage Device	SDCZ48-032G	Sandisk Ultra USB 3.0 32 GB
USB Storage Device	JetFlash 350	Transcend JetFlash 350 8 GB USB 2.0 Pen Drive
USB Storage Device	Sony 32 GB	Sony USB 2.0 32GB

Type	Model	Description
DVD Writer	GP65NB60	LG Slim portable DVD Writer
External Hard Disk	73600-A 500GB	Toshiba 500 GB External Harddisk
Web Cam	C525	Logitech HD Webcam C525
Web Cam	C920	Logitech HD Pro C920
Web Cam	HD3000	Microsoft Life Cam HD300
Smart Card Reader	CT30	Gemalto IDBridge CT30
Smart Card	V2+	Gemalto .Net V2+
Smart Card	CAC	CAC Card
USB Smart Key	Yubikey	Yubikey Neo
Keyboard	KB216P	Dell wired Keyboard KB216
Keyboard	KB212-B	Dell wired Keyboard KB212
Keyboard	KB813	Dell Wired Keyboard with Smart Card reader
Keyboard	MK710	Logitech Wireless Keyboard MK710
Mouse	MS111-P	Dell Wired Mouse MS111-P
Mouse	MS116	Dell Wired Mouse MS116
Mouse	M705	Logitech Wireless Mouse M705
USB Headset	UC550	Dell Professional Stereo Headset UC550 (Lync certified)
USB Headset	C720	Plantronics Blackwire C720
USB Headset	620	Plantronics Calisto USB speaker phone 620
USB Headset	410	Jabra Speak 410 USB
USB Headset	450	Jabra handset cisco 450
USB Headset	BIZ 2400	Jabra BIZ 2400 Mono USB
USB Headset	H340	Logitech H340
USB Headset	C520	Plantronics Black Wire C520
USB Headset	DA45	Black wire DA45
USB Headset	Evolve 65	Jabra EVOLVE 65 headset (USB Dongle)
USB Headset	550a ms	Dell ucvoice 550a ms

Type	Model	Description
Analog Headset	SHM 7410	Philips SHM 7410 Analog Headset
Monitors	UZ2315Hf	Dell 23" Monitor - UZ2315Hf
Monitors	U2414H	Dell 24" Monitor - U2414H
Monitors	UZ2215H	Dell 22" Monitor - UZ2215H
Monitors	P2214H	Dell 22" Monitor - P2214H
Monitors	P2314T	Dell 23" Monitor - P2314T
Monitors	E2016H	Dell 20" Monitor - E2016H
Monitors	E2216H	Dell 22" Monitor - E2216H
Monitors	E2316H	Dell 23" Monitor - E2316H
Monitors	P2415Q	Dell 24" UltraHD Monitor - P2415Q
Monitors	P2715Q	Dell 27" UltraHD Monitor - P2715Q
Monitors	UP2913WM	Dell 29" Monitor - UP2913WM
Monitors	UP2516D	Dell 25" Monitor - UP2516D
Monitors	E2318H	Dell 23" Monitor - E2318H
Monitors	P2018H	Dell 20" Monitor - P2018H
Monitors	P2016	Dell 20" Monitor - P2016
Monitors	E2016	Dell 20" Monitor - E2016
Wireless AP	IAP - 25	Dell Wireless Access Point IAP-25
802.1x Switch	3750	Cisco Catalyst 3750
Printers	M435nw	HP Laserjet Pro M435nw
Printers	B5465bnf	Dell B5465bnf

Build details for ThinLinux 1.0.7

This section contains the build details.

Table 10. Wyse 3030 LT thin client build details

Platform : Wyse 3030 LT thin client	
Operating system version	4.4.103-92.56-default
Build number	1.0.7

Platform : Wyse 3030 LT thin client	
Build file name	1.0.7_3030LT_merlin.exe
Size (bytes)	835,741,001

Table 11. Wyse 5060 thin client build details

Platform : Wyse 5060 thin client	
Operating system version	4.4.103-92.56-default
Build number	1.0.7
Build file name	1.0.7_5060_16GB_merlin.exe
Size (bytes)	836,103,100

Table 12. Wyse 7020 and Wyse 5020 thin clients build details

Platform : Wyse 7020 and Wyse 5020 thin clients	
Operating system version	4.4.103-92.56-default
Build number	1.0.7
Build file name	1.0.7_Z50Q_D50Q_merlin.exe
Size (bytes)	835,172,700

Table 13. General build details

Platform : Image-upgrade Package details	
Operating system version	4.4.103-92.56-default
Build file name	image-upgrade-1.0.7-Wyse.zip
Build number	1.0.7
Size (bytes)	719,094,302

Table 14. RSP package build details

Platform : RSP Package build details	
Operating system version	4.4.103-92.56-default
Build file name	1.0.7.zip
Build number	1.0.7
Size (bytes)	718,713,554

Table 15. Add-on package build details

Platform : Add-on package build details		
Package detail	Installed Add-on Package	Optional Add-on Package
Build file name	installed-addons-1.0.7-Wyse.zip	optional-addons-1.0.7-Wyse.zip
Size (bytes)	95,635,328	697,864,143

Build details for ThinLinux 1.0.7.1

Following are the build details

Table 16. Wyse 3040 thin client build details

Platform : Wyse 3040 thin client	
Operating system version	4.4.103-92.56-default
Build number	1.0.7.1
Build file name	1.0.7.1_3040_16GB_merlin.exe
Size (bytes)	866,645,660

Table 17. General build details

Platform : Image-upgrade Package details	
Operating system version	4.4.103-92.56-default
Build file name	image-upgrade-1.0.7.1-Wyse.zip
Build number	1.0.7.1
Size (bytes)	747,254,275

Table 18. RSP package build details

Platform : RSP Package build details	
Operating system version	4.4.103-92.56-default
Build file name	1.0.7.1.zip
Build number	1.0.7.1
Size (bytes)	746,839,958

Table 19. Add-on package build details

Platform : Add-on package build details		
Package detail	Installed Add-on Package	Optional Add-on Package
Build file name	installed-addons-1.0.7.1-Wyse.zip	optional-addons-1.0.7.1-Wyse.zip

Platform : Add-on package build details		
Size (bytes)	123,498,874	706,445,213

Addon RPM list

This section contains the add-on RPM list (optional) for ThinLinux v1.0.7 and ThinLinux v1.0.7.1. The rows in the table contains the name of the RPM file.

Table 20. RPM list (optional) for ThinLinux v1.0.7

RPM list (optional) for ThinLinux v1.0.7
32bit_runtime-1.0.0-01.00.x86_64.rpm
chrome_opt-1.0-0.21.x86_64.rpm
ericom_powerterm-8.3.0-00.11.x86_64.rpm
glibc-i18ndata-2.22-49.16.noarch.rpm
google-chrome-stable_current_x86_64.rpm
gststreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm
hplip-3.14.6-3.14.x86_64.rpm
hplip-hpijs-3.14.6-3.14.x86_64.rpm
hplip-sane-3.14.6-3.14.x86_64.rpm
libieee1284-0.2.11-53.144.x86_64.rpm
liblcms1-1.19-17.31.x86_64.rpm
libmng1-1.0.10-113.5.x86_64.rpm
libphonon4-4.7.1-2.34.x86_64.rpm
libqt4-4.8.6-7.1.x86_64.rpm
libqt4-sql-4.8.6-7.1.x86_64.rpm
libqt4-sql-sqlite-4.8.6-7.1.x86_64.rpm
libqt4-x11-4.8.6-7.1.x86_64.rpm
libreoffice_bundle-1.0.0-00.00.x86_64.rpm
libreoffice_calc_express-1.0.0-00.00.x86_64.rpm
libsensors4-3.4.0-4.5.x86_64.rpm
libsnmp30-5.7.3-4.2.x86_64.rpm

RPM list (optional) for ThinLinux v1.0.7
lsb_dep-5.0.0-01.00.x86_64.rpm
merlin_nonpxe-3.5.6-00.01.x86_64.rpm
oem_branding-1.0.0-00.06.x86_64.rpm
opensc-0.13.0-2.1.3.x86_64.rpm
phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm
python-gobject2-2.28.6-24.80.x86_64.rpm
python-qt4-4.10.3-7.11.x86_64.rpm
python-sip-4.15.4-6.3.x86_64.rpm
sane-backends-1.0.24-1.237.x86_64.rpm
sane-backends-autoconfig-1.0.24-1.237.x86_64.rpm
snmp-mibs-5.7.3-4.2.x86_64.rpm
unzip-6.00-32.1.x86_64.rpm
wyse_lang-1.0.0-00.08.x86_64.rpm
libQtWebKit4-4.8.6+2.3.3-3.1.x86_64.rpm

Table 21. RPM list (optional) for ThinLinux v1.0.7.1

RPM list (optional) for ThinLinux v1.0.7.1
32bit_runtime-1.0.0-01.00.x86_64.rpm
chrome_opt-1.0-0.21.x86_64.rpm
dcm_support-9.3.0-00.04.x86_64.rpm
ericom_powerterm-8.3.0-00.11.x86_64.rpm
glibc-i18ndata-2.22-49.16.noarch.rpm
google-chrome-stable_current_x86_64.rpm
gstreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm
hplip-3.14.6-3.14.x86_64.rpm
hplip-hpijs-3.14.6-3.14.x86_64.rpm
hplip-sane-3.14.6-3.14.x86_64.rpm
libieee1284-0.2.11-53.144.x86_64.rpm

RPM list (optional) for ThinLinux v1.0.7.1

liblcms1-1.19-17.31.x86_64.rpm

libmng1-1.0.10-113.5.x86_64.rpm

libphonon4-4.7.1-2.34.x86_64.rpm

libqt4-4.8.6-7.1.x86_64.rpm

libqt4-sql-4.8.6-7.1.x86_64.rpm

libqt4-sql-sqlite-4.8.6-7.1.x86_64.rpm

libqt4-x11-4.8.6-7.1.x86_64.rpm

libQtWebKit4-4.8.6+2.3.3-3.1.x86_64.rpm

libreoffice_bundle-1.0.0-00.00.x86_64.rpm

libreoffice_calc_express-1.0.0-00.00.x86_64.rpm

libsensors4-3.4.0-4.5.x86_64.rpm

libsnmp30-5.7.3-4.2.x86_64.rpm

lsb_dep-5.0.0-01.00.x86_64.rpm

merlin_nonpxe-3.5.6-00.01.x86_64.rpm

oem_branding-1.0.0-00.06.x86_64.rpm

opensc-0.13.0-2.1.3.x86_64.rpm

phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm

python-gobject2-2.28.6-24.80.x86_64.rpm

python-qt4-4.10.3-7.11.x86_64.rpm

python-sip-4.15.4-6.3.x86_64.rpm

sane-backends-1.0.24-1.237.x86_64.rpm

sane-backends-autoconfig-1.0.24-1.237.x86_64.rpm

snmp-mibs-5.7.3-4.2.x86_64.rpm

unzip-6.00-32.1.x86_64.rpm

wyse_lang-1.0.0-00.08.x86_64.rpm

BIOS add-on with AMD Microcode to fix Side Channel Vulnerability on Wyse 5020 and 7020 thin clients

Release summary

The scope of this release is to update BIOS with AMD Microcode to address the Side Channel security vulnerability for the Wyse 5020 thin client and Wyse 7020 thin client platforms running build 1.0.7 and 1.0.7.2 respectively.

Version

2.0G

Release date

July 2019

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Supported platforms

Table 22. Supported platforms

Platform name	Memory configuration	
	Flash	RAM
Dell Wyse 5020 thin client	8 GB	4 GB
Dell Wyse 7020 thin client	8 GB	4 GB

Supported build versions

Table 23. Supported build versions

Platform name	Supported English build version	BIOS version after installing add-on
Dell Wyse 5020 thin client	1.0.7 and 1.0.7.2	2.0G
Dell Wyse 7020 thin client	1.0.7 and 1.0.7.2	2.0G

Add-on Package information

Table 24. Add-on package information

File name	Size
ThinLinux_20G_BIOS.zip	2,445,965 bytes

Download the add-on package

About this task

This section describes the steps to download the add-on 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 Service Tag or the model number of your device, and press Enter or click the search icon.
- 3 On the product support page, click **Drivers & downloads**.
- 4 Select the appropriate operating system.
- 5 From the list, locate the add-on entry and click the download icon.

Install the BIOS add-on using Wyse Management Suite

Prerequisites

- Go to `C:\WMS\LocalRepo\repository\osimages\zipped` and place the BIOS file.
- On Wyse Management Suite, go to **Portal administrator File repository > (select repository)**, and click **sync files**.

About this task

This section describes the steps using the Wyse Management Suite

Steps

- 1 Register the device to Wyse Management Suite server.
- 2 Create and deploy the `merlin_nonpxe-3.7.7-00.05.x86_64.rpm` app policy.
- 3 Reboot the thin client.
- 4 Go to **Apps & Data > OS Image policies (ThinLinux)** and click **Add Policy**.
- 5 Update the required fields, select the BIOS file, and click **Save**.
- 6 Schedule the image policy.
BIOS is updated on the thin client after the add-on is successfully installed.

Install the BIOS add-on using Wyse Device Manager

About this task

This section describes the steps to install the BIOS add-on using Wyse Device Manager.

Steps

- 1 Launch the Wyse Device Manager Web UI.
- 2 Push the add-on `merlin_nonpxe-3.7.7-00.05.x86_64.rpm` by creating a package.
- 3 Go to **Application > Images**, and click **Create a new package**.
- 4 Download the registered package and run the file.
- 5 Select the RSP package in Wyse Device Manager package registration utility and select the BIOS file.
- 6 Go to **Devices** and select the check box beside the device ID.
- 7 Click **Update** and select the BIOS file.
- 8 Click **Save**
BIOS is updated on the thin client after the add-on is successfully installed.

Install the BIOS add-on using the USB firmware tool

About this task

This section describes the steps to install the BIOS add-on using the USB firmware tool version 3.1.0:

Steps

- 1 Download the Dell Wyse USB Imaging tool from downloads.dell.com/wyse.
- 2 Install the tool on the supported operating system.
- 3 Launch the USB firmware tool.
The tool displays the **Image Pull** screen by default.
- 4 Click **Image Push** to display the **Image Push** screen.
- 5 Plug in the USB drive to the system running the USB Imaging Tool.
- 6 Click the **Refresh** button to populate the USB drives.

NOTE: You can have multiple USB drives that are plugged in to your system.
- 7 Select the USB drive from the **Available drives** drop-down list.
If your USB drive contains images, these images are displayed on the screen.
- 8 Select the 32 bit operating system architecture to push to the target device.
- 9 To add a new local image on the USB drive, click the **Local** tab, and add the BIOS file.
Ensure that only the BIOS check box is selected.
- 10 Click **Configure USB Drive**.
- 11 Click **Update** (Recommended).
The status is displayed in the progress bar.
- 12 Remove the USB drive.
- 13 Ensure that the target thin client is configured to boot from the USB drive.
- 14 Connect the USB drive to the thin client.
- 15 During boot, press and hold the key **P** on your keyboard until the **Boot menu** is displayed.
- 16 Select your USB drive and press **Enter**.
The device reboots from the USB drive, and the BIOS that needs to be pushed to the device is displayed.
- 17 In the **Choose image to push to this device** section, select the local BIOS from the list, and click **OK**.
The BIOS push operation starts, and the overall status is displayed in the progress bar.
- 18 After the BIOS push operation is complete, remove the USB drive from the target device.
The Wyse 5020 and 7020 thin client restarts automatically after BIOS push operation is complete.

