



# **SIP Trunk Recording Configuration For CUCM 6.x to 10.x**

**Version 10**

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## Introduction

This manual describes the steps required to configure CISCO UNIFIED COMMUNICATION MANAGER to record IP phones using Cisco's Duplicate Media Streaming (DMS) technology via SIP trunking.

The instructions in this guide assume that you have some experience operating a personal computer and working with Microsoft Windows as well as experience with the CUCM versions 6.X to 8.X. If you have any questions pertaining to the Windows operating system, refer to your Microsoft manual or Microsoft online help.

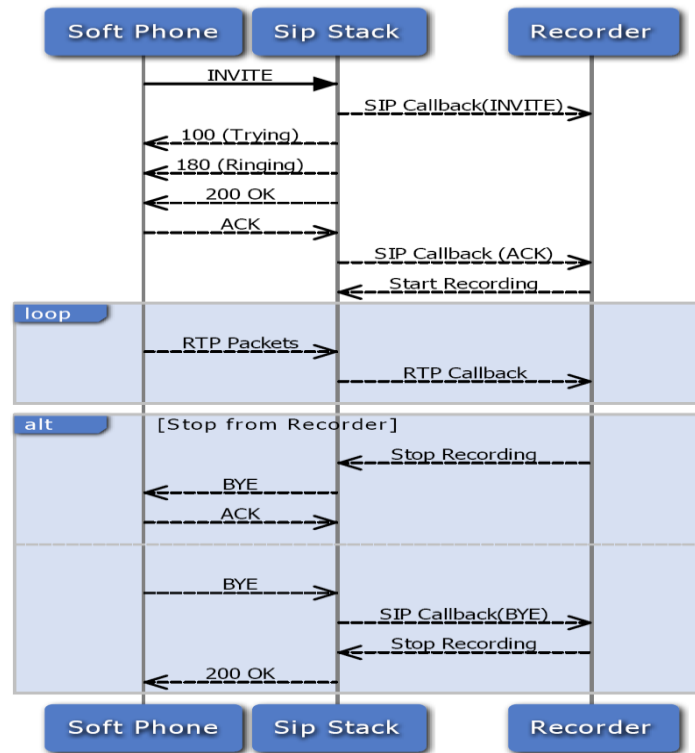
**Please note that this document is for reference only and provides only general guidance. Your CUCM expert should verify the steps below relating to the CUCM configuration.**

Please note that the CUCM can be in a SCCP or SIP format. In addition, for Customer (FarEnd) DN (Director Number) information, the SIP Header of the Invite that is sent to SIP recorder contains only the information (DN/Ci) of the Agent (NearEnd). For the Customer Direct Number, you must use full JTAPI. JTAPI is not available at this time.

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## Implementation Of SIP Trunk Recording In REVCORD Software

Trunk recording is similar to the standard VoIP recording except that instead of using Network Sniffing (port mirroring), it will use a SIP interface that will actively interact with PBX using SIP protocol and receive audio directly from the PBX/Phone for recording. The SIP interface (revcord.dll) is developed by a third party and it is the core of SIP call processing and RTP Extraction.



As the Call Flow diagram shows, when an invite request is received, the SIP UA sends SIP message to the recorder informing it about the incoming call, simultaneously a 180 Ringing response and thereafter a 200 OK response is sent to the caller side informing about successful establishment of the call. The caller on receiving 200 OK sends back ACK response. ON receiving ACK, the SIP UA sends an ACK call back to the recorder. After the successful establishment of the session, the recorder starts recording. When a BYE response is sent from the caller side, the SIP UA informs the recorder about it by a call back message and the recorder stops recording.

During the session, all the RTP packets will be routed towards the recorder through an RTP call back. During the call, anytime if Revcord recorder fails to do a particular task related to recording or intends to stop recording then it sends STOP recording message to SIP stack component which in turn sends BYE to the remote party and terminates the call.

## Setting Up SIP Trunk Recording in REVCORD

In the installation wizard at the Channel Type page there is a check box “Run As SIP Trunk”. It will instruct the REVCORD software to use Active Recording based on SIP commands from PBX. Other Configurations like setting the IP address or MAC address in the Channel Settings remains same both for active or passive recording except that the trigger for the channel must be set to SIP.

**REVCORD Configuration Wizard - Channel Types**

**Please select Card / Channel type**

Select channel type and enter number of channels for each type. Can be a combination of Digital, Analog and VoIP.

