



AUTO ATTENDANT / RESEARCH & PRACTICAL GUIDANCE

Do You Still Need a Fax Line? Fax Over VoIP and T.38

Get a business phone number with a simple auto attendant menu from Auto Attendant. A caller picks who they need and the call rings that person's own mobile, so nobody on your team has to publish a personal number.

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Why the question still comes up

Fax should have died years ago, but it hasn't. Clinics still get referrals and lab results by fax. Law offices still receive signed documents that way, and plenty of suppliers and trades still send purchase orders to a fax number. If your office is moving to VoIP, or the phone company is pulling its copper lines, you need to know whether the old fax machine will keep working and whether you need a separate line for it.

This guide covers how fax works, why it breaks on VoIP, what T.38 actually does, and the privacy and junk-fax rules that apply. It ends with a decision guide. It is educational, not legal advice, and the rules are stated as of October 2026.

Why fax still matters

Two reasons keep fax alive in small offices:

- **It is accepted for health information.** The U.S. Department of Health and Human Services says HIPAA's Privacy Rule lets health care providers share patient information for treatment "by phone, fax, e-mail, or otherwise", as long as they use reasonable safeguards. Its own examples are a lab faxing results to a physician and a hospital faxing care instructions to a nursing home ([HHS](#)).
- **The other side still uses it.** You can't control how hospitals, courts, insurers or suppliers choose to send you paper.

Canada is pushing harder the other way. The Office of the Privacy Commissioner of Canada (OPC) encourages organizations to phase out traditional fax machines. It tells health organizations to use encrypted email, secure patient portals, electronic referrals and e-prescribing instead, though it accepts that some regions lack the internet connections to make the switch ([OPC](#)).

So the honest answer for most small offices is: you probably still need to **receive** faxes, but you may not need a dedicated **line** for them.

How fax works on a regular line

Almost every fax machine in use is "Group 3". Group 3 is built mainly on two ITU-T standards. T.4 covers how the page image is encoded, and T.30 covers the handshake and the transmission protocol ([ITU-T T.4](#), [ITU-T T.30](#), [Cisco](#)).

Group 3 was designed for a phone network built to carry speech, so a fax machine behaves like a modem. It turns digital data into audio tones, which are the screech you hear when a fax line answers ([Cisco](#)). Cisco's troubleshooting guide describes a call in two parts:

1. **Negotiation.** The two machines swap capabilities (speed, resolution, error correction) at 300 bits per second using V.21 tones.
2. **Page transmission.** The page goes over at a higher speed agreed during "training", such as V.29 at 7,200 to 9,600 bps or V.17 at 14,400 bps. If a high speed fails, the machines drop to a lower one ([Cisco](#)).

On a copper line, those tones arrive almost exactly as they were sent. That changes on VoIP.

Why fax and VoIP clash

A VoIP system cuts sound into packets and often compresses it. Speech survives that well. Modem tones often don't.

- **Compression.** Cisco explains that high-compression codecs such as G.729 squeeze voice to about 8 kbps and still sound fine, but "the modulated signals of fax transmissions usually do not correctly pass through when these codecs are used, and fax calls fail as a result" ([Cisco](#)).
- **Packet loss and jitter.** A missing packet is a tiny gap in a voice call. In a fax it can corrupt a scan line or stop the session. Cisco notes that fax error correction mode (ECM) has "a low tolerance (approximately two percent) for jitter and packet loss" in its fax relay setup, and that incomplete pages are a typical sign of packet loss ([Cisco](#)).
- **The call looks like a voice call.** An IETF standard notes that "fax calls are indistinguishable from voice calls at call initiation", so they can be routed to equipment that can't handle fax ([RFC 6913](#)). In practice, a fax sent to a number that answers with a voice menu or voicemail will usually fail.

VoIP equipment solves this in one of two ways. Cisco's documentation describes both: **pass-through**, which sends the tones as uncompressed audio using G.711, and **fax relay**, which uses T.38 as the standard protocol ([Cisco call flows](#)).

T.38 explained

T.38 is the ITU-T standard for real-time Group 3 fax where part of the path between the two machines runs over an IP network such as the internet ([ITU-T T.38 summary](#)). The current version is T.38 (11/15), approved 29 November 2015 and still in force ([ITU-T](#)).

T.38 doesn't try to carry the screech. The gateway or adapter next to your fax machine **demodulates** the tones back into fax data, sends that data in packets, and the far end turns it back into tones for the other machine. Neither fax machine knows this happened ([Cisco](#)).

Some practical points:

- **Every hop has to agree.** Cisco: "all the devices on VoIP need to utilize the same fax protocol for a fax call to be successful. Fax protocols, unlike audio calls, cannot be transcoded" ([Cisco call flows](#)). Your adapter, your VoIP provider and every carrier along the route must handle T.38, or the call must fall back to pass-through.
- **It starts as a voice call.** The call begins as audio and switches to fax when fax tones are detected ([Cisco call flows](#)). On SIP systems, the switch is offered as an `image/t38` media type, which the IETF registered in RFC 3362 in August 2002 ([RFC 3362](#)).
- **It has a fixed speed ceiling.** One current analog telephone adapter (ATA) lists "T.38 compliant Group 3 Fax Relay up to 14.4kbps and auto-switch to G.711 for Fax Pass-through" ([Grandstream HT80x V2 guide](#)).

