



Deployment Guide for Cisco Voice and Video Firmware 8.7 for Cisco Virtualization Experience Client 6215

First Published: September 04, 2012

Last Modified: September 04, 2012

Americas Headquarters

Cisco Systems, Inc.

170 West Tasman Drive

San Jose, CA 95134-1706

USA

<http://www.cisco.com>

Tel: 408 526-4000

800 553-NETS (6387)

Fax: 408 527-0883

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <http://www.cisco.com/go/trademarks>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© Cisco Systems, Inc. All rights reserved.



CONTENTS

CHAPTER 1

Cisco Voice and Video Firmware for Cisco Virtualization Experience Client 6215 1

- Cisco Virtualization Experience Client 6215 overview 1
- Differences in the virtual environment 2
- Considerations for virtual installations 4
- Installation and deployment 4

CHAPTER 2

Cisco Virtualization Experience Client configuration 7

- Group policy settings for the virtual environment 7
 - Add a new Active Directory group policy administrative template 8
- Set up the help files for users 8
- Device types 10
- Create a Cisco Virtualization Experience Client device and directory number for each user 10
- Associate new devices with a user 12
- Enable the CTI protocol for each user 12
- Configuration files 13
- DHCP pool configuration 13
- Domain Name Resolution 14
- Port usage 14

CHAPTER 3

Troubleshooting 17

- Problem Reporting Tool 17
- Cisco HVD Agent 18
- Log files and core dumps 18
- Basic Troubleshooting Steps 20
- No audio or video on the Cisco Virtualization Experience Client 21
- Registration failure 21
- General Audio Issues 22
- No Audio with the Plantronics Voyager Pro UC V2 Headset 22

[Shared Line User Cannot Resume Held Call](#) 22

[Set the Privacy Settings](#) 23



CHAPTER 1

Cisco Voice and Video Firmware for Cisco Virtualization Experience Client 6215

- [Cisco Virtualization Experience Client 6215 overview, page 1](#)
- [Differences in the virtual environment, page 2](#)
- [Considerations for virtual installations, page 4](#)
- [Installation and deployment, page 4](#)

Cisco Virtualization Experience Client 6215 overview

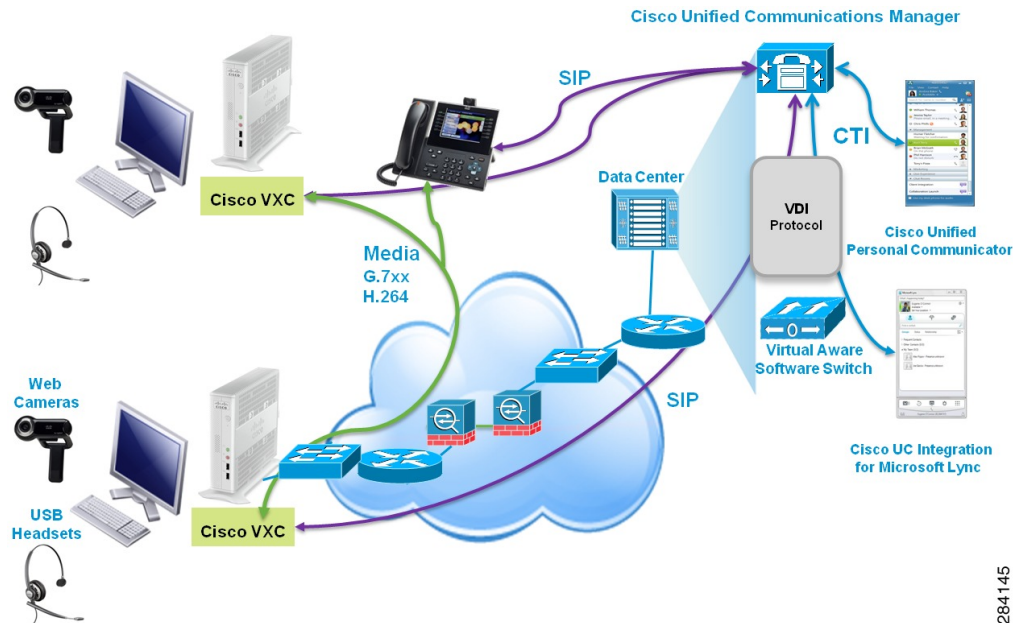
The Cisco Virtualization Experience Client 6215 thin client (tower form factor) is a multimedia-enabled desktop virtualization platform and a viable desktop replacement for enterprises.

