

No Dial Tone for Phones Connected to the VG224 that Serve as SCCP to Cisco CallManager

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Introduction

This document describes one reason why the analog phones attached to the VG224 Voice Gateway, which registers to Cisco CallManager as the Skinny Client Control Protocol (SCCP) gateway, receive no dial tone from the VG224 Voice Gateway when they are off-hook and provides a solution.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco CallManager
- Cisco VG224 Voice Gateway

Components Used

The information in this document is based on these software and hardware versions:

- Cisco CallManager 4.x
- Cisco VG224 Voice Gateway

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

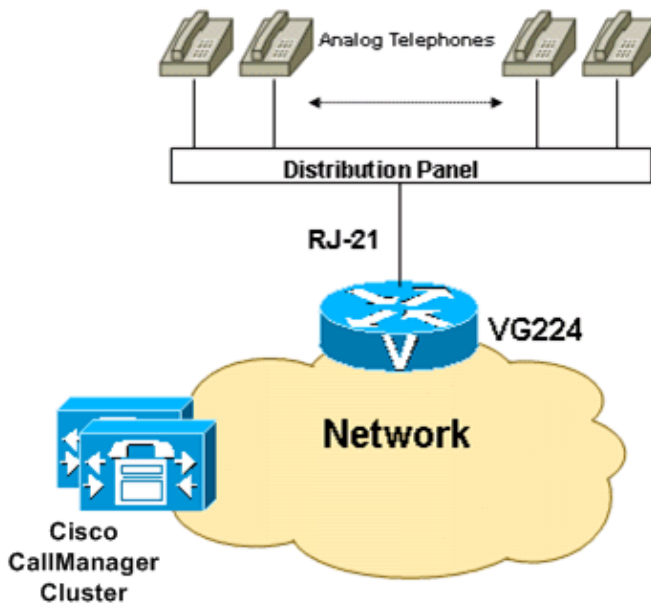
Refer to Cisco Technical Tips Conventions for more information on document conventions.

Problem

The analog telephone attached to the VG224 Voice Gateway receives no dial tone when the phone goes off-hook.

Figure 1 shows the topology of this problem.

Figure 1 Topology



Solution

This problem is a configuration issue. It is related to idle battery voltage. Foreign Exchange Stations (FXS) need to supply DC battery and AC ringing to enable the connected telephone equipment to transmit speech energy and to power the ringing device of the telephone equipment.

The **show tech-support** command output shows that the FXS idle voltage is set to low (see the arrow A in Figure 2). This is the root cause of the problem.

Figure 2 Partial Output of the show tech-support Command

```
Analog Info Follows:  
Currently processing none  
Maintenance Mode Set to None (not in mtc mode)  
Number of signaling protocol errors are 0  
Impedance is set to 600r Ohm  
Analog interface A-D gain offset = -3.0 dB  
Analog interface D-A gain offset = -3.0 dB  
FXS idle voltage set to low ← A  
Ring DC offset set to 0 volt  
Station name None, Station number None
```

The solution is to set the FXS idle voltage to high (see arrow A in Figure 3) when you configure each individual voice port on the VG224. This changes the idle voltage from -24 volts (low) to -48 volts (high).

Figure 3 VG224 Sample Voice Port Configuration

```
!  
voice-port 2/0  
  disc_pi_off  
  input gain 10  
  output attenuation 10  
  playout-delay minimum low  
  cptone HK  
  timing digit 53  
  description cflow1  
  music-threshold -50  
  bearer-cap Speech  
  station-id name ashwin  
  station-id number 1000  
  caller-id enable  
  ren 3  
  disconnect-ack  
  loss-plan plan4  
  idle-voltage high ← A  
!
```

Related Information

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

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