

Affordable Communications and Better Network Utilization through SIP Trunking

As the economy tightens, organizations are turning increasingly to SIP Trunking as a way to deploy additional IP services—services that build productivity across the enterprise—in the most efficient and cost-effective manner possible. SIP trunks simply cost less, and the service is cheaper and simpler to operate.

Why is SIP Trunking better? Look at it this way: Most companies use a T1 or PRI line with 23 channels for voice traffic. Yet a business with 50-75 phones might only use 10-15 channels at any given time. Even though almost half of the capacity of these lines is being wasted, businesses will not downgrade their network for fear of not being able to handle peak call volumes when the need arises—a perfect understandable concern.

Conversely, organizations also tend to pay for more bandwidth than they regularly need on the data side of their business in order to handle large file bursts. The result is that companies use two different lines for their voice and data traffic, and neither is being used efficiently, driving up costs as a result.

With SIP, both voice and data traffic work together seamlessly. SIP determines the most efficient use of resources to allocate bandwidth where it's needed most, ensuring both voice and data run smoothly while minimizing waste. If only 6 channels are being used for voice packets on a given day, then the rest will go to data to maximize network performance. Yet voice always has priority to protect all critical business communications.

Open-Standards Solution

With SIP, it's possible for multiple types of handsets to coexist on a network without compatibility problems. SIP Trunking also enables the ability to integrate networks together. Pier-to-pier T1 and PRIs can work together for much less implementation cost than what was previously thought possible.

According to a recent Infonetics Research survey:

- A typical survey respondent organization spends between \$100,000.00 and \$500,000.00 thousand per year on trunking services.
- While T1 lines are still the most commonly used trunking service to connect to a PSTN, native VoIP trunks are on the rise.
- 39% of survey respondents have already deployed SIP trunking—by 2010, it is projected to become the second most commonly-deployed trunking type.
- Respondents are deploying SIP trunking widely across their organizations, and not just trialing at one or a few sites¹.



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Deploying SIP

Deploying SIP is easier than you think. If your PBX is not SIP compliant, you can use an analog interface device (AID) or other gateway device to add SIP trunks to your network. Your business can become SIP-enabled quickly and economically with these devices. And you won't have to replace your whole network to do it.

To ensure QoS, a typical deployment will use a QoS router at the business location. This is designed to provide absolute priority to outbound VoIP packets and protects inbound VoIP packets by active traffic shaping-remote TCP hosts are signaled to limit inbound TCP data flows to ensure enough capacity for inbound VoIP packets.

SIP Options

There are two main service models for delivering SIP:

- A Managed Network Provider model provides SLAs that guarantee uptime and service levels, but can cost more.
- An Internet-based model can lower costs, and offer more reliability than in the past. Reliability of 99.9% in these systems is common-and that is well within the tolerance of most companies.

Either way, SIP is an inexpensive technology to deploy, and the yearly cost reductions it delivers definitely makes the investment well worthwhile. It's a strong approach to minimizing wasted bandwidth while maximizing network performance for both data and voice communications.

¹ "SIP Trunking on the Rise: New Survey," Infonetics Research, (October 27, 2009), <http://www.infonetics.com/pr/2009/CRS-Enterprise-Voice-SIP-Trunking-Survey-Highlights.asp>



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