



A Business Services ITSP Case Study: STT Italy

Powered by AudioCodes Mediant™ and MediaPack™ Media Gateways

STT (Societa Trasporto telematico) Italy, one of Italy's leading internet service providers, has deployed AudioCodes' Media Gateways in their VoIP network as trunking gateways and enterprise access (CPE) equipment.

By utilizing Nortel Media Gateway 3200 (AudioCodes' Mediant™ 2000) media gateways, STT interconnects its growing VoIP service network to peering national and international service providers. Currently, this interconnection includes over 100 E1s and is constantly growing, providing a service to enterprise users.

By deploying hundreds of AudioCodes' MediaPack™ and Mediant™ media gateways, STT connects its growing enterprise customer base to its VoIP service network. The Mediant media gateways connect to the existing PBXs that are located in customer premises, and provide a seamless transition from existing service providers.

"AudioCodes has been deployed in the STT network as the OEM vendor of the Nortel 3200 Trunk media gateway, connected to our Nortel Communication Server 2000 Softswitch," said Luca Ferlini, Voice manager of STT. "AudioCodes provides a high level of quality and support, confirming our choice to use AudioCodes' CPE products for our enterprise connectivity solutions, connecting enterprise customers to our VoIP network. AudioCodes' Mediant 1000 digital gateways, MediaPack 11x analog gateways, and recently the MediaPack 40x BRI gateways are providing favorable qualitative solutions. In addition to its compatibility and flexibility, AudioCodes' equipment is used to progress our system from MGCP to SIP. Presently, the AudioCodes product family is our main choice when seeking suitable solutions for our enterprise customers."

STT (Societa Trasporto telematico) Italy

STT (Societa Trasporto telematico) is a Verona based, Italian telecommunications company, providing internet, data and voice services to business customers. STT services include national coverage of the Italian market, providing xDSL based internet access, web mail, back-office e-commerce, domain registration and integrated voice and data services to enterprises, SMBs and SOHO customers in Italy.



STT VoIP Network

The STT VoIP network was built from the ground up in order to scale and support thousands of enterprise customers. Nortel was selected as the systems integrator for this project, using the Communication Server 2000 soft switch as the main component of the network.

“The Nortel 3200 digital trunking media gateway was selected for our VoIP network. Our experience after using this gateway discovered this to be an OEM solution for the AudioCodes Mediant™ 2000 gateway”, said Andrea Zampieri, Softswitch Manager of STT. “We chose to work with AudioCodes as they have been supportive with our migration from MGCP to SIP. Currently, we have 16 Nortel Media Gateway 3200 platforms installed in our network, connecting our VoIP network to PSTN and PLMN providers.”

The main service of the STT VoIP network is providing VoIP to enterprise customers. In order to supply these services, STT uses the full offering of AudioCodes' CPE media gateways:

- 1000 MediaPack™ 11x FXS media gateways for SOHO customers and enterprise branch offices not using a PBX
- 200 MediaPack™ 11x FXO media gateways for connecting small PBXs and key systems installed in SMB customers and enterprise branch offices to the VoIP network
- 100 Mediant™ 1000 analog/digital media gateways to connect PBXs using E1 lines into the VoIP network.
- 50 Mediant™ 2000 digital media gateways to connect PBXs using E1 lines into the VoIP network.
- Over 500 MediaPack™ 40x BRI media gateways to connect PBXs using BRI lines into the VoIP network.