Analog / Digital    Number of Channels      Use Audiocodes

Analog (Proprietary)    Number of Channels

VoIP    Number of Channels      Run as SIP Trunk (SIP Invite)

SIP Server Settings

SIP Port     RTP Port

Enable SmartNet (Additional settings required under channels)

Enable 128 Bit Encryption

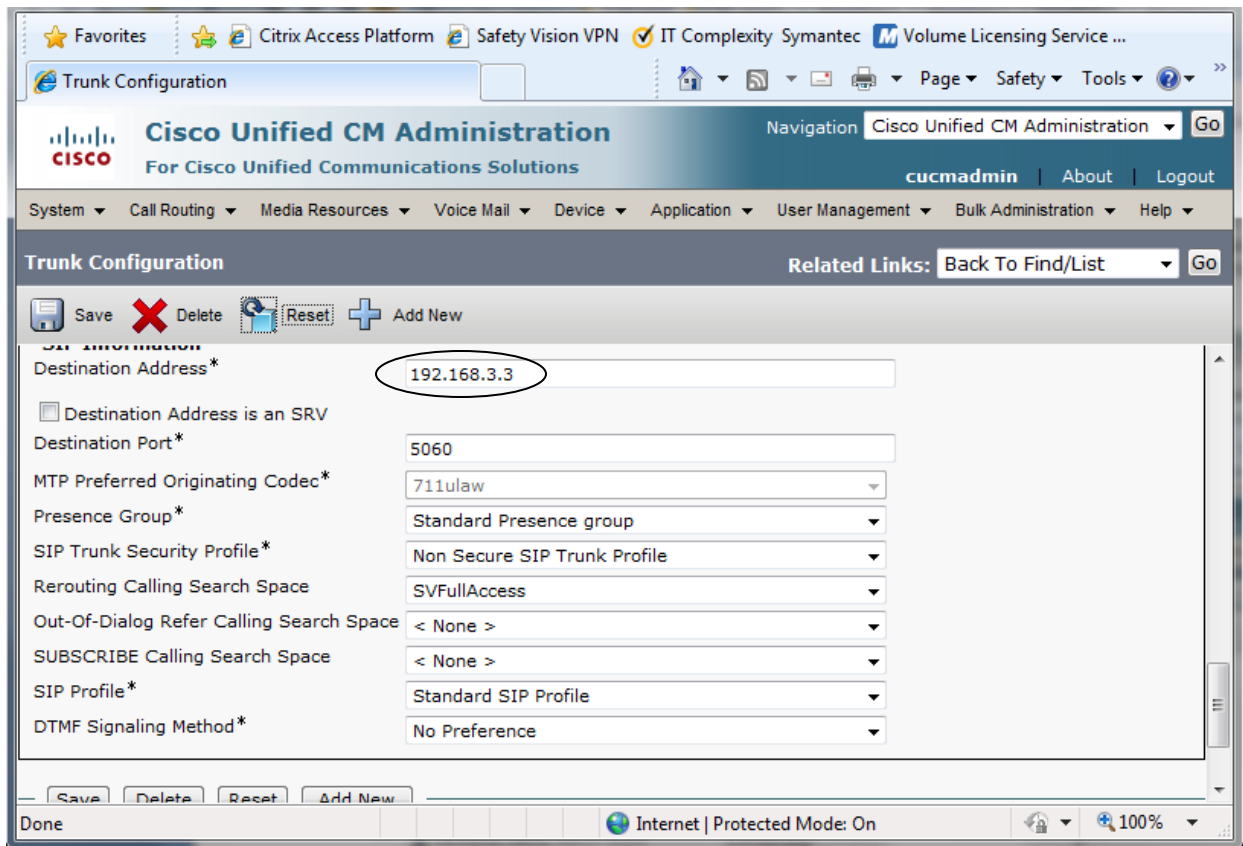
< Back    Next >    Finish    Cancel

## Configuring The CUCM

Please note that each task below must be completed for a proper configuration.

