



Cisco Unified IP Conference Phone Customization

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Cisco Unified IP Conference Phone Customization Overview

This chapter explains how you customize configuration files, Cisco Unified IP Conference Phone ring sounds, and the idle display at your site. Ring sounds play when the conference phone receives a call. The idle display appears on the LCD screen when the conference phone has not been used for a designated period.

Configuration File Customization and Modification

You can modify configuration files and add customized files to the TFTP directory. You can modify files or add customized files to the TFTP directory in Cisco Unified Communications Operating System Administration, from the TFTP Server File Upload window. For information about how to upload files to the TFTP folder on a Cisco Unified Communications Manager server, see the *Cisco Unified Communications Manager System Guide*.

You can obtain a copy of the Ringlist.xml or Ringlist-wb.xml files and the List.xml file from the system using the following admin command-line interface (CLI) “file” commands:

- admin:file
 - file list
 - file view
 - file search
 - file get
 - file dump
 - file tail
 - file delete

For more information, see the *Cisco Intercompany Media Engine Command Line Interface Reference Guide*.

Custom Phone Ring Creation

The default ringtone implemented in the conference phone hardware is Chirp1. Cisco Unified Communications Manager also provides a default set of additional conference phone ring sounds that are implemented in software as pulse code modulation (PCM) files. The PCM files, along with an XML file, `Ringlist-wb.xml`, which describe the ring list options that are available at your site, are found in the TFTP directory on each Cisco Unified Communications Manager.

Both file formats can be used simultaneously on the conference phone.

The conference phone ringtone formats are backward compatible with the G.711ulaw/8-bit/8000 Hz raw format as well as with previous Cisco Unified Communications Manager versions.

For more information, see the *Cisco Unified Communications Manager System Guide*, “Cisco TFTP” chapter, and *Cisco Unified Communications Operating System Administration Guide*, “Software Upgrades” chapter.

The following sections describe how you can customize the conference phone ringtones that are available at your site by creating PCM files and editing the `Ringlist-wb.xml` file.

Ringlist-wb.xml File Format Requirements

The `Ringlist-wb.xml` file defines an XML object that contains a list of conference phone ring types. This file can include up to 50 ring types. Each ring type contains a pointer to the PCM file that is used for that ring type and the text that will appear on the Ring Type menu on a conference phone for that ring. The Cisco TFTP server for each Cisco Unified Communications Manager contains this file.

The `CiscoIPconference stationRingList` XML object uses the following simple tag set to describe the information:

```
<CiscoIPconference stationRingList>
  <Ring>
    <DisplayName/>
    <FileName/>
  </Ring>
</CiscoIPconference stationRingList>
```

The following characteristics apply to the definition names. You must include the required `DisplayName` and `FileName` for each conference phone ring type.

- `DisplayName` defines the name of the custom ring for the associated PCM file that will display on the Ring Type menu of the conference phone.
- `FileName` specifies the name of the PCM file for the custom ring to associate with `DisplayName`.



Note The `DisplayName` and `FileName` fields must not exceed 25 characters.

This example shows a `Ringlist-wb.xml` file that defines two conference phone ring types:

```
<CiscoIPconference stationRingList>
  <Ring>
    <DisplayName>Analog Synth 1</DisplayName>
    <FileName>Analog1.rwb</FileName>
```

```
</Ring>
<Ring>
<DisplayName>Analog Synth 2</DisplayName>
<FileName>Analog2.rwb</FileName>
</Ring>
</CiscoIPconference stationRingList>
```

PCM File Requirements for Custom Ring Types

The PCM files for the ring types must meet the following requirements for proper playback on conference phones:

- Raw PCM (no header)
- 16000 samples per second
- 16 bits per sample
- Least Significant Bit
- Minimum ring size is 240 samples
- Number of samples in the ring is evenly divisible by 240
- Maximum ring duration is 10 seconds
- Ring starts and ends at the zero crossing
- To create PCM files for custom conference phone rings, you can use any standard audio editing packages that support these file format requirements

Set Up Custom Ringtone

To create custom conference phone rings for the conference phone, follow these steps:

Procedure

- Step 1** Create a PCM file for each custom ring (one ring per file). Ensure the PCM files comply with the format guidelines that are listed in the [PCM File Requirements for Custom Ring Types, on page 3](#) section.
- Step 2** Upload the new PCM files that you created to the Cisco TFTP server for each Cisco Unified Communications Manager in your cluster. For more information, see the *Cisco Unified Communications Operating System Administration Guide*, “Software Upgrades” chapter.
- Step 3** Use a text editor to edit the `Ringlist-wb.xml` file. See the [Ringlist-wb.xml File Format Requirements, on page 2](#) section for information about how to format this file and for a sample `Ringlist-wb.xml` file.
- Step 4** Save your modifications and close the `Ringlist-wb.xml` file.
- Step 5** Cache the new `Ringlist-wb.xml` file:
 - a) Log on to Cisco Unified Communications Manager Administration.
 - b) From the Navigation drop-down list at the top right of the window, select **Cisco Unified Serviceability**, and then press **Go**.
 - c) Choose **Tools > Control Center - Feature Services**.

- d) In the CM Services area, locate, stop, and start the Cisco TFTP service.
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Idle Display Setup

You can specify an idle display that appears on the conference phone LCD screen. The idle display is an XML service that the conference phone invokes when the conference phone has been idle (not in use) for a designated period and no feature menu is open.

XML services that can be used as idle displays include company logos, product pictures, and stock quotes.

Configuring the idle display consists of these general steps:

1. Formatting an image for display on the conference phone.
2. Configuring Cisco Unified Communications Manager to display the image on the conference phone.

For detailed instructions about creating and displaying the idle display, see *Creating Idle URL Using Graphics on Cisco IP Phone* at this URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_tech_note09186a00801c0764.shtml.

In addition, you can see the *Cisco Unified Communications Manager Administration Guide* or to *Cisco Unified Communications Manager Bulk Administration Guide* for the following information:

- Specifying the URL of the idle display XML service:
 - For a single conference phone: Idle field on the Phone Template Configuration page in the Bulk Administration Tool (BAT)
 - For multiple conference phones simultaneously: URL Idle Time field on the Cisco Unified Communications Manager Enterprise Parameters page, or the Idle field in the Bulk Administration Tool (BAT)
- Specifying the length of time that the conference phone is not used before the idle display XML service is invoked:
 - For a single conference phone: Idle Timer field on the Cisco Unified Communications Manager Administration Phone Configuration page
 - For multiple conference phones simultaneously: URL Idle Time field on the Cisco Unified Communications Manager Administration Enterprise Parameters Configuration page, or the Idle Timer field in the Bulk Administration Tool (BAT)

From a conference phone, you can see settings for the idle display XML service URL and the length of time that the conference phone is not used before this service is invoked. To see these settings, choose **Apps > Settings > Device Configuration > HTTP Configuration**, and then scroll to the Idle URL and the Idle URL Time parameters.