



Installation

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Deployment and Installation Workflow



Important

The Cisco Jabber for Windows version must match the Cisco Virtualization Experience Media Edition for SUSE Linux version.

Procedure

	Command or Action	Purpose
Step 1	Read <i>Release Notes for Cisco Virtualization Experience Media Edition for SUSE Linux</i> for your release, available from http://www.cisco.com/...	Review the important notes for information about limitations or restrictions that may affect your deployment.
Step 2	Read Requirements .	Review the system requirements to confirm that all required hardware and software meet them. Failure to meet all requirements can result in a nonfunctional deployment.
Step 3	Create and set up the hosted virtual desktops in the data center.	Ensure that a hosted virtual desktop (HVD) is ready for you to install Cisco Virtualization Experience Media Edition.

	Command or Action	Purpose
Step 4	Set up and configure the thin clients. Documentation for Dell Wyse thin clients is available from http://dell.com/wyse .	Deploy the base image to the thin clients and perform any other configuration required for your deployment.
Step 5	Optional: Configure the AutoLogin parameter. See Enable AutoLogin .	
Step 6	Configure the Network . See also, Port Requirements .	Configure important network settings.
Step 7	Set up Users on the Cisco Unified Communications Manager Workflow .	<ul style="list-style-type: none"> • Add users and devices on the Cisco Unified Communications Manager. • Set up users on the Cisco Unified Communications Manager with Cisco Unified Communications features, such as Cisco Unified Communications Manager IM and Presence and WebEx integration.
Step 8	Install the Cisco Virtualization Experience Media Edition components on the thin clients and the hosted virtual desktop. See Install Cisco VXME Components Workflow .	<p>If your users do not require VPN access, you can skip the optional steps to install Cisco AnyConnect.</p> <p>After you install all required software on the HVD, you can clone the HVD.</p>
Step 9	Provide Links to the Documentation, on page 9 .	Provide users with links to the documentation for their Unified Communications clients.

Related Topics

[Set up the Hosted Virtual Desktops Workflow](#), on page 3

Install Cisco VXME Components Workflow

**Important**

The Cisco Jabber for Windows version must match the Cisco Virtualization Experience Media Edition for SUSE Linux version. See [Requirements](#).

Procedure

	Command or Action	Purpose
Step 1	Download the Cisco VXME Client Add-on, on page 4 .	The download file for Cisco VXME Client Add-on includes the prerequisite add-on.
Step 2	Download the Cisco VXME Agent, on page 4 .	

	Command or Action	Purpose
Step 3	(Optional) Download the Cisco AnyConnect Add-on, on page 5.	Only perform this step if users require VPN connectivity.
Step 4	On the thin client, install prerequisite add-on and Cisco VXME Client. If users require VPN connectivity, deploy Cisco AnyConnect at the same time. See Create a Dell Wyse Device Manager Package, on page 5.	
Step 5	On the HVD, uninstall any previously installed Cisco VXME Agent (formerly Cisco VXME Utilities).	
Step 6	On the HVD, uninstall any previously installed Cisco Unified Communications clients, such as Cisco Jabber or Cisco UC Integration™ for Microsoft Lync.	
Step 7	On the HVD, install Cisco VXME Agent.	
Step 8	On the HVD, install Cisco Jabber.	

Related Topics

[Set up the Hosted Virtual Desktops Workflow](#), on page 3

Set up the Hosted Virtual Desktops Workflow

**Important**

Multiple registrations to the Cisco Unified Communications Manager are not supported. To help prevent multiple registrations, we recommend that you create only one hosted virtual desktop (HVD) for each user.

Procedure

	Command or Action	Purpose
Step 1	Log in to the Microsoft Windows HVD as the new user, with administration rights.	
Step 2	Join the HVD to the corporate domain.	You must have domain administration rights.
Step 3	Set up Citrix or VMware access to the HVDs.	
Step 4	Install Cisco VXME Agent on the HVD.	
Step 5	Install Cisco Jabber on the HVD.	See the installation guide for your release: http://www.cisco.com/c/en/us/support/unified-communications/jabber-windows/products-installation-guides-list.html

	Command or Action	Purpose
Step 6	Clone the HVD image.	For best practices for cloning Microsoft Windows HVD images, consult the documentation for your Citrix or VMware product.

