

Deployment and Best Practices using Microsoft Office Communicator with Cisco IP Communicator

Document ID: 100792

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Introduction

Cisco Unified Communications provides integration with Microsoft Live Communications Server 2005 or Office Communications Server 2007 for remote call control (for example, Click to Call) of a Cisco Unified Endpoint. Microsoft Office Communicator is the application used to remotely control a Cisco Unified Endpoint via this integration between Microsoft Live Communications Server 2005 or Microsoft Office Communications Server 2007 and Cisco Unified Communications, via Cisco Unified Presence.

Communications between Cisco Unified Presence and Microsoft Live Communications Server 2005 or Office Communications Server 2007 uses the SIP/SIMPLE interface. However, Microsoft Live Communications Server 2005 or Office Communications Server 2007 tunnels Computer-Supported Telecommunications Applications (CSTA) traffic over SIP. Therefore, the CTI gateway on the Cisco Unified Presence server must be configured to handle the CSTA-to-CTI conversion for Click to Call phone control.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

These components are required to deploy Microsoft Office Communicator with Cisco IP Communicator:

- Cisco IP Communicator version 2.1 or later
- Microsoft Office Communicator 2005 or 2007

- Cisco Unified Communications Manager version 5.0(4) or later
- Cisco Unified Presence version 6.x or 1.x
- Microsoft Live Communication Server 2005 or Microsoft Office Communications Server 2007
- If Microsoft Office Communicator will use Cisco IP Communicator for voice mail access, one of these voice mail systems, as applicable:
 - ◆ Cisco Unity version 5.0(1) or later
 - ◆ Cisco Unity Connection version 2.0(1) or later

For information about the most current supported version combinations of the required components, refer to the compatibility documentation on Cisco.com.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Deployment

The purpose of this document is to highlight one particular deployment scenario that provides Cisco Unified Communications call control using a softphone, the ability for Microsoft Office Communicator to remotely control Cisco IP Communicator. All the user functionality for placing, receiving, and handling calls is done using Microsoft Office Communicator, but the underlying audio functionality is provided by Cisco IP Communicator.

This document provides information about setting up Microsoft Office Communicator with Cisco Unified Presence and Cisco Unified Communications Manager to use Cisco IP Communicator for third-party call control and to access voice mail. This document also contains end user best practices for using Microsoft Office Communicator with Cisco IP Communicator. This document does not provide the step by step configuration of the complete solution configuration, but does provide the reference documentation that is needed to successfully deploy the required components.

Microsoft Office Communications Server Integration with Cisco Unified Presence, Cisco Unified Communications Manager, and Cisco Unified IP Phones

Cisco Unified Presence allows Microsoft Office Communicator to use Cisco Unified IP Endpoints, which support being controlled by JTAPI, for third-party call control. The users of Microsoft Office Communicator are enabled for communications via Active Directory Users & Computers, which can be accessed from the Live Communications Server 2005 or Office Communications Server 2007 platform command line using `dsa.msc`.

Once the required components have been verified, use this high-level task list to systematically install and test these components for the system to work properly. The tasks reference detailed instructions in the Cisco Unified Presence documentation and associated application notes. Some of the tasks apply only to specific situations, and are noted as such. If a task does not apply to your situation, skip it.

1. Install Cisco Unified Presence. Refer to the applicable installation guide at Cisco Unified Presence Install and Upgrade Guides.
2. Perform the tasks to integrate Microsoft Office Communicator with Cisco Unified Presence. Refer to these documents for configuration details:

- ◆ The applicable integration note/deployment guide at Cisco Unified Presence Configuration Guides.
 - ◆ For Microsoft Live Communication Server 2005 Enterprise Edition with SP1 to Cisco Unified Presence 1.0(3) and Cisco Unified CallManager 5.0(4), the document is available at http://www.cisco.com/en/US/docs/voice_ip_comm/cucme/pbx/interop/notes/573420nt.pdf.
 - ◆ For Microsoft Office Communication Server 2007 Enterprise Edition with SP1 to Cisco Unified Presence 6.0(1) and Cisco Unified Communications Manager 6.0(1), the document is available at http://www.cisco.com/en/US/docs/voice_ip_comm/cucme/pbx/interop/notes/617030nt.pdf.
 - ◆ For Microsoft Office Communicator 2007, refer to the Microsoft Office Communicator 2007 Deployment Guide.
 - ◆ For Microsoft Office Communications Server 2007, refer to the Microsoft Office Communications Server 2007 Administration Guide for configuration information.
 - ◆ For additional Microsoft Office Communications Server documentation, refer to Office Communications Server.
3. Test the integration:

- a. Configure Microsoft Office Communicator to use the Cisco Unified IP Phone.
- b. Use Microsoft Office Communicator to call another user phone.
- c. Confirm that Microsoft Office Communicator uses the Cisco Unified IP Phone correctly.

