# Third-party add-ons for ThinLinux 2.2 and later versions

Deployment Guide



### Notes, cautions, and warnings

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

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

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

© 2020 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

### Contents

Chapter 1: Introduction	4
Other documents you may need	4
Chanter 2: Citrix add-on installation	5
Download the Ultrix packages	
Install the Citrix package using add-on manager	5
Install the Citrix package using INI parameters	
Install the Citrix package using Wyse Management Suite	
Chapter 3: VMware add-on installation	12
Download the VMware packages	
Convert the Bundle package to Debian package	
Install the VMware Horizon Client package using add-on manager	
Install the VMware package using INI parameters	
Install the VMware package using Wyse Management Suite	
Chapter 4: Contacting Dell	19

### Introduction

DISCLAIMER: The information contained in this document is general purpose information only. Dell assumes no responsibility for errors or omissions in the contents. In no event shall Dell be liable for any special, direct, indirect consequential, or incidental damage or any damage whatsoever. Dell reserves the right to make additions, deletions, or modification to the content at any time without prior notice.

This document contains links to external websites that are not provided or maintained by or in any way affiliated with Dell. We do not guarantee the accuracy, relevance, timeliness, or completeness of the information about these external websites.

This document helps users get early access to latest third-party applications. The packages (add-ons) created by users by following the instructions are not supported by Dell. Dell is not responsible or liable in any manner for any damage occurring due to the software. Dell will assist customers in installing third-party add-ons, and provide operating system support. Any other support or functionality inquiries may need to be shared with the third-party software vendor. Dell may not assist customers in updating or modifying the third-party add-ons.

Dell Wyse ThinLinux simplifies the user management model with application icons to enhance the user experience. The Graphical User Interface (GUI) framework integrates the VDI clients such as Citrix Workspace app and VMware Horizon Client.

The third-party add-on releases for Citrix Workspace app and VMware Horizon Client on ThinLinux 2.x will no longer be available on www.dell.com/support. You must download the packages directly from the third-party software vendor website and install the packages on your thin client.

This guide provides information about deploying a Citrix add-on for Citrix Workspace app and VMware add-on for VMware Horizon Client using any of the following methods:

- · If you have knowledge about how to use ThinLinux UI, use the add-on manager method.
- · If you have knowledge about how to use ThinLinux INI parameter, use the INI parameter method.
- If you want to deploy the add-on to multiple thin clients simultaneously, use the Wyse Management Suite version 1.2 or later.

The target audience for this guide is customers with administrator privileges. You must have knowledge about the ThinLinux operating system, Wyse Management Suite, usage of INI parameters, and Linux commands.

#### Table 1. Supported platforms

Platform	Memory configuration (Flash/RAM)	BIOS version
Wyse 5070 Celeron Thin Client	16 GB or 4 GB	1.3.1 and later
Wyse 5070 Pentium Thin Client	16 GB or 4 GB	1.3.1 and later
Wyse 5070 Extended Thin Client	16 GB or 4 GB	1.3.1 and later
Wyse 3040 Thin Client	16 GB or 2 GB	1.2.5 and later
Wyse 5470 Thin Client	16 GB or 4 GB	1.1.1 and later

### Other documents you may need

In addition to this guide, you can access the following guides available at www.dell.com/support/manuals.

- The Dell Wyse ThinLinux 2.2 Administrator's Guide provides information about how to configure the ThinLinux settings using the ThinLinux UI.
- The Dell Wyse ThinLinux 2.2 INI Reference Guide provides information about how to configure the ThinLinux settings using INI
  parameters.
- The *Dell Wyse Management Suite Administrator's Guide* provides information about configuration, and maintenance of the ThinLinux 2.2-based thin clients by using the Wyse Management Suite console.

