

CallManager Express: Create a Customized Background Image for the 7970 IP Phone

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Introduction

This document describes the procedure to create a background image for a Cisco 7970 IP Phone in the Cisco CallManager Express environment.

Prerequisites

Requirements

Cisco recommends that you have knowledge of Cisco CallManager Express.

Components Used

The information in this document is based on Cisco CallManager Express Version 4.1(0), Cisco Unified CallManager Express 7.0 and laterter.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

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

Create a Customized Background Image

Complete these steps to create a customized background image for a Cisco 7970 IP Phone on Cisco CallManager Express:

1. Use an image manipulation program of your choice to create two Portable Network Graphics (PNG) files for each image:

- ◆ **Full size image** 200 pixels (width) by 212 pixels (height)
- ◆ **Thumbnail image** 80 pixels (width) by 53 pixels (height)

The size ratio of these two images is 4 to 1.

2. Use a text editor to edit the List.xml file.

The List.xml file can include up to 50 background images. The images are in the order that they appear in the Background Images menu on the phone. For each image, the List.xml file contains one element type, called Image Item. The Image Item element includes these two attributes:

- ◆ **Image** The uniform resource identifier (URI) that specifies where the phone obtains the thumbnail image that appears on the Background Images menu on a phone.
- ◆ **URL** The URI that specifies where the phone obtains the full size image.

This example shows a **List.xml** file that defines one image. The required image and URL attributes must be included for each image. In this example, TN-velara.png is twenty-five percent of the original full size image of velara.png.

```
<CiscoIPPhoneImageList>

  <ImageItem Image="TFTP:Desktops/320x212x12/TN-velara.png"
    URL="TFTP:Desktops/320x212x12/velara.png" />

</CiscoIPPhoneImageList>
```

3. Place the new .png files and List.xml that you created in the tftp folder on the TFTP server.

This is the folder name if you use the TFTP server that runs on Cisco CallManager:

```
C:\Program Files\Cisco\TFTPPath
```

4. Use this command to move the List.xml and .png files to the Cisco CallManager Express Flash one-by-one:

```
copy tftp flash:Desktops/320x212x12/
```

This next output is of the command when the transfer of List.xml to the Cisco CallManager Express Flash from the TFTP server occurred. In similar manner, copy the TN-velara.png and velara.png from the TFTP server to the Flash.

```
CME-CUE#copy tftp flash:Desktops/320x212x12/
Address or name of remote host []? 172.16.1.1
Source filename []? List.xml
Destination filename [Desktops/320x212x12/List.xml]?
%Warning:There is a file already existing with this name
Do you want to over write? [confirm]
Accessing tftp://172.16.1.1/List.xml...
Loading List.xml from 172.16.1.1 (via GigabitEthernet0/1): !
[OK - 251 bytes]

251 bytes copied in 0.948 secs (265 bytes/sec)
```

After the loading process completes, the Desktops/320x212x12 directory on the Cisco CallManager Express Flash contains List.xml and all .png files. The output of the **dir** command is shown here:

```
CME-CUE#cd flash:
CME-CUE#cd Desktops
CME-CUE#cd 320x212x12
CME-CUE#dir
Directory of flash:/Desktops/320x212x12/
```

```

3  -rw-      120049   Jul 3 2008 11:20:42 -05:30  velara.png
4  -rw-         251   Feb 4 2009 06:09:14 -05:30  List.xml
5  -rw-      8947    Jul 3 2008 11:22:06 -05:30  TN-velara.png

```

Note: If the **Desktops/320x212x12** directory is not found, you need to create a folder in that name using the **mkdir** command. Some flash file systems do not allow creating a directory with the **mkdir** command.

```
CME-CUE#mkdir flash:Desktops/320x212x12
```

Note: In that case you need to backup the flash content and format the flash using the **format flash:** command, and make a **Class C Flash file system**.

5. Add the appropriate **tftp-server** commands on the Cisco CallManager Express configuration to load List.xml and all .png files.

```

CME-CUE(config)#tftp-server flash:Desktops/320x212x12/TN-velara.png
CME-CUE(config)#tftp-server flash:Desktops/320x212x12/velara.png
CME-CUE(config)#tftp-server flash:Desktops/320x212x12/List.xml

```

Note: Use the **debug tftp events** command to find out which file the phone searches for when the background selection button is pressed on the IP phone.

6. Complete these steps to load a new background image on the Cisco 7970 IP Phone:
 - a. Press **Settings**.
 - b. Select **User Preferences** (choice 1).
 - c. Select **Background Images** (choice 2).
 - d. Download and display the reduced images as thumbnails.
 - e. Select the image and press **Save**.