Microsoft Office Communicator Voicemail Access

The dial pad in the Microsoft Office Communicator client does not have a key for direct access to voice mail. However, you can simulate single-click voice mail access by configuring a generic voice mail user in Active Directory and in Live Communications Server 2005 or Office Communications Server 2007, and having users add this user as a contact in Microsoft Office Communicator. Users can then use click-to-dial to call the contact to access their voice mail.

Generic Voice Mail User Configuration in Active Directory

In order to simulate single-click access to voice mail in Microsoft Office Communicator, configure a generic voice mail user in Active Directory.

Note: If users access their voice mail using different pilot numbers, you must create a separate generic user in Active Directory for each pilot number, and notify your users of which generic voice mail user to add as a contact in Microsoft Office Communicator.

1. In Active Directory, create a user with these settings:

Field Name	Enter
First Name	Voice
Last Name	Mail
Display Name	Voice Mail
Telephone Number	<Pilot Voice Mail number configured in Cisco Unified Communications Manager>

2. Click the **Live Communications** tab for Live Communications Server 2005, or the **Communications** tab for Office Communications Server 2007.
3. Click the **Enable Live Communications for This User** tab for Live Communications Server 2005, or the **Enable users for Communications Server** tab for Office Communications Server 2007.

4. In order to specify the SIP URI, enter **sip:voicemail@<Domain name>** .
5. From the pool drop–down list, choose the pool that applies to the user.
6. Click **OK**.
7. Click **Exit**.

Single–Click Voice Mail Access Configuration in Microsoft Office Communicator

Users can set up single–click access to voice mail in Microsoft Office Communicator, after configuring a generic voice mail user in Active Directory.

1. Log in to the Microsoft Office Communicator client.
2. Add the generic voice mail user to your list of contacts.

In order to access voice mail, call the voice mail contact as you would any other contact. Use the Microsoft Office Communicator dial pad to enter your voice mail password.

Cisco IP Communicator

Cisco IP Communicator can be used as an endpoint for Microsoft Office Communicator remote call control in addition to the Cisco Unified IP Phones.

1. Install and configure Cisco IP Communicator. Refer to the Administration Guide for Cisco IP Communicator Release 2.1.
2. Test Microsoft Office Communicator with Cisco IP Communicator:
 - a. Start Cisco IP Communicator.
 - b. When the phone has completed registration with the Cisco Unified Communications Manager, log in to Microsoft Office Communicator.

Note: Cisco IP Communicator must complete registration prior to logging into Microsoft Office Communicator.

- c. Configure Cisco IP Communicator to run in hidden mode using Hiding Cisco IP Communicator.

This is an optional step. However, from a user experience aspect, this will keep Cisco IP Communicator in the system tray. This allows Microsoft Office Communicator to be the user control, while the audio is using Cisco IP Communicator.

- d. Use Microsoft Office Communicator to call another user phone.
- e. Confirm that Microsoft Office Communicator uses Cisco IP Communicator instead of the Cisco Unified IP Phone.
- f. If users will use Microsoft Office Communicator to access voice mail, test the voice mail access by calling the voice mail contact as you would any other contact. Use the Microsoft Office Communicator dial pad to enter your voice mail password.

Best Practices for Using Microsoft Office Communicator with Cisco IP Communicator

When integrating Microsoft Office Communicator with Cisco IP Communicator, there are a few best practices that should be followed to allow for the best possible user experience:

- Hiding Cisco IP Communicator allows for Cisco IP Communicator to run in the system tray without being presented as a control interface during call setup or during an active call. This will allow for the user to have one control interface, Microsoft Office Communicator.
- Cisco IP Communicator Completes Registration before Login to Microsoft Office Communicator allows for Microsoft Office Communicator to control the last registered Cisco Unified Endpoint.
- End User training as to how to Microsoft Office Communicator utilizes the Cisco Unified Endpoint, whether that is a Cisco Unified IP Phone or Cisco IP Communicator.