The optional Voice and Video Firmware upgrade, for Cisco Virtualization Experience Client 6215, adds Unified Communications functionality for Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator.

With Cisco Virtualization Experience Client 6215 and the Voice and Video Firmware upgrade, users in a virtual environment can use Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator from their thin clients. The Voice and Video Firmware runs on the thin client, and Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator runs on a Windows hosted virtual desktop (HVD).

To reduce latency and to enhance media quality, Cisco Virtualization Experience Client 6215 streams media between the thin clients without going through the hosted virtual desktops.

Figure 1: Cisco Virtualization Experience Client 6215



284145

Important

Cisco Virtualization Experience Client 6215 with the Voice and Video Firmware upgrade works only with supported devices. For information about supported devices, see the *Release Notes for Cisco Virtualization Experience Client 6215*.



Note

In this Deployment Guide, the terms thin client and Cisco Virtualization Experience Client refer to Cisco Virtualization Experience Client 6215.



Differences in the virtual environment

The user experience with Cisco Virtualization Experience Client and Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator, in a virtual environment, is very similar to the experience provided by a standard Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator installation, with some differences:

- Cisco.com hosts the help files. If your site blocks Internet access for users, you can download the help files in PDF format and host them on the LAN. For more information, see [Set up the help files for users, on page 8](#).
- Registry keys control whether Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator operates in VXC mode. You must set the registry keys for the virtual environment to

enable Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator to work with Cisco Virtualization Experience Client 6215.

After a user signs in, Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator automatically enters VXC mode and selects the VXC device for the user. Users cannot change the mode. Users also cannot see or choose any other devices from the Device Selection dialog box.

- After device selection, the Cisco Virtualization Experience Client application starts the transfer of the phone configuration data for that user. For more information, see [Configuration files, on page 13](#).
- The following functions are available on the Call Strip, rather than on the bottom of the Cisco UC Conversation window component of Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator: volume control, toggle audio mute, add video, remove video, and toggle video (stop and start video for a call).
- If a connection failure between the thin client and HVD occurs
 - during an active call with no held calls, the active call continues and the  appears on the Call Strip.
 - during an active call with other calls on hold, the active call continues and the  appears on the Call Strip. If the user ends the active call from the Call Strip before reconnecting to the HVD, all held calls end with the active call. If the user signs back into their HVD before they end the active call, they can resume the held calls.
 - while the user has all calls on hold, all calls end immediately.
- The video appears in a separate window. The resolution is fixed at 352 x 288 Common International Format (CIF) at 15 frames per second. Users can move the video window, but they cannot resize the window or change the resolution. because the video quality is optimized for use with Cisco Virtualization Experience Client 6215, there are no video settings to configure.



Important For Video Conference Servers, the highest supported video level is H.264 level 1.2.

- By default, all calls send and receive video if both parties have video capability. Users can select their preference from the following options:
 - **Send and receive video:** Starts all calls as video calls, which send local video
 - **Receive video only (Do not send my video):** Starts all calls as video calls with the local video paused
 - **Do not send or receive video (Audio only):** Starts all calls as audio-only

This setting applies to all calls that the user places and receives. The default setting is **Send and receive video**. Users can change this setting in **Cisco UC Options > Video**.

- Some menus and options for Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator are different. The *Frequently Asked Questions* documents include details about the differences.

Considerations for virtual installations

After you set the registry keys for the virtual environment, the Cisco Virtualization Experience Client 6215 (VXC 6215) device is the only device that can function as the work phone. When you add devices for these users to the Cisco Unified Communications Manager, the device type is Cisco Virtualization Experience Client (VXC 6215). For more information, see [Device types, on page 10](#). Each user should have only one VXC device. You must also enable the computer-telephony integration (CTI) protocol for all Cisco Virtualization Experience Client 6215 users. For more information, see [Enable the CTI protocol for each user, on page 12](#).

In a virtual environment, you install Cisco Unified Personal Communicator, or Microsoft Office Communicator or Microsoft Lync with Cisco UC Integration for Microsoft Lync, on the HVDs, rather than on client computers (PCs). Otherwise, the installation is the same as the installation of Cisco UC Integration for Microsoft Lync in a nonvirtual environment. To prevent issues caused by multiple registrations for the same user on the Cisco Unified Communications Manager, advise users to sign into only one HVD at a time.



