Enhanced Enterprise SIP Communication Solutions

with Avaya Aura™ and Allstream SIP Trunking

An Allstream White Paper
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Beyond VoIP

Over the last decade or so, business voice communication has undergone a transformation that compares in magnitude and significance with the introduction of digital telephony more than 30 years ago. It all started when IP technology, originally seen as a data development, moved decisively into the mainstream of telephony applications, ushering in the era of Voice over IP (VoIP).

VoIP and SIP protocol based applications in particular, have certainly revolutionized the way businesses think about and deploy voice communications. Voice traffic no longer requires its own separate network, it shares the same network infrastructure with the data traffic, delivering considerable savings and opening the door for new, productivity enhancing integrated applications. This reality also brings the enterprise network a step closer to a true Unified Communication architecture, an environment where workers can access any application and communicate among themselves and their business partners across any network and from any place or device.

While most enterprises have already adopted some form of a VoIP system, many deployments have been confined to the internal voice network - leaving the complex and expensive voice circuits (trunks) to the outside world still using TDM telephony technology, subject to the same legacy problems and business models.

SIP Trunking delivers even more benefits

SIP Trunking services and solutions aim to extend IP Telephony a step further. SIP trunks extend the VoIP environment beyond the borders of the enterprise and onto the Service Providers’ networks, allowing corporations to remove most of the expensive gateway equipment and associated monthly T1/PRI fees while benefiting from increased reliability, scalability and flexibility for geographic redundancy, reliability and scalability. The financial, strategic and productivity benefits that result from this architectural change are dramatic.

Businesses adopting SIP Trunking solutions for their communication networks benefit from:

- Substantial savings and lower TCO through the reduction in expensive hardware and subscriptions to TDM circuits – up to 40% in some cases
- Optimal utilization of bandwidth resources by delivering both voice and data through the same connection
- Improved agility and capacity for growth by leveraging SIP trunks’ inherent scalability
- Flexibility in Disaster Recovery deployment
- Productivity gains through better integration of voice and data business processes
- Easy adoption of new powerful Unified Communication applications

Choosing the right SIP Trunking Service Provider

To enjoy all the advantages of SIP Trunking, an enterprise needs to look for a service provider that has a thorough
understanding of business communications and can be a trusted partner in designing, deploying and managing the SIP Trunking solution. The supplier needs to be able to provide:

- **Superior traffic capacity**
- **A rich set of optimization features**
- **Effective Quality of Service (QoS) management**
- **Secure service delivery**
- **Connectivity with global reach**
- **Standards based end to end solutions that interoperate fully with the customer's own network**
- **Deployment and design expertise**

As the first Canadian service provider to offer SIP Trunking on a national level, Allstream is the ideal choice for Canadian businesses looking for the best provider of this emerging technology. Allstream offers a secure and reliable network infrastructure built around a state-of-the-art MPLS core that allows the provisioning of up to 6 Classes of Service (CoS) and is delivered on a fiber network that spans more than 30,000 km across Canada. In addition, Allstream partners with leading industry vendors, like Avaya, to offer the very best in SIP Trunking functionality, flexibility and cost savings.

### Allstream SIP Trunking and Avaya Aura™ Solution Benefits

Avaya Aura™ is an advanced business telecommunication architecture that is based on a revolutionary enterprise-wide SIP architecture that seamlessly unifies all forms of communication: voice, video, messaging, email, voice mail, advanced business application integration and more.

Avaya Aura Communication Manager and the Aura Session Manager are two key elements of the Avaya Aura™ architecture that, when deployed together in an enterprise network, effectively interconnect SIP end points (phones, soft clients, video, mobile devices, etc.), SIP trunks (such as those provided by Allstream), application servers, session border controllers, remote users and any other SIP based entities present in the network. The result is a network that takes full advantage of the power of SIP to facilitate communications between employees, customers, partners and suppliers, creating the right environment for increased productivity and superior business results.

