



DTMF Relay, Fax Relay and Modem Relay for SCCP FXS Ports in Cisco IOS

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The RFC 2833 DTMF Digit Relay feature on the SCCP analog gateway sends RFC 2833 digits through Real-time Transport Protocol (RTP) packets and out-of-band (OOB) digits to Cisco Unified Communications Manager.

SCCP Gateway Controlled Fax Relay adds support for the following fax relay features for SCCP analog endpoints:

- T.38 named signaling events (NSE) forced fax relay—Provides an ITU-T standards-based method for fax relay. Data is packetized and encapsulated according to the T.38 standard fax protocol. The SCCP gateway uses NSEs to indicate T.38 fax relay switchover. Configuring the gateway to unconditionally use T.38 NSE forced fax relay enables interoperation with a Cisco IOS voice gateway that does not support interworking and negotiation of T.38 fax relay and NSE attributes at the time of call setup.
- Cisco fax relay—Proprietary fax relay implementation that uses RTP to transport fax data. Fax relay is the default mode for passing faxes through a VoIP network, and Cisco fax relay is the default fax relay type on Cisco IOS voice gateways.
- Super Group 3 (SG3) to G3 fax relay—Allows the fax stream between two SG3 fax machines to negotiate down to G3 speeds (less than 14.4 kbps) allowing SG3 fax machine interoperation over T.38 fax relay with G3 fax machines.

With Modem Relay, the modem signals are demodulated at one gateway, converted into digital form, and carried in Simple Packet Relay Transport (SPRT) packets to the other gateway. There the modem signal is re-created and remodulated, then passed to the receiving modem. Modem relay lessens bandwidth requirements and significantly reduces the effect that dropped packets, jitter, and latency have on the modem session.

Configuration Information

Configuration information is included in the “[Configuring DTMF Relay, Fax Relay and Modem Relay for SCCP FXS Ports in Cisco IOS](#)” module in the *Supplementary Services Features for FXS Ports on Cisco IOS Voice Gateways Configuration Guide* at the following URL:

- <http://www.cisco.com/en/US/docs/ios/voice/fxs/configuration/guide/fxsrelay.html>



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Command Reference Information

Command reference information is included in the the *Cisco IOS Voice Command Reference*, Release 12.4T, at the following URL:

- http://cisco.com/en/US/docs/ios/12_3t/voice/command/reference/123tvr.html

New or Modified Commands

The following commands are new or modified for this feature:

- **debug voip application stcapp all**
- **debug voip application stcapp port**
- **show stcapp device**
- **tone dialtone remote-onhook**

List of All Release 12.4T Commands

An alphabetical list of all Cisco IOS Release 12.4T commands is in the *Cisco IOS Master Commands List*, All Releases, at the following URL:

- http://www.cisco.com/en/US/docs/ios/mcl/allreleasemcl/all_book.html

List of All New, Modified, Removed, and Replaced Release 12.4T Commands

Alphabetized lists of all new, modified, removed, and replaced commands for each Cisco IOS Release 12.4T release are in the *Cisco IOS New, Modified, Removed, and Replaced Commands*, Release 12.4T, document at the following URL:

- http://www.cisco.com/en/US/products/ps6441/products_product_index09186a00805db026.html