

AVVID Digital Gateway Problems and Solutions

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Contents

Introduction

Prerequisites

- Requirements

- Components Used

- Conventions

DT24+ does not Register with Cisco CallManager

- Problem

- Symptom/Error

- Solution

DT24+ Card Resets

- Problem

- Symptom/Error

- Solution

PRI D-Channel does not Appear

- Problem

- Symptom/Error

- Solution

Echo on IP Phone

- Problem

- Symptom/Error

- Solution

Related Information

Introduction

This document addresses the common problems, symptoms and resolutions related to AVVID Digital Gateways.

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.

DT24+ does not Register with Cisco CallManager

Problem

Digital gateway DT24+ fails to register with Cisco CallManager.

Symptom/Error

- Yellow LED (LED 6) is not on. This LED is on the inside of the card and cannot be seen from the back of the PC.
- Under performance monitor of NT and the object CallManager, field RegisteredDigitalAccess is not shown as registered.
- You have pattern 9.@ that points to DT-24+, but does not get any dial tone.

Solution

This solution is the same as the solution for the analog gateway:

- This is because Option 150 is not configured on the DHCP server. Option 150 allows the gateways to get the SWTFTP address of Cisco CallManager. This is required in order to get the firmware from Cisco CallManager for registration of the gateway.
- If the gateway cannot find its TFTP server, configure Option 150 at the DHCP server in order to solve the problem. Option 066 or SelsiusCM1 (CM 2.4 is CiscoCM1) also solves the problem.
- There is no way to manually supply an analog gateway TFTP server address.

DT24+ Card Resets

Problem

The PC hosting DT-24+ card resets.

Symptom/Error

This problem usually occurs when DT24+ is replaced with a DT24 while the same PC chassis is used to host DT24+.

Solution

The cause of the problem is the watchdog timer card that comes with the DT24 card. The watchdog card and the DT24 card need to be removed together. You can then reuse the same chassis for DT24+.

PRI D-Channel does not Appear

Problem

The Primary Rate Interface (PRI) D-channel does not come up.

Symptom/Error

Green LED (LED 5) is not on. This LED is on inside the card and cannot be seen from the back of the PC.

Go to Performance Monitor and check the report on object selsius digital access. If the counter for dataLinkout is equal to 1, then D-channel is down.

Solution

Check the PRI setup on the PBX side. This output shows an example:

```
Interface:          ISDN Primary Rate Interface
Frame Format:       ESF
Line Encoding:     B8ZS
No. of B-channels: 23
D-Channel:         on channel 24
Line Use:          Voice
Protocol:          AT & T 5E8
Hunt Sequence:     Float, Flex or Fixed
```

DT24+ can be on the network side or the user side. Check for it on the PBX side. If it is on the network side, then make DT24+ user side and vice versa.

Echo on IP Phone

Problem

There is echo on the IP phone through the digital gateway.

Symptom/Error

Echo is heard when a user makes a call from an IP phone, and a digital gateway is involved in the topology.

Solution

If a gateway is involved and the phone on the far side of the gateway hears echo, the Central Office (CO) is responsible for echo cancellation.

Echo can be caused by a hybrid switch when you convert from a 4-wire to a 2-wire circuit. Hybrid echo needs to be described when a phone line is converted from a 4-wire to a 2-wire circuit. There is sometimes an impedance mismatch that causes the signal to reflect back in the direction of lesser impedance. This conversion occurs at a hybrid switch and can sometimes cause echo. If a gateway is involved and the echo is heard by the IP phone, then hybrid echo is probably caused by one of these (or both):

- Dirty or noisy line which causes reflection
- Signal comes in too hot

In either case, check and adjust these parameters:

- Verify that dB loss/gain is 15 db.
- Verify that the inbound signal is 15 db.
- Adjust the signal if it comes in too hot (for example, 5 db or 8 db).
- Adjust the transmit signal first, since echo is usually caused by your own signal going out too hot. However, when you adjust the transmit signal, it means raising the PAD level. Do not try to change the receive signal.

Currently the tail (echo coverage) is set to 20 mS and is not configurable.

Related Information

- **Voice Technology Support**
- **Voice and Unified Communications Product Support**
- **Troubleshooting Cisco IP Telephony**
- **Technical Support & Documentation – Cisco Systems**

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