

# SIP trunking optimized for large-scale faxing



Spectrum Enterprise makes faxing easier, less time-consuming and more cost-effective.

Traditional faxing remains an essential form of business communication, providing a secure and legally recognized way to quickly transmit important documents. Thousands of pages are faxed every day, across a wide range of businesses and organizations, including in government and regulated industries. Here are some typical examples:



## Finance

Processing trade confirmations, mortgage/loan applications, claim forms; sending collection notices



## Healthcare

Exchanging protected health information in a HIPAA-compliant manner; transferring patient information to another physician; processing claim forms



## Government

Accepting contract bids; changing property records; tracking expenses; transmitting emergency information



## Manufacturing

Transmitting purchase orders and shipping notices; processing RFIs/RFQs/RFPs; processing invoices

## Sending faxes: The challenge

However, faxing is based on older analog technology; large-scale faxing over digital/VoIP networks is vulnerable to quality and performance issues:

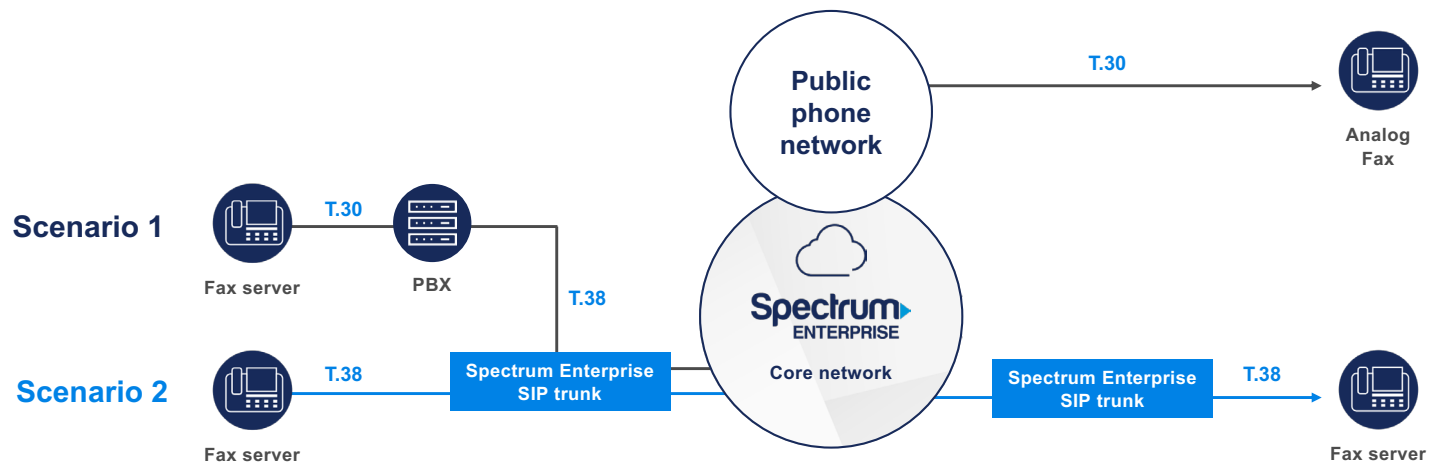
- Faxes are heavily impacted by even minor levels of packet loss, latency and jitter. While these conditions can be a normal part of everyday digital communications, often resulting in clipped voice calls or slightly distorted video images, they can cause fax transmissions to become garbled or fail completely.
- A fax, unlike a voice or video call, cannot be compressed. As a result, faxes consume a larger share of bandwidth, which can be a problem for organizations that do a lot of faxing, especially at peak hours.

- Fax performance issues get worse on longer documents: as the number of pages being faxed grows, so do the chances of failure.
- Many organizations that depend on sending and receiving faxes retain business lines just for that purpose, incurring extra expense and inconvenience.

## Trunking services optimized for faxing

To meet this challenge, Spectrum Enterprise has optimized its SIP trunking services to support analog faxing over our nationwide, fiber-rich network. Taking advantage of the T.38 protocol, the Spectrum Enterprise optimization mitigates the packet losses and other issues that undermine fax performance on typical digital networks.

T.38 fax relay



A typical scenario where T.38 is used is a fax relay

To understand how this works, let’s look at some scenarios. In scenario 1, a fax server connects through a PBX, which acts as a T.38 gateway and exchanges faxes with the public phone network. Faxes can be sent and received as T.30 protocol encapsulated in T.38 over the Spectrum Enterprise SIP trunk and as T.30 over G.711 with the public phone network.

In scenario 2, a T.38 enabled fax server exchanges faxes with a T.38 enabled fax server over the Spectrum Enterprise SIP trunk and network and then passed through the Spectrum Enterprise SIP trunk to the receiving T.38 fax server.

Benefits

- High-volume and lengthy fax transmissions are completed more reliably and in less time.
- Interoperability testing with fax service providers assures clients that Spectrum Enterprise trunks work with common fax servers.

Key features

- Supports the transmission of T.30 with T.38 faxing protocols.
- Optimized trunks designed to handle thousands of faxed pages per hour.<sup>1</sup>
- Available nationwide over the Spectrum Enterprise private fiber network.
- Interoperability tested with key fax service providers (such as RightFax and XMedius).
- Configuration guides make it easy for customers to set up their faxing equipment.

<sup>1</sup>Faxing performance through the public phone network may be lower because not all carriers support optimized networks for faxing.

About Spectrum Enterprise

Spectrum Enterprise, a part of Charter Communications, Inc., is a national provider of scalable, fiber technology solutions serving America’s largest businesses and communications service providers. The broad Spectrum Enterprise portfolio includes networking and managed services solutions: Internet access, Ethernet access and networks, Voice and TV solutions. Spectrum Enterprise’s industry-leading team of experts works closely with clients to achieve greater business success by providing solutions designed to meet their evolving needs. More information about Spectrum Enterprise can be found at [enterprise.spectrum.com](http://enterprise.spectrum.com).