

Busy Signal after Last Digit Dialed on H323 Incoming Call to Cisco CallManager with Missing Codec Statement

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Introduction

This problem can be caused by the failure to configure a codec on the dial-peer for a device that places calls over the dial peer. In the example in this document, a device that requires g711ulaw attempts to make a call over a dial peer. The call fails and the caller hears a busy tone.

This first section of this document shows you the Cisco CallManager error message trace for this problem. The second section shows the configuration with a pointer to the missing command. The third section explains how to configure the **voice class codec** command in order to support multiple codecs on the same dial peer.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

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

Cisco CallManager Trace

```
Cisco CallManager|H245Interface(30) - match capabilities failed
Cisco CallManager|AgenaInterface - ERROR
waitForMXCapabilitiesExchanged_MediaExchangeCapabilitiesIncoming -
match capabilities error
```

If you need help setting up traces for the TAC, refer to Setting up CallManager Traces for the TAC.

Partial Router Configuration

```
!  
dial-peer voice 2000 voip  
  destination-pattern 2...  
  session target ipv4:10.10.10.10  
  dtmf-relay cisco-rtp h245-signal h245-alphanumeric  
  ip precedence 5  
!
```

Note: This configuration does not have the **codec g711ulaw** command under the dial-peer. By default, the dial-peer uses g729r8 compression. Any devices that do not use g729r8 compression are not able to complete the call.

In order to fix this, add the **codec g711ulaw** command under the dial-peer.

Example for Setting up Multiple Codecs

In some cases it is necessary to support multiple codecs on a dial peer. Different regions or devices might use different codecs. For example, WAN connections between routers use g729, while Cisco Unity servers use g711 by default. If we know that a call must traverse regions that use different codecs or need to integrate devices that require different codecs, then we need to make sure the dial-peer supports multiple codecs. This section explains how to configure multiple codecs for one dial-peer.

```
Router#configure terminal  
Router(config)#voice class codec 99  
Router(config-class)#codec preference 1 g711ulaw  
Router(config-class)#codec preference 2 g729br8  
Router(config-class)#codec preference 3 g729r8  
Router(config-class)#end  
  
Router(config)#dial-peer voice 2000 voip  
Router(config-dial-peer)#voice-class codec 99  
Router(config-dial-peer)#^Z
```

When you invoke the parser help when you enter codecs under the voice-class, it shows a list of the codecs supported by your router.

```
AV-3640-1(config-class)#codec preference 3 ?  
clear-channel  Clear Channel 64000 bps  
g711alaw        G.711 A Law 64000 bps  
g711ulaw        G.711 u Law 64000 bps  
g723ar53        G.723.1 ANNEX-A 5300 bps  
g723ar63        G.723.1 ANNEX-A 6300 bps  
g723r53         G.723.1 5300 bps  
g723r63         G.723.1 6300 bps  
g726r16         G.726 16000 bps  
g726r24         G.726 24000 bps  
g726r32         G.726 32000 bps  
g728            G.728 16000 bps  
g729br8         G.729 ANNEX-B 8000 bps  
g729r8          G.729 8000 bps  
gsmEFR          GSMEFR 12200 bps  
gsmFR           GSMFR 13200 bps
```

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Related Information

- **Unity Installation and Troubleshooting: G.729a Codec**
- **VoIP – Understanding Codecs: Complexity, Support, MOS, and Negotiation**
- **Voice Technology Support**
- **Voice and Unified Communications Product Support**
- **Recommended Reading: Troubleshooting Cisco IP Telephony**
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