Working Solutions – Case Study

AudioCodes Enterprise Session Border Controllers in the Contact Center

Background

Working Solutions was founded in 1996 and is a leading virtual workforce contact center service organization based in Plano, TX. With a network of more than 120,000 agents, Working Solutions operates in a fully hosted and virtual environment with no "bricks and mortar" contact center facilities. Working Solutions' agents work from their homes or remote business centers, allowing companies to leverage an experienced and educated workforce. The virtual agent model also enables companies to reduce operational costs and improve agent retention, and it is significantly "greener" than traditional contact center operations.

In addition to virtual workforce contact center services, Working Solutions offers "Software as a Service" (SAAS) through WS iNet, allowing businesses that already have a trained workforce to operate in a hosted environment. The WS iNet platform can serve agents within a company's existing facilities or allow the expansion of their own home-based workforce.

WS iNet is also a hosted provider of Genesys contact center technology from Alcatel-Lucent, and they operate data centers in Allen, Texas, and Oakbrook, Illinois.

Challenges

When developing their SaaS offering, engineers at Working Solutions designed and built a dedicated MPLS network to connect their contact center in the cloud with the customer's facilities, facilitating an end-to-end IP contact center. Running hundreds of simultaneous agent calls across an MPLS network using G.711 voice coding would require significant bandwidth and drive up operational costs. To reduce the circuit costs, a plan was developed to compress calls using G.729a voice coding algorithm, resulting in roughly an 8-to-1 compression and subsequent reduction in MPLS circuit bandwidth requirements. Using G.729a voice compression would also help in their plan to eventually deliver voice over IP to the virtual workforce agents, using less bandwidth on the agent's residential broadband circuit.
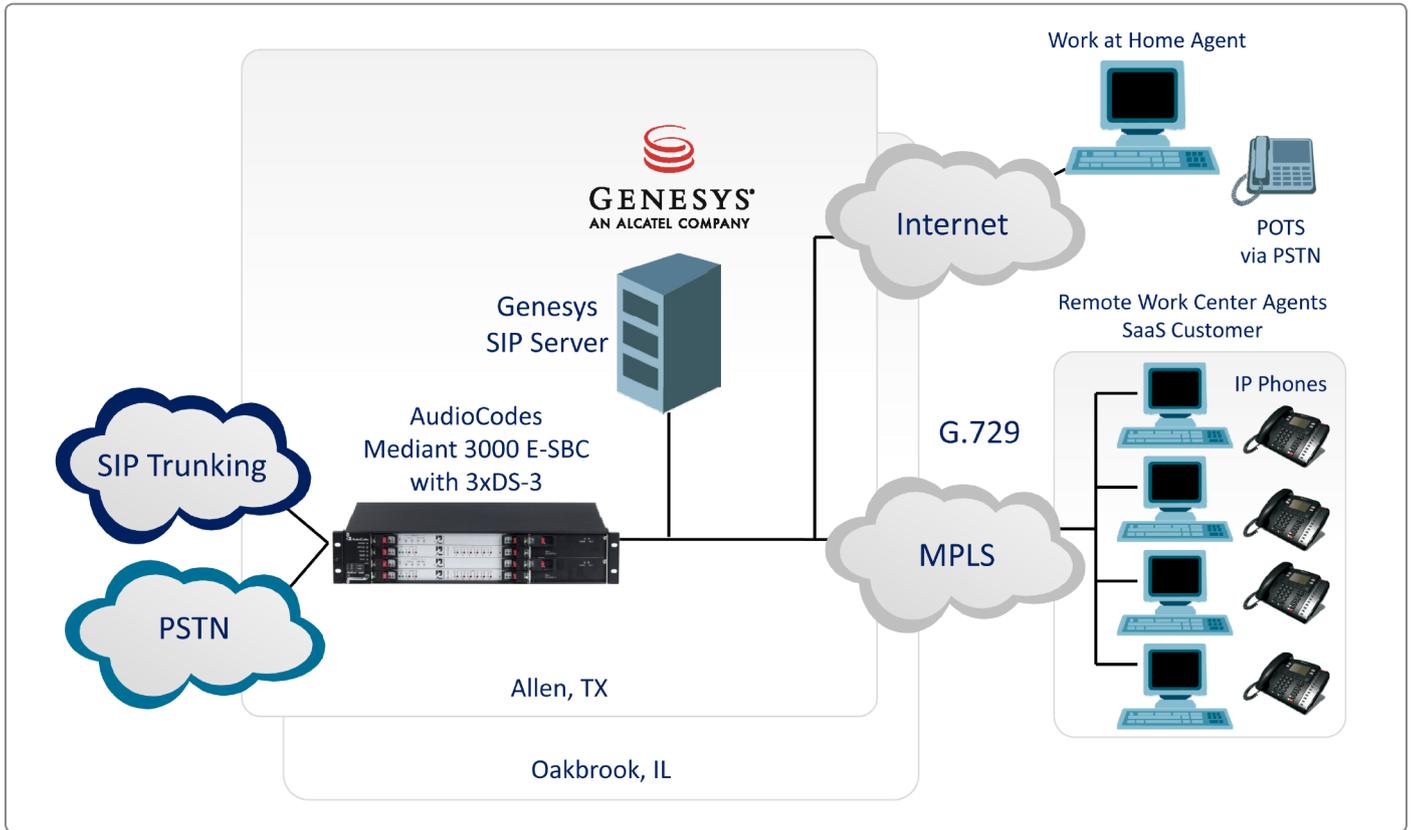
Meanwhile, Working Solutions was also evaluating a migration from TDM trunking to SIP trunking as a means to reduce their costs of toll-free inbound and toll outbound calling. Integrating SIP trunking into their network introduced additional challenges of service provider interoperability and security, requiring one or more Enterprise Session Border Controllers (E-SBCs).