Note

You can connect the thin client to the network through a Cisco Unified IP Phone. However, you require Cisco UC Integration for Microsoft Lync 8.6(1) or better, or Cisco Unified Personal Communicator 8.6(3) or better, to control the Cisco Unified IP Phone. Cisco Audio Session Tunnel (CAST) connection to the HVD is not supported.



Tip

Before you begin to install Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator on an HVD, see the *Release Notes* document.

Installation and deployment

Table 1: Overview of installation tasks

1	Add users and devices on the Cisco Unified Communications Manager.	<ul style="list-style-type: none"> • Device types, on page 10 • Create a Cisco Virtualization Experience Client device and directory number for each user, on page 10 • Associate new devices with a user, on page 12 • Enable the CTI protocol for each user, on page 12
2	Use the Group Policy Management Console to set the registry keys on the HVDs for the virtual environment.	Group policy settings for the virtual environment, on page 7

3	Install Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator on the HVDs.	<p>Cisco UC Integration for Microsoft Lync http://www.cisco.com/en/US/products/ps11390/prod_installation_guides_list.html</p> <p>Cisco Unified Personal Communicator: http://www.cisco.com/en/US/products/ps6837/products_installation_and_configuration_guides_list.html</p>
4	If your site does not permit Internet access for users, set up the help files.	Set up the help files for users, on page 8
5	Set up the Cisco Virtualization Experience Client hardware and configure the device.	<p>http://www.cisco.com/en/US/products/ps11976/tsd_products_support_general_information.html</p> <p>http://www.cisco.com/en/US/products/ps11976/prod_installation_guides_list.html</p>
6	Install the Voice and Video Firmware upgrade on the Cisco Virtualization Experience Client.	<p>http://www.cisco.com/en/US/products/ps11976/prod_installation_guides_list.html</p> <p>Note All software downloads include a Checksum folder, which contains SHA-1 checksums that you can use for verification.</p>
7	Open the required ports in all firewalls.	Port usage, on page 14



CHAPTER 2

Cisco Virtualization Experience Client configuration

- [Group policy settings for the virtual environment, page 7](#)
- [Set up the help files for users, page 8](#)
- [Device types, page 10](#)
- [Create a Cisco Virtualization Experience Client device and directory number for each user, page 10](#)
- [Associate new devices with a user, page 12](#)
- [Enable the CTI protocol for each user, page 12](#)
- [Configuration files, page 13](#)
- [DHCP pool configuration, page 13](#)
- [Domain Name Resolution, page 14](#)
- [Port usage, page 14](#)

Group policy settings for the virtual environment

The Group Policy administrative templates for Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator include a Virtualization folder with the following policy settings. Use the Group Policy Management Console (GPMC) to manage these settings.

Policy	GPMC node	Default	Setting for virtual environment
VirtualisationEnabled	Computer Configuration	not configured	true
AutomaticDeviceSelectionMode	User Configuration	not configured	0
DeskphoneStartupMode	User Configuration	not configured	1

Policy	GPMC node	Default	Setting for virtual environment
TftpServer1	User Configuration	blank	IP address of the Cisco Unified Communications Manager Server
CUPServer (for Cisco Unified Personal Communicator only)	User Configuration	blank	IP address of the Cisco Unified Presence Server
VirtualizedHelpUrl (for help files hosted on the LAN)	User Configuration	blank	Full path to the help file

Before you install Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator on the Hosted Virtual Desktops (HVD), use the Group Policy Management Console (gpmc.msc) to configure these settings.

Related Topics

- [Add a new Active Directory group policy administrative template, on page 8](#)
- [Set up the help files for users, on page 8](#)

Add a new Active Directory group policy administrative template

Procedure

-
- Step 1** Right-click **Administrative Templates**, and then choose **Add/Remove Templates**.
 - Step 2** Add an administrative template to the list of current policy templates in the Add/Remove Templates dialog box, and then click **Close**.
 - Step 3** Open the Cisco UC Integration for Microsoft Lync folder in the right pane.

