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.**

Contents

Introduction

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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.
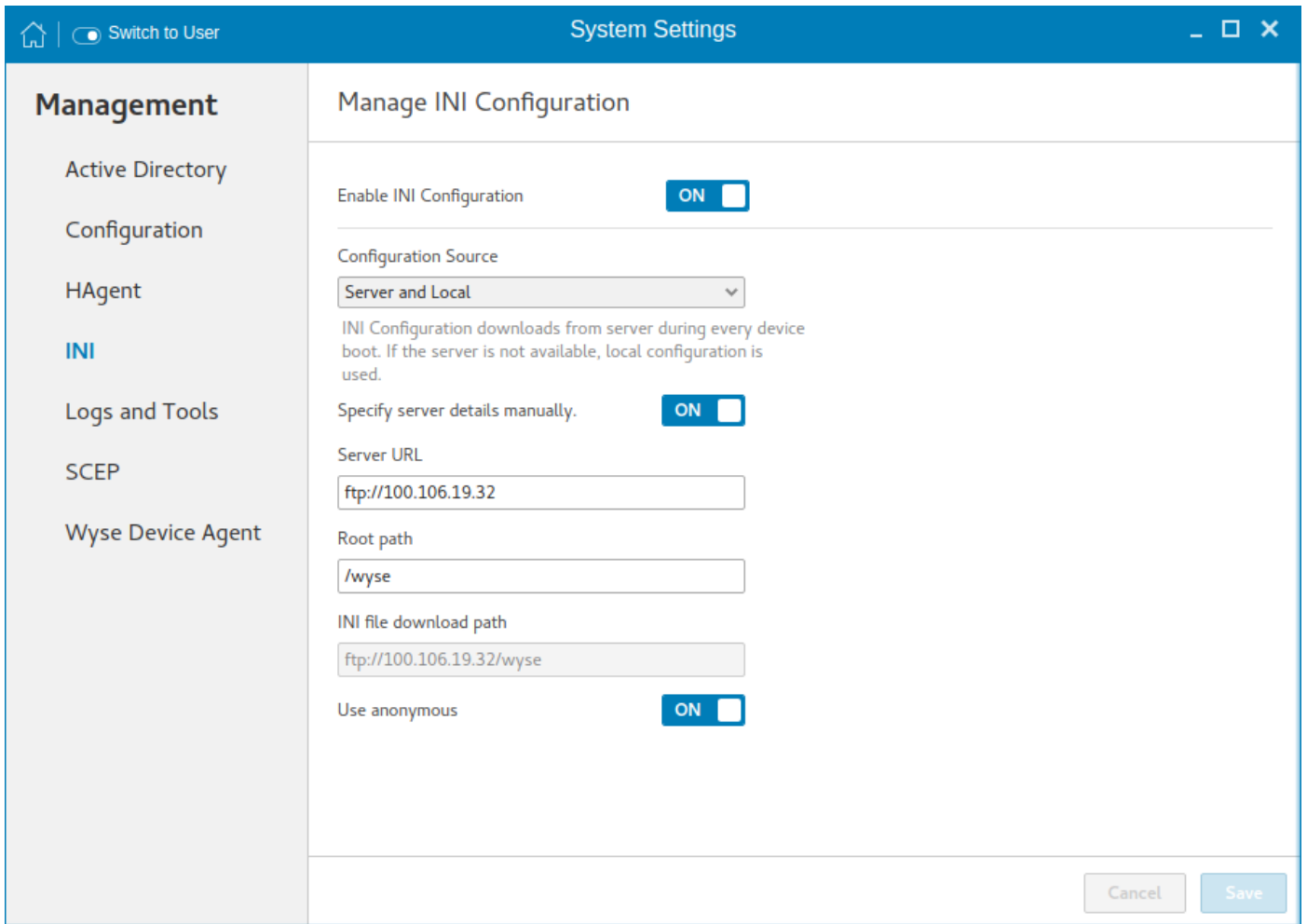
Figure 1. System Settings