BIOS add-on with AMD Microcode to fix Side Channel Vulnerability on Wyse 5060 thin client

Release summary

The scope of this release is to update BIOS with AMD Microcode to address the Side Channel security vulnerability on Dell Wyse 5060 thin clients running the ThinLinux operating system.

Version

1.0K

Release date

May 2019

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Supported platforms

Table 25. Supported platforms

Platform name	Memory configuration	
	Flash	RAM
Dell Wyse 5060 thin client	16 GB	4 GB

Supported build versions

Table 26. Supported build versions

Platform name	Supported English build version	BIOS version after installing add-on
Dell Wyse 5060 thin client	1.0.7 and 1.0.7.2	1.0K

Add-on details

Table 27. Add-on package information

File name	Size
ThinLinux_5060_BIOS_10K.zip	3,165,128 bytes

Download the add-on package

About this task

This section describes the steps to download the add-on 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 Service Tag or the model number of your device, and press Enter or click the search icon.
- 3 On the product support page, click **Drivers & downloads**.
- 4 Select the appropriate operating system.
- 5 From the list, locate the add-on entry and click the download icon.

Install the BIOS add-on using Wyse Management Suite

About this task

Prerequisites

- Go to `C:\WMS\LocalRepo\repository\osImages\zipped` and place the BIOS file.
- On Wyse Management Suite, go to **Portal administrator File repository > (select repository)**, and click **sync files**.

Steps

- 1 Register the device to Wyse Management Suite version 1.3.
- 2 Create and deploy the `merlin_nonpxe-3.7.7-00.05.x86_64.rpm` app policy.
- 3 Reboot the thin client.
- 4 Go to **Apps & Data > OS Image policies (ThinLinux)** and click **Add Policy**.
- 5 Update the required fields, select the BIOS file, and click **Save**.
- 6 Schedule the image policy.
BIOS is updated on the thin client after the add-on is successfully installed.

Install the BIOS add-on using Wyse Device Manager

- 1 Launch the Wyse Device Manager Web UI.
- 2 Push the add-on `merlin_nonpxe-3.7.7-00.05.x86_64.rpm` by creating a package.
- 3 Go to **Application > Images**, and click **Create a new package**.
- 4 Download the registered package and run the file.
- 5 Select the RSP package in Wyse Device Manager package registration utility and select the BIOS file.
- 6 Go to **Devices** and select the check box beside the device ID.
- 7 Click **Update** and select the BIOS file.
- 8 Click **Save**
BIOS is updated on the thin client after the add-on is successfully installed.

Install the BIOS add-on using the USB firmware tool

1 Download the Dell Wyse USB Imaging tool from downloads.dell.com/wyse.

2 Install the tool on the supported operating system.

3 Launch the USB firmware tool.

The tool displays the **Image Pull** screen by default.

4 Click **Image Push** to display the **Image Push** screen.

5 Plug in the USB drive to the system running the USB Imaging Tool.

6 Click the **Refresh** button to populate the USB drives.

NOTE: You can have multiple USB drives that are plugged in to your system.

7 Select the USB drive from the **Available drives** drop-down list.

If your USB drive contains images, these images are displayed on the screen.

8 Select the operating system architecture that you want to push to the target device. Select one of the following:

- **32 bit**—Select this option to push the 32-bit architecture-based operating system to the target device.
- **64 bit**—Select this option to push the 64-bit architecture-based operating system to the target device.

9 To add a new local image on the USB drive, click the **Local** tab, and add the BIOS file.

Ensure that only the BIOS check box is selected.

10 Click **Configure USB Drive**.

11 Click **Update** (Recommended).

The status is displayed in the progress bar.

12 Remove the USB drive.

13 Ensure that the target thin client is configured to boot from the USB drive.

14 Connect the USB drive to the thin client.

15 During boot, press and hold the key **P** on your keyboard until the **Boot menu** is displayed.

16 Select your USB drive and press **Enter**.

The device reboots from the USB drive, and the BIOS that needs to be pushed to the device is displayed.

17 In the **Choose image to push to this device** section, select the local BIOS from the list, and click **OK**.

The BIOS push operation starts, and the overall status is displayed in the progress bar.

18 After the BIOS push operation is complete, remove the USB drive from the target device.

The Wyse 5060 thin client restarts automatically after BIOS push operation is complete.

WYSE_RDP Client add-on to resolve CredSSP Remote Code Execution security vulnerability issue

Release type and definition

The scope of this add-on release is to update the WYSE_RDP Client to address the CredSSP Remote Code Execution vulnerability issue. This add-on is intended for the following platforms running ThinLinux 1.0.7.x:

- Wyse 3040 thin client with ThinLinux
- Wyse 3030 LT thin client with ThinLinux
- Wyse 5060 thin client with ThinLinux
- Wyse 5020 thin client with ThinLinux—D50Q
- Wyse 7020 thin client with ThinLinux—Z50Q

For more information about the CredSSP Remote Code Execution vulnerability issue, see the article CVE-2018-0886 at [Support.microsoft.com](https://support.microsoft.com).

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

What is new

The **WYSE_RDP Client** add-on addresses the CredSSP Remote Code Execution vulnerability issue.

A remote code execution vulnerability issue is observed in the Credential Security Support Provider (CredSSP) protocol. A user can use the login credentials to execute code on the target system. This vulnerability issue can be observed on any application that uses the CredSSP authentication. Installing this security update resolves the validation issue with CredSSP protocol during authentication.

Add-on package information

Table 28. RPM add-on details

RPM add-on details	
Build file name	wyse_rdpclient-8.01.04-04.002.x86_64.rpm
Size	2,002,932 bytes

Table 29. RSP add-on details

RSP add-on details	
Build file name	wyse_rdpclient-8.01.04-04.002.x86_64.zip
Size	2,002,036 bytes

Known issues

The following table lists the known issues in this release:

Table 30. Known issues

Issue number	Issue description	Workaround
LS-513	Add-on is automatically updated on the device when the add-on path is configured and saved in the update add-ons settings.	There is no workaround.
LS-514	The RDP Credentials window is displayed when you launch the unpatched Windows 2008 server.	In the RDP Credentials window, enter the valid credentials and click OK .

Support matrix

Table 31. Support matrix

Platform name	Memory configuration (Flash/RAM)	Supported BIOS version	Supported build version for ThinLinux 1.0.x (English)
Wyse 5060 thin client with ThinLinux	16 GB/4 GB	1.0G	1.0.7 and 1.0.7.2
Wyse 5020 thin client with ThinLinux—D50Q	8 GB/2 GB	2.0F	1.0.7 and 1.0.7.2
Wyse 7020 thin client with ThinLinux—Z50Q	8 GB/2 GB	2.0F	1.0.7 and 1.0.7.2
Wyse 3030 LT thin client with ThinLinux	4 GB/2 GB	1.0G	1.0.7 and 1.0.7.2
Wyse 3040 thin client with ThinLinux	16 GB/2 GB	1.2.4	1.0.7.1 and 1.0.7.3

Security update add-on for Meltdown and Spectre vulnerabilities for ThinLinux 1.0.7 and 1.0.7.1

Release type and definition

The scope of this release is to update the operating system packages released by SUSE to address the Meltdown and Spectre security vulnerabilities for the following platforms running on ThinLinux build—1.0.7/1.0.7.1:

- Wyse 5060 thin client with ThinLinux
- Wyse 5020 thin client with ThinLinux—D50Q
- Wyse 7020 thin client with ThinLinux—Z50Q
- Wyse 3030 LT thin client with ThinLinux
- Wyse 3040 thin client with ThinLinux

For more information, see the article *Security Vulnerability: "Meltdown" and "Spectre" side channel attacks against CPUs with speculative execution* [suse.com](https://www.suse.com)

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Whats new

To resolve the security vulnerability issue, install the add-on package delivered in this release. Deploying this package on your thin client installs the **ucode-intel-20180312-13.171.x86_64.rpm** add-on and upgrades the following existing add-ons:

- **kernel-default-4.4.114-92.64.1.x86_64.rpm**
- **libharfbuzz0-1.4.5-7.5.x86_64.rpm**
- **libharfbuzz-icu0-1.4.5-7.5.x86_64.rpm**
- **libjavascriptcoregtk-4_0-18-2.18.5-2.18.1.x86_64.rpm**
- **libwebkit2gtk-4_0-37-2.18.5-2.18.1.x86_64.rpm**
- **typelib-1_0-JavaScriptCore-4_0-2.18.5-2.18.1.x86_64.rpm**
- **typelib-1_0-WebKit2-4_0-2.18.5-2.18.1.x86_64.rpm**
- **ucode-amd-20170530-21.16.1.noarch.rpm**
- **webkit2gtk-4_0-injected-bundles-2.18.5-2.18.1.x86_64.rpm**

Add-on package information

Table 32. RPM add-on details

RPM add-on details	
Build file name	unified_addon-1.0.0-00.06.x86_64.rpm
Size	53,033,665 bytes

Table 33. RSP add-on details

RSP add-on details	
Build file name	unified_addon-1.0.0-00.06.x86_64.zip
Size	53,036,453 bytes

Known issues

None

Support matrix

Table 34. Support matrix

Platform name	Memory configuration (Flash/RAM)	Supported BIOS version	Supported build version for ThinLinux 1.0.x (English)	Build version after installing the add-on
Wyse 5060 thin client with ThinLinux	16 GB/4 GB	1.0G	1.0.7	1.0.7.2
Wyse 5020 thin client with ThinLinux—D50Q	8 GB/2 GB	2.0F	1.0.7	1.0.7.2
Wyse 7020 thin client with ThinLinux—Z50Q	8 GB/2 GB	2.0F	1.0.7	1.0.7.2
Wyse 3030 LT thin client with ThinLinux	4 GB/2 GB	1.0G	1.0.7	1.0.7.2
Wyse 3040 thin client with ThinLinux	16 GB/2 GB	1.2.4	1.0.7.1	1.0.7.3

Installing add-on using Wyse Management Suite

- 1 Go to www.dell.com/support.
- 2 In the **Enter a Service Tag, Serial Number, Service Request, Model, or Keyword** field, type the Service Tag or the model number of your device, and press Enter or click the search icon.
- 3 On the product support page, click **Drivers & downloads**.
- 4 Select the appropriate operating system.
- 5 From the list, locate the add-on entry, and download the respective RPM or RSP files.

① **NOTE:** You can download either RPM file or RSP file based on your preference.

- 6 Copy the downloaded files to the following path:
 - RPM file—C:\WMS\LocalRepo\repository\thinClientApps.
 - RSP file—C:\WMS\Local Repo\repository\rspPackages\zipped. The compress folder is extracted automatically, and the extracted files are copied to C:\WMS\LocalRepo\repository\rspPackages\valid path.
- 7 Log in to Wyse Management Suite.
- 8 Click **Portal Administration**, and then click **File Repository** under **Console Settings**.
- 9 Select the **Local Repository** check box.
- 10 Click **Sync Files**.
Wait for the synchronization process to complete. The synchronization process copies the package from the repository to **Apps and Data**.
- 11 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 12 Verify the copied package in the applications list.
- 13 To create a group in the Wyse Management Suite server, click **Groups & Configs**.
The **Groups & Configs** page is displayed.
- 14 Click the **Plus sign (+)** button, and register your client in the same group.
- 15 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 16 Click **Thin Clients** under **App Policies**.
- 17 Click **Add Policy** to add the policy to the required group.
- 18 Update the required fields, and then click **Save**.
The policy is added to the required group.
- 19 Click **Jobs**.
The **Jobs** page is displayed.
- 20 Click **Schedule App Policy** and update the required fields to schedule the policy.
- 21 Monitor the status in the **Jobs** page to ensure that the package installation is successful.

 **NOTE:** The lock screen is displayed during the package installation process on all the thin clients.

Installing add-on manually using ThinLinux

- 1 Copy the add-on and the directory file to the <root path>\add-ons folder.
- 2 Log in to the thin client.
- 3 To enter into the **Admin mode**, click the **Switch to Admin** button.
- 4 Enter the default password.
The default password is admin.
- 5 Click the **Settings** icon on the desktop.
The **System Settings** page is displayed.
- 6 Click the **System** icon.
- 7 Click **Update settings**.
- 8 To enable the **Set update server manually** option, click the **ON/OFF** button.
- 9 Enter the URL address of the specified server in the **Update Server URL** box.
You can also enter the user name and password of the specified server in the **Update Server User Name** and **Update Server Password** box.
- 10 Click **Addons**.
- 11 Click the **Plus sign (+)** button, to install the add-ons.
- 12 Select the add-ons.
- 13 Click **Save**.
The add-on is installed on the thin client.

Installing add-on manually using ThinLinux INI parameter

- 1 Copy the add-on and the directory file to the <root path>\add-ons folder.
- 2 To install the add-on add the following INI parameter:
`InstallAddons= unified_addon-1.0.0-00.06.x86_64.rpm` in `wlx.ini`.
- 3 Log in to the thin client.
- 4 To enter into the **Admin mode**, click the **Switch to Admin** button.
- 5 Enter the default password.
The default password is admin.
- 6 Click the **Settings** icon on the desktop.
The **System Settings** page is displayed.
- 7 Click the **Management** icon.
- 8 Click **INI**.
The **Manage INI Configuration** page is displayed.
- 9 From the drop-down list, select the configuration source and provide the server details.
- 10 Click **Save**.
The following message is displayed:
System Upgradation complete. Machine will reboot now. Count down timer starts with 10 sec.
- 11 Click **OK**.
The add-on is installed on the thin client and the system restarts.

Installing add-on using Wyse Device Manager

About this task

NOTE: Copy the <name of the add-on>.rsp file to the Wyse Device Manager server. The copied RSP file is included in the .zip file.

Steps

- 1 Launch Wyse Device Manager and login using valid credentials.
- 2 Click **Applications** in the **Dell Wyse Device Manager dashboard** page.
The options **Images**, **Other Packages**, **Agent Update**, **Device Configuration**, and **PCoIP Device Configuration** are displayed.
- 3 Select one of the options except **Device Configuration**, and **PCoIP Device Configuration**.
- 4 Click **Create Package Plus (+)**.
The application prompts to download the Package Register utility.
- 5 Click **Allow**.
The **Create Package** window is displayed.
- 6 Download the .zip file on your local repository.
- 7 Navigate to the folder, and run the **Package Register** utility file.
The **WDM Package Registration Utility** window is displayed.
- 8 Enter WDM server address and user credentials in the respective fields.
- 9 Select **RSP** to register, and click **Browse**.
The **WDM Package Uploader** window is displayed.
- 10 Click **Open**.
The list of selected packages is displayed.
- 11 Select the packages that you want to register, and click **Upload**.
The status is displayed as **Success**.
- 12 Click **Devices** and select the **Device ID** check box.

13 Click **Update**, and select the preferred package.

14 Click **Save**.

The add-ons installation is scheduled to the device and the add-on is installed to the thin client.