Note In Windows Vista and Windows 7, this folder is in the **Administrative Templates > Classic Administrative Templates** folder. In Windows XP, this folder is in the **Administrative Templates** folder.
 - Step 4** Open the folder that contains the settings that you want to specify.
 - Step 5** Double-click the setting for which you want to specify a value.
 - Step 6** Enter the value that you require, and then click **OK**.
-

What to Do Next

Set up the help files for users

Cisco.com hosts the help files (*Frequently Asked Questions* documents) specific to the virtual environment for Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator. If your site blocks

Internet access, you can host the help files on your LAN. After you set up the help files, users can obtain help directly from their Unified Communications client menu bar:

- Cisco UC Integration for Microsoft Lync: **Tools > FAQ on Cisco UC**
- Cisco Unified Personal Communicator: **Help > Help Topics**

Before You Begin

- Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator must be installed on the hosted virtual desktop (HVD).
- You must be an administrator on the HVD.
- You must have Internet access.
- You have a web server set up to host the files.

Procedure

-
- Step 1** Visit <http://www.cisco.com/cisco/software/navigator.html>.
- Tip** If you have already downloaded the **VXC6215-UC-Addon.zip** installation package, you can skip to Step 6. The installation package contains the Help Files package.
- Step 2** Sign in with your Cisco.com user ID and password.
- Step 3** Choose **Products > Voice and Unified Communications > IP Telephony > Virtualized Endpoints > Virtualization Experience Client 6000 Series > Virtualization Experience Client 6215**.
- Step 4** After the page refreshes, choose your release version in the navigation tree.
- Step 5** Locate the **VXC6215-UC-Addon.zip** and choose **Download Now**.
- Step 6** Create directories for the help files, in the location that you choose to host the help.
- Important** If both Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator are in use at your site, you must set up the help files for both. Create a separate directory for each help file package that you want to set up. If you want to set up the help for multiple languages, you require a separate directory for each language.
- Step 7** Extract the contents of the **VXC6215_8.6_Help_Files.zip** package and choose the individual packages that you require for your site.
- Step 8** Extract the contents of the individual packages to the corresponding directories that you created.
- Step 9** Use the Group Policy Management Console (gpmc.msc) to update the VirtualizedHelpURL registry key value on the HVD.
The value of this key is the absolute path to the index.html file, on the server that hosts the help files.
- Important** The value for this key must include `http://` at the beginning and have no trailing slash.
Valid: `http://server1.internal/help/index.html` (the help file `index.html` is in a directory called `help` on a server named `server1.internal`)
Not valid: `server1.internal/help/`
-

Related Topics

[Group policy settings for the virtual environment, on page 7](#)

Device types

Cisco Virtualization Experience Client requires a device type called Virtualization Experience Client (VXC 6215). Depending on which release of Cisco Unified Communications Manager is installed in your Cisco Unified Communications system, you might need to patch Cisco Unified Communications Manager with a Cisco Options Package (COP) file.

COP File	Client Release	Compatibility
Long device name	Available with Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator Release 8.6.	Compatible with Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator Release 8.6 and 8.6.1.
Short device name	Available with Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator Release 8.6.1.	Compatible with Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator Release 8.6.1 and later.

You must run the COP file if your Cisco Unified Communications Manager does not have the Virtualization Experience Client (VXC 6215) device type. You run the COP file on the Cisco Unified Communications Manager publisher server. After you apply the COP file, you must restart the Cisco Unified Communications Manager publisher server, and all other servers.

The COP file is included in the Installation packages for Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator. Go to the following URL:

<http://www.cisco.com/cisco/software/navigator.html>

Choose **Products > Voice and Unified Communications > Unified Communications Applications > Unified Communications Clients** and then click Cisco UC Integration(TM) for Microsoft Lync or Cisco Unified Personal Communicator.

Create a Cisco Virtualization Experience Client device and directory number for each user

Procedure

- Step 1** Choose **Device > Phone** in Cisco Unified Communications Manager Administration.
- Step 2** Click **Add New**.
- Step 3** Choose **Virtualization Experience Client (VXC 6215)** from the **Phone Type** drop-down list, and then click **Next**.
- Step 4** Enter the applicable information for the phone in the Phone Configuration window, as follows:

Option	Description
Device Name	Enter a name to identify the Virtualization Experience Client (VXC 6215) device. The name can contain 1 to 15 characters, including alphanumeric characters, periods, hyphens, and underscores. The device name does not need to relate to the user ID of the user.

