T-MOBILE FOR BUSINESS

SIP Trunking

Why time's running out for old phone technology

Wired connections in a wireless world

Here's an obvious truth: There have never been more ways for people to communicate with each other at work.

On the one hand, that's great for businesses. Call center workers can respond to customer issues by phone. Field workers can collaborate asynchronously through chat. And busy executives can use video conferencing to improve the quality of their meetings.

But there's another side to all this choice. Infrastructure.

Your business may be able to make all these options available by adding new applications and technologies as they come up. But how is all that information being routed—and how efficiently is it all being managed?

More specifically, how do you balance new communication options with legacy infrastructure?

It's an important question. And it's why new voice technology is so important.

The new voice technology approach is about efficiency. It's a more efficient way to manage enterprise-wide communications.

It's also about cost-effectiveness as it frees IT from the many challenges of managing multiple networks and providers. In fact, it can save you some serious money (as we'll see later).

But it's also about the future. About letting go of the infrastructure that brought your enterprise this far—and embracing the technologies that will define the unified communications of today and tomorrow.

Internet bandwidth has improved so much that it's only natural for real time applications such as Voice over IP (VoIP) to become more available. VoIP applications, like SIP Trunking, are an obvious choice for many businesses.

The problem is, typically, when people discuss SIP trunking, they use complex technical jargon and acronyms that hide the simplicity and usefulness it brings.

So if you don't know your PSTN from your ISDN, this is the SIP trunking eBook for you.

SIP trunking: An introduction

To understand SIP trunking, it's worth understanding how enterprises typically manage communication networks.

Traditionally, enterprises have bought, maintained and upgraded two distinct network systems: As customers migrate to VoIP their networks become converged and they can manage their resources more effectively.

1 The PSTN or 'voice' network

This is the external network that lets you call outside your organization (off-net).

With legacy voice networks, each of your buildings had a physical infrastructure that all landlines fed into. Then that system fed into the wider national (and international) phone system, letting your people make calls to wherever they needed to.

Because this network was based on physical infrastructure that was really only built for voice, it took a specific skillset to maintain and update it. When you looked to add more phone lines, upgrade the system or otherwise make changes, you needed engineers with those skills to get it all done.

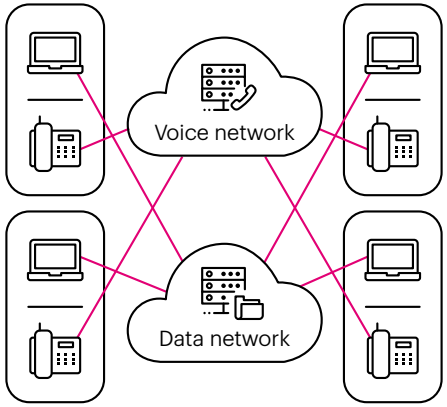
2 The MPLS or 'data' network

This is the network within your organization used for data.

It's the communications backbone that connects computers (everything from smartphones and laptops to servers and data warehouses) across teams and departments.

It's a private network so it's partitioned off from the wider Internet (making it more secure). And that means you can control where and when people can access it (along with who, of course).

When a business is trying to straddle both these networks, the enterprise architecture looks something like this.



Teams and departments are using a mixture of phones, smartphones, laptops—and all sorts of applications like voice and video and chat—to connect with each other. But in this set up, the phones (wherever they're located) connect to the voice network and laptops while other data devices connect to the IP data network.

So what's the problem and what do I need SIP trunking for?

The problem is that you have unified communications happening at the application layer but you have division at the infrastructure layer.

It's inefficient and an expensive anchor to increasingly obsolete infrastructure.

That's where SIP trunking comes in.

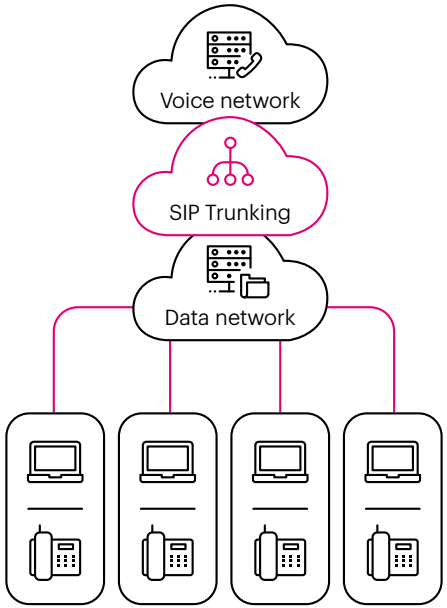
The 'SIP' in SIP trunking stands for Session Initiation Protocol. This means it's a system to initiate, maintain and terminate real-time sessions, such as for voice calls, over an IP network.

(A 'trunk' is simply the name for an interconnection of two VoIP-enabled endpoints).

In short, that means SIP trunking essentially allows you to do away with that separate voice network and instead get all the functionality through your existing IP data network.