With the help of Avaya Aura Session Manager, customers can still utilize much of their existing internal telephony infrastructure and link it to the Avaya Aura™ architecture. This ensures that investments made into existing telephony equipment will not go to waste and the core infrastructure will be in place when investments into more advanced collaboration equipment are needed. For the large segment of Canadian business customers that are still operating Avaya TDM PBX systems such as Meridian Option 11, migrating to, or overlaying Avaya Aura™ components such as Session Manager, provides all the SIP Trunking capabilities in addition to all the advanced Unified Communication and mobility features offered by the Avaya architecture. That is a significant benefit when compared with the alternatives. Interfacing the Option 11 to SIP trunks through a SIP Trunking Gateway or IP PBX from another vendor can add more than $20k in cost while not addressing the regular update process for the Option 11.
By combining the global reach and quality of the Allstream MPLS network with the sophisticated functionality of Avaya Aura™ Architecture, an enterprise can deploy a truly powerful SIP Trunking solution that offers great financial and performance benefits. With Avaya Aura™ installed in the data centre, all SIP Trunking connections are consolidated in one physical location, practically eliminating the need for local trunks at all other locations.

Figure 1A and 1B show an example of multi-location enterprise network before and after deploying Avaya Aura™ and SIP Trunking service from Allstream:

**Figure 1A** – Enterprise network with PSTN circuits at each location and separate PSTN and Internet Service Providers.

**Figure 1B** – Enterprise network with centralized SIP Trunking, MPLS WAN and Internet Access provided by Allstream in conjunction with Avaya Aura™ architecture.
Enterprises seeking to improve their business continuity provisions can benefit in particular from an Allstream Avaya SIP Trunking solution. Allstream SunGuard Disaster Recovery solution ensures that, in case of an outage, most enterprise IT and network services will be replicated at an alternate site. Through the deployment of the Avaya Aura™ architecture and its superior redundancy features in such a scenario, services at the alternate site can also be quickly up and running with no need for manually configuring the IP phones or the routing paths for the service. This is a unique Avaya advanced functionality that can provide additional savings and simplicity.

In addition to delivering significant savings and greatly simplifying network operation and maintenance, this centralized deployment model can provide fast return on investment. The reduction in monthly costs from replacing TDM with Allstream SIP trunks creates a capital budget for the required Avaya SIP infrastructure. Depending on the scenario, some clients may see a payback period of less than one year.

Besides financial advantages, the combined Allstream & Avaya solution brings enterprises several other benefits:

- Easy integration of various type of legacy systems through leveraging of Avaya Aura Session Manager’s SIP interconnect features
- Choice of Allstream 6 CoS MPLS or Allstream Internet for SIP Trunking access
- Data Center deployment of Avaya Aura™ enables IT personnel to manage the communication infrastructure through a single point of management and a single system image
- Superior reliability delivered by combining Allstream high availability services backed by stringent SLAs with Avaya Aura™’s active-active redundancy options
- Centralized SIP Trunking architecture opens an easy migration path to cloud deployed infrastructure and applications

**It’s time to choose SIP Trunking**

Allstream services and Avaya technology combine to deliver a compelling SIP Trunking solution for businesses of all sizes. Both organizations have co-invested in interoperability testing to ensure the solution is stable and well supported. Adopting a centralized SIP Trunking network model saves money and can give any business a welcome edge over the competition. There is no reason to wait and delay enjoying all those advantages. **The time to move to SIP Trunking and start saving is NOW.**
Avaya and Allstream

Avaya is a global leader in business communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness.

Allstream is a Canadian leader in IP communications and the only national provider that works exclusively with business customers. We leverage our nationwide high-performance network to help businesses of all sizes unify the many ways they connect. Our innovative solutions help businesses serve their customers better, improve efficiency and productivity, and maximize payback on communications and IT resources.

Combining state of the art Avaya Unified Communications platforms, such as Aura and IP Office, with Allstream’s pioneering SIP Trunking and MPLS based Business IP networking services, together our solution delivers remarkable productivity and cost saving benefits to businesses of all sizes.

For more details about Allstream SIP Trunking solutions, please call 1 855 299-7050 or visit www.allstream.com/siptrunking.