VoIP in the Hospitality Market

Powered by AudioCodes Media Gateways

The Challenge

Recent developments in technology and telecom have touched all aspects of life, and all global markets. The internet changes the way people do business and have fun, with the hospitality market being directly affected by these changes.

Telephony services used to be one of the most important revenue and profit generators for hotels. With the rise in penetration rates of cellular communications, business people and tourists are using less of the hotel telecom services, replacing them with their personal mobile phones.

In parallel, the internet and the global economy forces hotels to continuously invest in sales and marketing across borders. A lot of the hotel business is done internationally, resulting in high international telecom expenses.

Most hotels worldwide still own traditional, TDM-based telephony systems, connected to hundreds of analog phone sets in guest rooms and administration areas. These PBXs are very costly to maintain and upgrade, since all PBX manufacturers today focus on new, innovative IP-PBX systems.
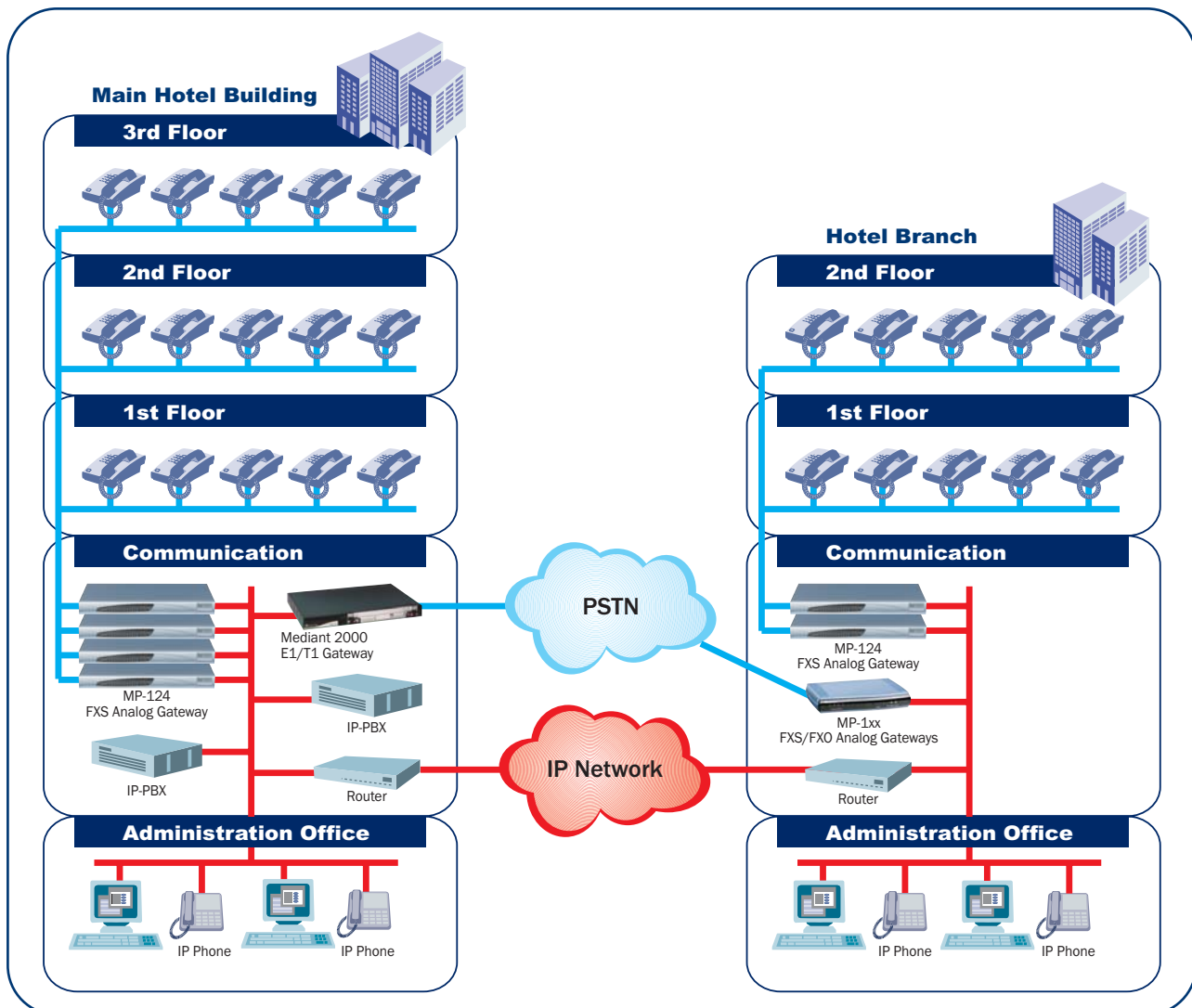
Hotel chains invest heavily in distributed call centers, and serve a growing community of business people, traveling internationally. The phone calls needed to run this establishment traverse international PSTN lines, resulting in high maintenance and operational costs for the hotel chain.

Traditional Solutions

Traditional telephony and network equipment vendors offer hotels a solution based on the migration of the existing TDM-based PBX to IP-PBX.

The main challenge behind this solution is the need to replace hundreds of analog phones with new IP phones. With the price of IP-phones still quite costly, many hotels cannot invest the money needed for this upgrade.

Another challenge behind the move to IP phones is the need to replace the cabling infrastructure. Existing analog phones in hotel rooms use voice-grade 2-wire cabling. In order to provide connectivity to IP-phones, the hotel has to install new data-grade cabling, or alternatively, invest in costly DSL technology to the guest rooms in order to provide ethernet access to the IP-phones. Wireless LAN technologies for internet access makes this investment in cabling for the phones unreasonable, while using wireless IP phones creates new challenges for the hotel.