ThinLinux v1.0.6.2

Release type and definition

The scope of this add-on release is to address the BlueBorne security vulnerability issue.

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

New features

- BlueBorne security vulnerability has been fixed by updating files **bluez-5.13-3.6.13793.0.PTF.1061460.x86_64** and **libbluetooth3-5.13-3.6.13793.0.PTF.1061460.x86_64**. Kernel has been updated to version **4.4.74-92.38-default**.
- BIOS version has been updated for Wyse 5060 thin client to 1.0G and Wyse 3030LT thin client to 1.0F.
- VMware client version 4.5 to support USB redirection for Linux agent.
- Citrix ICA version 13.6 Adaptive transport—Adaptive transport for XenApp and XenDesktop optimizes data transport by leveraging a new Citrix protocol called Enlightened Data Transport (EDT) in preference to TCP whenever possible. Compared to TCP and UDP, EDT delivers a superior user experience on challenging long-haul WAN and internet connections. This is done by dynamically responding to changing network conditions while maintaining high server scalability and efficient use of bandwidth. EDT is built on top of UDP and improves data throughput for all ICA virtual channels, including Thinwire display remoting, file transfer (Client Drive Mapping), printing, multimedia redirection. When UDP is not available, adaptive transport automatically reverts to TCP.

You should enable the HDX adaptive transport policy setting from Citrix Studio. You can disable it from Receiver settings.

This feature is supported only for direct connections without going through NetScaler Gateway.

Supported platforms

Table 35. Supported platforms

Platform name	Memory configuration (Flash/RAM)	BIOS version
Wyse 5060 thin client	16 GB/4 GB	1.0G
Wyse 5020 thin client	8 GB/2 GB	2.0F
Wyse 7020 thin client	8 GB/2 GB	2.0F
Wyse 3030LT thin client	4 GB/2 GB	1.0F

Build information

Table 36. Build information for Wyse 3030LT thin client

File name	Version	File size in bytes
1.0.6.2_3030LT_merlin.exe	4.4.74-92.38-Default	776,574,923 bytes

Table 37. Build information for Wyse 5060 thin client

File name	Version	File size in bytes
1.0.6.2_5060_16GB_merlin.exe	4.4.74-92.38-Default	801,849,840 bytes

Table 38. Build information for Wyse 5020/7020 thin client

File name	Version	File size in bytes
1.0.6.2_Z50Q_D50Q_merlin.exe	4.4.74-92.38-Default	779,546,388 bytes

Table 39. Image upgrade package details

File name	Version	File size in bytes
image-upgrade-1.0.6.2-Wyse.zip	4.4.74-92.38-Default	689,142,308 bytes

Table 40. RSP package details

File name	Version	File size in bytes
1.0.6.2.zip	4.4.74-92.38-Default	688,863,192 bytes

Table 41. Add-on package details

File name	Version	File size in bytes
all-addons-1.0.6.2-Wyse.zip	4.4.74-92.38-Default	724,544,231 bytes

Optional add-on RPMs list

- 32bit_runtime-1.0.0-01.00.x86_64.rpm
- at-3.1.14-7.3.x86_64.rpm
- bc-1.06.95-6.56.x86_64.rpm
- chrome_opt-1.0-0.20.x86_64.rpm
- ed-1.9-3.63.x86_64.rpm
- ericom_powerterm-8.3.0-00.09.x86_64.rpm
- glibc-i18ndata-2.22-49.16.noarch.rpm
- google-chrome-stable_current_x86_64.rpm
- groff-1.22.2-5.429.x86_64.rpm
- groff-full-1.22.2-5.429.x86_64.rpm
- gstreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm
- gxditview-1.22.2-5.429.x86_64.rpm

- hplip-3.14.6-3.14.x86_64.rpm
- hplip-hpijs-3.14.6-3.14.x86_64.rpm
- hplip-sane-3.14.6-3.14.x86_64.rpm
- ica_32bit-13.6.0.10243651-00.05.x86_64.rpm
- libcairo-script-interpreter2-1.15.2-20.2.x86_64.rpm
- libieee1284-0.2.11-53.144.x86_64.rpm
- libjpeg62-62.1.0-30.1.x86_64.rpm
- liblcms1-1.19-17.31.x86_64.rpm
- libmng1-1.0.10-113.5.x86_64.rpm
- libnetpbm11-10.66.3-4.1.x86_64.rpm
- libphonon4-4.7.1-2.34.x86_64.rpm
- libpipeline1-1.2.6-1.20.x86_64.rpm
- libpng15-15-1.5.22-4.1.x86_64.rpm
- lsb5-5.0-3.1.x86_64.rpm
- lsb5-core-5.0-3.1.x86_64.rpm
- lsb5-desktop-5.0-3.1.x86_64.rpm
- lsb5-imaging-5.0-3.1.x86_64.rpm
- lsb5-languages-5.0-3.1.x86_64.rpm
- m4-1.4.16-15.74.x86_64.rpm
- mailx-12.5-28.1.x86_64.rpm
- man-2.6.6-1.32.x86_64.rpm
- merlin_nonpxe-3.4.5-00.02.x86_64.rpm
- ncurses-devel-5.9-40.124.x86_64.rpm
- netpbm-10.66.3-4.1.x86_64.rpm
- oem_branding-1.0.0-00.06.x86_64.rpm
- opensc-0.13.0-2.1.3.x86_64.rpm
- perl-HTML-Tidy-1.56-1.48.x86_64.rpm
- perl-Net-DBus-1.0.0-8.53.x86_64.rpm
- perl-Tie-IxHash-1.23-3.19.noarch.rpm
- perl-X11-Protocol-0.56-12.19.x86_64.rpm
- perl-XML-Twig-3.44-3.12.noarch.rpm
- perl-XML-XPath-1.13-99.19.x86_64.rpm
- perl-XML-XPathEngine-0.14-3.16.noarch.rpm
- phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm
- postfix-2.11.8-27.11.x86_64.rpm
- psutils-p17-1022.64.x86_64.rpm
- python-gobject2-2.28.6-24.80.x86_64.rpm
- python-qt4-4.10.3-7.11.x86_64.rpm

ThinLinux v1.0.6

Release type and definition

ThinLinux v1.0.6 supports updated BIOS for SUSE Linux Enterprise Server (SLES) SP2 release with all the features and languages supported by ThinLinux 1.0.3.1 and 1.0.5 for Wyse 3030 LT thin client and Wyse 5060 thin client platforms.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported platforms

The following are the platforms supported in this release:

Table 42. Supported platforms

Thin client	Memory configuration—Flash/RAM	BIOS Version
Wyse 3030 LT thin client	4 GB/ 2 GB	1.0E
Wyse 5060 thin client	8 GB/ 4 GB	1.0F

BIOS details

The following table contains BIOS details of the supported platforms:

Table 43. BIOS details

Thin client	BIOS Version	File Name	Size in Bytes
Wyse 3030 LT thin client	1.0E	10E.zip	3,914,980
Wyse 5060 thin client	1.0F	10F.zip	13,331,821

Build details

Following are the build details

Table 44. Image package details

Platform : Wyse 5060 thin client	
Build version	4.4.21-69.1.11864.0.PTF.1007653-default
Build number	1.0.6

Platform : Wyse 5060 thin client	
Build file name	1.0.6_5060_merlin.exe
Size (bytes)	788,218,726

Table 45. Image package details

Platform : Wyse 3030 LT thin client	
Build version	4.4.21-69.1.11864.0.PTF.1007653-default
Build number	1.0.6
Build file name	1.0.6_3030LT_merlin.exe
Size (bytes)	777,166,851

Table 46. Package details

File(s) name	Build (version)	Size in bytes
image-upgrade-1.0.6-Wyse.zip	1.0.6 (4.4.21-69.1.11864.0.PTF.1007653-default)	683,909,662
all-addons-1.0.6-Wyse.zip		733,867,262
1.0.6.zip		683,632,895

AES password encryption tool

When the INI parameters are used, base-64 encryption is enabled for all passwords by default. If anyone wants to use AES encryption, they must generate an AES encrypted password by using the **WyselNIkeyCrypt.exe** tool.

ThinLinux supports two password encryption methods for all the passwords in connections and global settings used in INI.

The two methods are as follows:

Base64 Encryption Passwords

- All passwords in INI file are base-64 encrypted by default.
- To generate base-64 encrypted password follow these steps:
 - Log in to thin client
 - Open the xterm
 - Type **regencode** followed by password in plain text

Example: thinuser@LWT- regencode password

cGFzc3dvcmQ=

Encrypted output for **password** is **cGFzc3dvcmQ=**

AES password encryption

- For AES Encryption support, add **PasswordEncryptionCode=2** ini parameter in INI file.
- All Passwords related to connections and users in INI file can be AES encrypted.
- Use the following procedure for creating AES Encrypted password:

- a Copy the **WyselNIKeyCrypt.exe** on any windows machine.
- b Open the .exe by clicking twice.
- c Enter the plain text password in **Password to encode** edit box.
- d Click **Encrypt** get AES encrypted password.
- e Click **Base64** button to get base-64 encrypted password.

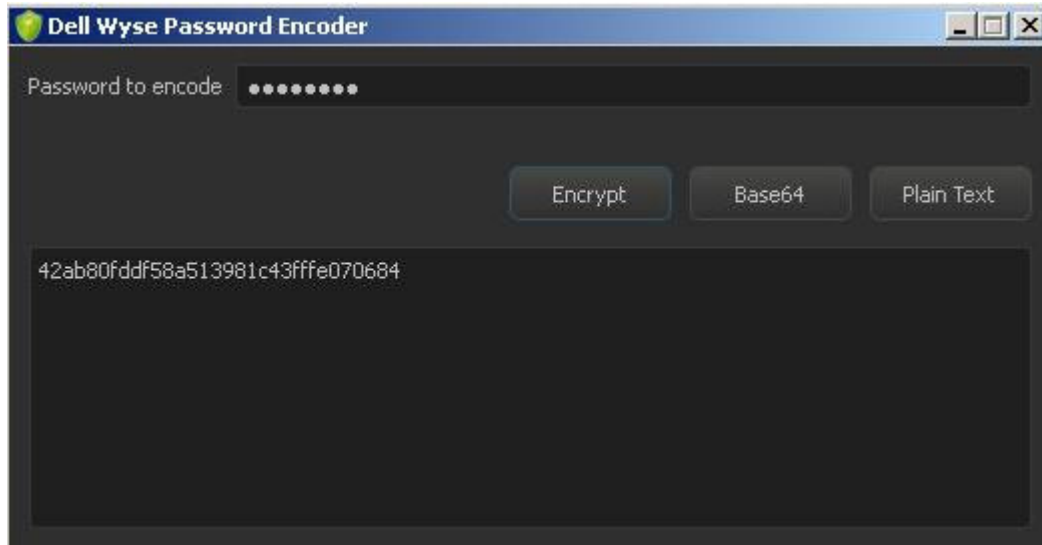


Figure 1. Dell Wyse Password Encoder

- Copy the encrypted password and place it in the INI file where password field is mapped.
- Non-English characters are not supported for AES encryption password.

New features

Following are the supported features:

Functional behavior and components update

The basic functional behavior remains the same as ThinLinux 1.0.5.

BIOS

- Wyse 3030LT thin client BIOS v1.0E:
 - Data Wipe –Enabling this feature allows users to securely erase the data from all internal storage devices like HDD, SSD, mSATA, and eMMC. Data is wiped on the next restart.
 - By default Data Wipe option is disabled.
- Wyse 5060 thin client BIOS v1.0F:
 - Data Wipe – Enabling this feature allows users to securely erase the data from all internal storage devices like HDD, SSD, mSATA, and eMMC. Data is wiped on the next restart.
 - By default Data Wipe option is disabled.

Citrix ICA v13.5

This release is integrated with Citrix ICA v13.5

Features supported

This release provides the following new features, enhancements, and also resolves previously reported issues.

- Support for multi-stream ICA
- Support for the HTML5 video redirection
- Support for GStreamer 1.x

HTML5 video redirection validation: To validate HTML 5 video redirection, you can use the test page if the redirection works. HTML 5 video redirection uses video redirection technology, to check if the video is played on client side, also checks that the actual HTML5 Redirection is working or not, and similarly MMR is validated. But instead of playing the video in Windows Media Player, the following URL plays the video in the **Session** browser: www.citrix.com/virtualization/hdx/html5-redirect.html

ICA Multi-stream Validation: To configure multistream ICA on the XenApp/XenDesktop VDA, see [Product documentation](#). On the Linux client, enable multistream ICA support by setting the following in `All_Regions.ini`:

```
[WFClient]
AllowMultiStream=TRUE
```

After the configuration, when you try connecting a session on the client side, **netstat -t** shows multiple TCP connections between client and server.

For more information, see www.citrix.com/virtualization/hdx/html5-redirect.html and [Docs.citrix.com/en-us/xenapp-and-xendesktop/7-13/policies/reference/ica-policy-settings/multistream-connections-policy-settings.html](https://docs.citrix.com/en-us/xenapp-and-xendesktop/7-13/policies/reference/ica-policy-settings/multistream-connections-policy-settings.html)

For new ini parameters for ICA multi-stream, see [INI parameters](#)

VMware View client v4.4

VMware View client v4.4 is integrated as part of this MR release.

New features

- **Support for Blast Extreme Adaptive Transport (BEAT):** With the VMware Blast display protocol, Horizon Client for Linux uses TCP networking when it connects to a server or BEAT, if the agent and Blast Secure Gateway (if enabled) supports BEAT connectivity. You can select network condition options to use only TCP networking or BEAT networking.
- **Support unauthenticated access to remote RDSH applications:** You can connect published applications using an unauthenticated access account with Horizon Client.
- **Hide security information for enhanced security:** Horizon 7 version 7.1 administrator can configure global settings to hide security information in Horizon Client for Linux, including server URL information and the Domain drop-down menu. To authenticate, when the **Domain** drop-down menu is hidden in Horizon Client, you must provide domain information by entering your user name in the format **domain\username** or **username@domain** in the **User name** text box.
- **Support restart of a remote desktop:** You can restart a remote desktop from the Horizon Client for Linux. Restarting a remote desktop is equivalent to the Windows operating system restart command.
- **USB redirection support for remote applications:** Locally attached USB devices can be connected to remote applications.
- **OpenSSL 1.0.2 K support:** The OpenSSL Library is updated to version openssl-1.0.2k.
- **VMware Access Point renamed to VMware Unified Access Gateway:** With version 2.9, VMware Access Point is renamed to VMware Unified Access Gateway. This change is not reflecting in Horizon 7 version 7.1, and Horizon Client 4.4 documentation sets.

For new ini parameters for VMware BEAT, see [INI parameters](#).

Auto screen lock

Auto screen lock allows you to lock the screen. The screen lock time out can be set through UI settings, and INI parameters. Alternatively, you can also use the keyboard shortcut—Ctrl+Alt+I or Windows key+I to activate the screen lock. To set the Screen lock from UI, click **System Settings > System > Power**.

NOTE: This auto screen lock feature is dependent on Turn off screen setting. If set to never, then the screen saver timeout is disabled.

For more information about the INI parameters, see [INI parameters](#)

Hide application icon

Admin can now hide application icons which should be invisible to non-admin users.