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.
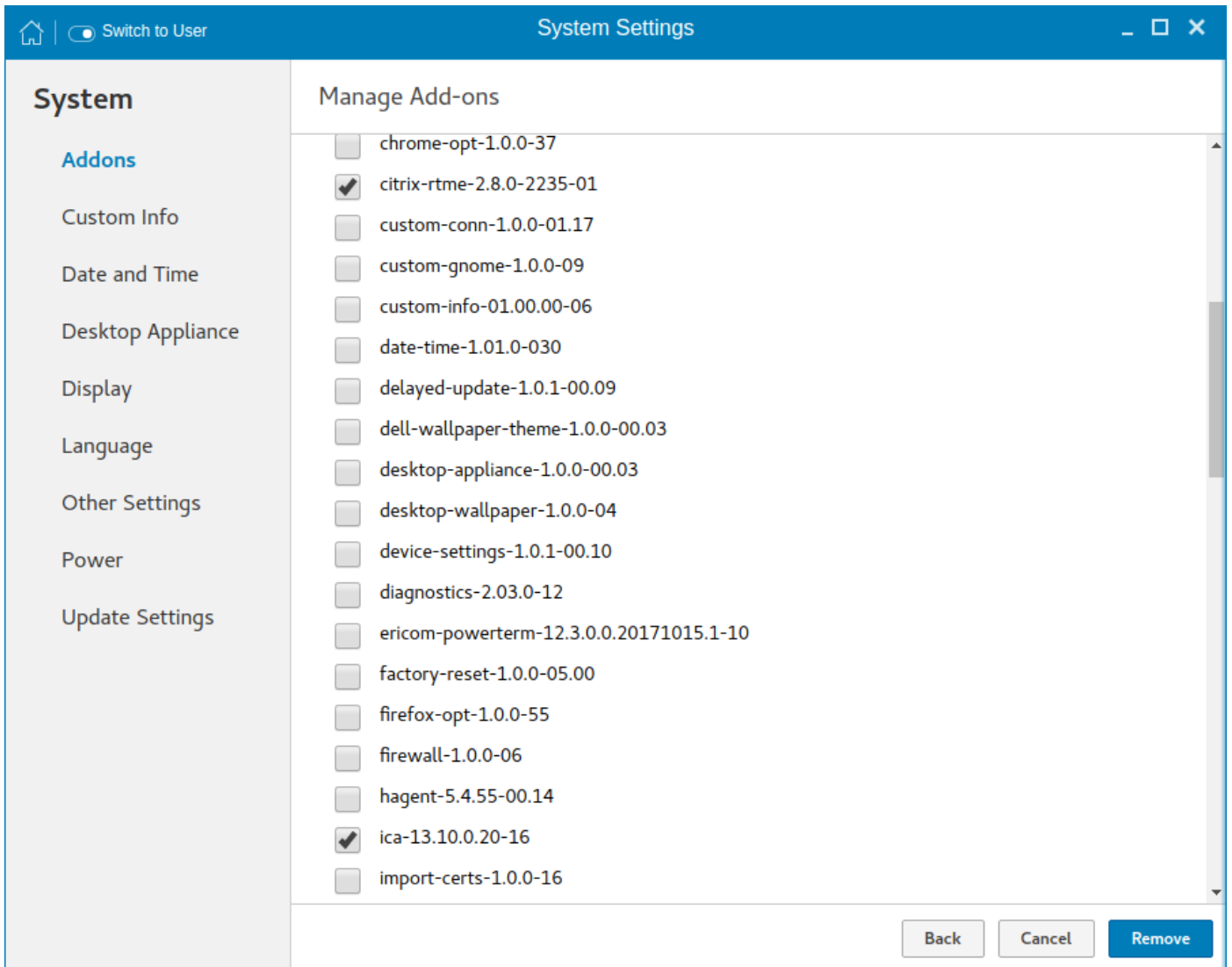   c. Click the **Remove** button and restart the thin client.

