

Application Note



Reducing Collaboration Costs with Microsoft Unified Communications and AudioCodes Media Gateways

Enterprise customers are striving to control communications and collaboration costs like never before. Microsoft Unified Communications can help control the organization's communication costs. Expensive travel expenses can be avoided by using Web Conferencing. Communications costs (such as long distance charges) can be reduced by using high quality VoIP calls and by consolidating communications infrastructure. Presales efforts, internal meetings, training, and staff performance reviews are activities that frequently require less travel once a company has deployed a Unified Communications solution. Traditional conference call services are expensive. Organizations can assume significant savings by replacing the dial-in meeting services, purchased from teleconferencing vendors, with IP network-based conferencing.

During the past few years, AudioCodes, in conjunction with Microsoft, has invested significantly in the Enterprise market, by means of specific features that reduce costs, by implementing AudioCodes Media Gateways together with Microsoft Unified Communications Solutions.

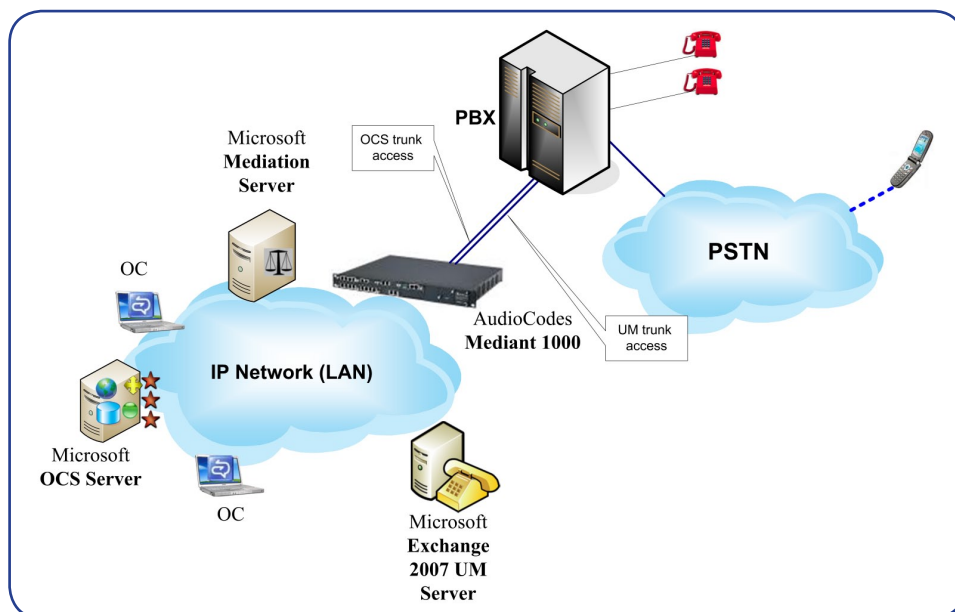
Implementing the joint solution of AudioCodes' Media Gateways and Microsoft Unified Communications provides unique technical advantages to customers. AudioCodes' wide range of Media Gateways offers the most suitable and cost-effective solution for the customer's needs. Based on AudioCodes' in-house VoIPerfect™ DSP technology, customers can benefit from investment protection. AudioCode's common user interface and standard, rich feature set increase product usability and save time and money on support and training.

This application note will describe the following implementation scenarios, which are intended for customers wishing to enhance cost control, by adopting the joint Microsoft and AudioCodes Unified Communications solution in large and small enterprises:

1. Sharing a single Gateway for Microsoft Office Communications Server 2007 and Microsoft Exchange Server 2007 implementations
2. Enabling Fax services using a single DID per user
3. Phased migration to Microsoft Unified Communications
4. Using AudioCodes' "Drop and Insert" topology
5. Using AudioCodes' Active Directory Lookup Service