### Creating The SIP Trunk

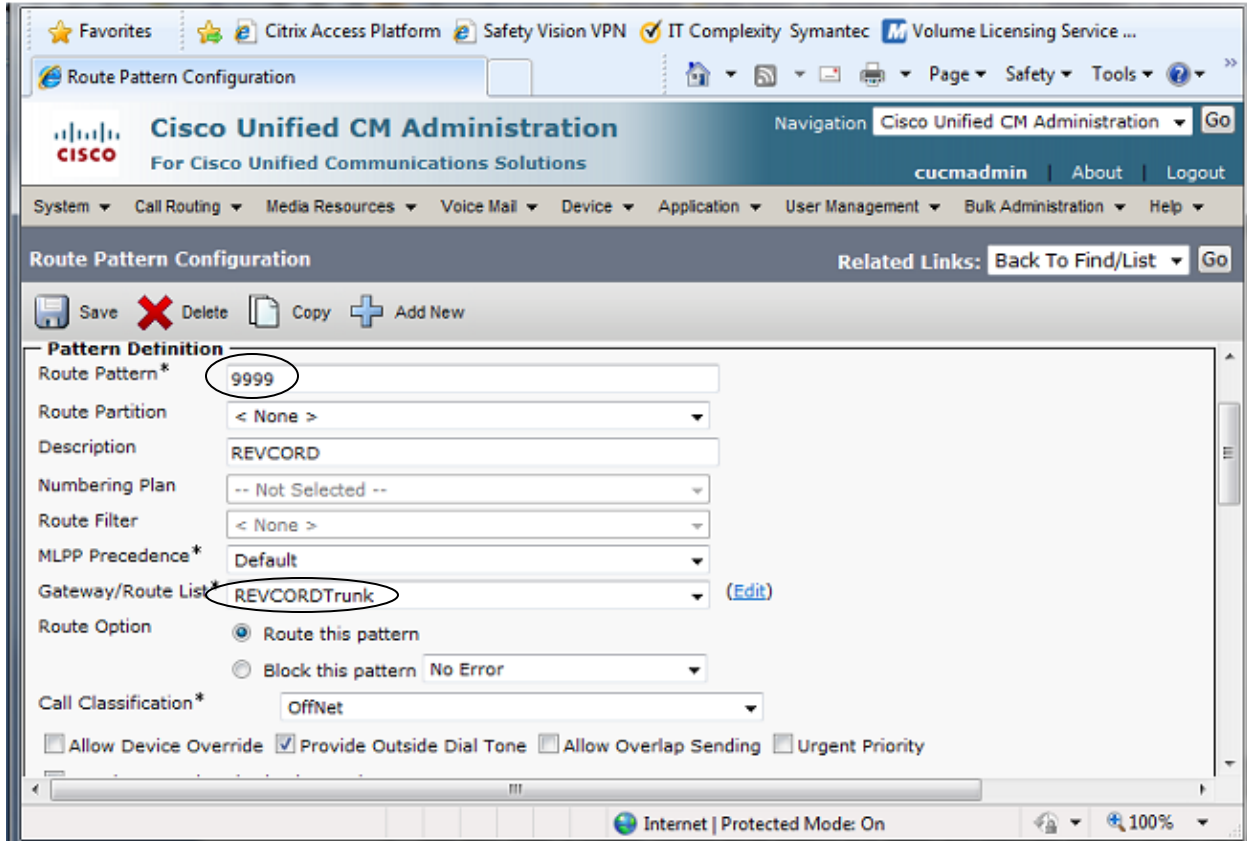
1. From the System menu, select System, Security Profile, SIP Trunk Security Profile. Change the Outgoing Transport Type to UDP and click on Save.
2. From the Device menu, select Trunk.
3. Click Add New, select SIP Trunk and Device Protocol as SIP.
4. Click Next. Give the new Trunk a name (e.g. REVCORDTrunk) and select Default as the Device Pool. Enter the IP address of the REVCORD Recorder that will be recording these calls. You should leave the Destination Port as 5060 unless instructed otherwise. The SIP Trunk Security Profile should be set to Non Secure SIP Trunk Profile. The SIP Profile should be set to Standard SIP Profile. Finally, click Save.