Selecting the Right Vendor for the Trunking Gateway

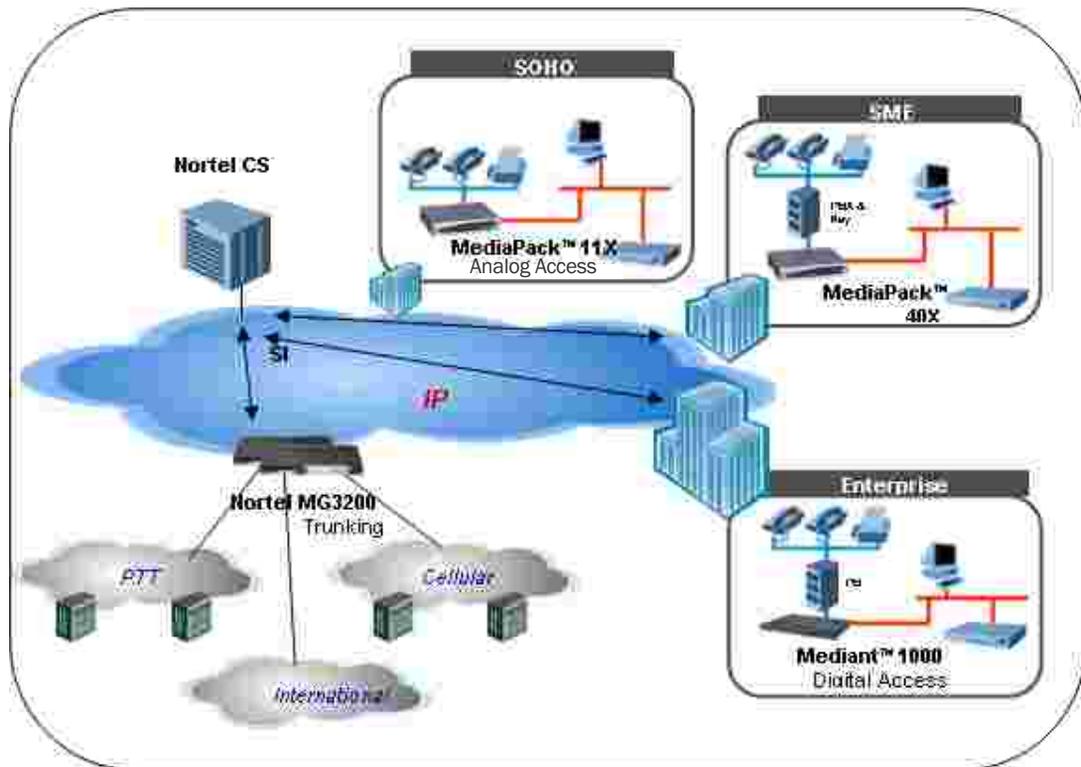
One of the key elements in every CLEC VoIP network is the trunking media gateway, interconnecting its network with the incumbent's network. As an alternative telephony service provider, many of the calls generated in STT telecom's network are terminated in other provider's networks, traversing Nortel 3200 (AudioCodes Mediant™ 2000) media gateways. As a key component in the STT VoIP network, AudioCodes' Mediant™ 2000 media gateways are providing the following benefits:

- **Media Control Protocols** - AudioCodes Mediant™ family of media gateways is one of the most flexible in terms of media gateway control protocols. It supports H.323, SIP, MGCP and MEGACO.
- **Interoperability** - AudioCodes' commitment to interoperability allows customers the freedom of choice when selecting their preferred soft-switch vendor, and class 4 and 5 switches .
- **VoIP Quality** - AudioCodes uses its own DSP technology to supply the best VoIP quality in the marketplace today, as proven by the ETSI 3rd Speech Quality Event.
- **Scalability** - One of the unique features of the AudioCodes Mediant™ 2000 media gateway is the pay-as-you-grow approach. A built-in feature key allows the customer to buy the media gateway hardware scalable from 1 up to 16 E1/T1 ports, and pay according to usage. This flexibility allows the service provider to reduce their initial investment, and only pay for revenue generating equipment, followed by a remote upgrade to the system in order to support more connections in the future.
- **Reliability** - After extensive testing of the Mediant™ 2000 gateway compared with other vendor solutions, it was proven to be one of the most reliable products on the market today.

Selecting the Correct Vendor for Enterprise Access Gateways

Enterprise Access Media Gateways serve as CPE (Customer Premises Equipment), connecting enterprise PBX systems to the STT VoIP network, over xDSL.

Enterprise customers are the main “cash-cow” of any service provider telephony network, and are most critical when dealing with quality of service, service availability and voice quality. Selecting the MediaPack™ for analog and BRI connections and the Mediant™ 1000 for digital connections was only natural for STT Telecom because of the following reasons:



- **Reliability** - After implementing the Mediant™ 2000 for a trunking application, it was proven to be one of the most reliable products in the market today. The Mediant™ 1000 and MediaPack™ share the same software and hardware infrastructure and provide the same level of reliability.
- **Interoperability** - The main role of an access media gateway is to connect with numerous different PBXs and key systems using different types of signaling protocols and flavors. AudioCodes' proven track record of interoperability has enabled the MediaPack™ and the Mediant™ a natural choice for a standard access media gateway.
- **Manageability** - A CPE media gateway, installed in hundreds of units countrywide, must include extensive management capabilities. The Mediant™ and MediaPack™ family of media gateways support many unique management features relevant for service provider networks.
- **VoIP Quality** - The Enterprise is one of the most sensitive customers to voice quality. Any degradation in voice quality compared to the TDM telephony network is not accepted by the enterprise. AudioCodes use of its own DSP technology supplies the best VoIP quality in the marketplace today, as proven by the ETSI 3rd Speech Quality Event.