For more information about the INI parameters, see [INI parameters](#)

Firewall settings

Firewall settings allows you to configure firewall through **System Settings UI**, and INI parameters. For Firewall Setting UI, click **System Settings > Security > Firewall**.

Firewall configuration is managed using the `iptables` command-line utility, that uses policy chains to allow or block traffic. `iptables` provides a packet filtering framework for Linux, that allows you to filter network traffic that flows in and out of your server/workstation.

Example Script:

- `/usr/sbin/iptables -A OUTPUT -p icmp -j DROP`
- `/usr/sbin/iptables -A INPUT -p icmp -j ACCEPT`

The above mentioned script is used to Drop ICMP Output Connections and Accept ICMP Input Connections. For more information on using `iptables`, see <https://www.suse.com/communities/blog/basic-iptables-tutorial/>

For more information about the INI parameters, see [INI parameters](#)

Custom info settings

Custom info settings allows you to set custom info through UI, and INI parameters. While the admin user can view and modify the custom info, non-admin user can only view the custom info.

To set the Custom info from UI, click **System Settings > System > Custom Info**.

For more information about the INI parameters, see [INI parameters](#)

INI parameters

Table 47. INI parameters

INI Parameter	Value type	Description
ICAMultiStream={Yes/No}	Boolean —Yes/No Default: No	You can enable or disable ICA MultiStream.
NetworkMode= {poorconnect/ excellentconnect/ typicalconnect}	Text—poorconnect/excellentconnect/ typicalconnect Default:typicalconnect	Select Vmware Network Mode based on user Bandwidth according to BEAT functionality.
UnauthAccessEnabled={Yes/No}	Boolean—Yes/No Default: No	UnauthAccessEnabled enable/disable the UnAuthenticated access for Published Applications (Vmware).

INI Parameter	Value type	Description
UserDomainName={Yes/No}	Boolean —Yes/No Default: No	Vmware: UserDomainNameEnable/Disable function User Name with Domain, that is Domain/user.
VMWareView.SendCtrlAltDelToVM={Yes/No}	Boolean—Yes/No Default: No	Vmware: CTRL-ALT-DEL Key eventA global parameter to control the passing of CTRL-ALT-DEL key event to the VM.
Display.LockScreenTimeout={0/60/120/180/240/300/480/600/720/900}	Numbers— 0/60/120/180/240/300/480/600/720/900 Default: 0	Auto Lockscreen Timeout sets lockscreen timeout value (in seconds). A value of 0, means that auto lockscreen is disabled.
Custom.HideFirefox={Yes/No}	Boolean—Yes/No Default: No	Hide Firefox Browser IconHide/Show Firefox Browser Icon for user login.This setting does not have any effect on admin login.
Custom.HideSettings={Yes/No}	Boolean—Yes/No Default: No	Hide/Show Firefox Browser Icon for user login.This setting does not have any effect on admin login
Firewall.Enable={Yes/No} \script=script_file_name	Boolean—Yes/No Default: No	Enable/Disable firewall and also set the firewall script. i NOTE: The firewall script file should be placed under firewall directory in the ini-server root directory.
CustomInfo={Yes/No} \location="..." \contact="..." \custom1="..." \custom2="..." \custom3="..."	Boolean—Yes/No Default: No	Sets the custom fields: Location, Contact, Custom1, Custom2, and Custom3
Desktop="" ForceDownload={Yes/No}	Boolean—Yes/No Default:No	Desktop Background ImageNew option for the Desktop INI parameter to enable force download of a specified image file.
TerminalName="..."	String	Set Terminal Name
IPV6.Disable={Yes/No}	Boolean—Yes/No Default: No	You can disable/enable IPV6.

Existing features

- New Enhanced UI
- User, Session, Login, and Administration
- System Settings App
- Connections and VDI(Citrix and RDP)
- Import/Export Configuration
- Citrix Desktop Appliance mode
- Management
- 802.1X and SCEP
- INI files and INI settings support
- Network and Wireless modules
- Add-ons Management

- Imaging solutions
- Display settings and Quad display
- Dual 4K support (3840X2160@30hz)
- Custom GNOME
- Firefox Web Browser
- System Information
- Factory Reset
- Security
- Logs and Tools
- Energy Star
- Language Support (ThinLinux default language will be set to **English-US**). You can change system language from **Language** page. Supported languages are:
 - English
 - France French
 - Spanish
 - German
 - Dutch
 - Japanese
 - Portuguese
 - Chinese—Simplified
 - Korean

RPMs list

Table 48. RPMs list

Optional Addons	
32bit_runtime-1.0.0-01.00.x86_64.rpm	lsb5-5.0-3.1.x86_64.rpm
at-3.1.14-7.3.x86_64.rpm	lsb5-core-5.0-3.1.x86_64.rpm
bc-1.06.95-6.56.x86_64.rpm	lsb5-desktop-5.0-3.1.x86_64.rpm
chrome_opt-1.0-0.20.x86_64.rpm	lsb5-imaging-5.0-3.1.x86_64.rpm
ed-1.9-3.63.x86_64.rpm	lsb5-languages-5.0-3.1.x86_64.rpm
ericom_powerterm-8.3.0-00.09.x86_64.rpm	m4-1.4.16-15.74.x86_64.rpm
glibc-i18ndata-2.22-49.16.noarch.rpm	mailx-12.5-28.1.x86_64.rpm
google-chrome-stable_current_x86_64.rpm	man-2.6.6-1.32.x86_64.rpm
groff-1.22.2-5.429.x86_64.rpm	merlin_nonpxe-3.4.5-00.02.x86_64.rpm
groff-full-1.22.2-5.429.x86_64.rpm	ncurses-devel-5.9-40.124.x86_64.rpm
gststreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm	netpbm-10.66.3-4.1.x86_64.rpm
gxditview-1.22.2-5.429.x86_64.rpm	oem_branding-1.0.0-00.06.x86_64.rpm

Optional Addons

hplip-3.14.6-3.14.x86_64.rpm	opensc-0.13.0-2.1.3.x86_64.rpm
hplip-hpijs-3.14.6-3.14.x86_64.rpm	perl-HTML-Tidy-1.56-1.48.x86_64.rpm
hplip-sane-3.14.6-3.14.x86_64.rpm	perl-Net-DBus-1.0.0-8.53.x86_64.rpm
ica_32bit-13.5.0.10185126-00.07.x86_64.rpm	perl-Tie-IxHash-1.23-3.19.noarch.rpm
kernel-default-extra-4.4.21-69.1.11864.0.PTF.1007653.x86_64.rpm	perl-X11-Protocol-0.56-12.19.x86_64.rpm
libcairo-script-interpreter2-1.15.2-20.2.x86_64.rpm	perl-XML-Twig-3.44-3.12.noarch.rpm
libieee1284-0.2.11-53.144.x86_64.rpm	perl-XML-XPath-1.13-99.19.x86_64.rpm
libjpeg62-62.1.0-30.1.x86_64.rpm	perl-XML-XPathEngine-0.14-3.16.noarch.rpm
liblcms1-1.19-17.31.x86_64.rpm	phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm
libmng1-1.0.10-113.5.x86_64.rpm	postfix-2.11.8-27.11.x86_64.rpm
libnetpbm11-10.66.3-4.1.x86_64.rpm	psutils-p17-1022.64.x86_64.rpm
libphonon4-4.7.1-2.34.x86_64.rpm	python-gobject2-2.28.6-24.80.x86_64.rpm
libpipeline1-1.2.6-1.20.x86_64.rpm	python-qt4-4.10.3-7.11.x86_64.rpm
libpng15-15-1.5.22-4.1.x86_64.rpm	python-sip-4.15.4-6.3.x86_64.rpm
libqt4-4.8.6-7.1.x86_64.rpm	sane-backends-1.0.24-1.237.x86_64.rpm
libqt4-sql-4.8.6-7.1.x86_64.rpm	sane-backends-autoconfig-1.0.24-1.237.x86_64.rpm
libqt4-sql-sqlite-4.8.6-7.1.x86_64.rpm	snmp-mibs-5.7.3-4.2.x86_64.rpm
libqt4-x11-4.8.6-7.1.x86_64.rpm	star-1.5final-69.1.x86_64.rpm
libQtWebKit4-4.8.6+2.3.3-3.1.x86_64.rpm	tack-5.9-40.124.x86_64.rpm
libreoffice_bundle-1.0.0-00.00.x86_64.rpm	time-1.7-5.13.x86_64.rpm
libreoffice_calc_express-1.0.0-00.00.x86_64.rpm	unzip-6.00-32.1.x86_64.rpm
libsensors4-3.4.0-4.5.x86_64.rpm	wget-1.14-10.3.x86_64.rpm
libsnmp30-5.7.3-4.2.x86_64.rpm	wyse_lang-1.0.0-00.08.x86_64.rpm
libtidyp-1_04-0-1.04-13.55.x86_64.rpm	xdg-utils-20140630-5.1.noarch.rpm
lsb-release-2.0-28.1.noarch.rpm	

Fixed issues

Following are the fixed issues in this release:

Table 49. Fixed issues

Issue no	Issue description
CIR89554	Wyse 3030LT thin client - Linux - CTRL-ALT-DEL not passing through to VM.
CIR90324	JSON - ThinLinux device Configuration - Certificate issues.
CIR89429	934684210 - Pro / Wyse 7020 (D50Q) / Dual Monitor is not showing correctly.
CIR89944	Ericom PowerTerm Interconnect Keyboard issue.
CIR89896	ThinLinux: Unable to connect to wireless network specified in WLX.INI file, connections only work when using local GUI.
CIR90120	Wyse 3030LT thin client : Citrix application does not launch in full screen.
CIR90792	Wyse 3030LT thin client : Domain name "SYNCHRONY" does not populate domain name in PAM login.
CIR89977	Wyse 3030LT thin client : There is no option to lock the device.
CIR89070	Enhancement CIR - 91348: ThinLinux - Need GUI and ini parameters to configure firewall.
CIR89389	Allow setting Location, Contact, Custom1, Custom2, and Custom3 WDM fields from local GUI, and INI Just as WTOS currently does.
CIR89970	Wyse 3030LT thin client : There is no option to lock the device.
CIR89971	Wyse 3030LT thin client : Setting applet need be moved from desktop or need option to hide.
CIR89973	Add a force download on every boot optional parameter to the Desktop=image INI parameter Thinlinux background does not update when image file is updated on the server side.
CIR89967	Wyse 3030LT thin client : Built in Firefox is available for the pagent users.
CIR90600	ThinLinux goes into reboot loop when importing configuration file.
CIR90127	Wyse 3030LT thin client : Citrix icons for published applications are not in proper color.
CIR90144	Strange English and Korea font in web page.
CIR91778	D50Q known middle mouse button issue is also affecting ThinLinux.
CIR89776	Ability to Configure (Turn on or Off) Support for IPV6 Via a Switch or Radio Button.
CIR91709	5020 Linux X11VNC Service not starting.
CIR91576	Cannot print to Windows Shared Network Printers.
CIR89279	Z50Q: Unable to set socket-recv-timeout for RDP-connection in ConnectionManager.

Issue no	Issue description
LS-103	The add-on is listed twice in the remove addon list.
LS-109	If IPV6 configured with INI, Network UI does not reflect with changes.
LS-121	Maximized Resolution does not work if Browser Connection is created with INI.
LS-125	System setting not updated when switch to admin mode through the Keyboard shortcuts.

Known issues

Table 50. Known issues

Summary	Work around
Export and Import configuration using Http and https is not working from system setting UI.	You can configure FTP protocol to use this function.
Unable to perform firmware upgrade through WCM, its creating wrong thin-linux.info .	NA
WMS: Force base system update in the client is by default setting to off in the Update settings even after making ON using WMS App Policy.	NA
Sporadically smart card is not getting detected while launching the VMWare session	Disconnect the smart card and connect it to the different version of USB ports, that is if disconnected from 3.0, then connect to 2.0 ports.
Citrix 13.5–Certification: HDX Multimonitor Task Bar not visible— Grey Band appears.	NA
Unable to set custom info parameter from the WMS server.	NA
Unable to image with merlinUpdate.URL through anonymous user showing as access denied in the cached_update.log file.	NA
Under system settings, all the Menu names may convert to invalid names and are displayed inside braces when we uninstall and install add-ons.	NA
Wireless: Wireless connection is not creating through INI parameters for the security type WEP - 64 bit and 128 bit.	NA
When unplug network cable, the RDP session is getting disconnected after 1 minute even if we specify as 120 seconds in Socket Recv Timeout.	NA
ThinLinux: Unable to connect citrix server when we set browser protocol as Use Default in ThinLinux.	NA
In BIOS, Power Loss Recovery to Last State is not working when we do a hard power off using power button.	NA

Summary	Work around
Citrix Connection is launching in only one display when two displays connected after selecting Full screen resolution with Expand to all monitors option.	NA
The INI Parameters <code>FileServerUsername=xyz</code> is not disabling the Use Anonymous option in INI Settings.	NA
VMware Multi-Media redirection is not working.	NA
Unable to launch citrix connection through browser using PIV smart card.	NA
Wyse 3030LT thin client-VMware Blast—unable to minimize the session from desktop viewer when we play media redirection files in full screen.	Use Ctrl+Alt+Down arrow key to minimize the session
On Wyse 3030 LT thin client platform, the thin client do not respond while upgrading or downgrading the merlin image with BIOS v1.0C or 1.0E.	NA

Tested peripherals

Table 51. USB storage devices

Device	Make
USB Flash Drive	<ul style="list-style-type: none"> • Sandisk Ultra USB 3.0–64 GB • Transcend USB 2.0–8 GB • Sony USB 2.0–32 GB
USB DVD-RW	Dell CD/DVD DW316
External Portable Hard Disk	Toshiba 3.0–500 GB

Table 52. Printer devices

Device	Make
LaserJet	Dell B5465dnf
LaserJet	Dell B5460dn
Laserjet	HP LaserJet pro MFP M435nw

Table 53. Web Cameras

Model	Type
Logitech	HD Webcam C525
Logitech	HD Pro C920
MS Life cam	HD3000

Table 54. Smart Cards

Smart Cards
Gemalto .Net V2+
Yubikey (PIV)

Table 55. Keyboards

Model	Type
USB — Dell KB216P	Dell Keyboard
USB — Dell KB212-B	Dell Keyboard
Wireless — Logitech MK710	Wireless Keyboard

Table 56. Mouse

Model	Type
USB—MS111-P	Dell Mouse
USB—MS116	Dell Mouse
Wireless—Logitech M705	Wireless Mouse

Table 57. Monitors

Model	Type
Dell 19" 1905FP	Dell Monitor
Dell 19" P1913S	Dell Monitor
Dell UZ2315Hf,	Dell Monitor
Dell U2414H	Dell Monitor
Dell P2210	Dell Monitor
Dell UZ2215H	Dell Monitor
Dell P2214H	Dell Monitor
Dell 22" S2240T	Dell Monitor
Dell 20" E2016H	Dell Monitor
Dell 22" E2216H	Dell Monitor
Dell 23" E2316H	Dell Monitor
Dell 24" UltraHD P2415Q	Dell 4K Monitor
Dell 27" UltraHD P2715Q	Dell 4K Monitor