Option	Description
Description	Enter a descriptive name for the phone. For example, enter <i>Richard-phone-on-computer</i> .
Device Pool	Choose Default from the list. The device pool defines sets of common characteristics for devices, such as region, date/time group, softkey template, and Multilevel Precedence and Preemption (MLPP) information.
Phone Button Template	Choose Standard Cisco Virtualization Experience Client . The phone button template determines the configuration of buttons on a phone and identifies which feature (such as line or speed dial) is used for each button.
Owner User ID	To use an adjunct license with this device, choose the user ID from the list.
Primary Phone	To use an adjunct license with this device, choose the device name of the Cisco Unified IP Phone to associate with the client application, from the list.
Allow Control of Device from CTI	Always check this option in a virtual environment.
Presence Group	Choose Standard Presence Group .
Device Security Profile	Choose Cisco Virtualization Experience Client VXC - Standard SIP Non-Secure Profile , and then do the following: <ol style="list-style-type: none"> 1 Enter certification and authentication information in the Certification Authority Proxy Function (CAPF) Information section. 2 Click Generate String. 3 Email the contents of the Authentication String field to the user.
SIP Profile	Choose Standard SIP Profile or a specific profile that was previously created. SIP profiles provide specific SIP information for the phone, such as registration and keepalive timers, media ports, and Do Not Disturb control.

Step 5 Click **Save**.

Step 6 Click **Add a new DN** in the **Association Information** section that appears on the left side of the window.

Step 7 Enter information for the directory number on the Directory Number Configuration window.

Option	Description
Directory Number	Enter the directory number (line) to assign to the device.
Route Partition	Enter the route partition. Partitions divide the route plan into logical subsets. These subsets include organization, location, and type of call.
Display (Internal Caller ID)	Enter the Caller ID.

Option	Description
Maximum Number of Calls	Specify the maximum number of calls that can be presented to the application.
Busy Trigger	Specify the trigger value, after which an incoming call receives a busy signal.

- Step 8** Click **Save**.
Cisco Unified Communications Manager reminds you that changes to line or directory number settings require a restart. However, you need only restart after you edit lines on Cisco Unified IP Phones that are running at the time of the modifications.

Associate new devices with a user

Procedure

- Step 1** Choose **User Management > End User** in Cisco Unified Communications Manager Administration.
- Step 2** Search for the user in the **Find and List Users** window.
- Step 3** Select the user.
- Step 4** Click **Device Association** in the **Device Information** section.
- Step 5** Search for the devices you require in the **User Device Association** window.
- Step 6** Select the devices you require.
For example, you might select a device whose type is Cisco Virtualization Experience Client (VXC 6215), and a desk-phone device.
- Step 7** Click **Save Selected/Changes**.
- Step 8** Choose **Back to User** from the menu in the **Related Links** navigation box at the top right of the window.
- Step 9** Click **Go**.
- Step 10** Verify that the devices are listed in the **Device Information** section on the **End User Configuration** window.

Enable the CTI protocol for each user

You must enable the computer-telephony integration (CTI) protocol for each Cisco Virtualization Experience Client 6215 user.

Procedure

- Step 1** Choose **User Management > End Users**, in Cisco Unified Communications Manager Administration.
- Step 2** Use the Find feature to locate the user.
- Step 3** Scroll down to Permissions Information, in End Users Configuration.
- Step 4** Click **Add to User Group**.
- Step 5** Select the following groups:
- Standard CTI Allow Call Park Monitoring
 - Standard CTI Allow Control of Phones Supporting Connected Xfer and Conf
 - Standard CTI Allow Control of Phones Supporting Rollover mode
 - Standard CTI Enabled
 - Standard CCM End Users
- Step 6** Click **Add Selected**.
-

Configuration files

For each Cisco Virtualization Experience Client (VXC 6215) device that you add to the system, Cisco Unified Communications Manager creates a configuration (CNF) file. The CNF file contains the device specifications for the associated thin client user. When a user signs in to Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator, Cisco Virtualization Experience Client starts the download of the associated CNF file to the thin client, over TFTP. To ensure the successful transfer of the file, you must open a port in all firewall applications to allow the thin client to access port 69 on the TFTP server for the Cisco Unified Communications Manager. For more information about how to open ports, see the documentation for the firewall software.

DHCP pool configuration

If your network uses DHCP, you must configure the domain name in the DHCP pool. Without this configuration, DHCP does not assign a domain to the Cisco Virtualization Experience Client thin clients. Therefore the devices cannot register with the Cisco Unified Communications Manager, the keypads for Cisco UC Integration for Microsoft Lync and Cisco Unified Personal Communicator are dimmed, and users cannot make calls.

