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## vFax and T.38

Mike Johnstone - 2025-09-14 - [Faxing](#)

### vFax and T.38

Our vFax service replaces your legacy fax machine by using our fax gateway and your email client for both the sending and receipt of faxes. If your business operates an emergency medical facility or relies on a 100% transmission or receipt accuracy of faxes we advise against using this vFax service.

When a traditional fax is sent (or received) over the PSTN, the recipient machine expects to receive nothing less than 100% of the data of the originating fax. The problem for VoIP faxing is contending with data (or packet loss) typically caused by network congestion on the public internet. While email, web browsing or even VoIP phone calls by design can handle some packet loss, faxing isn't anywhere near as resilient which is why internet engineers invented the T.38 protocol.

The T.38 protocol attempts to remove packet loss by using our fax gateway as an intermediary to keep retransmitting until all data is sent or received. For this reason we say our vFax service is a replacement to your old fax machine as we rely on email to send and receive faxes on your behalf.

### Cloud PBX fax numbers

Our dedicated fax lines use the T.38 fax protocol which you can access from our numbers portal. If you're porting a fax number from another service you will need to ask us to convert that number into a T.38 fax line by raising a support ticket. There's no cost and it only takes a few minutes for us to convert the number.

### Known issues

The following scenarios are known to cause issues:

1. **Machine to machine** Our service is designed to replace your fax machine using your email to send to our fax gateway which in turn sends to our fax gateway for delivery. Where customers send directly between two fax machines they effectively side step our fax mail gateway as the intermediary. In this scenario we lose the resilience

of our fax gateway's send / receive retry buffering.

2. **Dual answer / fax mode:** Where the fax machines auto answer the call our fax gateways interprets this as a traditional voice call and will hangup.
3. **High speed fax machines:** One technique a t.38 fax gateway deploys to increase reliability is to instruct the recipient machine to adjust its speed (or baud rate) down to the slowest speed of 9600. Machines without the ability to auto adjust have a much higher probability of packet loss and ultimately fax failures.
4. **Color fax machines:** Similar to the problem with high speed machines, we cannot receive color faxes.

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