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.
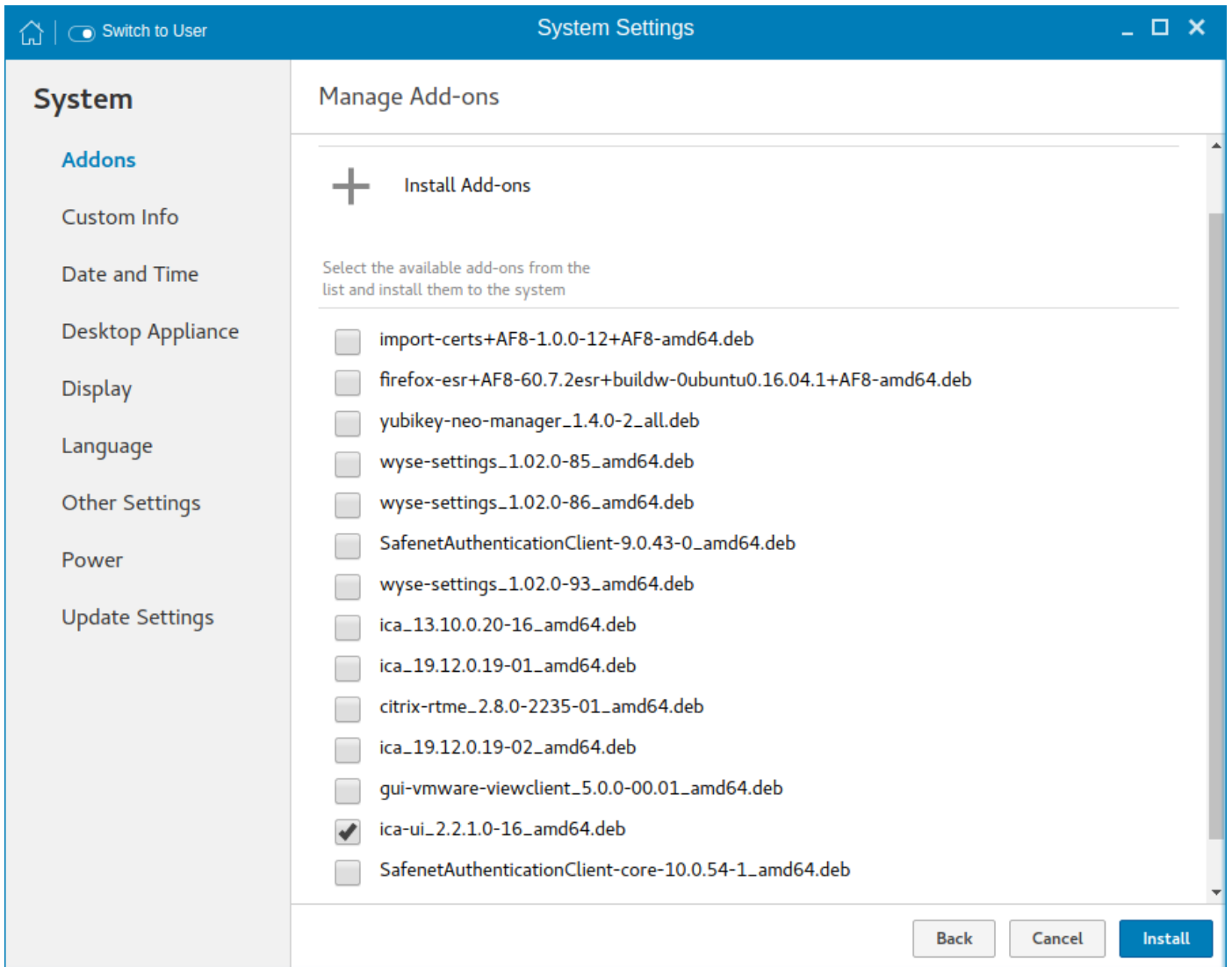   c. Click **Install** and restart the thin client.