Example:

```
ip dhcp pool Non-VXCM server
network 10.2.209.0 255.255.255.0
dns-server 10.2.25.11
default-router 10.2.209.1
domain-name rtpvxi.com
!
```

Domain Name Resolution

If the Cisco Virtualization Experience Client devices reside in a different domain than the Cisco Unified Communications Manager, the DNS server may be unable to resolve the domain name for the Cisco Unified Communications Manager.

To resolve this issue, you must edit the `/etc/hosts` file on the thin client. To make the change permanent, use the Cisco Virtualization Experience Client Manager to edit the `wlx.ini` file. Add the `AddtoEtcHosts=` parameter, and specify the IP, FQDN, and aliases for each Cisco Unified Communications Manager in the cluster. This parameter adds entries to the `/etc/hosts` file, where aliases are an optional space-separated list of hostnames.

For more information about how to edit the `wlx.ini` file, see the *INI Files Reference Guide*.

Syntax

```
AddtoEtcHosts="ip1 FQDN1 aliases1;ip2 FQDN2 aliases2"
```

Sample wlx.ini file

```
;*****
;*
;*          This wlx.ini file was generated with the          *
;*          Configuration File Generator 6.1.01             *
;*          Copyright by Thomas Moellerbernd                *
;*          http://www.technicalhelp.de                      *
;*
;*****

;*****
;*          General 1                                       *
;*****

AddtoEtcHosts="10.200.252.2 CUCM123.cisco.com CUCM123;10.100.7.117 CUCM456.cisco.com
CUCM456"
Update.Mode=AddOns
InstallAddOns=add_xterm-0.2-2.sletc11sp1.rpm

*****
;*          Firefox                                         *
;*****

Browser.Homepage=www.cisco.com

CONNECT=BROWSER \
Description="Citrix" \
URL=www.cisco.com \
LocalCopy=Yes\
```

Port usage

If the network includes firewalls, you may have to open the following ports.

Ports	Usage
69	Outbound traffic for TFTP.
443	Connections to VMware View Connection server.

Ports	Usage
1494	Citrix ICA connection for the hosted virtual desktop (HVD).
5060	Outbound TCP connections for SIP.
5061	Outbound TLS connections, for secure SIP.
16384 to 32766	Inbound and outbound connections for RTP (audio and video streams).
80 and 443	Inbound and outbound connections for the VXC Manager agent (netxserv service). Only the VXC Manager server has access to this service.
5800	Inbound connections for VNC Server (vino-server). The default configuration blocks connections that use the VNC protocol.



CHAPTER 3

Troubleshooting

- [Problem Reporting Tool, page 17](#)
- [Cisco HVD Agent, page 18](#)
- [Log files and core dumps, page 18](#)
- [Basic Troubleshooting Steps, page 20](#)
- [No audio or video on the Cisco Virtualization Experience Client, page 21](#)
- [Registration failure, page 21](#)
- [General Audio Issues, page 22](#)
- [No Audio with the Plantronics Voyager Pro UC V2 Headset, page 22](#)
- [Shared Line User Cannot Resume Held Call, page 22](#)

Problem Reporting Tool

The Problem Reporting Tool (PRT) is a small program, which automatically runs in the event of an unrecoverable error, unhandled exception, or crash in Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator.

If a user experiences an error which does not crash the software, they can run the PRT themselves from the Microsoft Office Communicator or Microsoft Lync menu; **Tools > Create Problem Report**. Users can run the PRT from the Cisco Unified Personal Communicator menu: **Help > Create Problem Report**.



Note

Users must accept the privacy agreement to run the PRT.

The tool creates a problem report, which is a zip file that you can send to the Cisco Technical Assistance Center (TAC), to provide the necessary information to solve the problem. The tool saves the file to the user's desktop.

We recommend that users set the level of logging to verbose for Cisco UC Integration for Microsoft Lync, or for Cisco Unified Personal Communicator, enable detailed logging. We also recommend that users provide a description of the circumstances leading up to the error. For more detailed information, about how to run

the PRT, or how to set the logging level, see the Troubleshooting section in the applicable Frequently Asked Questions document.

