

To SIP or not to SIP

Solutions for New Communications Technology

Do you still use DOS, AS400, cassette tapes?! While Mobile and Internet access continue to grow, older and more robust technology is declining in usage for businesses. This means telecommunications companies are increasing the service fees for services that are being phased out. SIP Trunking is replacing these services and growing exponentially!

TECHNOLOGY CHANGES

Don't sit back and do nothing while technology changes are happening in the telecom industry. Get in step with changes by removing unnecessary costs in Plain Old Telephone Service (POTS), Centrex and PRI Service.



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How do you know when to convert to SIP trunks?

Yes, you can replace your POTS (Plain Old Telephone Service), Centrex and PRI service with SIP trunking which delivers calls over an Internet circuit. Although not exclusive to voice services, this is where most businesses are using SIP trunks. Without getting into the details of the technology, these talk paths can either go over your existing Internet service or you can get a dedicated Internet circuit for SIP trunks.

Most of the time when a new technology goes from cutting edge to mainstream, it is either for cost savings or a significant value advantage that convinces people to move forward. SIP trunking is a viable solution since it has both. By getting rid of old legacy circuits in your building, you are reducing costs. Therefore the "phone company" doesn't have to dispatch a technician if there's a problem. They save money, you save money. When services are provided and managed through software, this removes the need for a traditional Central Office. This means there is less of a concern for natural disasters to affect many Central Offices like Hurricane Sandy did in 2012.

SIP trunking also allows you to quickly increase or decrease lines as needed. For example, if you have a contact center with an influx of calls for the Holiday season (e.g. think LL Bean), you can quickly increase the number of lines through software, then decrease the number of lines after the Holidays. This saves both money and time.

When you put more services on the Internet, you have to be more vigilant about security. Just like you have a firewall for Internet traffic, a Session Border Controller (SBC) protects your voice traffic. An SBC sets up and tears down calls, as well as enforces security and "Quality of Service" (QoS) on your network.

Speaking of QoS, your switches and routing equipment will need to prioritize voice calls to prevent lag, jitter, one-way audio, etc. The equipment prioritizes voice, while email and other data transmissions get the lowest priority. This is similar to making sure ambulances always have a right of way in traffic and pass through red lights. Video also gets priority in data transmission but that is for another article.



Principles for SIP Project Management Success

When IT Directors realize a necessary project cannot be handled by internal staff, he/she needs to look outside the organization. Often the vendors will help with this, however most signs point to their own solutions.

When objective advice is needed, Consultants fill the void. The important criteria is making sure the Consultants are independent and objective. This is determined by financial compensation. When choosing a Consultant, some factors to consider include:

- Experience
- Cost
- Generalist vs Specialist
- Location (Travel expenses and availability)
- Consultants Methodology fitting the culture of your organization.

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We asked accomplished telecom consultants how they're helping their clients with SIP trunks

Where you won't see much change in getting away from the old POTS to the new PANS (Pretty Amazing New Stuff) like SIP trunking is machine to machine communication like faxing, alarm and elevator lines. Wireless options will replace these at lower cost.

VoIP has changed the landscape of telecommunications and we are not even close to the end. The timing is right to move forward with this technology change for cost savings and technology enhancements, but be aware of the limitations that can disrupt your call quality and security settings. If in doubt, find an unbiased and objective advocate to help with the transition.

When deploying new technologies you want to be on the cutting edge, not the bleeding edge. When considering deploying SIP trunking, you want to consider what others have done...and learn from their mistakes.

We asked Telecom Consultants Eric Crawley and Taki Remtulla what they have done for their clients on SIP Trunking projects. Here is their expert advice which you will find helpful when moving forward with this technology:

DETAILED SPECIFICATIONS

- Since each carrier prices SIP trunking quite differently, get a detailed quote of all items needed for the complete solution.
- Don't take the sales rep's word that it supports the equipment you are connecting. Get it in writing. Most times the carrier has a detailed configuration guide for all the major manufacturer's equipment.

What IT Directors really need to know about SIP

- Understand if and how the proposed SIP Trunking handles fax machines and modems. Some carriers will not support these devices. Some will support them but have very specific recommendations on how to provision the service. Get the "nitty gritty" details.
- Verify the carrier supports E-911 for all locations.

"It is not a cookie cutter solution. There needs to be a carefully designed and tested solution"

IMPLEMENTATION

- Determine your migration path. Do you need hardware / software upgrades to become SIP-ready?
- Insist that the carrier provision the SIP service from multiple SBCs in their network to mitigate a single point of failure.
- Insist that the carrier provision the service on facilities that have Quality of Service (QoS).

PRICING

- Determine how the carrier classifies "Local Calls" and if they charge usage for these. For some companies, this can be a significant component of the pricing.
- There are many small SIP providers in the market. The selection process should not be based on cost only. It is essential to conduct your due diligence before the final selection is made.