### **Citrix add-on installation**

The overall Citrix add-on installation includes the following tasks:

- 1. Download the Citrix UI package, Citrix RTME package, and Citrix Workspace app for Linux Debian package. See, Download the Citrix packages.
- 2. Install the packages in the order Citrix UI package > Citrix Workspace app for Linux package > Citrix RTME package using any of the following methods:
  - · Install using Add-on Manager. See, Install and upgrade the Citrix package using add-on manager
  - Install using INI parameter. See, Install and upgrade the Citrix package using INI parameters
  - Install using Wyse Management Suite. See, Install and upgrade the Citrix package using Wyse Management Suite

### **Download the Citrix packages**

- Download the Debian version of Citrix Workspace app for Linux package (x86\_64) from www.citrix.com.
- Download the Citrix UI and the RTME packages as follows:
  - 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 Search.
  - 3. On the product support page, click Drivers & downloads.
  - 4. Select the operating system as **ThinLinux** from the drop-down menu.
  - 5. From the list, locate VDI Clients Add-on Package for ThinLinux 2.x.
  - 6. Click the download icon and extract the file.

The following are the Citrix packages available from the extracted file:

### Table 2. Citrix packages

Filename	Summary
ica-ui_2.2.1.0-16_amd64.deb (Citrix UI package)	Use this file as the Dell custom UI interface for Citrix ICA client on ThinLinux 2.x.
citrix-rtme_2.8.0-2235-02_amd64.deb(Citrix RTME package)	Use this file as the Dell custom Citrix RealTime Media Engine (RTME) plug-in on ThinLinux 2.x.

### Install the Citrix package using add-on manager

#### Steps

1. Go to System settings > INI and select Server and Local as the Configuration Source.

☆     Switch to User	System Settings	_ 🗆 ×
Management	Manage INI Configuration	
Active Directory	Enable INI Configuration	
Configuration	Configuration Source	
HAgent	Server and Local	
INI	INI Configuration downloads from server during every device boot. If the server is not available, local configuration is used.	
Logs and Tools	Specify server details manually.	
SCEP	Server URL ftp://100.106.19.32	
Wyse Device Agent	Root path	
	/wyse	
	INI file download path	
	ftp://100.106.19.32/wyse	
	Use anonymous ON	
	Ca	ncel Save

### Figure 1. System Settings

- 2. Copy package to the ftp server in wyse/addons/ directory and update the **directory** file with the add-on available in the add-on manager list.
- **3.** To remove the earlier version of Citrix add-on, do the following:
  - a. Go to System settings > Add-ons and click Manage Add-ons.
  - b. From the add-ons list, select the earlier versions of the Citrix ICA package and the Citrix RTME package.
  - c.~ Click the Remove button and restart the thin client.

☆     Switch to User	System Settings	_ 🗆 ×
System	Manage Add-ons	
Addons	chrome-opt-1.0.0-37	•
Custom Info	custom-conn-1.0.0-01.17	
Date and Time	custom-gnome-1.0.0-09	
Desktop Appliance	custom-info-01.00.00-06 date-time-1.01.0-030	- 1
Display	delayed-update-1.0.1-00.09	
Language	dell-wallpaper-theme-1.0.0-00.03 desktop-appliance-1.0.0-00.03	
Other Settings	desktop-wallpaper-1.0.0-04	
Power	device-settings-1.0.1-00.10	
Update Settings	<pre>diagnostics-2.03.0-12 ericom-powerterm-12.3.0.0.20171015.1-10 factory-reset-1.0.0-05.00 firefox-opt-1.0.0-55 firewall-1.0.0-06 hagent-5.4.55-00.14 ica-13.10.0.20-16</pre>	
	import-certs-1.0.0-16	Ţ
	Back Can	Remove

### Figure 2. System Settings

- **4.** To install the Citrix add-on, do the following:
  - a. Go to System settings > Add-ons and click Install Add-ons.
  - **b.** From the add-ons list, select the Citrix UI Debian package that you have downloaded.
  - c. Click **Install** and restart the thin client.