The network designers at Working Solutions faced a difficult dilemma: How to migrate from TDM trunking to SIP trunking and support G.729a voice coding while maintaining maximum flexibility in carriers and security? The migration could be accomplished with the purchase of separate media gateways and E-SBCs (potentially from different vendors), but this would be expensive and difficult to manage. Ideally, solving this challenge could be accomplished with one device that could interface to both TDM and SIP trunking, allowing for traffic to be transitioned from TDM to SIP with a minimum of risky cut-over events.

Solution

Working Solutions chose to use dual AudioCodes Mediant 3000 E-SBC platforms for their network, using one system in each of their Allen, TX, and Oakbrook, IL, data centers. Initially, the Mediant 3000 E-SBCs were deployed with three DS-3 TDM trunking circuits providing connectivity to the PSTN. In this initial configuration, the Mediant 3000s act as a media gateway, converting the PSTN calls to G.729a coded voice calls destined to the Genesys contact center and their remote agents.

Over time, Working Solutions engineers would introduce SIP trunking service providers to the data center using the Mediant 3000 E-SBC devices and built-in Session Border Controller features, enabling SIP trunk interoperability and enhancing security. The Mediant 3000 E-SBCs also support transcoding from G.711 provided by SIP trunking providers to compressed G.729a as needed for the remote work centers.

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A unique capability of the Mediant 3000 E-SBCs is the ability to operate in a hybrid mode, with both TDM and SIP trunking at the same time. This allows some traffic to be transitioned to SIP trunking (while maintaining the existing TDM traffic) without purchasing additional equipment.

> "By selecting AudioCodes Mediant 3000 E-SBCs, we were able to achieve our goal of expanding Working Solutions' business while improving our operational costs."
>
> *Mahmood Akhwand, Vice President of Technology Infrastructure, WS iNet*

Mediant 3000 E-SBC

Results

By selecting AudioCodes Mediant 3000 E-SBCs for their network, Working Solutions realized a number of significant technical and business benefits, including:

- Investment protection - reuse of the same device for both TDM and SIP trunking

- Reduction in trunking telecommunications costs

- Reduced capital expenditure costs

- Improved flexibility in choosing either TDM or SIP trunking service providers

- Avoided the costs of securing training for multiple platforms/vendors

- Reduction in vendor management effort and costs

As Working Solutions continues to expand their Software as a Service customer base, additional traffic and equipment will be added to their network, expanding the availability of quality customer care to a variety of businesses across North America.

For more information on Working Solutions, visit: http://www.workingsolutions.com/

For more information on the AudioCodes Mediant 3000 E-SBC,

visit: http://www.audiocodes.com/products/mediant-3000-e-sbc

For more information on Genesys solutions with AudioCodes, visit: http://www.audiocodes.com/genesys

About AudioCodes

AudioCodes Ltd. (NasdaqGS: AUDC) designs, develops and sells advanced Voice over IP (VoIP) and converged VoIP and Data networking products and applications to Service Providers and Enterprises. AudioCodes is a VoIP technology market leader focused on converged VoIP & data communications and its products are deployed globally in Broadband, Mobile, Cable, and Enterprise, networks. The company provides a range of innovative cost-effective products including Media Gateways, Multi-Service Business Gateways, Session Border Controllers (SBC), Residential Gateways, IP Phones, Media Servers and Value Added Applications. AudioCodes' underlying technology, VoIPerfectHD™, relies on AudioCodes' leadership in DSP, voice coding and voice processing technologies. AudioCodes High Definition (HD) VoIP technologies and products provide enhanced intelligibility and a better end user communication experience in Voice communications.

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