

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

This article provides information you can use to confirm that your VoFR configuration with QoS is working properly.

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only), which allows you to view an analysis of show command output.

LLQ/IP RTP Priority Commands

The following **show** and **debug** commands can help you verify your LLQ and IP RTP priority configurations.

- **show policy-map interface serial *interface#***-This command is useful for viewing the LLQ operation and any drops in the PQ.
- **show policy-map *policy_map_name***-Displays information about the policy-map configuration.
- **show queue *interface-type interface-number***-Lists fair queueing configuration information and statistics for a particular interface.
- **debug priority**-Displays PQ events and shows whether dropping occurs in this queue.
- **show class-map *class_name***-Displays information about the class-map configuration.
- **show call active voice**-Used to check for lost packets at the DSP level.
- **show frame-relay ip rtp header-compression**-Displays RTP header compression statistics.

For more information about low-latency queueing for VoFR, refer to the [VoIP QoS for Frame Relay to ATM Interworking with LLQ, PPP LFI and cRTP, document 22383](#).

Fragmentation Commands

Use the following **debug** and **show** commands to verify and troubleshoot fragmentation configurations.

- **show frame-relay fragment**-Displays information about the Frame Relay fragmentation taking place in the Cisco router.
- **debug frame-relay fragment**-Displays event or error messages related to Frame Relay fragmentation. It is enabled at the PVC level on the selected interface.

Frame Relay/Interface Commands

Use the following **show** commands to verify and troubleshoot the Frame Relay/interface configurations.

- **show traffic-shape queue *interface***-Displays information about the elements queued at the VC data-link connection identifier (DLCI) level. The command is used to verify the operation of IP RTP priority over Frame-Relay. When the link is congested, voice flows are identified with a weight of zero. This indicates that the voice flow is using the PQ.

- **show traffic-shape**-Displays information such as Tc, Bc, Be, and CIR configured values.
- **show frame-relay pvc dlcI-#**-Displays information such as traffic shaping parameters, fragmentation values, and dropped packets.

For more information about VoIP over Frame Relay with quality of service (QoS), refer to [VoIP over Frame Relay with Quality of Service \(Fragmentation, Traffic Shaping, LLO / IP RTP Priority\)](#), document 12156.