Ch │ ○ Switch to User	System Settings	_ 🗆 🗙
System	Manage Add-ons	
Addons		<b>^</b>
Custom Info		
Date and Time	Select the available add-ons from the list and install them to the system	
Desktop Appliance	import-certs+AF8-1.0.0-12+AF8-amd64.deb	
Display	firefox-esr+AF8-60.7.2esr+buildw-0ubuntu0.16.04.1+AF8-amd64.deb	
Language	yubikey-neo-manager_1.4.0-2_all.deb	
Other Settings	wyse-settings_1.02.0-85_amd64.deb	
Other Settings	SafenetAuthenticationClient-9.0.43-0, amd64.deb	
Power	wyse-settings_1.02.0-93_amd64.deb	
Update Settings	ica_13.10.0.20-16_amd64.deb	
	ica_19.12.0.19-01_amd64.deb	
	citrix-rtme_2.8.0-2235-01_amd64.deb	
	ica_19.12.0.19-02_amd64.deb	
	gui-vmware-viewclient_5.0.0-00.01_amd64.deb	
	✓ ica-ui_2.2.1.0-16_amd64.deb	
	SafenetAuthenticationClient-core-10.0.54-1_amd64.deb	-
	Back Cance	l

Figure 3. System Settings

5. To install the Citrix Workspace app package, open the terminal and run the following command:

sudo dpkg -i icaclient\_x.x.x.amd64.deb

- 6. Restart the thin client after the installation is successful.
- 7. To install the Citrix RTME add-on, do the following:
  - a. Go to System settings > Add-ons and click Install Add-ons.
  - b. From the add-ons list, select the Citrix RTME package that you have downloaded.
  - $\textbf{c.} \quad \text{Click Install} \text{ and restart the thin client}.$
- 8. Launch the Citrix UI from System Settings > Connections.

☆   ● Switch to User	System Settings	_ 🗆 ×
Connections	Manage Citrix Connections	
Browser		
Citrix	Create a new Citrix connection	
Custom	Manage Citrix global settings	
Ericom PowerTerm	Manage Citative DAM Logia	
RDP		
SSH	Citrix Connections	
VMware	No Citrix connections to list	
VNC Viewer		
	Citrix Versio	n 19.12.0.19

Figure 4. System Settings

9. Click Create a new Citrix connection, enter the required details, and click Save.

ີ່ເມ່│ . O Switch to User	System Settings	_ <b>□</b> ×
Connections	Enter new connection name	Login Experience
Browser Citrix Custom Ericom PowerTerm RDP SSH VMware VNC Viewer	Connection type Server  Browsing protocol  TCP/IP + HTTP server location  Citrix server  Smartcard login Username Password	Ping before connect OFF   Auto-Connect after login OFF   Auto-Reconnect after disconnect OFF   Application command line
	Domain	Back Cancel Save

### Figure 5. System Settings

10. Launch the Citrix session.

### Install the Citrix package using INI parameters

#### Prerequisites

If there is an earlier version of the add-on installed on your thin client, uninstall the add-on by deploying the following INI parameter, **RemoveAddons=<addon-name>** in wlx.ini. For example, **RemoveAddons=ica\_19.12.0.19-01\_amd64.deb** 

i NOTE: You must create a separate INI file for each Debian package and deploy the packages in the order Citrix UI package > Citrix Workspace app for Linux package > Citrix RTME package.

#### Steps

- 1. Copy the add-on and the directory file to the <root path>\add-ons folder.
- 2. To install the newer version of the add-on, deploy InstallAddons=<deb file> in wlx.ini INI parameter. To manually configure the INI server details, follow steps 4 to 11. If the DHCP method to add INI server details is configured, then skip steps 4 to 11.
- 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.
- **11.** Restart the thin client. The installation begins and the add-on is installed.