Table 58. USB Headsets

Model
Dell Professional Stereo Headset UC550 (Lync certified)
Plantronics calisto 830
Plantronics Blackwire C720
Plantronics Calisto USB speaker phone
Jabra Speak 410 USB
Jabra handset cisco 450
Jabra BIZ 2400 Mono USB
Logitech H340
Plantronics Black Wire C520
Black wire DA45

Table 59. Wireless AP

Device	Make
DELL IAP-25	DELL

Table 60. 802.1x

Device	Make
Switch 3750	Cisco

Test environment

Table 61. Citrix 13.5

Citrix 13.5		
XenApp6.5	XenApp7.13	XenDesktop 7.13
Windows2008 R2 64-bit	Windows2012 R2 64-bit	Windows2012 R2 64-bit
Servers/Desktops		
NA	Windows7 Enterprise 32-bit	Windows7 Enterprise 32-bit
NA	Windows 8.1 Enterprise 32-bit	Windows 8.1 Enterprise 32-bit

Table 62. VMware Horizon View 7.1

VMware Horizon View 7.1	
Connection Server	Windows2012 R2 64-bit
Desktop	Windows7 Enterprise 32-bit
Desktop	Windows 8.1 Enterprise 32-bit
Desktop	Ubuntu 32/64 bit desktop
RDS Server	Windows2008 R2 64-bit/Windows 2012
Desktop	Windows 10

Table 63. RDP 8.1

RDP 8.1	
RDP RAIL Server	Windows2012 R2
RDP TS Gateway Server	Windows2012 R2
Desktop	Windows7 Enterprise 64-bit
Desktop	Windows 8.1 Enterprise 64-bit

Driver details

Table 64. Driver details

Drivers Files	Version
Display Adapter	VGA compatible Controller Radeon HD 8330E
Ethernet Adapter	RealTek RTL-8168 Gigabit Ethernet driver
Audio	HDA-Intel – HDA ATI SB (ALSA Driver)

ThinLinux v1.0.5

Release type and definition

ThinLinux v1.0.6 supports updated BIOS for SUSE Linux Enterprise Server (SLES) SP2 release with all the features and languages supported by ThinLinux 1.0.3.1 and 1.0.5 for Wyse 3030 LT thin client and Wyse 5060 thin client platforms.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported platforms

The following are the platforms supported in this release:

Table 65. Supported platforms

Thin client	Memory configuration—Flash/RAM	BIOS Version
Wyse 3030 LT thin client	4 GB/ 2 GB	1.0E
Wyse 5060 thin client	8 GB/ 4 GB	1.0F

BIOS details

The following table contains BIOS details of the supported platforms:

Table 66. BIOS details

Thin client	BIOS Version	File Name	Size in Bytes
Wyse 3030 LT thin client	1.0E	10E.zip	3,914,980
Wyse 5060 thin client	1.0F	10F.zip	13,331,821

Build details

Following are the build details

Table 67. Image package details

Platform : Wyse 5060 thin client	
Build version	4.4.21-69.1.11864.0.PTF.1007653-default
Build number	1.0.6

Platform : Wyse 5060 thin client	
Build file name	1.0.6_5060_merlin.exe
Size (bytes)	788,218,726

Table 68. Image package details

Platform : Wyse 3030 LT thin client	
Build version	4.4.21-69.1.11864.0.PTF.1007653-default
Build number	1.0.6
Build file name	1.0.6_3030LT_merlin.exe
Size (bytes)	777,166,851

Table 69. Package details

File(s) name	Build (version)	Size in bytes
image-upgrade-1.0.6-Wyse.zip	1.0.6 (4.4.21-69.1.11864.0.PTF.1007653-default)	683,909,662
all-addons-1.0.6-Wyse.zip		733,867,262
1.0.6.zip		683,632,895

AES password encryption tool

When the INI parameters are used, base-64 encryption is enabled for all passwords by default. If anyone wants to use AES encryption, they must generate an AES encrypted password by using the **WyselNIkeyCrypt.exe** tool.

ThinLinux supports two password encryption methods for all the passwords in connections and global settings used in INI.

The two methods are as follows:

Base64 Encryption Passwords

- All passwords in INI file are base-64 encrypted by default.
- To generate base-64 encrypted password follow these steps:
 - Log in to thin client
 - Open the xterm
 - Type **regencode** followed by password in plain text

Example: thinuser@LWT- regencode password

cGFzc3dvcmQ=

Encrypted output for **password** is **cGFzc3dvcmQ=**

AES password encryption

- For AES Encryption support, add **PasswordEncryptionCode=2** ini parameter in INI file.
- All Passwords related to connections and users in INI file can be AES encrypted.
- Use the following procedure for creating AES Encrypted password:

- Copy the **WyselNIKeyCrypt.exe** on any windows machine.
- Open the .exe by clicking twice.
- Enter the plain text password in **Password to encode** edit box.
- Click **Encrypt** get AES encrypted password.
- Click **Base64** button to get base-64 encrypted password.

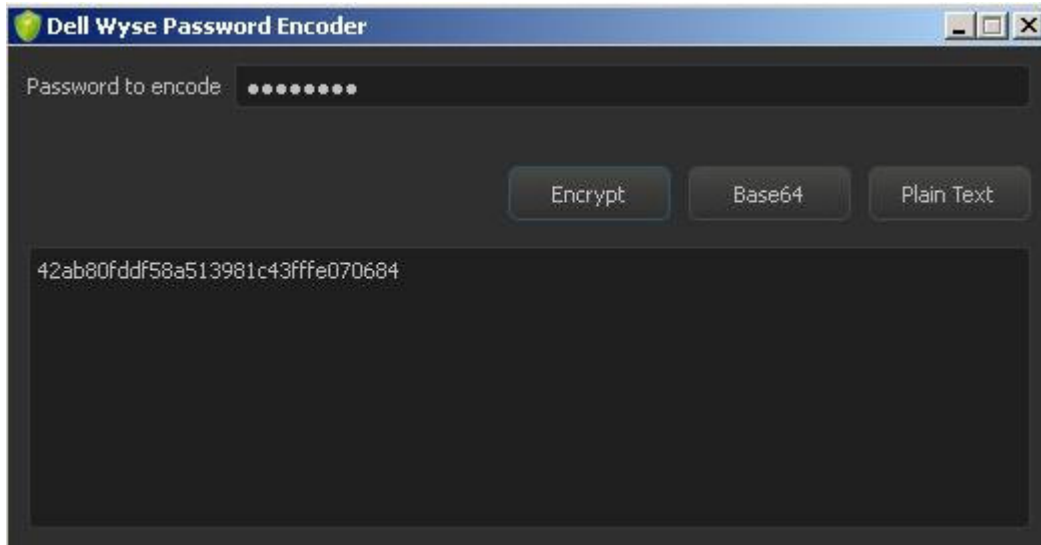


Figure 2. Dell Wyse Password Encoder

- Copy the encrypted password and place it in the INI file where password field is mapped.
- Non-English characters are not supported for AES encryption password.

New features

Following are the supported features:

Functional behavior and components update

The basic functional behavior remains the same as ThinLinux 1.0.5.

BIOS

- Wyse 3030LT thin client BIOS v1.0E:
 - Data Wipe –Enabling this feature allows users to securely erase the data from all internal storage devices like HDD, SSD, mSATA, and eMMC. Data is wiped on the next restart.
 - By default Data Wipe option is disabled.
- Wyse 5060 thin client BIOS v1.0F:
 - Data Wipe – Enabling this feature allows users to securely erase the data from all internal storage devices like HDD, SSD, mSATA, and eMMC. Data is wiped on the next restart.
 - By default Data Wipe option is disabled.

Citrix ICA v13.5

This release is integrated with Citrix ICA v13.5

Features supported

This release provides the following new features, enhancements, and also resolves previously reported issues.

- Support for multi-stream ICA
- Support for the HTML5 video redirection
- Support for GStreamer 1.x

HTML5 video redirection validation: To validate HTML 5 video redirection, you can use the test page if the redirection works. HTML 5 video redirection uses video redirection technology, to check if the video is played on client side, also checks that the actual HTML5 Redirection is working or not, and similarly MMR is validated. But instead of playing the video in Windows Media Player, the following URL plays the video in the **Session** browser: www.citrix.com/virtualization/hdx/html5-redirect.html

ICA Multi-stream Validation: To configure multistream ICA on the XenApp/XenDesktop VDA, see [Product documentation](#). On the Linux client, enable multistream ICA support by setting the following in `All_Regions.ini`:

```
[WFClient]
```

```
AllowMultiStream=TRUE
```

After the configuration, when you try connecting a session on the client side, **netstat -t** shows multiple TCP connections between client and server.

For more information, see www.citrix.com/virtualization/hdx/html5-redirect.html and Docs.citrix.com/en-us/xenapp-and-xendesktop/7-13/policies/reference/ica-policy-settings/multistream-connections-policy-settings.html

For new ini parameters for ICA multi-stream, see [INI parameters](#)

VMware View client v4.4

VMware View client v4.4 is integrated as part of this MR release.

New features

- **Support for Blast Extreme Adaptive Transport (BEAT):** With the VMware Blast display protocol, Horizon Client for Linux uses TCP networking when it connects to a server or BEAT, if the agent and Blast Secure Gateway (if enabled) supports BEAT connectivity. You can select network condition options to use only TCP networking or BEAT networking.
- **Support unauthenticated access to remote RDSH applications:** You can connect published applications using an unauthenticated access account with Horizon Client.
- **Hide security information for enhanced security:** Horizon 7 version 7.1 administrator can configure global settings to hide security information in Horizon Client for Linux, including server URL information and the Domain drop-down menu. To authenticate, when the **Domain** drop-down menu is hidden in Horizon Client, you must provide domain information by entering your user name in the format **domain\username** or **username@domain** in the **User name** text box.
- **Support restart of a remote desktop:** You can restart a remote desktop from the Horizon Client for Linux. Restarting a remote desktop is equivalent to the Windows operating system restart command.
- **USB redirection support for remote applications:** Locally attached USB devices can be connected to remote applications.
- **OpenSSL 1.0.2 K support:** The OpenSSL Library is updated to version openssl-1.0.2k.
- **VMware Access Point renamed to VMware Unified Access Gateway:** With version 2.9, VMware Access Point is renamed to VMware Unified Access Gateway. This change is not reflecting in Horizon 7 version 7.1, and Horizon Client 4.4 documentation sets.

For new ini parameters for VMware BEAT, see [INI parameters](#).

Auto screen lock

Auto screen lock allows you to lock the screen. The screen lock time out can be set through UI settings, and INI parameters. Alternatively, you can also use the keyboard shortcut—Ctrl+Alt+I or Windows key+I to activate the screen lock. To set the Screen lock from UI, click **System Settings > System > Power**.

NOTE: This auto screen lock feature is dependent on Turn off screen setting. If set to never, then the screen saver timeout is disabled.

For more information about the INI parameters, see [INI parameters](#)

Hide application icon

Admin can now hide application icons which should be invisible to non-admin users.

For more information about the INI parameters, see [INI parameters](#)

Firewall settings

Firewall settings allows you to configure firewall through **System Settings UI**, and INI parameters. For Firewall Setting UI, click **System Settings > Security > Firewall**.

Firewall configuration is managed using the `iptables` command-line utility, that uses policy chains to allow or block traffic. `iptables` provides a packet filtering framework for Linux, that allows you to filter network traffic that flows in and out of your server/workstation.

Example Script:

- `/usr/sbin/iptables -A OUTPUT -p icmp -j DROP`
- `/usr/sbin/iptables -A INPUT -p icmp -j ACCEPT`

The above mentioned script is used to Drop ICMP Output Connections and Accept ICMP Input Connections. For more information on using `iptables`, see <https://www.suse.com/communities/blog/basic-iptables-tutorial/>

For more information about the INI parameters, see [INI parameters](#)

Custom info settings

Custom info settings allows you to set custom info through UI, and INI parameters. While the admin user can view and modify the custom info, non-admin user can only view the custom info.

To set the Custom info from UI, click **System Settings > System > Custom Info**.

For more information about the INI parameters, see [INI parameters](#)

INI parameters

Table 70. INI parameters

INI Parameter	Value type	Description
ICAMultiStream={Yes/No}	Boolean —Yes/No Default: No	You can enable or disable ICA MultiStream.
NetworkMode= {poorconnect/ excellentconnect/ typicalconnect}	Text—poorconnect/excellentconnect/ typicalconnect Default:typicalconnect	Select Vmware Network Mode based on user Bandwidth according to BEAT functionality.
UnauthAccessEnabled={Yes/No}	Boolean—Yes/No Default: No	UnauthAccessEnabled enable/disable the UnAuthenticated access for Published Applications (Vmware).

INI Parameter	Value type	Description
UserDomainName={Yes/No}	Boolean —Yes/No Default: No	Vmware: UserDomainNameEnable/Disable function User Name with Domain, that is Domain/user.
VMWareView.SendCtrlAltDelToVM={Yes/No}	Boolean—Yes/No Default: No	Vmware: CTRL-ALT-DEL Key eventA global parameter to control the passing of CTRL-ALT-DEL key event to the VM.
Display.LockScreenTimeout={0/60/120/180/240/300/480/600/720/900}	Numbers— 0/60/120/180/240/300/480/600/720/900 Default: 0	Auto Lockscreen Timeout sets lockscreen timeout value (in seconds). A value of 0, means that auto lockscreen is disabled.
Custom.HideFirefox={Yes/No}	Boolean—Yes/No Default: No	Hide Firefox Browser IconHide/Show Firefox Browser Icon for user login.This setting does not have any effect on admin login.
Custom.HideSettings={Yes/No}	Boolean—Yes/No Default: No	Hide/Show Firefox Browser Icon for user login.This setting does not have any effect on admin login
Firewall.Enable={Yes/No} \ script=script_file_name	Boolean—Yes/No Default: No	Enable/Disable firewall and also set the firewall script. i NOTE: The firewall script file should be placed under firewall directory in the ini-server root directory.
CustomInfo={Yes/No} \location="..." \ \contact="..." \custom1="..." \custom2="..." \ \custom3="..."	Boolean—Yes/No Default: No	Sets the custom fields: Location, Contact, Custom1, Custom2, and Custom3
Desktop="" ForceDownload={Yes/No}	Boolean—Yes/No Default:No	Desktop Background ImageNew option for the Desktop INI parameter to enable force download of a specified image file.
TerminalName="..."	String	Set Terminal Name
IPV6.Disable={Yes/No}	Boolean—Yes/No Default: No	You can disable/enable IPv6.