- **Support** - The support provided by AudioCodes for the trunking gateways solution, and for the progression from MGCP to SIP, has proven to STT that AudioCodes is also the correct choice for CPE gateways.

Summary

"The delivery of voice services to one of the most important CLECS in Italy using our CPE equipment is important", said Lior Aldema, Vice President of Marketing for AudioCodes". "We expect this project to encourage further deployments in major broadband networks as demonstrated by this successful venture."

About AudioCodes Mediant™ 2000 Media Gateway

The Mediant™ 2000 is AudioCodes compact and cost-effective media gateway solution and is designed to interface between TDM & IP networks in enterprises or small-scale carrier locations. Incorporating AudioCodes' innovative Voice over Packet technology, the Mediant 2000 enables rapid time-to-market and reliable, cost-effective deployment of next-generation networks. The Mediant 2000 is based on VoIPerfect™, the comprehensive and field-proven architecture used in all AudioCodes' product lines

ranging from voice over packet processors to high-density media gateway platforms. In addition to supporting up to 16 E1/T1 media gateway ports, it also supports the integration of an SBC (Single Board Computer) for running third party applications.

About AudioCodes Mediant™ 1000 Media Gateway

The Mediant™ 1000 is AudioCodes compact and cost-effective media gateway solution and is designed to interface between TDM & IP networks in enterprises or small-scale carrier locations. Incorporating AudioCodes' innovative Voice over Packet technology, the Mediant 1000 enables rapid time-to-market and reliable, cost-effective deployment of next-generation networks. The Mediant 1000 is based on VoIPerfect™, the comprehensive and field-proven architecture used in all AudioCodes' product lines ranging from voice over packet processors to high-density media gateway platforms. It can host up to six hot swappable, modular modules that support a mixture of FXS, FXO, and E1/T1 media gateway ports. In addition, it also supports the integration of an OSN (Open Solution Network) server, for running third party applications.



About AudioCodes MediaPack™ Media Gateways Family

The MediaPack family of analog gateways are designed and optimized to address the needs of service providers and enterprises for feature-rich, high quality analog & BRI media gateways. The MediaPacks enable a wide range of applications including converged access, IP Centrex, fixed-mobile convergence, and next generation PBXs. Ranging from 2 to 24 ports of FXS/FXO connectivity or 1 to 4 BRI interfaces, the MediaPack family enables the connection of analog devices such as phones, faxes and modems into the IP world, and the connection of PBXs into the VoIP network.



About AudioCodes

AudioCodes Ltd. (NASDAQ: AUDC), Your Gateway to VoIP, provides innovative, reliable and cost-effective Voice over Packet (VOP) technology and Voice Network products to OEMs, Network Equipment Providers, Service Providers and System Integrators worldwide. AudioCodes provides a diverse range of flexible, comprehensive media gateway and media processing technologies (based on VoIPerfect™ - AudioCodes' underlying, best-of-breed, core media gateway architecture) and Session Border Controllers (SBCs). The company is a market leader in product development, focused on VoIP Media Gateway, Media Server and SBC technologies and network products. AudioCodes has deployed tens of millions of media gateway and media server channels globally over the past few years and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. The Company is a VoIP technology leader focused on quality, having recently received a number one ranking from ETSI for outstanding voice quality in its media gateways and media servers. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, enhanced voice services and video markets. AudioCodes enabling technology products include VoIP and CTI communication blades, VoIP media gateway processors and modules, and CPE devices. AudioCodes' headquarters and R&D facilities are located in Israel with an R&D extension in the U.S. Other AudioCodes' offices are located in Europe, the Far East, and Latin America. For further information on AudioCodes, visit www.audiocodes.com

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