Cisco Virtualization Experience Client configuration

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 2
Set up the help files for users, on page 2

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 1

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 *Richard-phone-on-computer*.
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: **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.