Existing features

- New Enhanced UI
- User, Session, Login, and Administration
- System Settings App
- Connections and VDI(Citrix and RDP)
- Import/Export Configuration
- Citrix Desktop Appliance mode
- Management
- 802.1X and SCEP
- INI files and INI settings support
- Network and Wireless modules
- Add-ons Management

- Imaging solutions
- Display settings and Quad display
- Dual 4K support (3840X2160@30hz)
- Custom GNOME
- Firefox Web Browser
- System Information
- Factory Reset
- Security
- Logs and Tools
- Energy Star
- Language Support (ThinLinux default language will be set to **English-US**). You can change system language from **Language** page. Supported languages are:
 - English
 - France French
 - Spanish
 - German
 - Dutch
 - Japanese
 - Portuguese
 - Chinese—Simplified
 - Korean

RPMs list

Table 71. RPMs list

Optional Addons	
32bit_runtime-1.0.0-01.00.x86_64.rpm	lsb5-5.0-3.1.x86_64.rpm
at-3.1.14-7.3.x86_64.rpm	lsb5-core-5.0-3.1.x86_64.rpm
bc-1.06.95-6.56.x86_64.rpm	lsb5-desktop-5.0-3.1.x86_64.rpm
chrome_opt-1.0-0.20.x86_64.rpm	lsb5-imaging-5.0-3.1.x86_64.rpm
ed-1.9-3.63.x86_64.rpm	lsb5-languages-5.0-3.1.x86_64.rpm
ericom_powerterm-8.3.0-00.09.x86_64.rpm	m4-1.4.16-15.74.x86_64.rpm
glibc-i18ndata-2.22-49.16.noarch.rpm	mailx-12.5-28.1.x86_64.rpm
google-chrome-stable_current_x86_64.rpm	man-2.6.6-1.32.x86_64.rpm
groff-1.22.2-5.429.x86_64.rpm	merlin_nonpxe-3.4.5-00.02.x86_64.rpm
groff-full-1.22.2-5.429.x86_64.rpm	ncurses-devel-5.9-40.124.x86_64.rpm
gststreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm	netpbm-10.66.3-4.1.x86_64.rpm
gxditview-1.22.2-5.429.x86_64.rpm	oem_branding-1.0.0-00.06.x86_64.rpm

Optional Addons

hplip-3.14.6-3.14.x86_64.rpm	opensc-0.13.0-2.1.3.x86_64.rpm
hplip-hpijs-3.14.6-3.14.x86_64.rpm	perl-HTML-Tidy-1.56-1.48.x86_64.rpm
hplip-sane-3.14.6-3.14.x86_64.rpm	perl-Net-DBus-1.0.0-8.53.x86_64.rpm
ica_32bit-13.5.0.10185126-00.07.x86_64.rpm	perl-Tie-IxHash-1.23-3.19.noarch.rpm
kernel-default-extra-4.4.21-69.1.11864.0.PTF.1007653.x86_64.rpm	perl-X11-Protocol-0.56-12.19.x86_64.rpm
libcairo-script-interpreter2-1.15.2-20.2.x86_64.rpm	perl-XML-Twig-3.44-3.12.noarch.rpm
libieee1284-0.2.11-53.144.x86_64.rpm	perl-XML-XPath-1.13-99.19.x86_64.rpm
libjpeg62-62.1.0-30.1.x86_64.rpm	perl-XML-XPathEngine-0.14-3.16.noarch.rpm
liblcms1-1.19-17.31.x86_64.rpm	phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm
libmng1-1.0.10-113.5.x86_64.rpm	postfix-2.11.8-27.11.x86_64.rpm
libnetpbm11-10.66.3-4.1.x86_64.rpm	psutils-p17-1022.64.x86_64.rpm
libphonon4-4.7.1-2.34.x86_64.rpm	python-gobject2-2.28.6-24.80.x86_64.rpm
libpipeline1-1.2.6-1.20.x86_64.rpm	python-qt4-4.10.3-7.11.x86_64.rpm
libpng15-15-1.5.22-4.1.x86_64.rpm	python-sip-4.15.4-6.3.x86_64.rpm
libqt4-4.8.6-7.1.x86_64.rpm	sane-backends-1.0.24-1.237.x86_64.rpm
libqt4-sql-4.8.6-7.1.x86_64.rpm	sane-backends-autoconfig-1.0.24-1.237.x86_64.rpm
libqt4-sql-sqlite-4.8.6-7.1.x86_64.rpm	snmp-mibs-5.7.3-4.2.x86_64.rpm
libqt4-x11-4.8.6-7.1.x86_64.rpm	star-1.5final-69.1.x86_64.rpm
libQtWebKit4-4.8.6+2.3.3-3.1.x86_64.rpm	tack-5.9-40.124.x86_64.rpm
libreoffice_bundle-1.0.0-00.00.x86_64.rpm	time-1.7-5.13.x86_64.rpm
libreoffice_calc_express-1.0.0-00.00.x86_64.rpm	unzip-6.00-32.1.x86_64.rpm
libsensors4-3.4.0-4.5.x86_64.rpm	wget-1.14-10.3.x86_64.rpm
libsnmp30-5.7.3-4.2.x86_64.rpm	wyse_lang-1.0.0-00.08.x86_64.rpm
libtidyp-1_04-0-1.04-13.55.x86_64.rpm	xdg-utils-20140630-5.1.noarch.rpm
lsb-release-2.0-28.1.noarch.rpm	

Fixed issues

Following are the fixed issues in this release:

Table 72. Fixed issues

Issue no	Issue description
CIR89554	Wyse 3030LT thin client - Linux - CTRL-ALT-DEL not passing through to VM.
CIR90324	JSON - ThinLinux device Configuration - Certificate issues.
CIR89429	934684210 - Pro / Wyse 7020 (D50Q) / Dual Monitor is not showing correctly.
CIR89944	Ericom PowerTerm Interconnect Keyboard issue.
CIR89896	ThinLinux: Unable to connect to wireless network specified in WLX.INI file, connections only work when using local GUI.
CIR90120	Wyse 3030LT thin client : Citrix application does not launch in full screen.
CIR90792	Wyse 3030LT thin client : Domain name "SYNCHRONY" does not populate domain name in PAM login.
CIR89977	Wyse 3030LT thin client : There is no option to lock the device.
CIR89070	Enhancement CIR - 91348: ThinLinux - Need GUI and ini parameters to configure firewall.
CIR89389	Allow setting Location, Contact, Custom1, Custom2, and Custom3 WDM fields from local GUI, and INI Just as WTOS currently does.
CIR89970	Wyse 3030LT thin client : There is no option to lock the device.
CIR89971	Wyse 3030LT thin client : Setting applet need be moved from desktop or need option to hide.
CIR89973	Add a force download on every boot optional parameter to the Desktop=image INI parameter Thinlinux background does not update when image file is updated on the server side.
CIR89967	Wyse 3030LT thin client : Built in Firefox is available for the pagent users.
CIR90600	ThinLinux goes into reboot loop when importing configuration file.
CIR90127	Wyse 3030LT thin client : Citrix icons for published applications are not in proper color.
CIR90144	Strange English and Korea font in web page.
CIR91778	D50Q known middle mouse button issue is also affecting ThinLinux.
CIR89776	Ability to Configure (Turn on or Off) Support for IPV6 Via a Switch or Radio Button.
CIR91709	5020 Linux X11VNC Service not starting.
CIR91576	Cannot print to Windows Shared Network Printers.
CIR89279	Z50Q: Unable to set socket-recv-timeout for RDP-connection in ConnectionManager.

Issue no	Issue description
LS-103	The add-on is listed twice in the remove addon list.
LS-109	If IPV6 configured with INI, Network UI does not reflect with changes.
LS-121	Maximized Resolution does not work if Browser Connection is created with INI.
LS-125	System setting not updated when switch to admin mode through the Keyboard shortcuts.

Known issues

Table 73. Known issues

Summary	Work around
Export and Import configuration using Http and https is not working from system setting UI.	You can configure FTP protocol to use this function.
Unable to perform firmware upgrade through WCM, its creating wrong thin-linux.info .	NA
WMS: Force base system update in the client is by default setting to off in the Update settings even after making ON using WMS App Policy.	NA
Sporadically smart card is not getting detected while launching the VMWare session	Disconnect the smart card and connect it to the different version of USB ports, that is if disconnected from 3.0, then connect to 2.0 ports.
Citrix 13.5–Certification: HDX Multimonitor Task Bar not visible—Grey Band appears.	NA
Unable to set custom info parameter from the WMS server.	NA
Unable to image with merlinUpdate.URL through anonymous user showing as access denied in the cached_update.log file.	NA
Under system settings, all the Menu names may convert to invalid names and are displayed inside braces when we uninstall and install add-ons.	NA
Wireless: Wireless connection is not creating through INI parameters for the security type WEP - 64 bit and 128 bit.	NA
When unplug network cable, the RDP session is getting disconnected after 1 minute even if we specify as 120 seconds in Socket Recv Timeout.	NA
ThinLinux: Unable to connect citrix server when we set browser protocol as Use Default in ThinLinux.	NA
In BIOS, Power Loss Recovery to Last State is not working when we do a hard power off using power button.	NA

Summary	Work around
Citrix Connection is launching in only one display when two displays connected after selecting Full screen resolution with Expand to all monitors option.	NA
The INI Parameters <code>FileServerUsername=xyz</code> is not disabling the Use Anonymous option in INI Settings.	NA
VMware Multi-Media redirection is not working.	NA
Unable to launch citrix connection through browser using PIV smart card.	NA
Wyse 3030LT thin client-VMware Blast—unable to minimize the session from desktop viewer when we play media redirection files in full screen.	Use Ctrl+Alt+Down arrow key to minimize the session
On Wyse 3030 LT thin client platform, the thin client do not respond while upgrading or downgrading the merlin image with BIOS v1.0C or 1.0E.	NA

Tested peripherals

Table 74. USB storage devices

Device	Make
USB Flash Drive	<ul style="list-style-type: none"> • Sandisk Ultra USB 3.0–64 GB • Transcend USB 2.0–8 GB • Sony USB 2.0–32 GB
USB DVD-RW	Dell CD/DVD DW316
External Portable Hard Disk	Toshiba 3.0–500 GB

Table 75. Printer devices

Device	Make
LaserJet	Dell B5465dnf
LaserJet	Dell B5460dn
Laserjet	HP LaserJet pro MFP M435nw

Table 76. Web Cameras

Model	Type
Logitech	HD Webcam C525
Logitech	HD Pro C920
MS Life cam	HD3000

Table 77. Smart Cards

Smart Cards
Gemalto .Net V2+
Yubikey (PIV)

Table 78. Keyboards

Model	Type
USB — Dell KB216P	Dell Keyboard
USB — Dell KB212-B	Dell Keyboard
Wireless — Logitech MK710	Wireless Keyboard

Table 79. Mouse

Model	Type
USB—MS111-P	Dell Mouse
USB—MS116	Dell Mouse
Wireless—Logitech M705	Wireless Mouse

Table 80. Monitors

Model	Type
Dell 19" 1905FP	Dell Monitor
Dell 19" P1913S	Dell Monitor
Dell UZ2315Hf,	Dell Monitor
Dell U2414H	Dell Monitor
Dell P2210	Dell Monitor
Dell UZ2215H	Dell Monitor
Dell P2214H	Dell Monitor
Dell 22" S2240T	Dell Monitor
Dell 20" E2016H	Dell Monitor
Dell 22" E2216H	Dell Monitor
Dell 23" E2316H	Dell Monitor
Dell 24" UltraHD P2415Q	Dell 4K Monitor
Dell 27" UltraHD P2715Q	Dell 4K Monitor

Table 81. USB Headsets

Model
Dell Professional Stereo Headset UC550 (Lync certified)
Plantronics calisto 830
Plantronics Blackwire C720
Plantronics Calisto USB speaker phone
Jabra Speak 410 USB
Jabra handset cisco 450
Jabra BIZ 2400 Mono USB
Logitech H340
Plantronics Black Wire C520
Black wire DA45

Table 82. Wireless AP

Device	Make
DELL IAP-25	DELL

Table 83. 802.1x

Device	Make
Switch 3750	Cisco

Test environment

Table 84. Citrix 13.5

Citrix 13.5		
XenApp6.5	XenApp7.13	XenDesktop 7.13
Windows2008 R2 64-bit	Windows2012 R2 64-bit	Windows2012 R2 64-bit
Servers/Desktops		
NA	Windows7 Enterprise 32-bit	Windows7 Enterprise 32-bit
NA	Windows 8.1 Enterprise 32-bit	Windows 8.1 Enterprise 32-bit

Table 85. VMware Horizon View 7.1

VMware Horizon View 7.1	
Connection Server	Windows2012 R2 64-bit
Desktop	Windows7 Enterprise 32-bit
Desktop	Windows 8.1 Enterprise 32-bit
Desktop	Ubuntu 32/64 bit desktop
RDS Server	Windows2008 R2 64-bit/Windows 2012
Desktop	Windows 10

Table 86. RDP 8.1

RDP 8.1	
RDP RAIL Server	Windows2012 R2
RDP TS Gateway Server	Windows2012 R2
Desktop	Windows7 Enterprise 64-bit
Desktop	Windows 8.1 Enterprise 64-bit

Driver details

Table 87. Driver details

Drivers Files	Version
Display Adapter	VGA compatible Controller Radeon HD 8330E
Ethernet Adapter	RealTek RTL-8168 Gigabit Ethernet driver
Audio	HDA-Intel – HDA ATI SB (ALSA Driver)

ThinLinux v1.0.3.1

Release scope

This release supports the Korean and Simplified Chinese languages in addition to existing features and languages available on ThinLinux 1.0.3.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported Platforms

Table 88. Supported Platforms

Hardware	Memory Configuration (Flash/RAM)	BIOS
Wyse 3030 LT thin client with ThinLinux	4 GB/2 GB	1.0C
Wyse 5020 thin client with ThinLinux (D50Q)	8 GB/2 GB	1.0L
Wyse 5060 thin client	8 GB/4 GB	1.0A
Wyse 7020 thin client with ThinLinux(Z50Q)	8 GB/2 GB	1.0L

New features

- Citrix receiver 13.4.2
Added support for NetScaler: User can add the NetScaler address in the Citrix server field while creating Citrix storefront connection and seamlessly access storefront servers.
- Korean and Simplified Chinese are the new languages supported in this release.

Existing features

The following are the existing features of ThinLinux:

- BIOS and BIOS utility
- New enhanced UI
- User, Session, Login, and Administration
- System settings application
- Connections and VDI(Citrix, VMware, and RDP)
- Import/Export configuration

- Citrix desktop appliance mode
- Management
- 802.1X and SCEP
- INI files and INI settings support
- Network and wireless modules
- Add-ons management
- Imaging solutions
- Display settings and Quad display
- Custom GNOME
- Firefox web browser
- System information
- OEM branding
- Factory reset
- Security
- Logs and tools
- Energy star
- Language support

The default language is set to English-US. You can change system language from the Language page. The following are the supported languages in ThinLinux 1.0.31:

- English
- France-French
- Spanish
- German
- Dutch
- Japanese
- Portuguese
- Chinese (Simplified)
- Korean

INI parameters

The following are the newly added INI parameters:

Korean language input:

```
Keyboard.layouts=ko
```

```
System.Language=ko_KR
```

Chinese language input:

```
Keyboard.Layout=cn
```

```
System.Language=zh_CN
```

Image Details

Table 89. Image Details

File(s) Name	Build (Version)	Size in bytes
image-upgrade-1.0.3.1-Wyse.zip	1.0.3.1 (4.4.21-69.1.11864.0.PTF.1007653-default)	676,905,508
all-addons-1.0.3.1-Wyse.zip		733,202,030
1.0.3.1.zip (RSP Package)		676,625,880

Fixed issues

None

Known issues

The following is the known issues in this release:

Table 90. Known issues

Sl. No.	Summary	Workaround
1	CCM: Chinese keyboard layout option unavailable.	Use GUI or INI parameter.
2	PAM Login: Unable to set Chinese/Korean keyboard layout as default.	<ul style="list-style-type: none">Remove all other keyboard layouts.Select Korean or Chinese manually after every reboot/logout.
3	On switching to admin mode, modified keyboard layout (Chinese/Korean) does not take effect in authentication pop-up window.	Remove all other keyboard layouts except for Chinese or Korean to ensure it's the default layout.
4	After manually changing keyboard layout, the modified layout does not take effect until system reboot or logout.	Remove all other keyboard layouts except for Chinese or Korean to ensure it's the default layout.
5	PAM login does not work with Netscaler.	Not available.
6	Desktop appliance: Korean/Chinese keyboard layout is not redirecting in appliance mode.	<ul style="list-style-type: none">Remove all other Keyboard Layouts.Select Korean or Chinese manually after every reboot/logout.