5. Click Reset as requested.

## Creating The Route Pattern

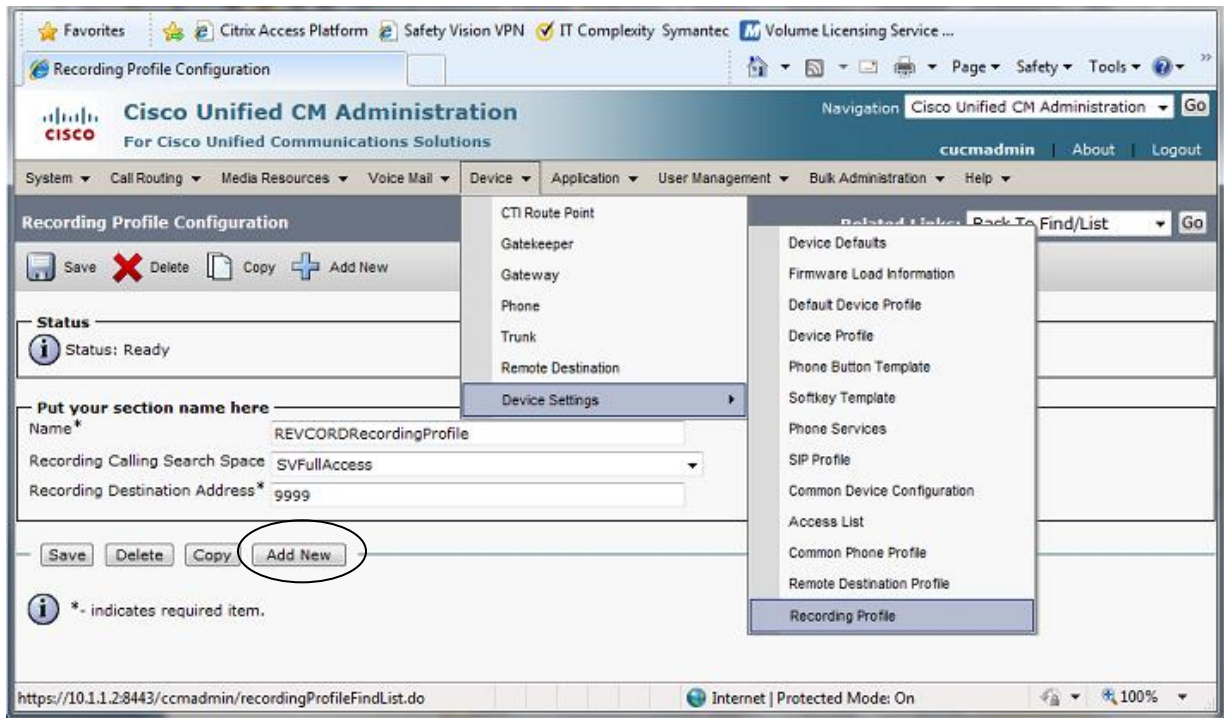
1. Create a route pattern for the recorder SIP trunk. The Recording Destination Address in the recording profile must match this pattern. Select the SIP trunk that points to the recorder, or select a route list of which the recorder is a member.
2. From the Call Routing menu select Route/Hunt and then Route Pattern.



3. Click Add New. Enter a suitable, unused Route Pattern (e.g. 9999) and select the Gateway/Route List that was created earlier (e.g. REVCORDTrunk) and select Save. An informational message may be displayed, just click ok.

## Creating A Recording Profile

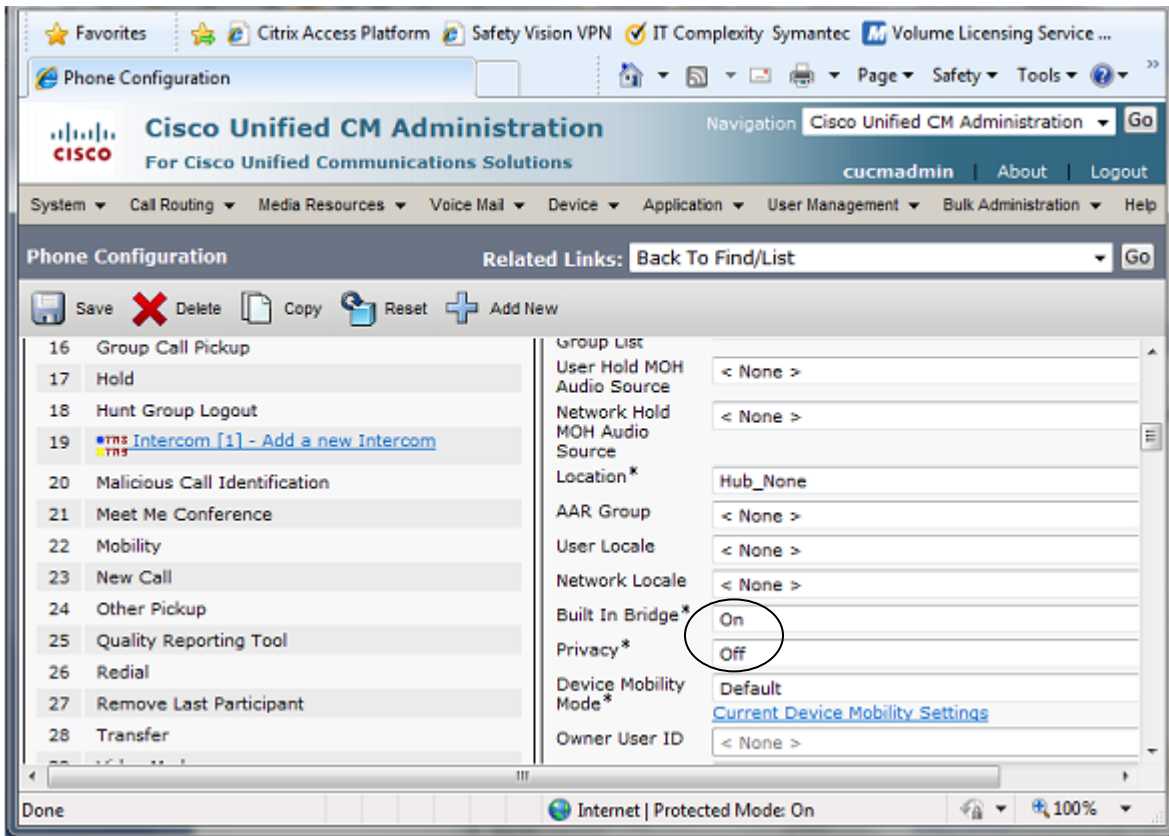
1. From the Device menu, select Device Settings and then Recording Profile.
2. Enter a suitable name for this profile (e.g. REVCORDRecordingProfile) and set the destination Route Pattern and Calling Search Space that was created earlier (e.g. 9999), then click Save.