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.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.
    c. Click **Install** and restart the thin client.
8. Launch the Citrix UI from **System Settings** > **Connections**.
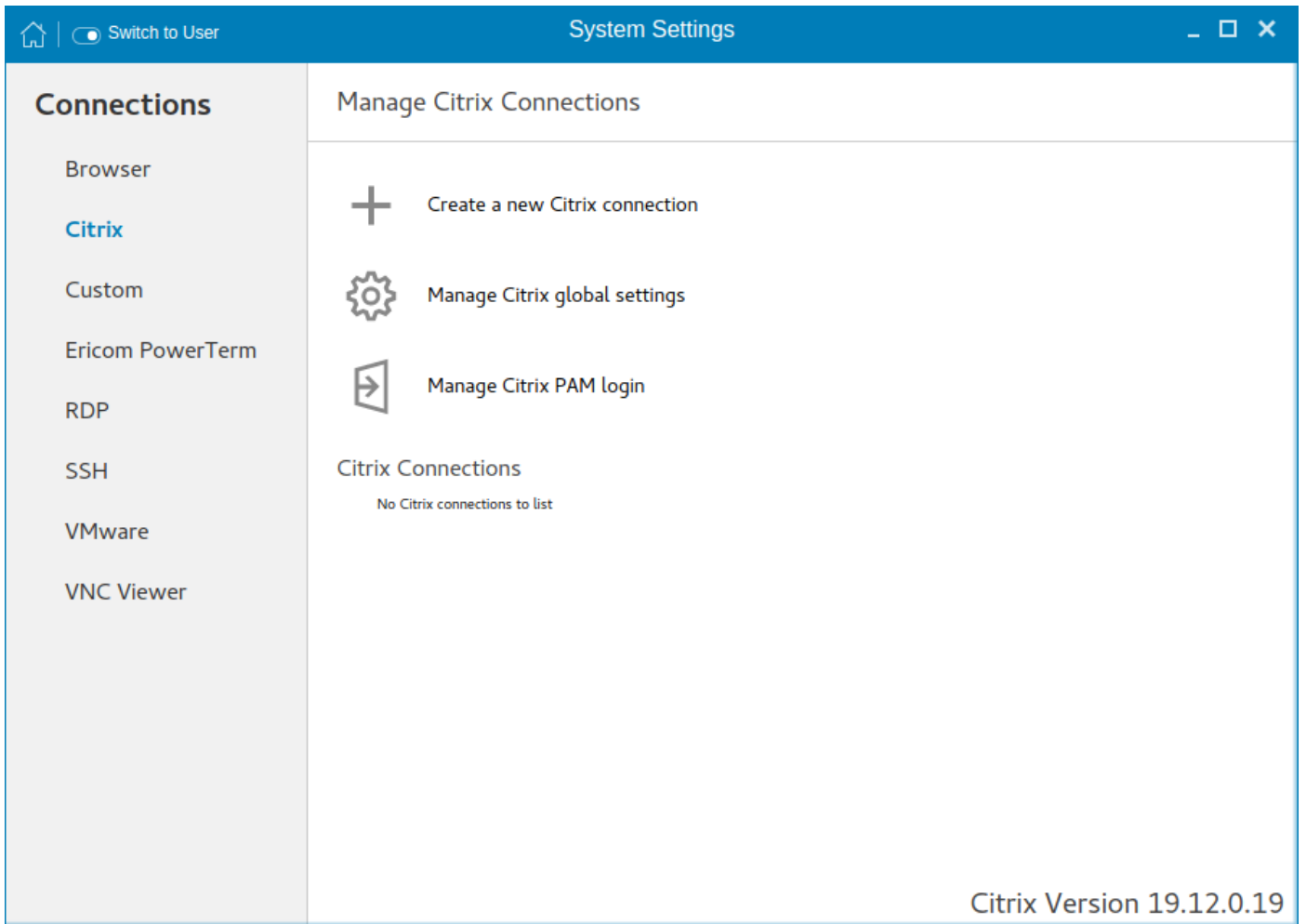
Figure 4. System Settings

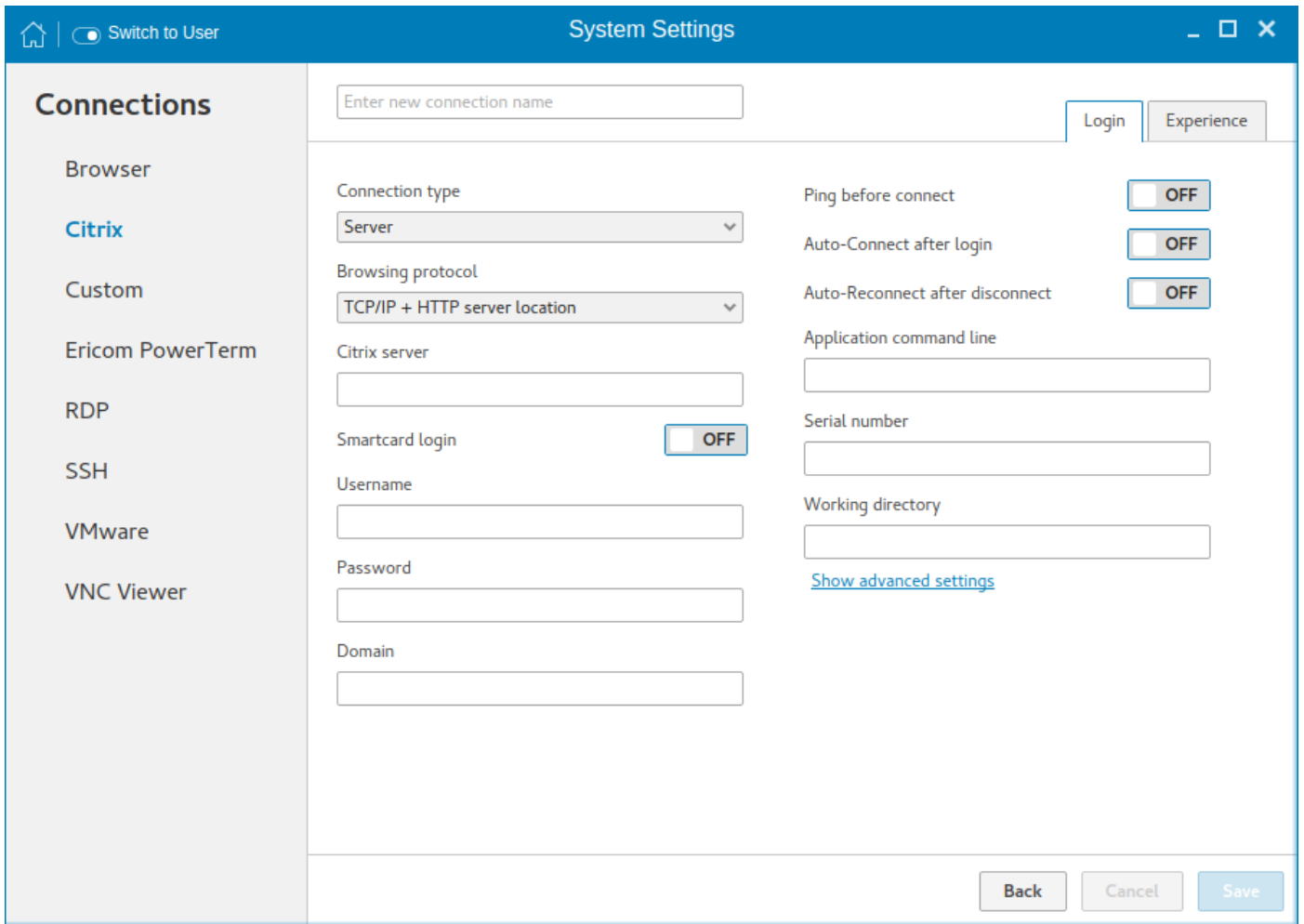9. Click **Create a new Citrix connection**, enter the required details, and click **Save**.

