Guide Contents

Troubleshooting Cisco IOS Voice Overview

Debug Command Output on Cisco IOS Voice Gateways

Filtering Troubleshooting Output

Cisco VoIP Internal Error Codes

Troubleshooting Cisco IOS Voice Telephony

Troubleshooting Cisco IOS Voice Protocols

Troubleshooting Cisco IOS Telephony Applications

Monitoring the Cisco IOS Voice Network

Cause Codes and Debug Values

To troubleshoot and resolve Voice over Frame Relay configuration issues, perform the following tasks:

- If no calls are going through, ensure that the **frame-relay voice bandwidth** command is configured.
- If VoFR is configured on a PVC and there are problems with data connectivity on that PVC, ensure that the **frame-relay fragment** command has been configured.
- If data is not being transmitted but fragmentation is configured, ensure that Frame Relay traffic shaping is turned on.
- If the problem is with the dial plan or the dial peers, use the **show dial-plan number** command with the argument *dial string* to display which dial peers are being used when a specific number is called.
- If there are problems connecting an FRF.11 trunk call, ensure that the **session protocol** command in dial peer configuration is set to **frf11-trunk**.
- If FRF.11 trunk calls on the Cisco 2600 or Cisco 3600 series routers are being configured, verify that the **called-number vofr** command in dial peer configuration is configured and that its number matches the destination pattern of the corresponding POTS dial peer.
- Ensure that the voice port is set to **no shutdown**.
- Ensure that the serial port or the T1/E1 controller is set to **no shutdown**.
- Toggle the voice port by first entering **shutdown** and then **no shutdown** every time the **connection trunk** or **no connection trunk** command is entered.

Check the validity of the Voice over Frame Relay configuration by performing the following tasks:

- Enter the **show frame-relay pvc** command to show the status of the PVCs.
- Enter the **show frame-relay vofr** command with the arguments interface, dlci, cid to show statistics and information on the open subchannels.
- Enter the **show frame-relay fragment** command with the arguments interface number and dlci to show the Frame Relay fragmentation configuration.
- Enter the **show traffic-shape queue** command to display the traffic-shaping information if Frame Relay traffic shaping is configured. The **queue** option displays the queueing statistics. For more information about traffic shaping, refer to <u>Frame Relay Traffic Shaping for VoIP and VoFR</u>, document 14073.