RPMs list

Table 91. RPMs list

Optional add-ons	Description
32bit_runtime-1.0.0-01.00.x86_64.rpm	Contains set of 32 bit dependency packages.
ericom_powerterm-8.3.0-00.09.x86_64.rpm	Ericom PowerTerm add-on
gststreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm	Gstreamer plugin add-ons
hplip-3.14.6-3.14.x86_64.rpm	HP Printer add-ons
hplip-hpijs-3.14.6-3.14.x86_64.rpm	

Optional add-ons	Description
hplip-sane-3.14.6-3.14.x86_64.rpm	
ica_32bit-13.4.0.10109380-00.29.x86_64.rpm	Citrix 32 bit add-on
kernel-default-extra-4.4.21-69.1.11864.0.PTF.1007653.x86_64.rpm	OS Kernel
libieee1284-0.2.11-53.144.x86_64.rpm	Development files for libieee1284
liblcms1-1.19-17.31.x86_64.rpm	Libraries for the Little CMS Engine
libmng1-1.0.10-113.5.x86_64.rpm	Library for Support of MNG and JNG Formats
libphonon4-4.7.1-2.34.x86_64.rpm	Phonon library package
libqt4-4.8.6-71.x86_64.rpm	QT dependency packages
libqt4-sql-4.8.6-71.x86_64.rpm	
libqt4-sql-sqlite-4.8.6-71.x86_64.rpm	
libqt4-x11-4.8.6-71.x86_64.rpm	
libQtWebKit4-4.8.6+2.3.3-3.1.x86_64.rpm	
libsensors4-3.4.0-4.5.x86_64.rpm	Libraries needed for lm_sensors
libsnmp30-5.7.3-4.2.x86_64.rpm	Libraries for Network management (SNMP)
merlin_nonpxe-3.4.2-00.02.x86_64.rpm	Merlin Non-PXE add-on
oem_branding-1.0.0-00.06.x86_64.rpm	OEM branding add-on
opensc-0.13.0-2.1.3.x86_64.rpm	Open SC add-on to support smart card login
phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm	It provides a Phonon backend which utilizes GStreamer media framework.
python-gobject2-2.28.6-24.80.x86_64.rpm	Python binding add-ons
python-qt4-4.10.3-7.11.x86_64.rpm	
python-sip-4.15.4-6.3.x86_64.rpm	
sane-backends-1.0.24-1.237.x86_64.rpm	Scanner access software
sane-backends-autoconfig-1.0.24-1.237.x86_64.rpm	SANE development toolkit
snmp-mibs-5.7.3-4.2.x86_64.rpm	MIB files for net-snmp
unzip-6.00-32.1.x86_64.rpm	Unzip package to unzip OEM packages
wyse_lang-1.0.0-00.05.x86_64.rpm	Languages packages.

ThinLinux v1.0.3

Release type and definition

ThinLinux 1.0.3 build adds AMD Steppe Eagle chipset support. It supports all the features and languages available in ThinLinux 1.0, and also supports Dutch and Portuguese languages. This release also supports 4K monitor on Dell Wyse 5060 thin client, updated VMware Horizon view 4.1, and the Citrix receiver 13.4.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

New features

The following are the new features in this release:

- VMware Horizon View client version is updated to 4.1.
- Dutch and Portuguese are the new languages which are supported in this release.
- The Citrix Receiver version is updated to 13.4.
- Citrix RTME 64-bit is supported.
- New hardware platform support: Wyse 5060 thin client

The following are the hardware configurations:

- AMD Quad-Core Dual-Display with 4 GB RAM and 8 GB Flash with/without wireless
- TPM is not supported.
- Base Linux distribution: SLES 12 SP2

Base Linux version update

The Linux base system is based on SLES 12 SP2. The kernel version is 4.4.x with GLIBC 2.4. The system base UI from GNOME Shell is also upgraded to 3.20 where some of the UI elements may have small variant changes but the base functions and UI navigation remain the same.

The following are the limitations of this update:

- Since the kernel is a leap from previous 3.12 to 4.4, the Dell Wyse add-ons from previous releases are not recommended to be used in this 1.0.3 release.
- Although the Dell Wyse add-ons can be installed on the 1.0.3 release, some compatibility issues may occur.

VMware View Client update

VMware Horizon View Client version is updated to 4.1 with the following new features:

- Support for Windows Media MMR – This feature is limited by local device decoder format support. Currently ThinLinux supports H.264, WMV up to WMV9 for video and AAC, WMA, and WAVE audio format H.264 support for Intel-based Linux devices.
- GUI for USB redirection
- Clipboard size is configurable up to a maximum of 16 MB.
- OpenSSL 1.0.2h is supported.
- TLSv1.0 is enabled by default. Enabling TLSv1.0 ensures that by default Horizon Client can connect to the VMware Horizon Air servers. You do not need to upgrade to Horizon Client 4.0.1 unless you use Horizon Client to connect to Horizon Air cloud-hosted desktops and applications.

NOTE: Configuration file property (`view.sslProtocolString`) and command-line option (`--sslProtocolString`) settings can override the default setting.

- VMware Blast Extreme is introduced since 4.0. End users can select the VMware Blast display protocol when they connect to a remote desktop or application in Horizon Client, and you can configure decoding and network protocol options for the VMware Blast sessions. Administrators can create vmware-view URIs to launch a remote desktop or application with the VMware Blast display protocol. This feature requires Horizon Agent 7.0.
- Client drive redirection feature enhancements: You can now share USB storage devices with remote desktops and applications.
- If use more than two monitors, the monitors are no longer required to have the same resolution and mode (portrait or landscape).
- The OpenSSL library is updated to version openssl-1.0.2f.

To support the new features, there were some adjustments and new INI parameters are added for VMware Horizon Client 4.1.

Table 92. INI parameters

INI Keyword	Value Type	Possible Values	Description
<i>UsbAutoConnectOnInsert</i>	Boolean	{ yes , no}	Specifies whether the USB should be automatically connected in Session on inserting the USB. Default value is yes.
<i>UsbAutoConnectAtStartup</i>	Boolean	{ yes , no}	Specifies whether the USB should be automatically connected in Session on Session Startup. Default value is yes.
<i>EnableUDP</i>	Boolean	{ yes , no}	Specifies whether the UDP networking should be enabled in the session. Default value is yes.
<i>EnableH264</i>	Boolean	{ yes , no}	Specifies whether the H.264 decoding should be enabled in the session. Default value is yes.

Changes to VMware Horizon View Client 4.1 connection Graphical user interface (GUI)

The following screenshots display the changes in GUI:

- Login tab:

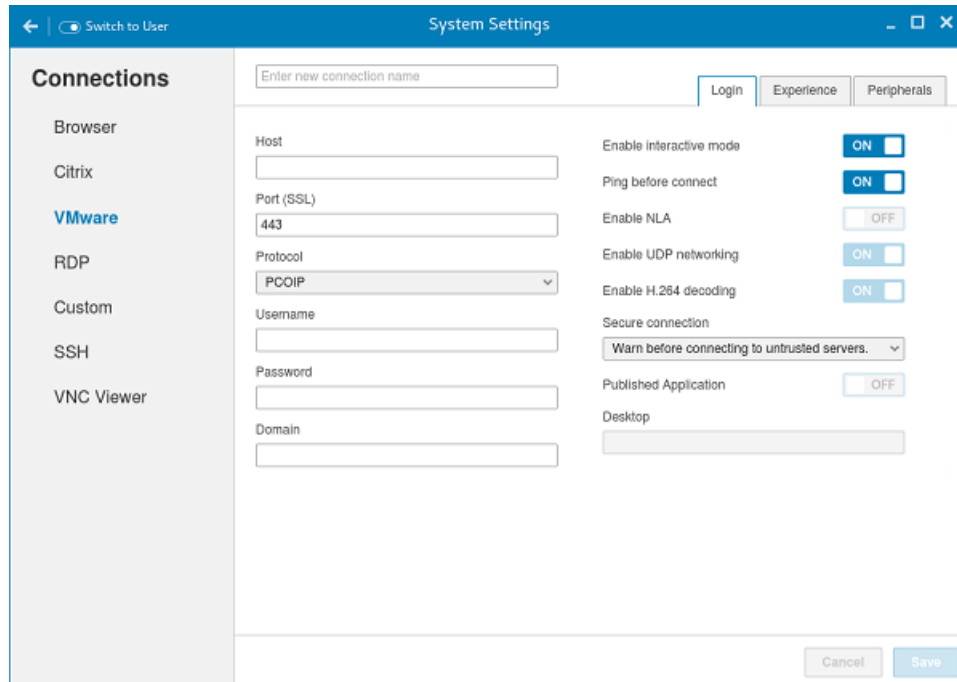


Figure 3. Login tab

- Experience tab:

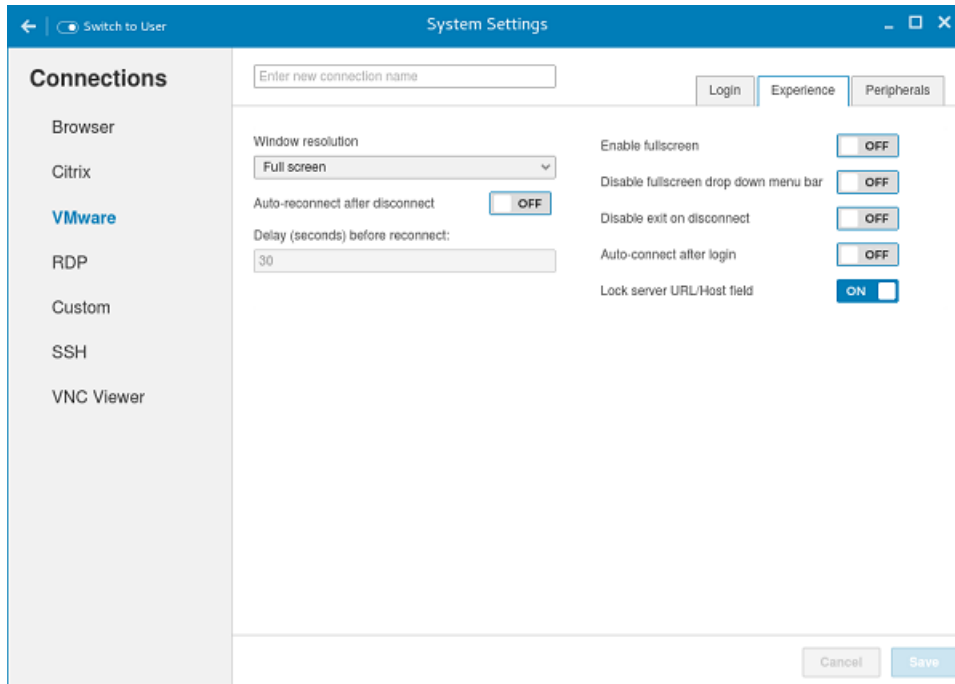


Figure 4. Experience tab

- Peripherals tab:

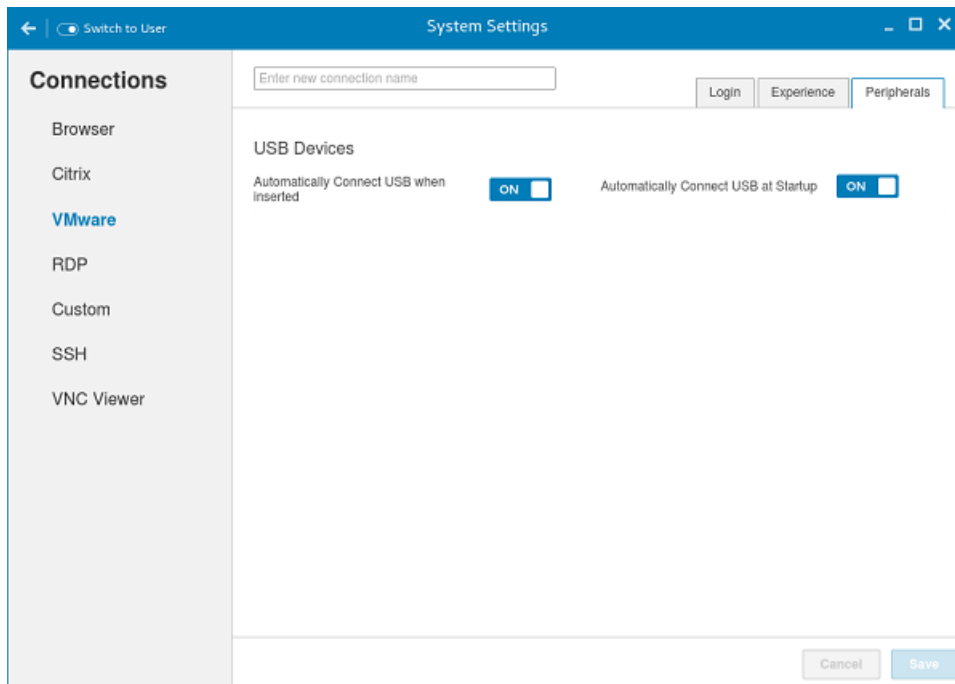


Figure 5. Peripherals tab

Citrix ICA Client 64-bit RTME (Real Time Media Engine)

This section describes the updates to ICA Client RTME version 2.1.

Citrix supports 64-bit Linux operating systems from HDX RTME 2.1. Hence, do not install any optional 32-bit add-ons, as it is now included in the base image and is enabled by default.

RTME 2.1 Compatibilities and Limitation

Improved audio and video quality:

- **Support for H.264 Scalable Video Coding (SVC)**— SVC handles the transmission of video over varied network and device environments. The sending system includes different levels for the information transmitted such as frames per second, image size, and quality granularity. The receiving devices can choose what to take from the transmission, and optimize the experience on those devices.
- **SILK audio codec**— Delivers higher audio quality across a wide range of network environments, including the public internet and mobile networks.
- **Improved audio and video quality over lossy connections**— By enabling Forward Error Correction (FEC), higher quality content is obtained over lossy connections.
- **Support for 64-bit architecture**— Linux 64-bit operating systems are now supported for the Real Time Media Engine.