Related Topics

[Install Cisco VXME Components Workflow](#), on page 2

Download the Cisco VXME Client Add-on



Note The CiscoVXMEClient.zip file includes a prerequisite add-on, which you must install on the thin client, before you install the Cisco VXME Client add-on.

Procedure

- Step 1** Go to the following URL:
<http://www.cisco.com/cisco/software/navigator.html>
- Step 2** Choose **Products > Unified Communications > Unified Communications Applications > Messaging > Virtualization Experience Media Edition > Virtualization Experience Media Edition for SUSE Linux**.
- Step 3** From the list, choose the file for your release.
- Step 4** Select **Download** or **Add to cart** and follow the prompts.

Download the Cisco VXME Agent

Install Cisco VXME Agent on the hosted virtual desktops (HVD), before you install Cisco Jabber for Windows.

Procedure

- Step 1** Go to the following URL:
<http://www.cisco.com/cisco/software/navigator.html>
- Step 2** Choose **Products > Unified Communications > Unified Communications Applications > Messaging > Virtualization Experience Media Edition > Virtualization Experience Media Edition for SUSE Linux**.
- Step 3** From the list, choose the file for your release.
- Step 4** Select **Download** or **Add to cart** and follow the prompts.

Download the Cisco AnyConnect Add-on

If users require VPN connectivity, download the Cisco AnyConnect add-on.

Procedure

- Step 1** Go to the following URL:
<http://www.cisco.com/cisco/software/navigator.html>
- Step 2** Choose **Products > Unified Communications > Unified Communications Applications > Messaging > Virtualization Experience Media Edition > Virtualization Experience Media Edition for SUSE Linux**.
- Step 3** From the list, choose the file for your release.
- Step 4** Select **Download** or **Add to cart** and follow the prompts.
-

Create a Dell Wyse Device Manager Package

Wyse Device Manager is the recommended deployment tool to deploy the Cisco Virtualization Experience Media Edition add-on to the thin clients. See the Dell Wyse documentation for supported versions. You can also use this procedure if the thin clients are already running the required base image and you want to deploy an add-on.

Follow the optional steps in this procedure to deploy Cisco AnyConnect with the Cisco VXME Client add-on. In the procedure examples, <version> means <[Release Number]-[Build Number]-[Platform (SP3)]>.

Before you begin

- Ensure that the thin clients are running the required firmware build; see *Release Notes for Cisco Virtualization Experience Media Edition for SUSE Linux* for your release. If necessary, contact Dell Wyse to get a compatible image.
- Obtain all the required installation files: the prerequisite add-on, the VXME Client, and if required, the optional AnyConnect VPN.
- Ensure that the thin clients are checked-in to Dell Wyse Device Manager (WDM). The devices should appear green in WDM.

Procedure

- Step 1** On the server, on which you have WDM installed, extract the add-on files to a local folder.

The extracted add-on folder structure appears as follows:

```
~/<local folder>/addons/vxme-pre-reqs-<version>.rpm  
~/<local folder>/addons/cisco_vxme_client-<version>.rpm  
~/<local folder>/addons/directory
```

- Step 2** (Optional) To deploy Cisco AnyConnect with the Cisco VXME Client add-on, extract anyconnect_bundle.<version>.zip.
- Step 3** Copy vxme-pre-reqs-<version>.rpm and vxme-<version>.rpm to ~/CiscoVXME/CiscoVXME_x.x, where x.x is your release number.
- The folder structure is as follows:
- ```
~/CiscoVXME/CiscoVXME_x.x/install-sletc-addons.sh
~/CiscoVXME/CiscoVXME_x.x/update-addons-list
~/CiscoVXME/CiscoVXME_x.x/vxme-pre-reqs-<version>.rpm
~/CiscoVXME/CiscoVXME_x.x/cisco_vxme_client-<version>.rpm
~/CiscoVXME/CiscoVXME_x.x.rsp
```
- Step 4** (Optional) To deploy Cisco AnyConnect with the Cisco VXME Client add-on, copy the anyconnect\_bundle<version>.rpm file to ~/CiscoVXME/CiscoVXME\_x.x where x.x is your release number.
- Step 5** (Optional) To deploy Cisco AnyConnect with the Cisco VXME Client add-on, add the following line to update-addons-list: UPDATE\_ADDONS\_LIST+=" anyconnect\_bundle-<version>.rpm"
- ```
UPDATE_ADDONS_LIST+=" anyconnect_bundle-<version>.rpm"
```
- Step 6** In the navigation section of the Administrator Console, right-click **Package Manager** and then choose **New > Package**.
- Step 7** In the **Package Wizard** window, select **Register a Package from a Script File (.RSP)**, and then select **Next**.
- Step 8** Enter the path to the CiscoVXME_x.x.rsp file (where x.x is your release), and then select **Next**.
- Tip** You can select **Browse** to find and choose the file.
- Step 9** In the Software Package Information dialog, check **Active**, and then select **Next**.
- This step makes the WDM package active for distribution.
- Step 10** To create and register the WDM package, select **Next**.
- Step 11** Select **Finish**.
- WDM copies the package to the Master Repository, where it appears under the appropriate category. The package is ready for distribution.