When you ask a VoIP provider "do you support fax?", what you are really asking is "do you support T.38 end to end, and what happens when the far end doesn't?"

Pass-through (G.711) fallback

Pass-through treats the fax as a very high-quality voice call. G.711 is the ITU-T's uncompressed 64 kbps voice coding standard from 1988, still in force ([ITU-T G.711](#)). Cisco says faxes can be sent successfully over low-compression or uncompressed codecs "such as G.726 and G.711 with no echo cancellation or Voice Activity Detection" ([Cisco](#)).

If your provider or IT person tells you to use pass-through, these are the settings to check on the adapter:

1. **Fax mode: pass-through.** On the Grandstream HT80x V2, for example, "Fax Mode" defaults to T.38 (auto detect). If you set it to pass-through, you also pick PCMU or PCMA, the two G.711 variants ([Grandstream](#)). Use the variant your provider expects. North America normally uses PCMU (μ -law).
2. **No compressed codec on the fax port.** Take G.729 and similar codecs off the list, or make sure the call switches to G.711 when it detects fax tones.
3. **Silence suppression / VAD off, echo cancellation off for fax.** These are the conditions Cisco lists for faxing over G.711 ([Cisco](#)).
4. **Slow the fax down if pages fail.** Grandstream notes that lowering the maximum T.38 bit rate "may help improve the fax success rate" ([Grandstream](#)). Most fax machines also have a menu setting to cap their own speed.

Limits. Pass-through still sends sound in packets, so it is only as good as your internet connection. Cisco warns that G.711 uses up to 80 kbps per call over VoIP once overhead is included, and that if pass-through also fails, a large amount of jitter or packet loss is the first thing to suspect ([Cisco](#)). Nobody publishes reliable success rates for either method on ordinary small-business connections. The only way to know is to test your own setup.

Alternatives to a fax line

You have three practical options, and you can mix them.

1. Keep a fax-capable line. This is a traditional line where one is still offered, or a VoIP line with an ATA set up for T.38 or pass-through. You keep the machine and its paper workflow. If your copper service is being retired, see our [guide to replacing copper phone lines](#) and the [copper retirement research](#).

2. Online fax (fax-to-email). A provider gives you a fax number, receives faxes on its own servers, and delivers each one to you as an email attachment or in a web portal. You can usually bring your existing fax number with you, either by porting it or by forwarding it. Canadian provider SRFax explains the difference in plain terms. Porting moves the number, so the old line stops receiving and incoming faxes can arrive at the same time. Forwarding keeps the old line and pays both providers, and a second fax that arrives during the first one may get a busy signal ([SRFax](#)). Compare prices yourself; this guide doesn't list them.

3. Replace fax with something else where you can. Encrypted email, secure portals and e-referrals are exactly what the OPC recommends for health information ([OPC](#)). Most offices end up taking this route with regular senders and keeping a fax number for everyone else.

Keep fax and voice on separate numbers. Your main voice number may answer with a menu or voicemail. Because fax calls look like voice calls at the start ([RFC 6913](#)), a fax machine calling that number will hear a greeting and give up. Print a dedicated fax number on letterhead and referral forms.

HIPAA, PIPEDA and junk-fax rules

U.S. health care (HIPAA). Faxing patient information for treatment is allowed with reasonable safeguards. HHS gives two examples: confirm a fax number with the recipient before using a number you don't fax regularly, and pre-program frequently used numbers so pages don't go to the wrong place ([HHS](#)). If an online fax provider **stores** patient information for you, HHS's cloud guidance treats a service that creates, receives, maintains or transmits electronic PHI on your behalf as a business associate. That requires a business associate agreement (BAA). The "conduit" exception covers only transmission-only services with temporary storage ([HHS cloud guidance](#)). Ask any provider whether it signs a BAA before you route patient faxes through it.

Canada. The OPC's tips if you keep faxing are to:

- use a machine that encrypts and requires a password to print
- keep the machine in a secure area
- check the number on the display before sending
- call to confirm the recipient got the full transmission
- get informed consent before faxing someone their own personal information ([OPC](#))

Junk faxes in the U.S. 47 CFR 64.1200(a)(4) bars using a fax machine, computer or other device "to send an unsolicited advertisement to a telephone facsimile machine" unless the conditions are met. Those include an established business relationship, a fax number obtained in an allowed way, and a clear opt-out notice on the first page. Opt-outs must be honored within a reasonable time, no more than 30 days ([eCFR](#), [47 CFR](#)

64.1200). In December 2019, the FCC's Consumer and Governmental Affairs Bureau ruled that an online fax service receiving faxes as email "is not a 'telephone facsimile machine'", which puts it outside that ban (**FCC DA 19-1247**). Courts are not bound by that ruling: in a 2025 case about exactly this question, the Supreme Court held that district courts must decide the statute's meaning themselves, giving the FCC's view only "appropriate respect" (**McLaughlin Chiropractic Associates v. McKesson Corp.**). If junk faxes are a real problem for you, or you plan to send fax advertising, get legal advice.

