

## SIP is More than VoIP

“What the Heck is a SIP Trunk?” I asked this question on the SIP and Serve blog, in January of 2009. Two years later, I feel the need to revisit the topic and ask “Is SIP Trunking still the same, or has it changed as I predicted it would?”

SIP Trunking has become the prevailing standard for low cost, multi-presence communications applications. However, in 2009, I kept it simple:

*A SIP (Session Initiation Protocol) Trunk is a connection between two network elements, a PBX and a service provider.*

Although a SIP Trunk can be viewed as a phone line delivered over an IP trunk connection to a provider network using Ethernet, broadband, copper, etc., voice is not the only thing the SIP signaling protocol can handle. It manages not only voice but also data packets, enabling everything from voice and video, to chat, email, presence, collaboration, dynamic concurrent call sessions, conferencing, contact center management and business continuity.

Interestingly, a fellow member of the IP ecosystem recently lamented the use of the term SIP Trunk, decrying its lack of value, because in his opinion the term fails to provide an understandable and identifiable product for the customer. Engineers and IT experts posted replies defending SIP as a specific IETF-defined signaling protocol, and a SIP Trunk as an integral part of the delivery of this protocol through a network.

The experts are precisely correct, of course, but the gentleman does have a point; the term SIP Trunk means little to individuals looking to implement communication solutions into their businesses. End-users are justifiably confused. The matter is further complicated by individual service providers. When each provider endeavors to explain SIP to their customers, they invariably try to brand the term in order to reflect their own specific set of service offerings. The number and kind of definitions that result can easily contradict and confuse the meaning.

### The Need for a New Definition

The IP Industry is still maturing. Industry shapers acknowledge the need for new definitions and increased understanding of SIP as it continues to evolve, and call for collaboration to create strategies for SIPs growing ecosystem.

In January, the SIP Forum announced that it was launching SIPNOC (the SIP Network Operators Conference) a new annual conference for the worldwide service provider community. In the press release, SIPNOC Forum Chairman Richard Shockley explained the purpose of the new conference, “SIPNOC will provide the first true venue for SIP operators, and will build on the fact that SIP has become the protocol of choice for carrier VoIP transport and interconnection, universally deployed by enterprises and service providers worldwide.” Among other things, the event will examine a myriad of SIP-related topics such as the use of SIP in smart grid installations, FoIP (Fax over IP), video and user-agent configuration.

### Forces for Change

- **VoIP** - A factor driving the penetration of VoIP/SIP Trunking continues to be the adoption rate of VoIP by residential users. Residential bundled packages of cable and calling services enable business owners to experience the cost savings and usage of VoIP in a relatively safe setting, their homes. After a time, it becomes a matter of curiosity and trust to leverage the technology within their business environment. A recent report by the FCC indicates that only 5% of business access lines are VoIP while 28% of

residential access lines utilize VoIP for placing calls. This disparity relates to the mission critical nature of business communications and to some extent broadband access. As businesses evaluate their traditional acceptance of costly PRIs for access, they will continue to switch to IP facilities for originating and terminating services. (Please note this discussion does not include VoIP technology used for internal calling between extensions or office locations.) Aggregated, the adoption of VoIP, in any form, has penetrated in excess of 50% of U.S. businesses and is expected to reach 79% by 2013 (In-Stat).

- **Mobility** – Multiple applications such as Fixed Mobile Convergence (FMC), SIP enabled smart phones and mobile devices, and Unified Communications are increasing the demand for SIP in the world of wireless. FMC is a critical productivity tool to support the mobile worker. FMC with VoIP/SIP can support the transition of a call from a desk IP Phone to a wireless device - without loss of the call. SIP enabled smart phones, softphones, tablets and other mobile devices can reduce the cost of communications by using the Internet for transport rather than the cellular networks. For example: mobile device users that employ applications like Skype for calling are doing just that.
- **Business Continuity** – Often discussed in the context of SIP, business continuity offers the needed level of reliability for businesses to incorporate state of the art applications into their IT infrastructure. Video, Video Conferencing, telepresence and other streaming applications can become mission critical very quickly as usage increases. SIP allows for the end-user to easily design networks with multiple service providers, and multiple application servers, that deliver the stability and responsiveness required to ensure there are no interruptions to these business applications in case of a failure. The use of SIP in support of an application increases its survivability and availability. IP communication applications have been used as the alternative communication method when traditional networks have failed or been blocked.

### **Re-defining SIP Trunking**

SIP is transforming how businesses communicate and collaborate. There is much to learn as businesses transition to and expand their use of SIP. Understanding the network implications of a real-time session management protocol in the environment of packet switching is important. Session management, bandwidth allocation, packet prioritization, security and interoperability dominate today's discussion of SIP. However, as the protocol evolves and is updated to support additional applications like FoIP, there will continue to be a blurring of the lines between the protocol and the applications it supports.

Every application and nearly every service that Broadvox deploys is based upon SIP. That will not change as we add managed services and cloud computing to our product portfolio. SIP is changing the way communications is defined. It is no longer simply a device to device concept. It is instead user to user without application or geographical limitations. Therefore, my new definition is:

***SIP is a protocol supporting a user to user communications paradigm that utilizes any device, any application, anywhere, anytime.***

Wow! And that seems to describe Unified Communications!