What to do next

Use the Default Device Configuration (DDC) method to upgrade the thin client.

Related Topics

[Schedule an Update or a Push](#), on page 6

Schedule an Update or a Push

There are different methods that you can use to schedule an update or push a package to the thin clients. For more information about these methods, see the documentation for the thin clients and for the thin client management tool.

**Important**

We strongly recommend that you use the Default Device Configuration (DDC) method to push packages to the thin clients. The Drag-and-Drop method may function, but it is only recommended in small environments or for test purposes. Drag-and-Drop does not function at all for thin clients behind a Cisco AnyConnect VPN.

Folder Structure

**Note**

All package names, filenames (including .rsp and .ini files), and folders must be lower-case.

For example, assuming <packagename>.rsp is the RSP file, the folder structure required to register the package is as follows:

Folder	Description
~\<packagename>.rsp	The unique RSP file, located in the same folder as the matching root package folder.
~\<packagename>\	The root package folder. It stores the wlx folder and the add-ons folder. It also stores the following files, which are used for imaging and updating devices: <ul style="list-style-type: none"> • Latest-image.raw • Latest-image.raw.info
~\<packagename>\wlx	The main INI configuration folder. It stores the following: <ul style="list-style-type: none"> • wlx.ini file and \$MAC.ini file • bitmap folder • certs folder • ini folder
~\<packagename>\wlx\bitmap	The folder where you can place custom images you plan to use.
~\<packagename>\wlx\certs	The folder where you can place the CA certificates that can be imported to a thin client. <p>Note Use the Certs and ImportCerts INI parameters in the wlx.ini file to import the certificates to thin clients.</p>
~\<packagename>\wlx\ini	The folder where you can place the {username}.ini files.
~\<packagename>\addons	The folder where you can place the add-ons you want to use. It also stores the folder file and the *.rpm packages available to be installed on the thin client. The folder file should list all available add-ons. The folder file is required in the add-ons folder to guarantee that add-ons are properly located.

**Note**

If a folder does not contain a required file for the package, the folder can be omitted from the package folder structure. For example, if the package contains no graphics, the \wlx\bitmap folder is not required.

After you register the package, the thin client management program stores the package files in the software repository under `c:\inetpub\ftproot\Rapport\<packagename>`.

**Caution**

Do not attempt to modify a registered package located in the Rapport folder. To modify a package, create and register a new package that includes the required changes.

Scripts

You use the following scripts when you create a Dell Wyse Device Manager package.

**Note**

The examples for each script use variables for the filenames, which are different for each release.

install-sletc-addons.sh

```
#!/bin/bash
source /tmp/update-addons-list
WYSE_INIT_ADDON_UPDATE=/etc/wyseinit_factory_reset
NEED_REBOOT=no
for A in ${UPDATE_ADDONS_LIST} ; do
if [ -e /tmp/${A} ] ; then
/usr/sbin/addon-install /tmp/${A}
# Find WYSE_INIT addon among the list of
specified addons
WYSE_INIT=${A:0:9}
if [ "$WYSE_INIT" = "wyse_init" ] ; then
/bin/touch $WYSE_INIT_ADDON_UPDATE
/bin/sync
NEED_REBOOT=yes
fi
fi
done
sync
# WYSE_INIT addon needs reboot
if [ "$NEED_REBOOT" == "yes" ] ; then
/sbin/init 6
fi
```

