

# Cisco CallManager and H.323 Gateway Interaction Issues

Document ID: 10127

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## Introduction

This document addresses the common problems, symptoms and solutions related to Cisco CallManager and H.323 gateway interaction.

## Prerequisites

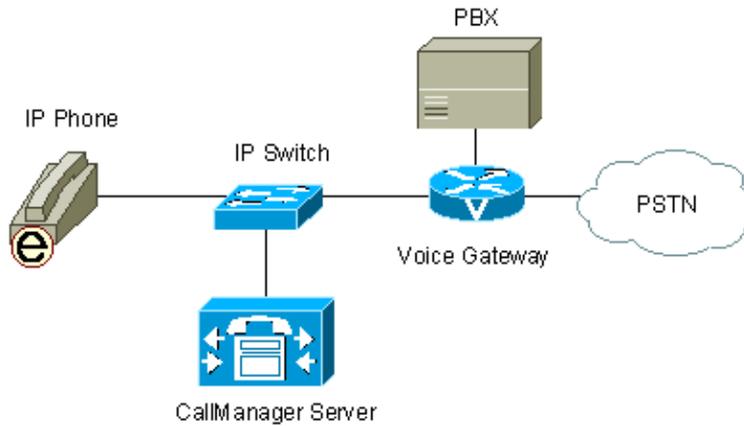
### Requirements

There are no specific requirements for this document.

### Components Used

The information in this document is based on Cisco CallManager 3.x and 4.x.

All of the troubleshooting cases in this document deal with Cisco CallManager and H.323 gateway interaction and use this topology:



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.

## Issue 1

### Problem

Calls from a Cisco IP phone to a PSTN/PBX phone ring, but as soon as the called party picks up the phone, both ends hear a fast-busy.

### Symptom/Error

There is a CODEC mismatch between the Cisco IP phone and the H.323 gateway.

### Solution

Check these items in Cisco CallManager and the IOS® configuration:

1. Double check the **Region** and **Device Pool** configuration in Cisco CallManager, where CODEC is defined. Newer Cisco IP phones (79xx) support G.711 and G.729, while the 12SP+ and VIP30 support G.711 and G.723.
2. If G.729 is needed between the gateway and Cisco IP phone, make sure the **Media Termination Point Required** box is not checked on the Gateway Configuration page. Otherwise, the gateway connection always uses G.711.
3. Make sure the proper CODEC is defined under **voip dial-peer** on the H.323 gateway. The default is G.729r8.

## Issue 2

### Problem

Inbound calls from PSTN do not complete to Cisco CallManager and the Cisco IP phone, while the Cisco

CallManager and H.323 gateway are properly configured.

## Symptom/Error

From **debug cch323 h225** on the H.323 gateway, it sends out an H.225 setup message to Cisco CallManager, but never hears back. This is because Cisco CallManager does not know how to reach the IP address that the H.323 gateway used for the H.225 setup message.

## Solution

Use the interface specific command, **H323-gateway voip bind scraddr x.x.x.x**, in the H.323 gateway to force it to use a specific IP address (which is reachable by Cisco CallManager) to send the H.225 setup message. Refer to Troubleshooting One Way Voice Issues for more information.

## Issue 3a

### Problem

Inbound calls from the PSTN to Cisco CallManager do not work, while outbound calls from Cisco CallManager to the PSTN work fine.

### Symptom/Error

From **debug voip ccapi inout** on the H.323 gateway, Cisco CallManager disconnects the call because of an unassigned number (0x1) or invalid number (0x1C).

### Solution

Check the Cisco CallManager configuration to make sure that the H.323 gateway is in a Calling Search Space that enables it to reach the Partitions that the IP phones belong to.

## Issue 3b

### Problem

Inbound calls from the PSTN to Cisco CallManager do not work, while outbound calls from Cisco CallManager to the PSTN work fine.

### Symptom/Error

From **debug voip ccapi inout** on the H.323 gateway, the gateway disconnects the call because of an unassigned number (0x1) or invalid number (0x1C).

### Solution

Check the IOS configuration for any number-expansions or translation patterns. Any called number that comes from the PSTN needs to go through these patterns before it is matched to the VoIP dial-peer.

## Related Information

- [Cisco IOS H.323 Gateway Configuration for Use with Cisco CallManager](#)
  - [Voice Technology Support](#)
  - [Voice and Unified Communications Product Support](#)
  - [Troubleshooting Cisco IP Telephony](#) 
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Updated: Aug 21, 2006

Document ID: 10127

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