Main Hotel Building

3rd Floor

2nd Floor

1st Floor

Communication

Mediant 2000
E1/T1 Gateway

MP-124
FXS Analog Gateway

IP-PBX

IP-PBX

Router

PSTN

IP Network

Hotel Branch

2nd Floor

1st Floor

Communication

MP-124
FXS Analog Gateway

MP-1xx
FXS/FXO Analog Gateways

Router

Administration Office

IP Phone   IP Phone

Administration Office

IP Phone   IP Phone

AudioCodes' Solution

AudioCodes' solution for hospitality telephony offers the benefit of a move to IP telephony and VoIP networking, while protecting the investment in analog phone sets, voice mail systems, billing software, etc.

The main two components of the solution provided by AudioCodes are AudioCodes' MediaPack™ 124 high density analog media gateway and an industry standard IP-PBX software.

AudioCodes MediaPack™ 124 high density analog media gateway supports the connection of 24 analog, existing guest phones into the VoIP network. Supporting very high voice quality, a wide range of MWI (Message Waiting Indication) mechanisms and a cost-effective price point per port, the MP-124 is a perfect fit for hotels moving from TDM-based PBXs to IP telephony without needing to replace anything but the PBX itself.

The AudioCodes MediaPack™ 124 high density analog media gateway can be controlled by many leading IP-PBX platforms. Analizing the specific requirements of the hospitality market, and the necessary features and price point, the combination of industry-standard, IP-PBX platforms with AudioCodes media gateway platforms is perfect for this purpose.

Distributed PSTN connectivity is another important feature of this solution. This function can be provided by a wide range of AudioCodes' analog (FXO), ISDN BRI or Digital (E1/T1) trunking gateways. The MediaPack™ 11x FXO gateways can be connected directly to analog PSTN lines providing PSTN breakout for small hotels. The MediaPack™ 40x BRI gateway can be connected directly to ISDN BRI lines, and the Mediant™ 1000 and Mediant™ 2000 media gateways can provide up to 480 channels of PSTN connectivity using E1/T1 trunks for large hotels and hotel call centers.

The combination of maintaining the use of the existing analog phones sets, while moving to an IP-PBX platform, has a lot of benefits for the hotel. The IP-PBX software allows the combination of existing analog phones, new IP phones, existing voice-mail, billing and call center applications, and new IP-based applications.The move to VoIP allows the hotel chain to use its existing international data network to transparently move voice calls between hotel branches, international outbound guests calls and inbound calls to the hotel chain distributed call center.

Cost Effectiveness

The combined AudioCodes – IP-PBX solution demonstrates savings in capital expenses and operational expenses for the hotel. The openness and interoperability of the solution allows the hotel to easily integrate with best-of-breed third party hardware and software. The components can include the existing analog phone sets, SIP soft phones, SIP IP phone hardware, existing TDM-based and new IP-based third party applications such as voice mail, IVR, billing, call centers and many more.

Openness

The combined AudioCodes – IP-PBX solution is an open solution. It is based on SIP as an industry standard for VoIP signaling, the SIP based IP-PBX software and a PC platform to run the application on.

Interoperability

AudioCodes has invested a substantial amount of effort in integrating the solution. IP-PBX software kits from many vendors have been intensively tested to interoperate with the AudioCodes media gateways in order to be able to operate in the hotel environment. AudioCodes has also invested in testing the solution with numerous third party vendors providing complementary hardware and software for the solution.

VoIP Network

Moving from the TDM architecture and PSTN connectivity to VoIP allows the hotel chain to use its existing data network to carry phone calls between sites with no cost. This possibility includes many types of calls:
- Administrative calls between hotel branches
- Outgoing calls from different hotel branches, breaking out to the PSTN at the nearest branch to the destination
- Incoming 1-800 toll-free calls to the hotel chain call center from anywhere in the world to the centralized or distributed call center

Centralized or Distributed Call Control and Applications

The IP architecture provides the flexibility of centralizing or distributing the IP-PBX and the applications on the telephony network. For small hotels and hotel chains, one IP-PBX server can manage a number of hotel branches from a central location, and the applications (voice mail, billing, IVR, call center etc.) can also be centralized. For large hotels and hotel chains, an IP-PBX server can be installed per location or per region and interact with IP-phones, media gateways and application servers distributed across the network.

Centralized Provisioning & Management

Moving from the TDM architecture to the IP-PBX architecture allows the flexibility of managing the voice network from anywhere in the world. Web-based management allows to add, move and change extensions to the network from anywhere on the internet.

About AudioCodes MediaPack™ Analog 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 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, the MediaPack family enables the connection of analog devices such as phones, faxes and modems into the IP world.

About AudioCodes Mediant™ 1000 Access Gateway

The Mediant™ 1000 is a modular, compact and cost-effective media gateway solution which has been 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. In addition to supporting up to 4 E1/T1 and/or up to 24 FXS/FXO media gateway ports, it also supports the integration of an OSN (Open Solutions Network) server for running third party applications.

About AudioCodes

AudioCodes Ltd. (NASDAQ: AUDC) enables the new voice infrastructure by providing innovative, reliable and cost-effective Voice over Packet technology and Voice Network products to OEMs, network equipment providers and system integrators. AudioCodes provides its customers and partners with a diverse range of flexible, comprehensive media gateway and media processing technologies, based on VoIPerfect™ – AudioCodes' underlying, best-of-breed, core media gateway architecture. The company is a market leader in voice compression technology and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, and enhanced voice services 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.

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AudioCodes

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