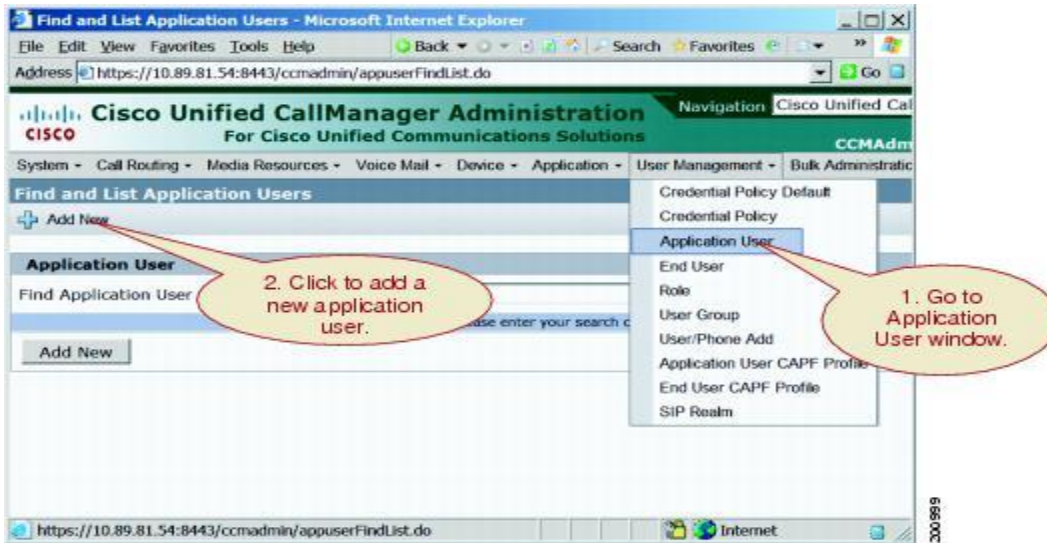
## Enabling Phones For Recording

1. From the Device menu, select Phone. Click Find to show the list of phones.
2. Click on a phone that you wish to enable for recording.
3. Set the Built in Bridge (BIB) to On and Privacy to Off and then click Save.