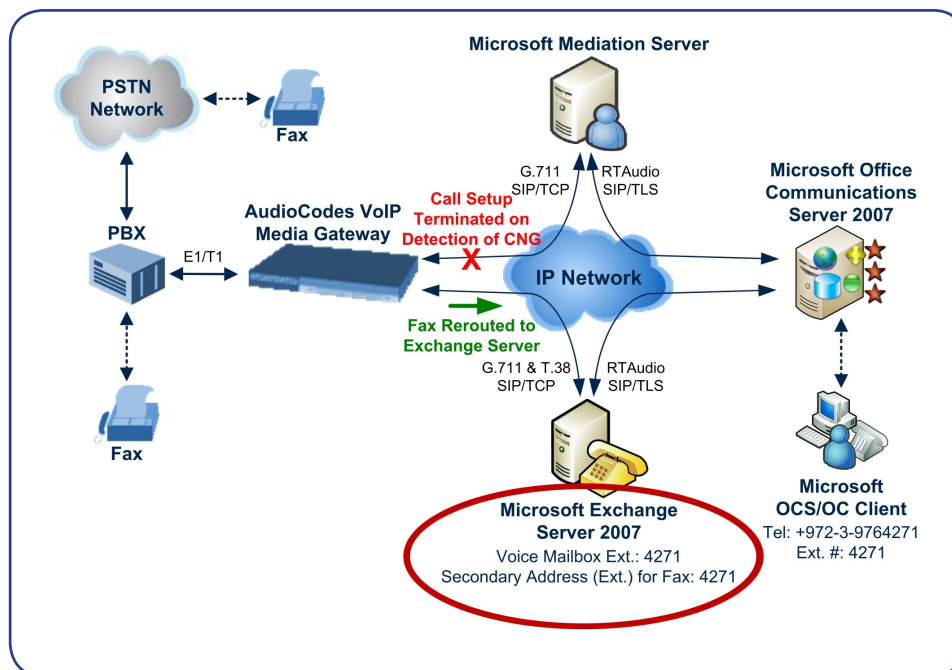
Integrating Microsoft Office Communications Server 2007 and Microsoft Exchange Server 2007 using a Single Media Gateway

Microsoft solutions for Enterprise Unified Communications include the Microsoft Office Communications Server 2007 for real time Unified Communications, as well as the Microsoft Exchange Server 2007 for Unified Messaging. Typically, Enterprise customers use both of these systems simultaneously, connecting each of them separately to the legacy PBX, using separate Media Gateways and expensive PBX trunks. AudioCodes Media Gateways support the simultaneous connection of the PBX to Microsoft Office Communications Server 2007 and Microsoft Exchange Server 2007 using the same Media Gateway and the same PBX trunk. This configuration can reduce the needless costs of upgrading old legacy PBXs, as well as reduce the number of Media Gateways required for the solution.



Enabling Fax services using a single DID per user

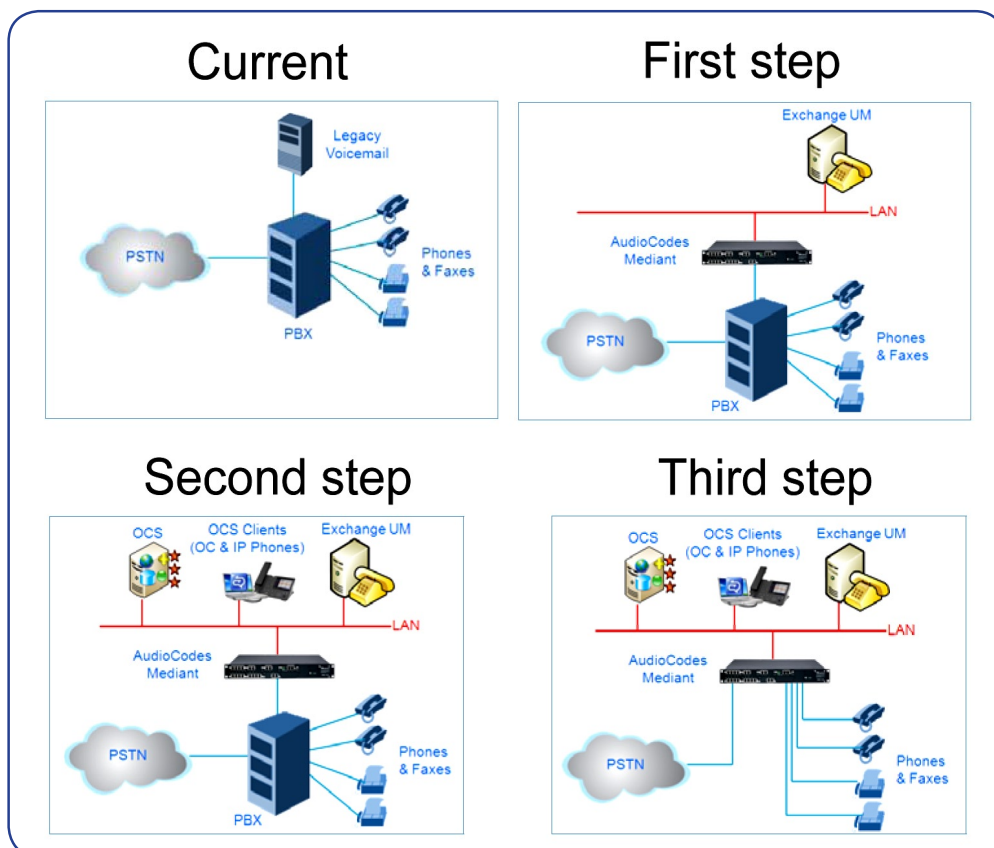
When implementing the Microsoft Unified Communications architecture, Enterprises need to take care of the required continuous support for Fax applications. Fax is still a very common application in many business environments, and the challenging support of Fax within the Unified Communications environment is an important requirement by many organizations. AudioCodes' robust and feature-rich implementation of T.38 Fax over IP (FoIP), supported in all its Media Gateways, enables enterprises to protect their investment in legacy fax machines and fax-based business processes, while enhancing the functionality of the fax network using the Microsoft Unified Communications infrastructure. AudioCodes' implementation of T.38 FoIP and fax-based call routing enable customers the freedom of choice of fax delivery: using the same DID line for phones and faxes by detecting and routing voice calls and fax calls to separate destinations (e.g., to a telephone and to a fax server, respectively); separate DID (Direct Inward Dialing) lines for voice calls and faxes. This flexible integration of fax support into the Microsoft new infrastructure using the AudioCodes Media Gateways can save on the Enterprise's fax expenses by reducing expensive PSTN DID range costs, by ensuring faxes are printed only if required, and by moving the Enterprise fax transport into the inexpensive VoIP/FoIP network.