## Install the Citrix package using Wyse Management Suite

#### Prerequisites

- Ensure that you have added the Debian packages—ica-ui\_2.2.1.0-16\_amd64.deb, citrixrtme\_2.8.0-2235-02\_amd64.deb, and Citrix Workspace app for Linux package—to C:\WMS\LocalRepo \repository\thinClientApps repository on the Wyse Management Suite server.
  - i NOTE: You must create a separate application policy for each Debian package and deploy the packages in the order Citrix UI package > Citrix Workspace app for Linux package > Citrix RTME package.
- Ensure that you uninstall the earlier version of the add-on. To uninstall the add-on, do the following:
  - 1. Go to ThinLinux policy settings and click Advanced.
- 2. Enter the INI parameter RemoveAddons= <add-on name>.
- 3. Click Save and Publish.

#### Steps

- 1. Log in to Wyse Management Suite 1.2 or later.
- 2. Click Portal Administration, and then click File Repository under Console Settings.
- 3. Select the Local Repository check box.
- Click Apps and Data. The Apps and Data page is displayed and verify the copied package is in the applications list.
- 5. Create a group in the Wyse Management Suite server.
- 6. Click Groups and Configurations.
- 7. Click Plus sign (+) and register your client to the same group.
- 8. Click Apps and Data.
- 9. Click Thin Client under the App Policy.
- 10. To add the policy to the required group, click Add Policy.
- 11. Update the required fields, and then click Save.
- 12. To schedule the policy, click **Schedule App Policy** and update the required fields.
- 13. To ensure that the package installation is successful, monitor the status in the Jobs page.

#### (i) NOTE: The lock screen is displayed during the package installation process on all the thin clients.

**14.** Follow the steps again and install the Citrix Workspace app for Linux package followed by the Citrix RTME package.

To verify whether the add-on is installed successfully, go to System Information > Packages and verify the add-on version.

For more information on how to deploy the package using the newer versions of Wyse Management Suite, see the latest *Dell Wyse Management Suite Administrator's Guide* at www.dell.com/support.

### VMware add-on installation

The overall VMware add-on installation includes the following tasks:

- 1. Download the VMware UI package and VMware Horizon Client for 64-bit Linux installer bundle. See, Download the VMware packages.
- 2. Convert the VMware Horizon Client installer bundle to the VMware bundle update Debian package. See, Convert the Bundle package to Debian package.
- 3. Install the packages in the order VMware bundle update package > VMware UI package using any of the following methods:
  - Install using Add-on Manager. See, Install the VMware Horizon Client package using add-on manager
  - Install using INI parameter. See, Install the VMware Horizon Client package using INI parameters
  - Install using Wyse Management Suite. See, Install the VMware Horizon Client package using Wyse Management Suite

### Download the VMware packages

- · Download the VMware Horizon Client for 64-bit Linux installer bundle file from www.vmware.com.
- Download the VMware UI package as follows:
  - 1. Go to www.dell.com/support.
  - 2. In the Enter a Service Tag, Serial Number, Service Request, Model, or Keyword, type the Service Tag or the model number of your device, and press Enter or click Search.
  - 3. On the product support page, click **Drivers & downloads**.
  - 4. Select the operating system as **ThinLinux** from the drop-down menu.
  - 5. From the list, locate VDI Clients Add-on Package for ThinLinux 2.x.
  - 6. Click the download icon and extract the file.

The following are the VMware packages available from the extracted file:

### Table 3. VMware packages

Package name	Summary
vmware-viewclient-ui_5.0.0-00.02_amd64.deb (VMware UI package)	Use this file as the Dell custom UI interface for VMware View Client on ThinLinux 2.x.
vmware-bundle-update_1.0.0-00.03_amd64.deb	Use this file as the wrapper package for updating the VMware View Horizon Client bundle on ThinLinux 2.x.

### **Convert the Bundle package to Debian package**

#### Prerequisites

If you are installing the package for the first time, use the vmware-bundle-update\_1.0.0-00.03\_amd64.deb package from www.dell.com/support.