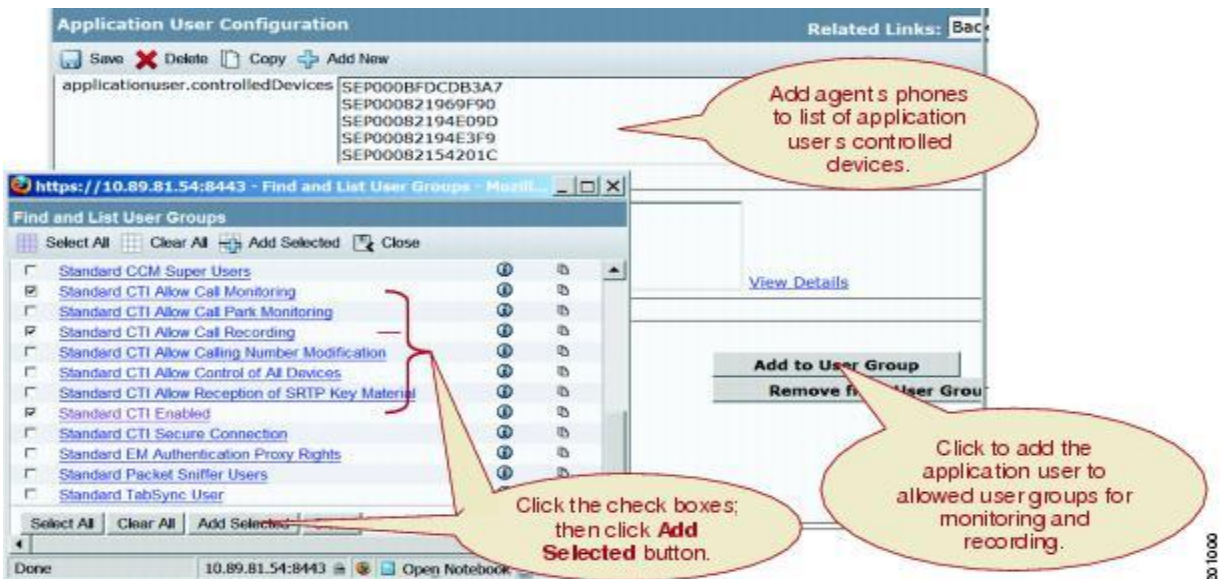


4. Do not reset the phone just yet; instead click on the Line on the phone you wish to record.
5. Set the Call Recording Option to Automatic Call Recording Enabled. Set the Recording Profile to the one created earlier (e.g., REVCORRecordingProfile) and then click Save.
6. Now Reset the phone, by pressing the Reset button and following the prompts.

## Adding Users For Recording And Monitoring

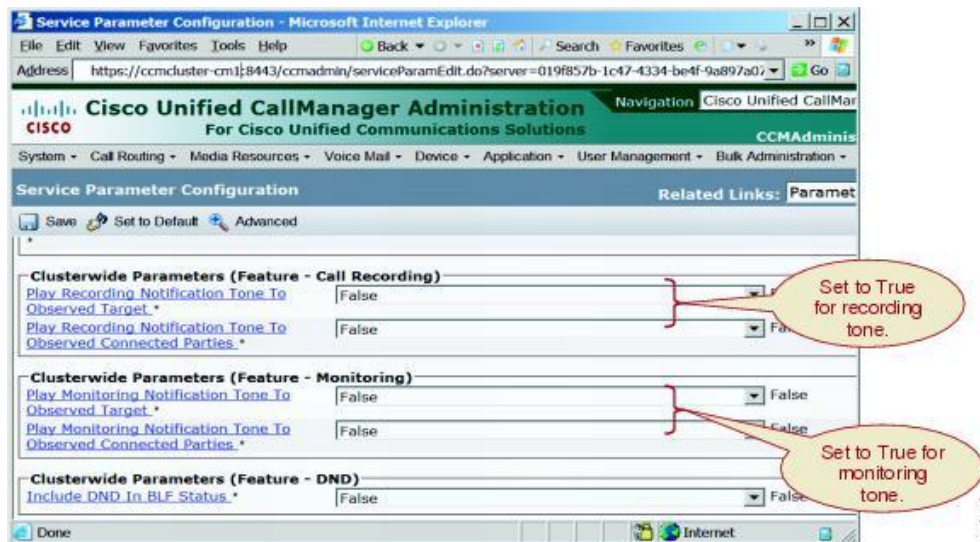


Use the **User Management > Application User** menu option in Cisco Unified Communications Manager Administration to perform the necessary configuration.



## Configuring Beep Tone For Recording And Monitoring

Use the **System > Service Parameters** menu option in Cisco Unified Communications Manager Administration to perform the necessary configuration.



## Other Settings

1. To disable any of the codec that was not supported by our software. This can be done across the system, by selecting the System menu, Enterprise Parameter's and then changing the Advertise (eg.,G.722 )codec to Disabled.
2. Note: G.722 codec is supported by our software, just for reference I used here. Currently we are supporting G.711, G.722, G.723 and G.729 codecs.
3. Reset the phones to be recorded so that they do not advertise G.722.