Cisco HVD Agent

Cisco Virtualization Client depends on a service called Cisco HVD Agent, which is part of the Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator installation. The Cisco HVD Agent service enables the passage of data across the virtual channel, between the hosted virtual desktop (HVD agent), and the thin client.

You can use the Services Console (services.msc) to check the status of Cisco HVD Agent, and to start, stop, or restart the service. The service should be started, with the **Startup Type** set to **Automatic**.

**Note**

The Cisco HVD Agent service must be running for the Cisco Virtualization Client software to function correctly.

Log files and core dumps

By default, local logging on the thin client is disabled. You can use a script to enable logging for Cisco Virtualization Client, for troubleshooting purposes. You can also enable core dumping. You must have administrator privileges to run the script, and log on to the thin client over SSH.

For information about how to enable or disable SSH, see the *Administration Guide for Cisco Virtualization Experience Client 6215*.

For information about how to change the administrator/root password on the thin client, see the *Administration Guide for Cisco Virtualization Experience Client 6215* and the *INI Files Reference Guide for Cisco Virtualization Experience Client 6215*.

The following table lists and describes the options for the script. The script accepts two options (one for logging and one for core dumping).

Table 2: Logging operations

Option	Description
-l on	<p>Turn on logging for Cisco VXC 6215. This option creates the /etc/vxcclog.conf and /etc/virtualchannellog.conf files; and writes logs to the /var/log/cisco directory. The script also restarts Cisco VXC 6215 so the change takes effect immediately.</p> <p>The log files for the Cisco VXC 6215 application are: /var/log/cisco/vxcc.log and VirtualChannelLib.log.</p> <p>The log file for the Citrix Receiver is: /var/log/cisco/VirtualChannel.log.</p> <p>This option also creates the device-managerConsole.log and device-managerError.log, after the next connection to the hosted virtual desktop (HVD). These two files are enabled by default, although logging is disabled by default.</p>
-l off	<p>Turn off logging for Cisco VXC 6215. This option deletes the /var/log/cisco directory and all the files in that directory, including /etc/vxcclog.conf and etc/virtualchannellog.conf.</p> <p>Note You cannot run the script to turn off logging from within the /var/log/cisco directory.</p> <p>The script also restarts Cisco Virtualization Client so that the change takes effect immediately.</p>
-c on	<p>Turn on core dumping. This option adds a configuration line to /etc/sysctl.conf. The script also prompts you to restart the thin client for the changes to take effect.</p> <p>Core dumping is a system wide policy; after you enable it, any process that crashes produces a core dump and saves it to /tmp. The file name format is: core_PROCESSNAME_TIMESTAMP.</p> <p>The system generates core files when a process crashes.</p> <p>The /tmp directory may contain multiple core files. The timestamp in the file name should assist with the identification of the core files generated around the time of the incident under investigation.</p>
-c off	<p>Turn off core dumping. This option removes the configuration line from /etc/sysctl.conf. The script also prompts you to restart the thin client for the changes to take effect.</p> <p>Important If you turn off core dumping, the script deletes all core dumps from the /tmp directory, including core dumps that were not created by Cisco Virtualization Experience Client.</p>
-h	<p>Display the usage help.</p>

Script example 1

```
vxcc -l off -c on
```

In this example, the script turns off logging and turns on core dumping.

Script example 2

```
vxcc -l on
```

In this example, the script turns on logging.

Basic Troubleshooting Steps

Confirm the Version of Cisco Virtualization Experience Client that is installed on the thin client

1. Open a terminal window on the thin client
2. Enter the following command: `rpm -qi vxc`

You can also use the `versionInfo` command.

Ensure that vxcc is Running on the Thin Client

1. Open a terminal window on the thin client
2. `ps -ef | grep -r vxcc`

You should see the following lines:

```
/bin/bash /usr/bin/pidrun.sh vxcc /dev/null /dev/null
```

```
1
```

```
vxcc
```

```
grep vxcc
```