### Steps

- 1. Log in to a Linux system or a Linux Virtual Machine (VM). For example, Ubuntu.
- 2. Open the terminal window. For example, press Alt+Ctrl+X if you are running Ubuntu.
- 3. Create a directory /tmp/vmware using the following command:

mkdir /tmp/vmware

4. Copy the Debian package that you have downloaded from Dell support site to the directory using the following command:

```
cp vmware-bundle-update_1.0.0-00.03_amd64.deb /tmp/vmware
```

5. Create a directory **packagedata** inside the /tmp/vmware directory using the following commands:

cd /tmp/vmware mkdir packagedata

6. Extract the file system from the Debian package archive into the directory using the following command:

dpkg-deb -R vmware-bundle-update 1.0.0-00.03 amd64.deb packagedata

7. Remove the previous bundle file using the following command:

rm -f packagedata/var/cache/update/vmware/VMware-Horizon-Client-5.4.1-15988340.x64.bundle

8. Copy the latest bundle package that you have downloaded from VMware website to—packagedata/var/cache/update/ vmware/ using the following command:

cp <latest bundle> packagedata/var/cache/update/vmware/

- 9. Edit the filename as follows:
  - a. Run the following vi editor command:

vi packagedata/DEBIAN/postinst

- b. Replace the name VMware-Horizon-Client-5.4.1-15988340.x64.bundle to <new-filename>.bundle and save the file.
- 10. Edit the version as follows:
  - a. Run the following vi editor command:

vi packagedata/DEBIAN/control

- b. Change the PKG RELEASE version to the next version. For example, PKG RELEASE= 00.03 to PKG RELEASE=00.04.
- **11.** Change the directory to **packagedata** directory using the following command:

cd packagedata

**12.** Build the new Debian package using the following command:

dpkg-deb -b ../vmware-bundle-update\_1.0.0-00.04\_amd64.deb

#### Next steps

Use the newly created vmware-bundle-update\_1.0.0-00.04\_amd64.deb to upgrade the VMware View Horizon client on your thin client. For subsequent VMware Horizon Client installer updates, you can use the vmware-bundle-update\_1.0.0-00.04\_amd64.deb and follow the steps to convert the VMware Horizon bundle package to Debian package using the steps mentioned in this section.

## Install the VMware Horizon Client package using add-on manager

#### Steps

1. Go to System Settings > INI and select Server and Local as the Configuration Source.

☆     Switch to User	System Settings	_ 🗆 ×
Management	Manage INI Configuration	
Active Directory	Enable INI Configuration ON	
Configuration	Configuration Source	
HAgent	Server and Local 🗸	
INI	INI Configuration downloads from server during every device boot. If the server is not available, local configuration is used.	
Logs and Tools	Specify server details manually.	
SCEP	Server URL ftp://100.106.19.32	
Wyse Device Agent	Root path	
	/wyse	
	INI file download path	
	ftp://100.106.19.32/wyse	
	Use anonymous ON	
	Can	Save

### Figure 6. System Settings

- 2. To remove the earlier version of VMware add-on, do the following:
  - a. Go to System settings > Add-ons and click Manage Add-ons.
  - **b.** From the add-on list, select the VMware Debian package.
  - c. Click Remove to uninstall the VMware add-on and restart the thin client.



### Figure 7. System Settings

- 3. To install the new VMware Debian package, do the following:
  - a. Go to **System settings** > **Add-ons** and click Install Add-ons.
  - **b.** Select the VMware Debian package from the list.
  - c. Click Install button to install the VMware Debian package and restart the thin client.
  - d. Once the thin client restarts, go to System settings > Add-ons and click Manage Add-ons.
  - e. From the add-on list, select the VMware UI Debian package.
  - f. Click Install button to install the VMware UI Debian package and restart the thin client.

