

Calculate Your ROI with Cisco Unified Border Element and SIP Trunking

Session initiation protocol (SIP) trunking is becoming the preferred means of calling between the enterprise and public switched telephone network (PSTN) destinations because of the return on investment (ROI) you can achieve. The Cisco Unified Border Element (CUBE) enables substantial cost savings by providing essential capabilities that ensure interoperability, security and service assurance when carrying IP traffic via SIP trunking across different enterprises and service provider networks.

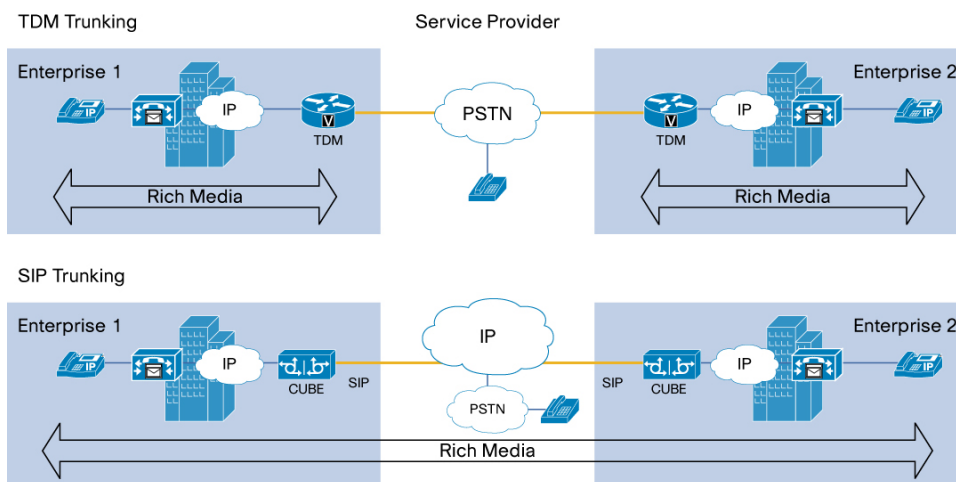
Let's take a look at the capabilities of SIP trunking, its benefits, and how you can calculate your ROI with the Cisco Unified Border Element.

SIP Trunking Overview

Session initiation protocol (SIP) trunking provides end-to-end IP communications between enterprises and their service providers (see Figure 1). SIP trunking enables the following:

- Provides efficient interconnection between end-to-end IP networks
- Lowers costs by replacing traditional fixed public-switched-telephone-network (PSTN) facilities
- Allows for converged voice, video, and data traffic
- Enables rich-media services to employees, customers, and partners

Figure 1. Migrating to an End-to-End IP Network



Interoperability guides for service providers offering SIP trunks that have been validated with Cisco are available at: [Cisco Unified Border Element \(CUBE\)/SIP Trunking Solutions](#).

SIP Trunking Benefits

SIP trunking offers the following benefits:

- Cost savings
 - Reduction in total number of PSTN circuits
 - Reduction in hardware needed to terminate circuits
 - Reduction in unused circuits (sites can share capacity)
- Greater flexibility
 - Ability to quickly provision new routes, numbers, and capacity
 - Ability to send calls anywhere that the IP network can reach
- Less complexity
 - Fewer circuits needed at remote sites (no time-division multiplexing [TDM] and IP connection)
 - Local, long distance, WAN, and basic telephone service can all be over the same link
 - Potential reduction in number of carriers required
 - Less conversion needed (removes IP-to-TDM conversion at customer site)

Key factors that drive high level of savings with SIP trunking include:

- Large number of branch offices with few phones (10-20 per branch office).
- Low number of concurrent calls and less usage on a per-phone basis (for example, 2 to 3 concurrent calls per branch office).
- Each branch office buying a single Primary Rate Interface (PRI) or a large fractional PRI for peak capacity.
- Excess capacity on data links (for example, recently upgraded to T1 links).

SIP trunking can significantly lower your operating expenses. Many cases and customer examples show a savings of up to 25 percent with the Cisco® Unified Border Element.

SIP Trunking Calculator

You can calculate your return on investment (ROI) with the Cisco Unified Border Element. The Cisco SIP Trunking Value Calculator (see Figure 2) can show you how much your company can save by moving from PSTN trunks to SIP with the deployment of the Cisco Unified Border Element. **Give your Cisco account manager or sales engineer** as much information as you want to regarding several attributes:

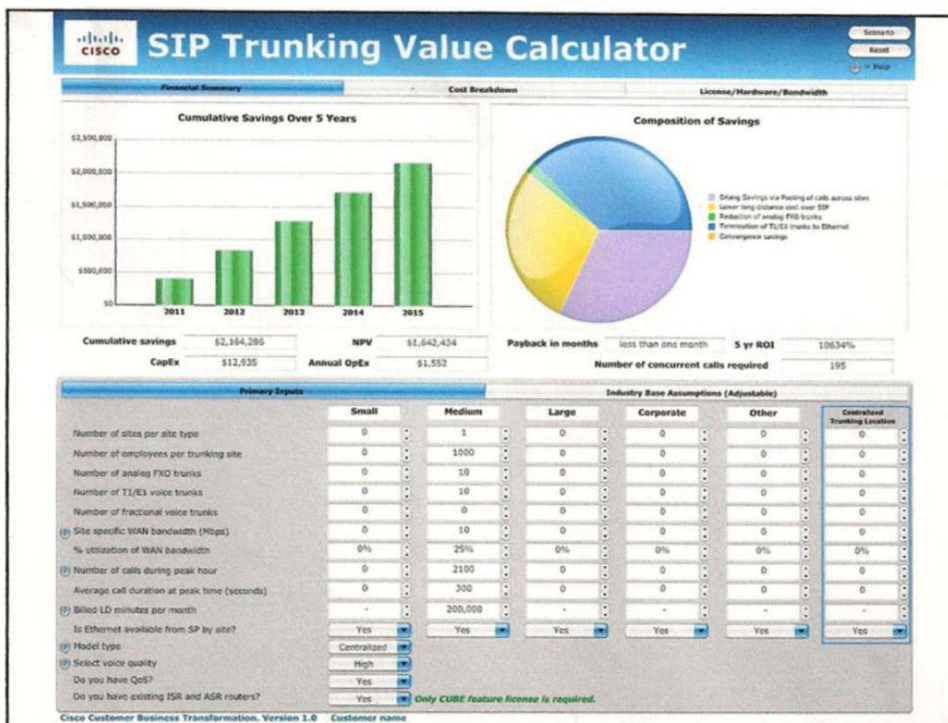
- Number of sites in the network
- Sizes and configurations
- Number of people and phones
- Number of calls during peak hours
- Average call durations
- Number of T1, E1, and PSTN lines
- Billed long distance minutes
- Availability of Ethernet links
- Quality of service required
- Routers currently being used

The calculator essentially computes the Erlang savings - the savings due to pooling of calls across locations, given the availability and quality of service required.

Most of the savings with SIP trunking come from two areas:

- Pooling of trunks so oversubscription is eliminated
- Per-minute charges on long distance calls

Figure 2. SIP Trunking Calculator for the Cisco Unified Border Element



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