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**

ⓘ **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`, `citrix-rtme_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.
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 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.
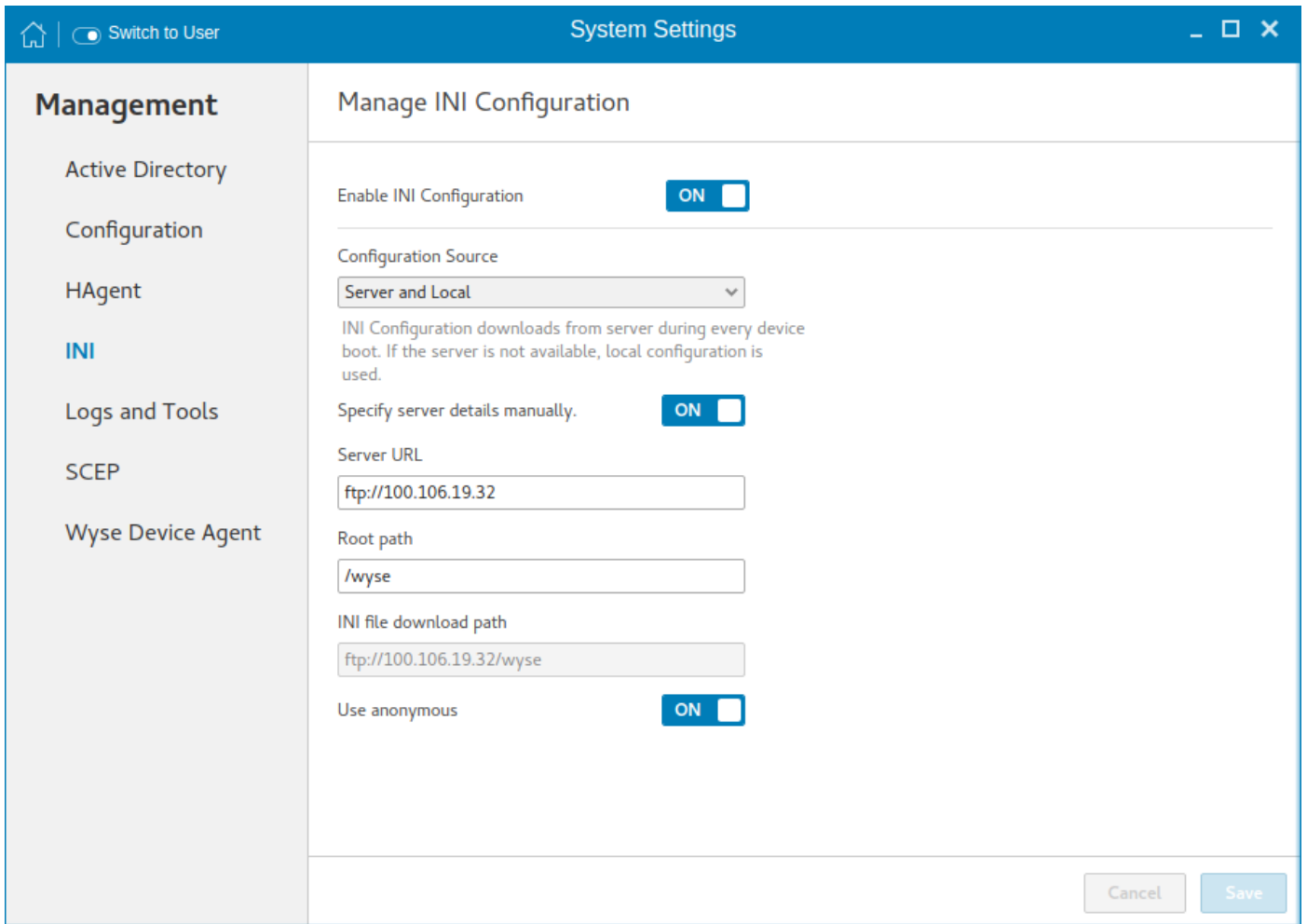
Figure 6. System Settings