☐     Switch to User	System Settings	_ 0	×
System	Manage Add-ons		
Addons	Install and Remove Add-ons from Update Server		<b>^</b>
Custom Info	-		
Date and Time	Install Add-ons		
Desktop Appliance	Select the available add-ons from the list and install them to the system		
Display	import-certs+AF8-1.0.0-12+AF8-amd64.deb		
Language	firefox-esr+AF8-60.7.2esr+buildw-0ubuntu0.16.04.1+AF8-amd64.deb		
Other Settings	yubikey-neo-manager_1.4.0-2_all.deb		
Derver	wyse-settings_1.02.0-85_amd64.deb		
Power	wyse-settings_1.02.0-86_amd64.deb		
Update Settings	SafenetAuthenticationClient-9.0.43-0_amd64.deb		
	wyse-settings_1.02.0-93_amd64.deb		
	ica_13.10.0.20-16_amd64.deb		
	ica_19.12.0.19-01_amd64.deb		
	citrix-rtme_2.8.0-2235-01_amd64.deb		- 1
	ica_19.12.0.19-02_amd64.deb		
	gui-vmware-viewclient_5.0.0-00.01_amd64.deb		
	ica-ui 2 2 1 0-16 amd64 deb		-
	Back Cancel	Inst	all

Figure 8. System Settings

4. Launch the VMware UI from System Settings > Connections.

☆     Switch to User	System Settings	_ 🗆 X
Connections	Manage VMware Connections	
Browser		
Citrix	Create a new VMware connection	
Custom	VMware Connections	
Ericom PowerTerm	wmware5.3	
RDP		
SSH		
VMware		
VNC Viewer		

### Figure 9. System Settings

- 5. Click Create a new VMware connection, enter the required details, and click Save.
- 6. Launch the VMware session.

### Install the VMware package using INI parameters

#### Prerequisites

If there is an earlier version of the add-on installed on your thin client, uninstall the add-on by deploying the following INI parameter, **RemoveAddons=<addon-name>** in wlx.ini

i NOTE: You must create a separate INI file for each Debian package and deploy the packages in the order VMware bundle update package > VMware UI package.

#### Steps

- 1. Copy the add-on and the directory file to the <root path>\add-ons folder.
- 2. To install the newer version of the add-on, deploy InstallAddons=<deb file> in wlx.ini INI parameter. To manually configure the INI server details, follow steps 4 to 11. If the DHCP method to add INI server details is configured, then skip steps 4 to 11.
- **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.
- **11.** Restart the thin client. The installation begins and the add-on is installed.

### Install the VMware package using Wyse Management Suite

### Prerequisites

- Ensure that you have added the Debian packages—vmware-bundle-update\_1.0.0-00.04\_amd64.deb and vmwareviewclient-ui\_5.0.0-00.02\_amd64.deb—to C:\WMS\LocalRepo\repository\thinClientApps repository on the Wyse Management Suite server.
  - () NOTE: You must create a separate application policy for each Debian package and deploy the packages in the order VMware bundle update package > VMware UI package.
- Ensure that you uninstall the earlier version of the add-on. To uninstall the add-on, do the following:
- 1. Go to ThinLinux policy settings and click Advanced.
- 2. Enter the INI parameter RemoveAddons= <add-on name>.
- 3. Click Save and Publish.

### Steps

- 1. Log in to Wyse Management Suite 1.2 or later.
- 2. Click Portal Administration, and then click File Repository under Console Settings.
- 3. Select the Local Repository check box.
- 4. Click Apps and Data.

The Apps and Data page is displayed and verify the copied package is in the applications list.

- 5. Create a group in the Wyse Management Suite server.
- 6. Click Groups and Configurations.
- 7. Click Plus sign (+) and register your client to the same group.
- 8. Click Apps and Data
- 9. Click Thin Client under the App Policy.
- 10. To add the policy to the required group, click Add Policy.
- 11. Update the required fields, and then click Save.
- 12. To schedule the policy, click Schedule App Policy and update the required fields.
- 13. To ensure that the package installation is successful, monitor the status in the Jobs page.

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

14. Follow the steps again and install the VMware UI package. To verify whether the add-on is installed successfully, go to System Information > Packages and verify the add-on version.

For more information on how to deploy the package using the newer versions of Wyse Management Suite, see the latest *Dell Wyse Management Suite Administrator's Guide* at www.dell.com/support.

### **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 <a href="https://www.dell.com/contactdell">www.dell.com/contactdell</a>.

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.