

A Summary of *SIP Trunking 101:* *A PRIMER*

Enterprises are capitalizing on IP-based communications, enabled by SIP trunking, to reduce cost, add or remove services in response to business trends, streamline access to information and improve collaboration. Whether using on-premises or cloud-based telecom services, they are seeing benefits that include:

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- **Reduced total spend at 30-50%**
 - **Increased flexibility, as numbers are no longer tied to locations**
 - **Cost effective disaster recovery**
 - **Wideband audio and video support**
 - **Unified communications (UC) and collaboration**
 - **Emergency services / E911 calling capabilities**
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SIP Trunking Configurations

SIP trunking is an alternative to traditional T-1 or PRI network connections between an enterprise PBX and a service provider. SIP trunking uses an IP-based link to connect the enterprise's telephone system to the service provider's network, which can be dedicated to SIP trunking or it can be shared with other IP applications.

Like a traditional T-1 or PRI, a SIP trunk can be deployed at each location site. Another option is to deploy all of the SIP trunks at one data center, interconnect sites over an IP backbone, and route external calls through that data center to the public network or private SIP IP Network. The advantage? Consolidation of your DIDs to a centralized location using larger trunk groups, which are inherently more efficient as fewer trunks are needed to support calls. Because virtually every company has basic Internet service, public IP-based SIP trunking services can be turned up in a matter of days, instead of weeks or months.



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Connectivity Options

Even with the many possible configurations, many enterprises access their existing public Internet connection through their local Internet Service Provider (ISP). Some enterprises want additional assurances of lower latency and packet loss, and believe that a dedicated Internet access link is worth the increased cost and complexity.

■ **Over-the-Top (OTT) Access Options** - This is by far the lowest cost method. It is also the quickest way to begin services and can be deployed in a matter of hours or days depending on the circumstances and whether a customer has existing phone numbers to be transferred. The overall Quality of Service (QoS), which is mainly a function of packet loss and latency, are generally sufficient under most conditions. However, QoS can be highly variable across different ISPs and locations.

■ **Dedicated Access Options** – Dedicated access links are considered to have the lowest latency and packet loss for enterprises that seek the highest QoS. They also have additional benefits such as symmetrical bandwidth, while many public Internet connections typically have higher downstream rates than upstream. The specific connection types and pricing can be highly variable by location and vendor, but may include 1.5 Mbps to 10 Gbps Ethernet Private Line (FastE, GigE, 10GigE) and Network-to-Network Interface (NNI) connections. In comparison to OTT deployments, dedicated access may entail long-term commitments and much longer provisioning lead times. In most cases, the deployments take several weeks or months

SIP Pricing Plans and Cost Advantages

There are a number of different pricing plans offered for SIP trunking services, including:



ACCESS CONNECTION: In virtually all cases, the basic connection between your office and the SIP trunking provider's point of presence will be billed separately. For small locations or telecommuters, DSL or cable modem services could be used with the understanding that they are not necessarily designed for voice transmission. For most businesses, cost effective metro Ethernet and wavelength services are available which support SIP trunking as well as access to the Web and other data services.



CALLING CHARGES: As with traditional telephone services, there is often a cost per minute for SIP trunk calls. However, SIP cost per minute is typically lower. IntelPeer offers its customers the option of choosing a minute of use-based billing model, including cost per minute plans for video calls as well as features found in traditional T-1 and PRI services: local calling, long distance, toll free, international DID, caller ID and CNAM service.



SIMULTANEOUS CALLS: One of the advantages of SIP trunking is that you can purchase the exact number of simultaneous call paths (ports) without having to pay for unusable paths. Call paths (ports) scale rapidly (24-48 hours) to allow for growth as needed. IntelPeer trunk groups can support up to 2500 simultaneous calls and can be linked together to allow for greater inbound call handling.



BUNDLED SERVICES: IntelPeer offers both user- and port-based pricing options that include unlimited local and long distance calling, E911, as well as toll free and local DID phone numbers, port-ins and directory listings.

Now is the Time for SIP Trunking

Communications technology advances have created the opportunity for enterprises of all sizes to move to comprehensive IP-based telecommunications. SIP trunking is the foundation for that opportunity. Including 30 to 50% cost reduction, SIP can help improve staff productivity through collaboration and access to information as part of a greater Unified Communications solution.

Now is the time for you to move to SIP. IntelPeer is the provider that can quickly and securely connect all your locations to each other, the cloud and your customers.