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.
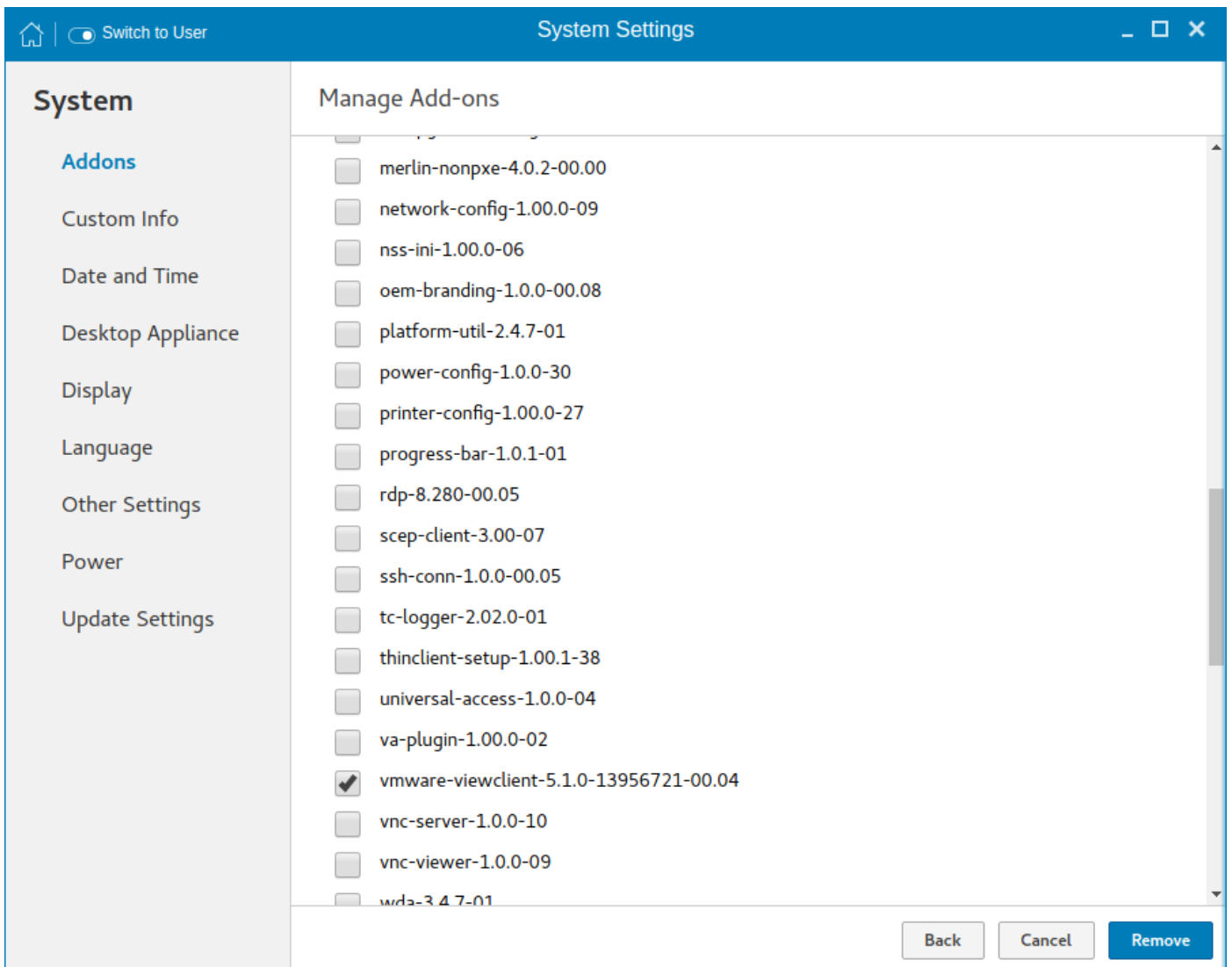
Figure 7. System Settings