Ensure that Credentials are Passed Down the Virtual Channel to the Thin Client

1. Turn off logging to remove the `vxcc_logs` files.

```
vxcc -l off
```

2. Turn logging back on and restart the thin client.

```
vxcc -l on
```

3. Log in to the HVD and sign in to Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator.

4. Disconnect from the HVD.

5. Use the Diagnostic Logs Viewer to view the `vxcc.log` file, and search for Received Device Name value: device name.

Ensure that the Registry Key Values are Correct

1. Open the registry editor on the HVD.

2. Ensure that

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Cisco Systems, Inc.\Virtualisation]
"VirtualisationEnabled" is set to "true".
```

OR if you chose not to use the Policies registry path,

For 32-bit systems, ensure that

[HKEY_LOCAL_MACHINE\SOFTWARE\Cisco Systems, Inc.\Virtualisation] "VirtualisationEnabled" is set to "true".

For 64-bit systems, ensure that

[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Cisco Systems, Inc.\Virtualisation] "VirtualisationEnabled" is set to "true".

**Note**

Set VirtualisationEnabled to true in only one of the preceding locations.

3. Ensure that [HKEY_CURRENT_USER\Software\Cisco Systems, Inc.\Client Services Framework\AdminData] "StartupMode" is set to "1".
4. StartupMode" is set to "1".
5. Ensure that [HKEY_CURRENT_USER\Software\Cisco Systems, Inc.\Client Services Framework\AdminData] "TftpServerAddress" is set to the IP for the Cisco Unified Communications Manager.
6. Ensure that [HKEY_CURRENT_USER\Software\Cisco Systems, Inc.\Client Services Framework\AdminData] "CUPServer" is set to the IP for the Cisco Unified Presence Server.

Ensure that the Cisco HVD Agent is Started

1. Open the Services console (services.msc) on the HVD.
2. Locate the service name Cisco HVD Agent-under the Name column.
3. Ensure the status for the Cisco HVD Agent service is Started.

No audio or video on the Cisco Virtualization Experience Client

Problem The audio and video for a Virtualization Experience Client user appears on their Cisco Unified IP Phone or Cisco Cius tablet and not on the Virtualization Experience Client device.

Possible Cause The user does not have a VXC device assigned on the Cisco Unified Communications Manager.

Solution On the Cisco Unified Communications Manager, create a new VXC device for the user and then assign the device to the user.

Registration failure

Problem After you move a user from one Cisco Unified Communications Manager to another, the user cannot successfully register with the new Cisco Unified Communications Manager.

Possible Cause This issue occurs because the client tries to register with the certificate for the original Cisco Unified Communications Manager.

Solution To resolve this issue, delete or rename the vxcc.bin file, and then have the user restart Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator. The vxcc.bin file is in the following directory on the hosted virtual desktop (HVD):

<USER>\AppData\Local\Cisco\Unified Communications\Virtualization\



Note

The AppData folder is hidden; you must set Windows Explorer to view hidden files.

General Audio Issues

If a user experiences issues with audio (for example, the user has video for a call, but not audio) the camera may have become the active audio device. There are two ways to resolve this issue:

Resolution 1

1. Unplug the headset and then plug it back in.
2. Sign out and back in to Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator.
3. Alternately, you can stop and then start Cisco UC Integration for Microsoft Lync or Cisco Unified Personal Communicator.

If the audio issues persist, try Resolution 2.

Resolution 2

1. Restart the thin client without the camera and headset connected.
2. Plug in the camera.
3. Plug in the headset and wait a couple seconds.
4. Sign into the hosted virtual desktop.

No Audio with the Plantronics Voyager Pro UC V2 Headset

Problem After a user first plugs in the Plantronics Voyager Pro UC V2 headset and answers a call, the audio may not work.

Possible Cause Unknown

Solution To resolve this issue, answer the incoming call, and then press the Call button on the headset. Users need only do this for the first call after they plug in the device.

Shared Line User Cannot Resume Held Call

Problem Cisco Virtualization Experience Client users cannot use Cisco Unified Personal Communicator or Cisco UC Integration for Microsoft Lync to resume a call that they placed on hold from another Shared Line endpoint.

Possible Cause Privacy settings on the Cisco Unified Communications Manager.

Solution Use Cisco Unified CM Administration to set the Privacy settings for the virtual environment.

Set the Privacy Settings

Procedure

- Step 1** In Cisco Unified CM Administration, click **System > Service Parameters**.
 - Step 2** From the **Server** menu, choose the Communications Manager server.
 - Step 3** From the **Service** menu, choose the Cisco CallManager service.
 - Step 4** Scroll down to the **Clusterwide Parameters (Device-Phone)** section.
 - Step 5** Set **Privacy Setting** to False.
 - Step 6** Set **Enforce Privacy Settings on Held Calls** to False.
 - Step 7** Save the changes.
-