update-addons-list

```
# Quick guide
# Copy all the add-ons needs to be installed in to this directory
~install-sletc-addons/install-sletc-addons/
# Specify list of add-ons to be installed/updated preferably order
in which you wish to install as explained below
#
# Do not modify below line
UPDATE_ADDONS_LIST=
# Specify each add-on full name in separate line, with leading one
space enclosed inside quotes, as shown in below example
# Example:-
# Lets say you want to install following two add-ons
# abcd-xyz-1.1.1.sletc11sp3.rpm and aaaa-xxxx-2.2.2.sletc11sp3.rpm
# Specify these two add-ons as below
# UPDATE_ADDONS_LIST+=" abcd-xyz-1.1.1.sletc11sp3.rpm"
```



```
# UPDATE_ADDONS_LIST+=" aaaa-xxxx-2.2.2.sletc11sp3.rpm"
#
UPDATE_ADDONS_LIST+=" abcd-xyz-1.1.1.sletc11sp3.rpm"
UPDATE_ADDONS_LIST+=" aaaa-xxxx-2.2.2.sletc11sp3.rpm"
```

CiscoVXME_x.x.rsp



Note This RSP script is provided as an example; you may need to specify different parameters depending on your environment. For details about how to create RSP files, see the administration guide for your thin client management software.

```
[Version]
Number=CiscoVXME_x.x
Description=Cisco Virtualization Experience Media Cisco Virtualization Experience Media
Edition
OS=SLX
Category=Cisco
USE_Pxe=NO
[Script]
CO "SLX"
LU
SF "<regroot>/*" "/tmp/"
EX "dos2unix /tmp/update-addons-list"
EX "dos2unix /tmp/install-sletc-addons.sh"
EX "/bin/bash /tmp/install-sletc-addons.sh &"
EL
```

Provide Links to the Documentation

Create a Desktop Shortcut

Add a desktop shortcut to the user documentation. Users can click the shortcut to access the documentation and to get help.

Procedure

-
- Step 1** Open the `wlx.ini` file for editing, by using your thin client management software (Dell Wyse Device Manager). Depending on your deployment, you may need to edit this file locally, in which case the filename is `wnos.ini`.
- Step 2** Add the following lines:
- ```
CONNECT=BROWSER \
Description="Help Getting Started" \
URL=http://www.cisco.com/en/US/products/ps12862/products_user_guide_list.html \
Resolution=FullScreen \
Mode=Normal
```
- Step 3** Optional. Add the `icon` parameter to change the shortcut icon.
- ```
Icon=image file
```

The image file must be located in the wlx/bitmap folder on the server. If you do not specify an image file, the default icon appears. Supported file types are PNG, JPEG, and GIF, and XPM for backward compatibility.

Step 4 Save the changes to the wlx.ini file.

Add a Link to the Citrix Landing Page

You can add a link to the Citrix landing page. Users can click the shortcut to access the documentation and to get help.



Note You must be a Desktop Delivery Controller (DDC) administrator.

Procedure

- Step 1** Establish a Remote Desktop connection to the server running the Desktop Delivery Controller (DDC).
- Step 2** In the navigation tree, under Access, select **Citrix Web Interface > XenApp Web Sites > Internal Site**.
- Step 3** Under **Internal Site - Edit Settings**, select **Web Site Appearance**.
- Step 4** In the **Customize Web Site Appearance - Internal Site** window, under **Options**, select **Content**.
- Step 5** Select the language code (for example, English [en]), and then select **Edit**.
- Step 6** In the **Edit Custom Text** window, check **Footer text (all screens)**.
- Step 7** In the **Edit Custom Text** window, under Customize Footer Text, enter text to point the user to the online documentation.

Example:

Sample text

User Guides: http://www.cisco.com/en/US/products/ps12862/products_user_guide_list.html

Step 8 Select **Finish**, and then select **OK**.

Add a Link to the VMware Prelogin Banner

You can add a link to the VMware prelogin banner. Users can click the shortcut to access the documentation and to get help.



Note You must be a VMware Connection Server administrator.

Procedure

Step 1 Log in to the VMware Connection Server.

- Step 2** Select **View Configuration - Global Settings**.
- Step 3** Under the **General** section, select **Edit**.
- Step 4** Check **Display a prelogin message**.
- Step 5** Enter text to point the user to the online documentation URL.

Example:

Sample text

User Guides: http://www.cisco.com/en/US/products/ps12862/products_user_guide_list.html

- Step 6** Select **OK**.
-