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.
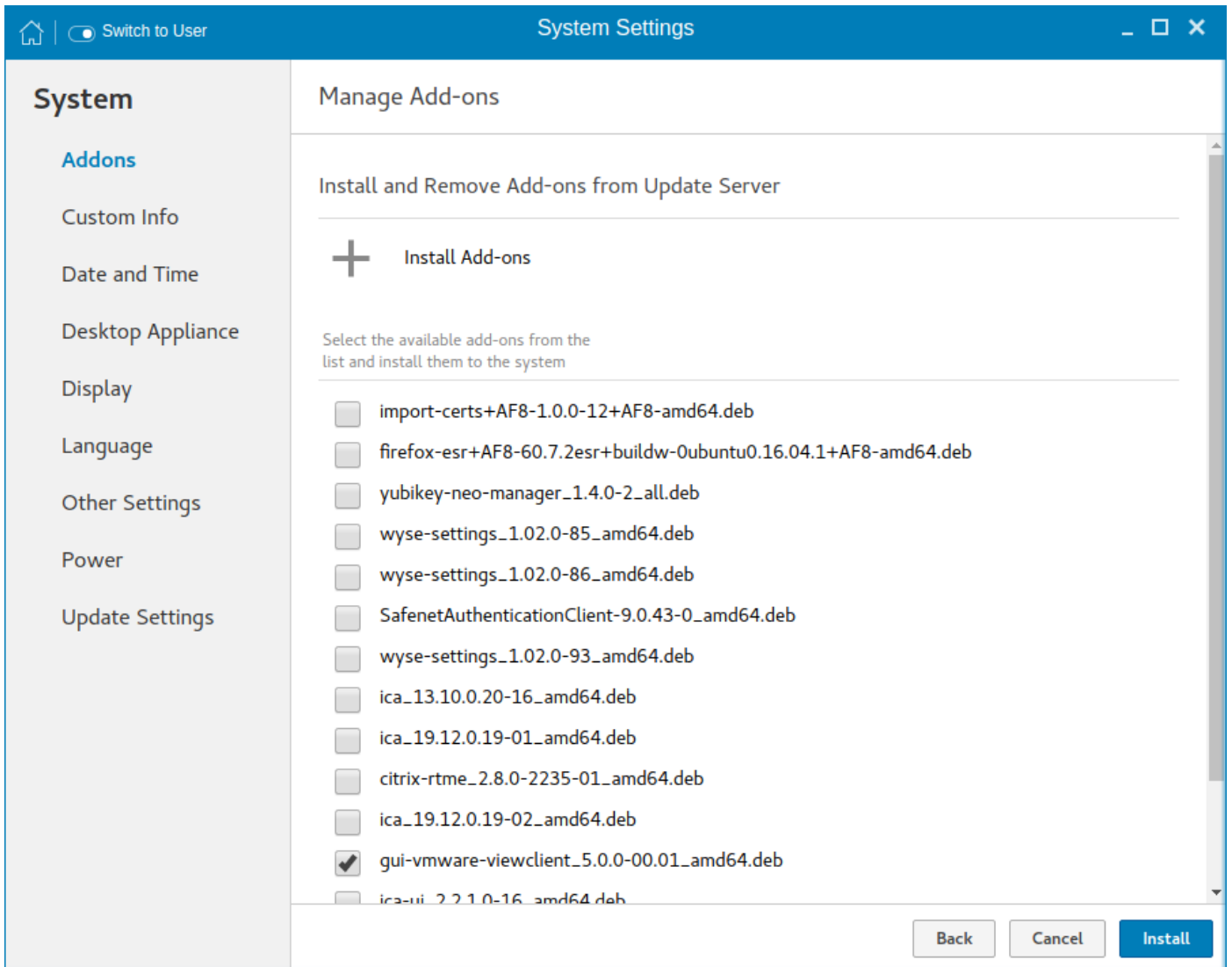   f. Click **Install** button to install the VMware UI Debian package and restart the thin client.

