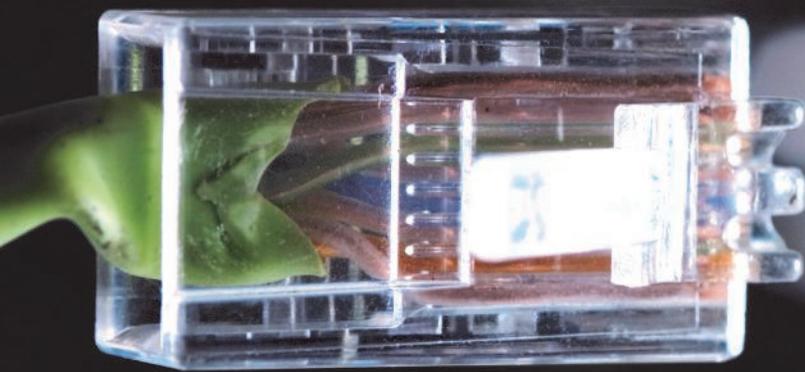


# Procuring SIP Trunking Services





## What is a SIP Trunk and How are they Purchased?

**A SIP Trunk is one concurrent call that is routed over a carrier's IP backbone using VoIP technology.** If you think that sounds odd, you're right – one of the difficulties in understanding SIP Trunking services and how they are sold is that unlike classic telecom services a SIP Trunk does not necessarily have a physical manifestation, such as a circuit (physical or virtual) between two points. Indeed the term “trunk” in this context is misleading -- SIP Trunking is really a service that uses SIP (Session Initiation Protocol) compliant systems to connect call control elements and applications to facilitate communication.

Tier 1 carriers sell SIP Trunks on a “per concurrent call” basis. Customers pay for the maximum number of calls they expect to occur at any one time. The concurrent call charges are an additional charge over and above the charges for the underlying IP Transport (typically an MPLS circuit) over which calls are carried. Note that the concurrent call charge does not buy you additional IP bandwidth – so you have to ensure you have enough bandwidth to carry real-time VoIP traffic in addition to whatever else you are sending over your MPLS network.

In addition to concurrent call charges carriers levy a range of incremental charges for such things as inclusive call minutes, bundled local calling, DID ranges, toll free routing charges and service features (*e.g.* voicemail, remote office, attendant console, auto attendant). Many of these are negotiable.

Enterprises are primarily using SIP Trunking products as an alternative to traditional TDM based PSTN access. It can also be used to facilitate (and lower the cost of) a range of other services, notably call centers and video conferencing.

**LB3** is the premier law firm representing enterprise customers in connection with telecommunications and information technology agreements. LB3 focuses on the negotiation of complex agreements for network services, managed voice/data infrastructure solutions, and other enterprise technology and business process solutions; the resolution of disputes between large customers and carriers; and representation of the enterprise user community before the FCC.

**TC2** is the leading consultancy dedicated to helping its clients maximize the return on their investment in telecommunications services and network infrastructure by providing a full range of strategic sourcing, benchmarking, contract compliance, optimization and technology consulting.

SIP Trunking presents enterprises with new ways to reduce the cost of voice communications. Carriers are now offering robust SIP Trunking products and most enterprises are contemplating, evaluating or piloting these services.

For customers, the primary attraction of SIP Trunking is the substantial cost reductions that can be realized by utilizing standards-based voice over IP (VoIP) for internal calls, eliminating most PBX trunks or Centrex services, centralizing voice trunks and management, and consolidating local and long distance services.

But as with any new technology, there are a range of pitfalls for the unwary, from key differences between different suppliers' products to compatibility issues and complex new pricing models to parse. Successfully navigating these requires a comprehensive understanding of the available products, the underlying technology and the commercial and legal ramifications of a migration to SIP Trunking. LB3 and TC2 bring this understanding to the table.