Hiding Cisco IP Communicator

Cisco IP Communicator can be optionally configured to run in hidden mode and be maintained in the system tray.

1. Right-click on Cisco IP Communicator, and click **Preferences**.
2. Click the **User** tab.
3. Check the **Hide on Minimize** check box.
4. Uncheck the **Bring to Front on Active Call** check box.
5. Check the **Hide Incoming Call Notification** check box.
6. Click **OK**.
7. Right-click the Cisco IP Communicator desktop shortcut, and click **Properties**.
8. Click the **Shortcut** tab.
9. In the Run list, click **Minimized**.
10. Click **OK**.
11. Minimize Cisco IP Communicator.

Cisco IP Communicator Completes Registration before Login to Microsoft Office Communicator

The Microsoft Office Communicator client controls only one phone, and Microsoft Office Communicator determines which phone to use when a user logs on. This can present a challenge if the user has both Cisco IP Communicator and a Unified IP Phone configured to share the same directory number.

By default, Microsoft Office Communicator controls Cisco IP Communicator if it is registered with Cisco Unified Communications Manager when the user logs in to Microsoft Office Communicator. A user should not log in to Microsoft Office Communicator until they start Cisco IP Communicator and allow it to complete registration. Otherwise, Microsoft Office Communicator will control the user's Cisco Unified IP Phone instead.

Microsoft Office Communicator does not provide a way to specify which phone to use. If Cisco IP Communicator registration was not complete when the user logged in to Microsoft Office Communicator, the user must log out of Microsoft Office Communicator and then log back in to fix the problem. Similarly, if Microsoft Office Communicator is controlling Cisco IP Communicator and if the user wants to switch to have Microsoft Office Communicator control their Cisco Unified IP Phone instead, the user must log out of Microsoft Office Communicator, close Cisco IP Communicator, then log back in to Microsoft Office Communicator.

Cisco recommends that users configure the Microsoft Office Communicator to not automatically start when they log in to Windows. In the Microsoft Office Communicator, click **Tools > Options**, and uncheck the **Automatically Start Communicator when I Log on to Windows** check box on the Personal tab.

Known Issues

This is a list of currently known issues when using the Microsoft Office Communicator with Cisco IP Communicator:

- Cisco bug ID CSCs155367 (registered customers only) Shared line is not working correctly with MOC.

Issue: When following the Best Practices for Using Microsoft Office Communicator with Cisco IP Communicator, once the Cisco IP Communicator is registered, that is the device that Microsoft Office Communicator will control. When the Cisco Unified IP Phone is a shared line of the Cisco IP Communicator, Microsoft Office Communicator is not actually controlling the Cisco Unified IP Phone even though Microsoft Office Communicator has knowledge of the device. This potentially presents a confusing user experience where once a call is answered directly from the Cisco Unified IP Phone, Microsoft Office Communicator brings up a control window even though it will have no control over that device.

Mitigation: None

- Cisco bug ID CSCs159987 (registered customers only) DTMF is delayed when using MOC keypad.

Issue: When using Microsoft Office Communicator to access voice mail, users entering digits on the Microsoft Office Communicator keypad can enter their passwords too quickly. This might cause some digits to not be received and/or processed by Cisco Unified Communications Manager, and authentication will fail.

Mitigation: In order to avoid the failed authentication problem, Cisco recommends that users pause approximately one second between digit presses.

- Cisco bug ID CSCs160049 (registered customers only) There is not mute capability on MOC.

Issue: The use of the Mute button on Microsoft Office Communicator does not mute the Cisco IP Communicator audio stream.

Mitigation: None. Cisco Unified Communications manager does not have CTI control to specifically control the mute functionality of a Cisco Unified Endpoint.

- Lastly, if Cisco IP Communicator is configured to use Extension Mobility, the device profile name must not begin with SEP.

Related Information

- [Cisco Unified Communications SRND Based on Cisco Unified Communications Manager 6.x](#)
- [Voice Technology Support](#)
- [Voice and Unified Communications Product Support](#)
- [Troubleshooting Cisco IP Telephony](#)
- [Technical Support & Documentation – Cisco Systems](#)

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Updated: Mar 17, 2008

Document ID: 100792
