

Cisco Unity Installation and Troubleshooting: G.729a Codec

Document ID: 13953

Introduction

Before You Begin

Conventions

Prerequisites

Components Used

Installing G.729 on the Unity Server

Restoring u-Law as the Unity Recording Format

Cisco Unity Troubleshooting

Cisco CallManager and Gateway Troubleshooting

Audio Problems

Connection Problems

Related Information

Introduction

This guide will be helpful in diagnosing problems with G.729 in the Cisco Unity 2.46 and CallManager 3.x integration.

G.729a is a codec (compressor/decompressor) that is being included with Cisco Unity beginning with Unity 2.4.5. The codec is used in recording and playing back voice messages. It is an alternative to the u-Law codec, which has been used in the past. u-Law is still the default codec, but G.729a can now be selected if the administrator chooses to do so.

Sites which enable this support should not see a significant impact on CPU usage or port capacity. This will be true whether the voice board hardware supports these formats, or if the stream conversion occurs in the software.

To play voice messages recorded with G.729a codec compression using Unified Messaging, a version of ViewMail for Outlook (VMO) greater than or equal to 2.4.5.66 must be installed.

Before You Begin

Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

Prerequisites

There are no specific prerequisites for this document.

Components Used

The information in this document is based on the software and hardware versions below.

- AvCisco Tsp 1.0.0.24 or later

- Cisco Unity Version 2.4.6

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

Installing G.729 on the Unity Server

Follow the steps below to install G.729 on the Cisco Unity Server.

1. Create the following registry on the Unity server: `HKEY_LOCAL_MACHINE\SOFTWARE\Active Voice\AvSkinny "G729 Enabled"=dword:00000001`
2. Make sure the version of VMO that ships with Unity 2.45 is installed on all client machines.
3. Stop Cisco Unity.
4. Run the `sl_g729a_setup.exe` application, which is located in the Utilities folder.
5. When prompted, restart the operating system so that the G.729a driver will be loaded.
6. Run the `SetRecordFormat.exe` application, which is located in the Utilities folder.
7. Choose **ITU G.729a by Sipro Lab** from the list of audio formats then click **OK**.
8. Restart Cisco Unity.

Restoring u-Law as the Unity Recording Format

Follow the instructions provided below:

1. Run the `SetRecordFormat.exe` application, which is located in the Utilities folder.
2. Choose **CCITT u-Law** from the list of audio formats, then click **OK**.
3. Restart Cisco Unity.

Cisco Unity Troubleshooting

Once G.729 has been installed, perform the following steps to test the G.729 configuration on the Unity server:

1. In Windows 2000, go to **Control Panel > Phone and Modem Option > Advanced** tab. In Windows NT 4.0, go to **Control Panel > Telephony > Telephony Driver's** tab.
2. Select the **Av-Cisco Service Provider**.
3. Click **Configure...**
4. Click **Reset**.

You will see at least two events in the application event log per port when you do this. One will be a warning saying that the `AvCiscoTsp` has been disconnected from the Cisco CallManager. The other will be an informational event saying that the port has connected to the CallManager.

- If you see events saying that G.729 has been enabled, then your Cisco Unity is configured correctly. The problem is with your CallManager or gateway configuration. Go to the CallManager and Gateway Troubleshooting section below.
- If you don't see any G.729 messages in the event log, then the registry setting mentioned in the install section has not been set properly.
- If you see an error event saying that the codec has not been installed, then follow the instructions mentioned above for installing the `sl_g729a_setup.exe` and make sure the computer has been rebooted.

Cisco CallManager and Gateway Troubleshooting

Audio Problems

Symptom

You can call Cisco Unity through a gateway, but you get garbled audio.

Possible Problem

The gateway is set up to use the wrong codec.

Solution

It needs to be set to use G729R8.

Symptom

You can call Cisco Unity, but you do not hear any audio or you get one way audio. You cannot record, for example.

Possible Problem

The network setup is preventing the RTP packets from going through. Another possibility is that the IOS Gateway that is negotiating G.729 Codec is running into CSCea01498 .

Solution

This should happen with G.729 and G.711 data. Try to ping from Cisco Unity to the phone or gateway. Try to ping Unity from a computer in the same subnet as the phone or gateway. If either of these do not go through, then you have a network problem. If there is a firewall in between the two, then make sure UDP packets to and from ports 19000 and above can get through. If you are using a firewall and the audio is not getting through, you will probably want to use a packet sniffer. If network problems have been ruled out, ensure that the IOS Gateway is not running into CSCea01498 .

Connection Problems

Symptoms

When calling from a gateway, the call rings but is dropped as soon as it is answered. This does not occur when calling from a Cisco 7960/7940 phone

Possible Problems

The gateway is using H323v1 protocol and is set to use G.711 codec, but the region only allows G.729 calls to go through.

Solution

Set the gateway to use G729R8. The Cisco CallManager will let G.729 calls through even in G.711 regions. You might be able to install a Media Transfer Agent on the CallManager server. You also might be able to use a gateway that supports MGCP, Skinny or H323v2.

Related Information

- **Voice Technology Support**
 - **Voice and Unified Communications Product Support**
 - **Recommended Reading: Troubleshooting Cisco IP Telephony**
 - **Technical Support – Cisco Systems**
-

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2008 – 2009 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

Updated: Jan 10, 2006

Document ID: 13953