Endpoint identification for location services:

- **Enhanced 9-1-1 (E9-1-1) and E999, E100, and so on**— An international emergency dispatch feature that associates a 911 (or an international emergency) call with specific location information is included. This information includes street address and the floor number for office buildings. Responders are directed to the correct emergency location. For more information, see [Technet.microsoft.com/en-us/library/dn951423.aspx](https://technet.microsoft.com/en-us/library/dn951423.aspx)

Support for Quality of Experience (QoE) reporting— Use Quality of Experience data to keep a record of the quality of your users' audio and video calls, including:

- Number of network packets lost
- Background noise
- Amount of jitter (differences in packet delay)
- Names of devices used for a call
- ICE Warning flags
- Endpoint statistics

Skype for Business— Skype for Business users can communicate with Skype user.

Flexible upgrades— Simplified backward compatibility is provided to upgrade from version 2.0.x.

Fallback mode control— You can disable fallback mode or limit fallback control to server-side media processing for audio only (no video), which reduces CPU impact.

Administrator control of system notification balloons— You can enable or disable the system notification balloons the Optimization Pack displays.

The Real-Time Optimization Pack About page: —The Real-Time Optimization Pack About page now displays the following information:

- Status of Real-Time Optimization Pack
- Skype for Business version number
- Operating systems on which the Real-Time Connector and Real-Time Media Engine are running

NOTE: In fallback mode, the version and operating system fields for Real Time Connector and Real Time Media Engine display the same values because the Real Time Optimization Pack uses the Real Time Media Engine within the Real Time Connector.

Localization— Real-Time Media Engine installers for Linux 64-bit OS are localized and available in German, French, Spanish, Japanese, Dutch, and Portuguese.

General features

The following are the general features (existing features) of ThinLinux:

- BIOS and BIOS Utility
- New Enhanced UI
- User, Session, Login, and Administration
- System Settings App
- Connections and VDI(Citrix, VMware, and RDP)
- Import/Export Configuration
- Citrix Desktop Appliance mode
- Management software (CCM / WDM / WCM)
- 802.1X and SCEP
- INI Files and INI settings support.
- Network and Wireless modules
- Add-ons Management
- Imaging solutions
- Display Settings and Quad Display
- Custom GNOME
- Firefox Web Browser
- System Information
- Factory Reset
- Security
- Language support
- Logs and Tools
- Energy Star

INI parameters

For detailed information on all the INI parameters, see *Dell Wyse ThinLinux INI Guide* .

RPMs list

Table 93. RPMs list

Optional add-ons	Description
32bit_runtime-1.0.0-01.00.x86_64.rpm	Contains set of 32-bit dependency packages.
ericom_powerterm-8.3.0-00.09.x86_64.rpm	Ericom PowerTerm add-on
gstreamer-plugin-gstclutter-2.0.18-1.5.x86_64.rpm	Gstreamer plugin add-ons
hplip-3.14.6-3.14.x86_64.rpm	HP Printer add-ons
hplip-hpijs-3.14.6-3.14.x86_64.rpm	

Optional add-ons	Description
hplip-sane-3.14.6-3.14.x86_64.rpm	
ica_32bit-13.4.0.10109380-00.29.x86_64.rpm	Citrix 32 bit add-on
kernel-default-extra-4.4.21-69.1.11864.0.PTF.1007653.x86_64.rpm	OS Kernel
libieee1284-0.2.11-53.144.x86_64.rpm	Development files for libieee1284
liblcms1-1.19-17.31.x86_64.rpm	Libraries for the Little CMS Engine
libmng1-1.0.10-113.5.x86_64.rpm	Library for Support of MNG and JNG Formats
libphonon4-4.7.1-2.34.x86_64.rpm	Phonon library package
libqt4-4.8.6-7.1.x86_64.rpm	QT dependency packages
libqt4-sql-4.8.6-7.1.x86_64.rpm	
libqt4-sql-sqlite-4.8.6-7.1.x86_64.rpm	
libqt4-x11-4.8.6-7.1.x86_64.rpm	
libQtWebKit4-4.8.6+2.3.3-3.1.x86_64.rpm	
libsensors4-3.4.0-4.5.x86_64.rpm	Libraries needed for lm_sensors
libsnmp30-5.7.3-4.2.x86_64.rpm	Libraries for Network management (SNMP)
merlin_nonpxe-3.4.2-00.02.x86_64.rpm	Merlin Non-PXE add-on
oem_branding-1.0.0-00.06.x86_64.rpm	OEM branding add-on
opensc-0.13.0-2.1.3.x86_64.rpm	Open SC add-on to support smart card login
phonon-backend-gstreamer-4.7.2~git20140418-3.4.x86_64.rpm	It provides a Phonon backend which utilizes GStreamer media framework.
python-gobject2-2.28.6-24.80.x86_64.rpm	Python binding add-ons
python-qt4-4.10.3-7.11.x86_64.rpm	
python-sip-4.15.4-6.3.x86_64.rpm	
sane-backends-1.0.24-1.237.x86_64.rpm	Scanner access software
sane-backends-autoconfig-1.0.24-1.237.x86_64.rpm	SANE development toolkit
snmp-mibs-5.7.3-4.2.x86_64.rpm	MIB files for net-snmp
unzip-6.00-32.1.x86_64.rpm	Unzip package to unzip OEM packages
wyse_lang-1.0.0-00.05.x86_64.rpm	Languages packages.

Support information

Supported platforms

Table 94. Supported platforms

Hardware	Memory Configuration (Flash/RAM)	BIOS
Wyse 3030 LT Thin Client	4 GB / 2 GB	1.0C
Wyse 5020 thin client (D50Q)	8 GB / 2 GB	1.0L
Wyse 5060 thin client	8 GB / 4 GB	1.0A
Wyse 7020 thin client (Z50Q)	8 GB / 2 GB	1.0L

Part number information

Table 95. Part numbers

Hardware	Number	Description
Wyse 3030 LT thin client	31H82	SWB,OS,THINLINUX,B1.0.3,3030LT
Wyse 5020 thin client (D50Q) / Wyse 7020 thin client (Z50Q)	0VFDV	SWB,OS,TLNX,B1.0.3,5020/7020
Wyse 5060 thin client	821D7	SWB, OS, THINLINUX, B1.0.3, ENG

Build details

Table 96. Build details

Platform	Version	Build number	Build file name	Size(Bytes)	Localization
Wyse 3030 LT thin client	4.4.21-69.1.11864.0.PTF.1007653-default	1.0.3	1.0.3_3030LT_merlin.exe	772674950	US
Wyse 5020 thin client (D50Q)/ Wyse 7020 thin client (Z50Q)	4.4.21-69.1.11864.0.PTF.1007653-default	1.0.3	1.0.3_Z50Q_D50Q_merlin.exe	774048933	US
Wyse 5060 thin client	4.4.21-69.1.11864.0.PTF.1007653-default	1.0.3	1.0.3_5060_merlin.exe	774120066	US

BIOS details

Table 97. BIOS details

Platforms	Version	File Name	Size(Bytes)
Wyse 3030 LT thin client	1.0C	10C.ZIP	3935575
Wyse 5020 thin client (D50Q)/ Wyse 7020 thin client (Z50Q)	1.0L	10L.ZIP	3295808
Wyse 5060 thin client	1.0A	10A.ZIP	6440652

Image details

Table 98. Image details

File(s) Name	Build (Version)	Size in bytes
image-upgrade-1.0.3-Wyse.zip	1.0.3 (4.4.21-69.1.11864.0.PTF.1007653- default)	683,858,463
all-addons-1.0.3-Wyse.zip	1.0.3 (4.4.21-69.1.11864.0.PTF.1007653- default)	272,253,344
1.0.3.zip (RSP Package)	1.0.3 (4.4.21-69.1.11864.0.PTF.1007653- default)	683,577,086

AES Password Encryption tool

When using the INI parameters, by default all passwords are base-64 encryption is enabled for all connections and global settings. If you want to use AES encryption, they must generate an AES encrypted password by using the **WyselNIkeyCrypt.exe** tool.

ThinLinux supports two password encryption methods for all the password INI parameters for all connections and global settings.

The following section contains more information on password encryption:

Base64 Encryption Passwords

- By default all passwords in INI file should be base64 encrypted.
- To generate base-64 encrypted password, do the following:
 - a Login to the thin client.
 - b Open the xterm.
 - c Type `regencode` followed by password in plain text.

For example:

```
thinuser@LWT:~>regencode password  
cGFzc3dvcmQ=
```

Encrypted output for password is `cGFzc3dvcmQ=`.

- You can also use the **WyselNIKeyCrypt** tool to generate encrypted passwords.

AES Encryption Passwords

- For AES Encryption support, add **PasswordEncryptionCode=2** ini parameter in INI file.
- Use the following procedure for creating AES Encrypted password:
 - a Copy the **WyselNIKeyCrypt.exe** on any windows machine.
 - b Double click the .exe file.
 - c Enter the plain text password in **Password to encode** edit Box.
 - d Click the **Encrypt** button to get the AES encrypted password.
 - e Click the **Base64** button to get base-64 encrypted password.
 - f Copy the encrypted password and place it in the ini file where password field is mapped.

NOTE: Non-English characters are not supported for AES encryption password.

Tested peripherals

This section provides the details of all the tested devices and Servers.

USB storage devices

Table 99. USB storage devices

Device	Make/Model
USB Flash Drive – 8GB/16GB	SanDisk
USB DVD-RW	Iomega, LG GP50NB40
External Portable Hard Disk	Toshiba, WD

Printers

Table 100. Printers

Device	Make
Color Printer	Dell C1660w
Multi-function Color Printer	Dell B1165nfw/B2375dfw
Mono Printer	Dell B2360D

Monitors

Table 101. Monitors

Model
Dell 19" E1916H
Dell 20" E2016H
Dell 22" E2216H
Dell 23" E2316H
Dell 24" E2416H
Dell 27" E2715H
Dell 24" U2414H
Dell 19" 1907FP
Dell 17" E177FP
Dell 22" P2210
Dell 19" P1913S
Dell 19" 1905FP
Dell 30" U3011
Dell 24" U2412M
Dell 24" P2415Q*
Dell 27" P2715Q*

*Monitor models are used for 4K testing.

Monitors supported for GFX (Quad Display)

Table 102. Monitors supported for GFX (Quad Display)

Model
Dell 23" UZ2315H
Dell 29" U2913WM
Dell 30" U3014

Keyboards

Table 103. Keyboards

Model
Dell KB813 with Integrated Smart card reader
Dell KB216
WYSE KU8933
Dell KB212-B
Dell KG-1089
Dell KB522 Business Multimedia Keyboard
Logitech K120

Mouse

Table 104. Mouse

Model
Dell MS111-P
Dell MS116 -P
Dell MG-1090
Wyse Mouse MO42UOA
Logitech M525-C - Wireless Mouse
Logitech M100

Web Cameras

Table 105. Web Cameras

Model
Logitech Pro 9000
Logitech HD Pro C920
MS Life cam HD3000

Smart cards and readers

Table 106. Smart cards and readers

Device	Category
Gemalto PC Twin USB Reader	Smart Card Reader
Gemalto .Net V2+	Smart Card
Yubikey	Smart Card
CAC Card	Smart Card

USB headsets

Table 107. USB headsets

Device
Dell Professional Stereo Headset UC300 (Lync certified)
Plantronics P620S
Plantronics Calisto 830
Plantronics Blackwire C720
Plantronics Blackwire C620
Plantronics Blackwire C610
Plantronics Blackwire C420
Plantronics Blackwire C310 Mono
Plantronics Blackwire C220
Plantronics WO300 Savi Office
Plantronics Savi 720 Wireless
Plantronics Calisto USB speaker phone
Microsoft LX-3000
Jabra UC Voice 250
Jabra Speak 410 USB
Jabra handset cisco 450

Device
Jabra BIZ 2400 Mono USB
Logitech H340
Voyager Legend UC B235 NA
Plantronics Black Wire C520
Black wire DA45

Driver details

Table 108. Driver details

Drivers Files	Version
Display Adapter	VGA compatible Controller Radeon HD 8330E
Ethernet Adapter	RealTek RTL-8168 Gigabit Ethernet driver
Audio	HDA-Intel – HDA ATI SB (ALSA Driver)

Testing environment

Table 109. Testing environment

Component	Version
WDM	WDM 5.7.1
CCM	R13.1
Storefront	3.5

Table 110. Testing environment

VDI Version	WIN 7	WIN 8.1	WIN 10	Linux	WIN 2K8R2	WIN 2K12R2	Apps
VMware Horizon 7.0	Yes	Yes	Yes	Yes	No	Yes	Yes
XA 6.5	No	No	No	No	Yes	No	Yes
XD/XA 7.6/7.9	Yes	Yes	No	No	No	Yes	Yes
MS RDP	Yes	Yes	Yes	No	Yes	Yes	Yes

NOTE:

- **Yes** implies the feature is applicable.
- **No** implies the feature is not applicable.

Table 111. Testing environment

XD/XA	OS	RTME	Lync Server
7.6/7.9	WIN 7	2.1	2015
	WIN 8.1	2.1	2015

Known issues

Table 112. Known issues

SI no	Summary	Workaround
1	RDP video does not display while playing the supported formats.	A fix will be provided in the next build.
2	VMware: When we launch desktop session using PCoIP protocol, mouse pointer is not redirected in to session until first click.	Perform a mouse click inside session once.
3	Wyse 5060 thin client: Sys get boot-order command is not working.	No workaround
4	VMware: With RDP protocol, windows session is not getting adjusted properly when we re-size the session (black patch is seen).	No workaround
5	RDP: Right Arrow Option key is not working.	No workaround
6	When Secondary monitor is set as primary monitor in the Dual monitor mode, RDP connection is launching in the Secondary monitor in default window resolution.	No workaround
7	VMware: When we try to launch Win7 desktop using RDP protocol and NLA enabled, desktop does not launch and we see "Could not read from server" error.	Disable the NLA option from Desktop
8	When we publish NTP Server details from CCM, NTP check box is not enabled in Settings > Date and Time and the NTP functionality does not work.	A fix will be provided in the next build.
9	<i>TerminalNam</i> ini parameter does not work.	Terminal name can be set through WDM server or manually
10	Dynamic mapping of USB storage device inside ICA session produces an extra drive	A fix will be provided in the next build.
11	Merlin: During image pull/push, device stops at Sending discover... stage.	The latest (next) WDM release or hotfix is required.
12	Wyse 3030 LT thin client does not get registered/checked in to CCM server using INI parameters.	Reboot the thin client one more time.

Resources and support

Accessing documents using the product search

- 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. For example, `Wyse 3040 thin client` or `Wyse ThinOS`.
A list of matching products is displayed.
- 3 Select your product and click the search icon or press Enter.
- 4 Click **Manuals & documents**.

Accessing documents using product selector

You can also access documents by selecting your product.

- 1 Go to www.dell.com/support.
- 2 Click **Browse all products**.
- 3 Click **Thin Clients**.
- 4 Click the desired category, either **Wyse Hardware** or **Wyse Software**.
- 5 Click the desired product.
- 6 Click **Manuals & documents**.

Additional resources

Table 113. Additional resources

Resource	Content
Dell support website— www.dell.com/manuals .	Administrator's Guide, INI Reference Guide, and Release Notes.
Citrix support website— docs.citrix.com .	Documentation for Citrix software.
VMware support website— docs.vmware.com .	Documentation for VMware software.
Microsoft support website— support.microsoft.com .	Documentation for Microsoft software.

Contacting Dell

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 for technical support or customer service issues, see www.dell.com/contactdell.

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