Junk faxes in Canada. The CRTC's Unsolicited Telecommunications Rules (Part III, rule 19) require a fax telemarketer to put its name, the date and time, voice and fax numbers, and a contact name with an email or postal address at the top of the first page, in 12-point type or larger (**CRTC**). The National Do Not Call List rules do not apply to telemarketing to a business consumer (Part II, rule 2) (**CRTC**). The CRTC opened a review of these rules in 2026 (Compliance and Enforcement 2026-132); until it issues a decision, the current rules apply.

Decision guide

Your situation	Sensible choice
You receive a few faxes a month and rarely send	Online fax to email; port or forward the existing fax number
You handle patient information	Online fax with a signed BAA (U.S.), or move regular senders to e-referrals or a secure portal; keep the safeguards above
You must sign paper and fax it back often, or staff rely on the machine	VoIP line with a T.38-capable ATA, tested with your real senders
Your provider can't confirm T.38 end to end	ATA in G.711 pass-through on a clean connection, or online fax
Rural site with an unreliable internet connection	Keep a traditional line while one is offered; OPC acknowledges connectivity limits (OPC)
Fax must work during an internet or power outage	Plan the backup now; our outage recovery worksheet helps

Before you switch, run this checklist:

- ☐ List who faxes you and how often (one month of logs is enough).
- ☐ Ask your VoIP provider in writing: T.38 supported end to end? Fallback to G.711? Which variant?
- ☐ Confirm the fax number is separate from your voice menu number.
- ☐ Send and receive multi-page test faxes to and from at least one outside party, including a long one.
- ☐ If you handle health data, get the provider's BAA (U.S.) or review the OPC tips (Canada).
- ☐ Decide who checks the fax inbox, and how often.
- ☐ Don't cancel the old line until the number has moved and tests pass.

FAQ

Will my fax machine work on VoIP? Often, but it isn't guaranteed. It needs an adapter and a provider that handle T.38 or G.711 pass-through, and every device on the path must use the same fax method ([Cisco](#)). Test before relying on it.

Why do my faxes fail or arrive with missing pages? The usual causes are a compressed voice codec, packet loss or jitter on the connection, or a mismatch between T.38 and pass-through somewhere along the route. Lowering the fax speed or turning off ECM can help ([Cisco](#), [Grandstream](#)).

Do I still need a dedicated fax line? You need a dedicated fax **number** if people still send you faxes. It doesn't have to be a physical line. Online fax services receive on their own systems and email you the pages.

Is fax more secure than email? Not by default. HHS allows both for treatment with reasonable safeguards ([HHS](#)), and Canada's privacy commissioner recommends moving away from traditional fax ([OPC](#)).

Can I keep my fax number if I move to online fax? Usually, either by porting it or by forwarding it, and the trade-offs differ ([SRFax](#)). Terms such as T.38, ATA and porting are explained in our [glossary](#).

Auto Attendant answers voice calls with a simple menu only; it does not send or receive faxes.

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Source links

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About Auto Attendant

Auto Attendant gives a small business one phone number and a recorded menu that sends each caller to the right person. The call rings the mobile that person already carries, using their normal dialler and their normal mobile plan. Pricing is a single flat monthly fee for the whole company rather than a charge for each user, and there is no app, desk phone or hardware to install.

One number, one menu, the phones you already own

A caller dials the business number, hears a short greeting and chooses an option. Each option can ring one mobile, ring several at once so whoever is free answers first, or try people one after another in a set order. There is no limit on how many people sit on the receiving end, because nobody is billed per seat. Setup is done by the owner in a few minutes: pick a number, write the greeting, and point each option at a mobile.

What it deliberately is not

An auto attendant routes a call; it does not answer one. Nobody at Auto Attendant speaks to callers, and no AI stands in for a receptionist. A business that wants its calls handled, messages taken and appointments booked wants an answering service, which is a different product at a different price. A business that needs call recording, queues, agent dashboards or CRM integration wants a contact centre platform. Auto Attendant is for the case where the call should simply reach the right pocket.

Keeping personal numbers off the internet

The business number is the only number a caller ever sees. Personal mobile numbers are never displayed and never given out, which is what lets an owner put a number on a website, an invoice, a van or a Google Business Profile without handing a personal line to everyone who finds it. An existing advertised number can be ported across and kept, and the old line keeps working while the port is in progress.

Work with Auto Attendant

Visit [Auto Attendant](#) to see [how it works](#), [how it compares](#) to a personal mobile, Google Voice and a full phone platform, and the current [pricing](#).

Telephone number portability, emergency calling and caller-ID rules differ by country and change over time. Articles published here describe general practice and cite primary regulator and carrier sources; they are not a guarantee of any timeline, and they are not legal or regulatory advice for a specific business.

Website: <https://autoattendant.io>

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