

AudioCodes Quick Reference Guide

Fax and Modem Configuration

Background

Fax and modems are supported by AudioCodes gateway, there are many types of faxes and modems in the industry. This covers the spectrum of standalone fax machines to new software based Fax software servers. Also, for modems this would include stamp machines, fire alarm panels etc. There are standard configs and important points before attempting faxes/modem implementation.

What are the Supported Transport Modes for faxes?

The most used in the industry is T38 and G.711. Below is an example of all the supported transport types by AudioCodes gateways.

Supported Transport Modes	Fax	Modem
With SIP Signaling		
T.38 fax relay	√	X
G.711 Transport: switching to G.711 when fax / modem is detected	√	√
Fax fallback to G.711 if T.38 is not supported	√	X
V.152 Voice Band Data (VBD)	√	√
Without SIP Signaling		
T.38 fax relay	√	X
Bypass - a proprietary method that uses a high bit rate coder	√	√
NSE Cisco's Pass-through bypass mode	√	√
Transparent: passing the fax / modem signal in the current voice coder	√	√
Transparent with events: passing the fax / modem signal with adaptations	√	√

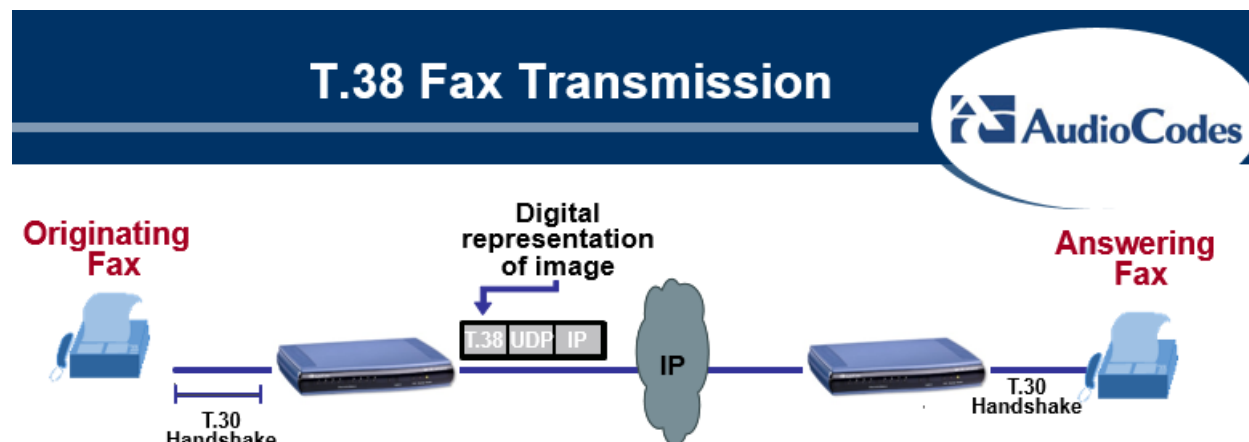
What is FAX?

A fax (short for facsimile and sometimes called telecopying) is the telephonic transmission of scanned-in printed material (text or images), usually to a telephone number associated with a printer or other output device.

What is T.38 protocol in the fax world?

In earlier years before T.38 came about, faxes were basically G.711 and over analog/T1 lines. With the coming up the computer age, the need came for translation to be necessary from analog world

to computer data networks and recently to Sip trunks. It is worth noting that G.711 can still be used on computer networks today with success. However, due to network issues (like packet delay, packet optimizers etc.) it became necessary for a protocol designed specifically for networks to ensure proper transmission of fax over networks. The protocol was T38 and is established by most providers. There are some sip trunk providers that do not support T38. See Figure A for how translations happen between G.711 to T38 in networks and then back to g711 in standard setups.



T.38 is an ITU recommendation for sending fax messages over IP networks in real time by encapsulating a standard G3 fax data stream.

What resources do I use to configure Faxes?

Within the AudioCodes Gateways User's Manual there are breakdowns for each fax protocol types and configuration needed.

For any further questions regarding this topic or other technical topics:

- Contact your AudioCodes Sales Engineer
- Visit our AudioCodes Services and support page at <https://www.audiocodes.com/services-support>
- Access our technical documentation library at <https://www.audiocodes.com/library/technical-documents>
- Access to AudioCodes Management Utilities is available at https://services.audiocodes.com/app/answers/detail/a_id/20
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