

Fax Support

The Session Border Controller (SBC) media components enable fax Voice over IP (VoIP) calls. The SBC supports the following types of fax over IP calls, using either Session Initiation Protocol (SIP) or H.323:

- T.38 fax passthrough only over the following protocols:
 - RTP: Real-time Transport Protocol
 - UDP-TL: A lightweight transport protocol for fax media that runs over User Datagram Protocol
- G.711 passthrough



Note

For ACE SBC Release 3.0.00 this feature is supported in both the unified model and the distributed model.

Feature History for Fax Support

Release	Modification
ACE SBC Release 3.0.00	Added support for SBC unified model.
ACE SBC Release 2.0.00	This feature was introduced on the Cisco 7600 series router.

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Fax Support

The SBC supports two types of fax over IP: G.711 passthrough, and T.38 passthrough. Passthrough is a method of passing a FAX PCM stream across a VoIP network. It involves selecting a high-bandwidth codec (G.711), disabling silence suppression and enabling echo cancellation. FAX passthrough is signalled by protocol stacks H.323 and SIP.

T.38 Passthrough

T.38 is an ITU standard for sending FAX across IP networks in a real-time mode. In the SBC, T.38 fax calls are sent in-band using a fax-specific codec (rather than a general-purpose audio codec). T.38 fax uses a separately negotiated stream, which can either be negotiated at the start of the call (bandwidth will be reserved for it at that point), or renegotiated during the call (which may fail).

T.38 fax passthrough is supported in both SIP and H.323.

**Note**

The bandwidth reserved for a T.38 call is considered sufficient for carrying a T.38 rate of 14,400 bits per second and does not reflect the signaled rate in T.38.

**Note**

If an unnumbered datagram protocol transport layer (UDPTL) error correction is used for T.38, then the bandwidth reservation also includes capacity for up to three redundant parity packets in the T.38 stream.

Restrictions for Fax Support

The following are restrictions for fax support in SBC:

- T.38/G.711 interworking is not supported.
- Cisco proprietary fax is not supported, although it may work in the passthrough mode, because the SBC does not police the RTP payload types, only bandwidth. Cisco proprietary fax uses RTP.
- Call-agent-signaled upspeed is not supported.
- SIP or H.323 T.38 interworking is not supported.