## Driving Cost Reductions with SIP Trunking

The most prevalent SIP Trunking network design is based upon consolidating PSTN Access – i.e. replacing all/most legacy TDM access at all/most sites with SIP Trunks at a small number of data centers or large sites. All voice traffic from remote sites is then routed over the internal IP network, with internal (aka 'on-net') calls routed directly to the destination customer site and external calls routed to the central SIP Trunks over which they access the PSTN.

Such SIP Trunking solutions are driving compelling cost reductions from multiple areas:

- Elimination of usage charges for internal calls.
- Reduced PSTN access costs, both from consolidating access at central locations, consolidating long distance and local voice access, and because SIP Trunking solutions are considerably more bandwidth efficient than TDM voice.

- Reduced local service feature costs, although you need to do a detailed cost comparison to validate that anticipated reductions will in fact be realized.

TC2 and LB3 are experienced at building comprehensive SIP Trunk Total Cost of Ownership Models that accurately and comprehensively assess the business case and account for all positive and negative cost items. The key driver for SIP Trunking is almost always cost savings, and a robust cost model is a crucial tool for maximizing those financial benefits.

## Navigating SIP Trunking Pricing

Like every new telecom product, SIP Trunking presents a new pricing structure that needs to be comprehensively understood. Among the elements:

- Blended interstate/intrastate per minute call rates.
- Different concurrent call charges if unlimited local calling is included.
- Bundled minute "bucket of use" call plans.
- Various one-time charges, set-up fees and change fees.
- Toll free routing charges; DID number rentals and charges for various service features.

Most of these price components are different than the charges for TDM services – making it hard to compare new costs to the current state, and increasing the risk that forecast savings won't be realized because not all peripheral charges were captured, or that savings will be *understated* because a portion of the legacy service elements (PRI's, business lines) that SIP Trunking will displace is missed. Comprehensive TCO analysis requires more than a pricing model for new services – it also means all of the costs of legacy services are captured and weighed. When TC2 and LB3 are engaged to support a SIP Trunking project we bring experts who fully understand new and old pricing models, and take care that nothing falls through the cracks.

## Crucial Considerations for your SIP Trunking RFP

Competitive Request for Proposal (RFP) processes are the best tool for soliciting SIP Trunking proposals and for investigating and comparing carriers' SIP Trunking services. We provide a comprehensive toolkit of RFP content and templates to capture all the information necessary to accurately compare proposals and make informed decisions. Examples include:

- Key technical considerations such as equipment compatibility and interoperability problems issues; fax and modem support; conducting a pilot phase.
- Security and privacy issues – support for encryption; protection against IP-based attacks, key terms and concepts that you will need suppliers' to agree to.
- SIP Trunking service availability – carriers' SIP Trunking services do not have 100% coverage for local services in the U.S.
- Supplier product differences; such as the ability to “pool” SIP Trunks between different locations and the methodology for determining if a call is local or long distance.

## Dealing with the E911 issue

Access to 911 emergency services and delivery of accurate call-back and location information (“E911”) depends upon a reliable local infrastructure. Although SIP technology can support E911 data transmission and the delivery of 911 calls to the appropriate public safety answering point (“PSAP”), the E911 capabilities of SIP Trunking vary across vendors. Before replacing your local services with SIP Trunking, you need to vet the offerings to determine their actual 911 capabilities. More and more states are obligating employers to ensure access to 911 services and transmit accurate location and call back information. Make sure you:

- Know the right questions to ask vendors about the E911 capabilities of their proposed SIP Trunking solutions based upon your company's locations;
- Understand whether a proposed SIP Trunking solution will support employee access to 911 and the transmission of accurate location and call-back data to the correct PSAP;
- Negotiate provisions that clearly state the vendor's 911 responsibilities and shield your company from liability due to the vendor's failure to satisfy its obligations.

We have worked on 911 issues for over a decade and are well equipped to advise enterprises about the technical and legal issues associated with E911 and SIP Trunking.



## Interested in What LB3 and TC2 have to Say?

**LB3 and TC2 assist enterprise customers with network service and IT procurements, benchmarking, compliance management, regulatory issues and disputes. Learn more about industry developments and the challenges facing enterprise users:**



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