Figure 8. System Settings

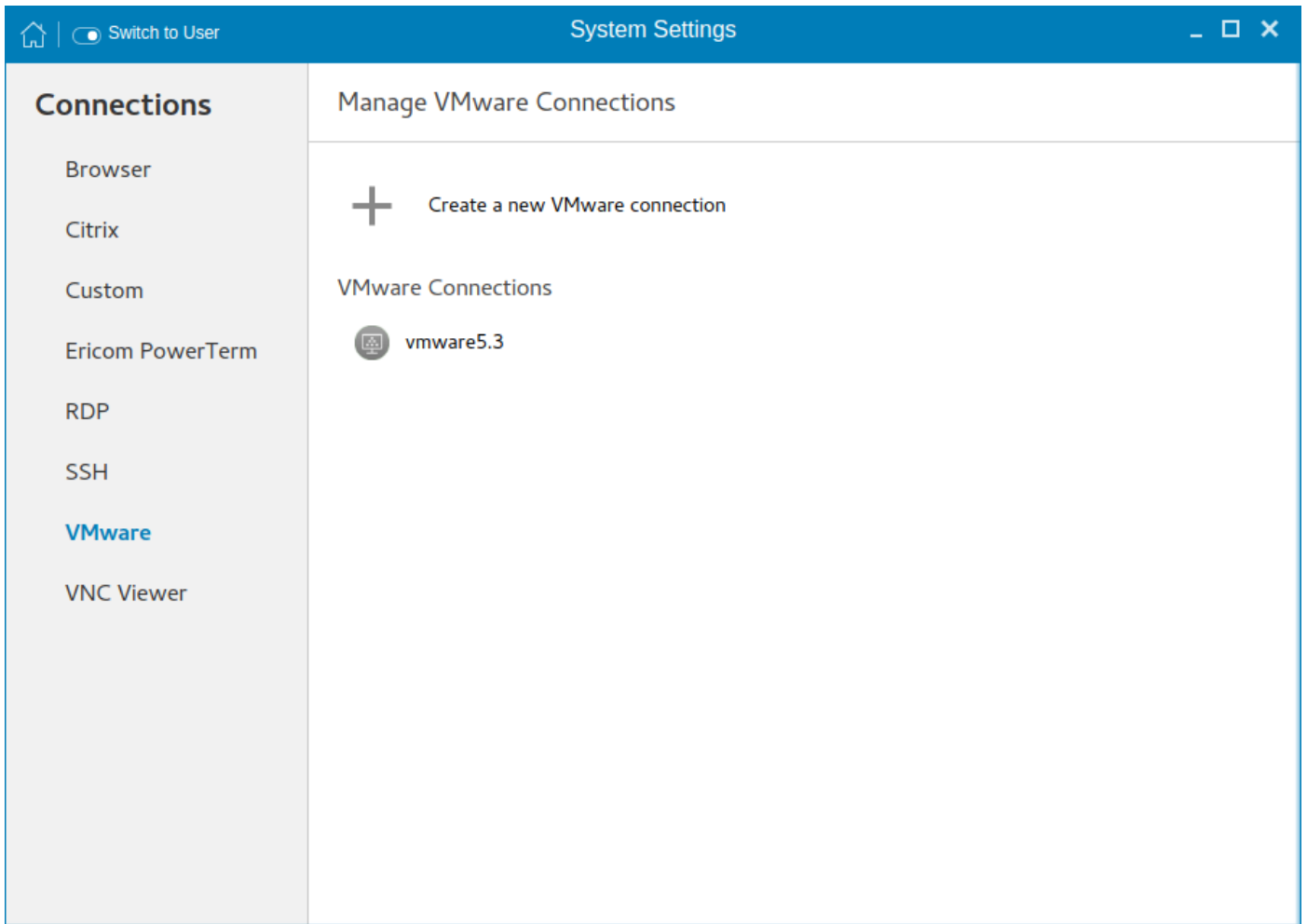4. Launch the VMware UI from **System Settings** > **Connections**.

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

ⓘ **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 `vmware-viewclient-ui_5.0.0-00.02_amd64.deb`—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 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.

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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.