That means less to manage and a more efficient system (we'll get into that in more detail in the next section). And it means you'll be saving all the money you were spending on that expensive system too.

It looks something like this:



As you can see, the phones and laptops in this set up both connect directly to the same network—the IP data network.

Then, by installing the SIP trunk, the IP data network can connect to the wider PSTN (phone network). That means employees using the SIP trunk lines can contact someone outside the network by making calls in the same way as a standard phone line.

No extra software or fancy devices are needed—it works like a normal call between two phones because that's exactly what it is.

It's a digital improvement on the old analog system. And like any digital improvement, it brings a host of benefits.

SIP Trunking

Five critical benefits of SIP Trunking

SIP Trunking

It future-proofs your business

The truth is that the writing's on the wall for legacy voice networks.

Traditional landlines are on their way out—most traditional telecommunication providers started turning down their traditional legacy Time Division Multiplex (TDM) networks in lieu of a SIP deployment.

The old way of communicating isn't just dying. It's being actively replaced.

And considering the growing importance of the unified communications model, it isn't happening a minute too soon.

01

It saves you some serious money

SIP trunking can mean enterprise-wide saving in a lot of ways

By cutting the physical infrastructure that a second network necessitates, you'll reduce hardware requirements. That means you'll save on the costs to upgrade, maintain and repair the system.

Plus, SIP trunking allows you to fold your entire requirement across the whole enterprise, rather than at each individual site. So if you have, say, three sites with 24 trunks each, you might find you can condense that down to something like 36 trunks for all three locations.

Then you can save on calls too.

Calls within the VoIP infrastructure are usually free (after all, they're all connected to the same network—your network). That means internal communication is both easier and more cost-effective.

Then calls to regular landlines, mobiles and even internationally are all normally much cheaper on a SIP trunking network than on a legacy voice infrastructure.

And, because it's more flexible (more on that in a second), it means you pay just for what you need, which can bring some serious savings too.

You can also save with trunking aggregation. Now, not all suppliers will offer trunking aggregation, but if you pick one that does (like us) you could save even more in the long run.

In fact, SIP trunking is estimated to reduce total cost of ownership by around 20-40%.

Better tech at a lower price. Not bad.

01

02

SIP Trunking

It makes you more flexible

Having a physical infrastructure for that second network doesn't just mean more costs—it means more delays.

When you need to make changes—like adding a new phone line—SIP trunking is much easier and takes less time.

You can add or subtract phone lines, as you're not restricted to the number of physical lines you have in your building. Plus, it means you can handle multiple sites across a single system—wherever your people can access the IP data network, they'll be able to access their phone line.

This is especially valuable for organizations that need to handle seasonality or irregular spikes in demand. Traditional landlines force you to pay for peak demand all year round. SIP trunking gives you the flexibility to scale up or down.

Then if you see a sudden unexpected surge, you can react to that too. That means a better experience for your customers and a more logical cost structure for you.

01
02
03

SIP Trunking

It’s more resilient

As we’ve seen there’s a lot less to worry about with SIP trunking, which means a much more resilient infrastructure.

Business continuity is built into the system—whether that’s via geo-redundant data centers or multiple circuits with high availability network elements.

By not being tied to physical infrastructure in quite the same way, your people—and your business—can handle whatever life throws at them.

02
03
04

SIP Trunking

It ties into a wider unified communications strategy

Many businesses are looking to take greater control of their communications functions and a wider unified communications (UC) strategy is an important aspect of this.

UC is about simplifying your communications to give you greater visibility across all your channels. Having a voice network that's separate from your other networks is a huge barrier to that goal.

The ability to embrace multiple devices—including things like a bring-your-own-device policy—is the major driving benefit of UC, and SIP trunking is a big part of letting your employees communicate across multiple devices and locations.

If you're already a UC organization, SIP trunking will be an invaluable part of that shift in your existing infrastructure.

And if you've not started a UC journey just yet, SIP trunking could be the first step on the path to complete understanding and control of your wider communication needs.

05

SIP Trunking

Simplify your communications infrastructure with SIP trunking

Many businesses know they need enterprise-wide unification at the application layer, but forget about the need to do the same at the infrastructure layer.

SIP trunking makes this process not only possible, but simple.

You trust your IP data network with your business' most valuable information—so it makes sense to trust it with your voice communications too.

This isn't the future of telephony. It's the present.

And it's proven to be hugely effective for enterprise-level businesses looking to streamline their network.

It brings a host of benefits, but in short SIP trunking gives you better functionality at a lower cost.

As the old phone lines are phased out, SIP trunking has become the new standard for enterprise-level communication infrastructure.

T-MOBILE FOR BUSINESS

T-Mobile SIP Trunking

Moving to SIP trunking with any provider will bring you many of the benefits we've outlined here. But with T-Mobile SIP Trunking we offer you even more.

To take a look at how we stand out—and what we can do for you—check out our website.