Customized Background Image for a Cisco 7970 IP Phone on Cisco Unified Call Manager Express

Complete these steps in order to change the background image of your 7970 Cisco IP Phones registered to Cisco Unified Call Manager Express (CUCME):

1. Create your background image as per the size mentioned here. In CUCME you can have the Full image size as:
 - ◆ 320 pixels (width) and 212 pixels (height)
 - ◆ 320 pixels (width) and 216 pixels (height) (This is a new feature in CUCME)
2. Create an XML file and save it as List.xml. Because this file is case-sensitive you can also follow the same steps for CME as mentioned in step 2 above. This is a sample List.xml file:

```

<CiscoIPPhoneImageList>
<ImageItem Image= TFTP:Desktops/320x212x16/TN-NantucketFlowers.png URL= TFTP:Deskt
</CiscoIPPhoneImageList>

```

Make sure to match the correct directory path and the image name. The TN-NantucketFlowers.png is the thumbnail image and NantucketFlowers.png is the full size image.

3. Check if there is a directory on flash, such as Desktops/320x212x16. If not, login to the CUCME and create the necessary directories.

```
C3825-ORIG#mkdir flash:Desktops
```

```
C3825-ORIG#mkdir flash:Desktops/320x212x16
```

4. Place the background files (both thumbnails and full size) and list.xml inside the tftp server.
5. Copy the *.png files and list.xml across to CUCME flash from the tftp server.

```
copy tftp://10.10.210.5/List.xml flash:Desktops/320x212x16/List.xml
copy tftp://10.10.210.5/small.png flash:Desktops/320x212x16/TN-NantucketFlowers.png
copy tftp://10.10.210.5/small.png flash:Desktops/320x212x16/NantucketFlowers.png
```

6. Enter these commands in order to make the router as a **TFTP server**:

```
tftp-server flash:Desktops/320x212x16/List.xml
tftp-server flash:Desktops/320x212x16/TN-NantucketFlowers.png
tftp-server flash:Desktops/320x212x16/NantucketFlowers.png
```

This is a sample:

```
C3825-ORIG#show run | sec tftp-server
tftp-server flash:/Desktops/320x212x12/List.xml
tftp-server flash:/Desktops/320x212x16/List.xml
tftp-server flash:/Desktops/320x216x16/List.xml
tftp-server flash:/Desktops/320x212x16/CampusNight.png
tftp-server flash:/Desktops/320x212x16/CiscoFountain.png
tftp-server flash:/Desktops/320x212x16/CiscoLogo.png
tftp-server flash:/Desktops/320x212x16/MorroRock.png
tftp-server flash:/Desktops/320x212x16/NantucketFlowers.png
tftp-server flash:/Desktops/320x212x16/TN-CampusNight.png
tftp-server flash:/Desktops/320x212x16/TN-NantucketFlowers.png
tftp-server flash:/Desktops/320x212x12/CampusNight.png
tftp-server flash:/Desktops/320x212x12/CiscoFountain.png
tftp-server flash:/Desktops/320x212x12/Fountain.png
tftp-server flash:/Desktops/320x212x12/MorroRock.png
tftp-server flash:/Desktops/CiscoFountain.png
tftp-server flash:/Desktops/320x216x16/CiscoFountain.png
```

7. In order to load a new background image, go to IP Phone and complete these steps:

- a. Press **Settings**.
- b. Select **User Preferences**.
- c. Select **Background Images**.
- d. Download and display the reduced images as thumbnails.
- e. Select the image and press **Save**.

8. For troubleshooting enable debug tftp events on the router.

This is similar to the IP Phone 7975. The background image on 7970 can also be used on 7975.

Delete a Background Image from the 7970 IP Phone

The background image is stored in the Flash memory of the IP phone. This cannot be deleted unless you perform a factory reset of the 7970 IP phone. Complete these steps in order to perform a factory reset of the IP phone. The phone must be on a network that supports DHCP.

1. Unplug the power cable from the phone and then plug it back in. The phone begins its power up cycle.
2. While the phone powers up, and before the Speaker button flashes on and off, press #. Each line button flashes on and off in sequence.
3. Press **123456789*0#**. You can press a key twice in a row, but if you press the keys out of sequence, the factory reset does not take place.
4. The phone is loaded with the default background factory settings.

The background image chosen by the user depends upon the images available in the TFTP folder. If you need to restrict the background images used by the user, remove the images from the TFTP folder. Then, take off the TFTP bindings for the file and modify the List.xml.

Troubleshoot

Error: Selections Unavailable

When you try to change the background image in **Settings > User Preferences > Background Images**, the **Selections Unavailable** error message appears.

Solution

This issue can occur when the **List.xml** file is absent from the `C:\Program Files\Cisco\TFTPPath\Desktops\320x212x12` folder on the TFTP server. Make sure the `\Desktops\320x212x12` folder is present in the TFTP server and that the **List.xml** file is available under this directory.

Note: Make sure the TFTP server IP address configuration on the IP phone refers to the Cisco CallManager Express router.

Related Information

- [Voice Technology Support](#)
- [Voice and Unified Communications Product Support](#)
- [Troubleshooting Cisco IP Telephony](#)
- [Technical Support & Documentation – Cisco Systems](#)

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