Phased Migration to Unified Communications

Enterprises that have legacy PBX service with a legacy Voice Mail solution typically prefer a phased migration approach from their existing TDM infrastructure to an all-IP environment. Most enterprises will take the first step by implementing Microsoft Exchange Server 2007 for Voice Mail services along with its Email services, connected to the Enterprise's legacy PBX using the AudioCodes Media Gateway as the

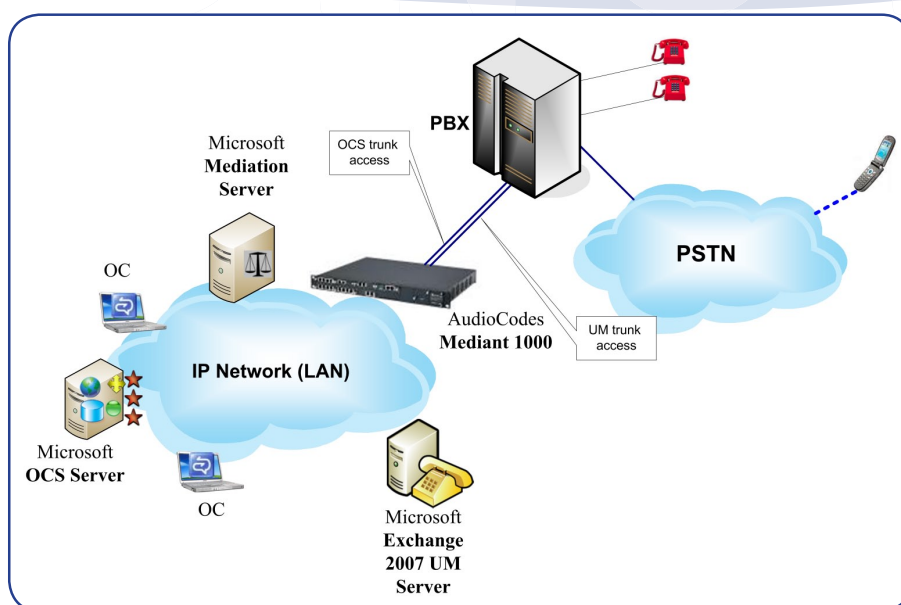
connection point of these two domains. The second step will be the integration of Microsoft Office Communication Server 2007 for IP-based call control, providing Unified Communications and Instant Messaging services to all users, yet using the very same AudioCodes Media Gateway serving both functions. The third and last step will be the removal of the legacy PBX and the use of the Media Gateway as a gateway to the PSTN, as well as a terminal adaptor for analog Phones and Faxes. AudioCodes' gateways are very well positioned to support this phased migration. Supporting a mixture of E1, T1, BRI, FXS and FXO interfaces, the Audiocodes Media Gateways can provide simultaneous connections to analog and digital PSTN trunks, PBX trunks and legacy phones and faxes. Continuously tested for interoperability with numerous PBX vendors and over 100 country-specific PSTN variants, AudioCodes gateways can save on operation and capital costs by offering a smooth migration path as described above, using the same Media Gateway.



Using AudioCodes' "Drop and Insert" Topology

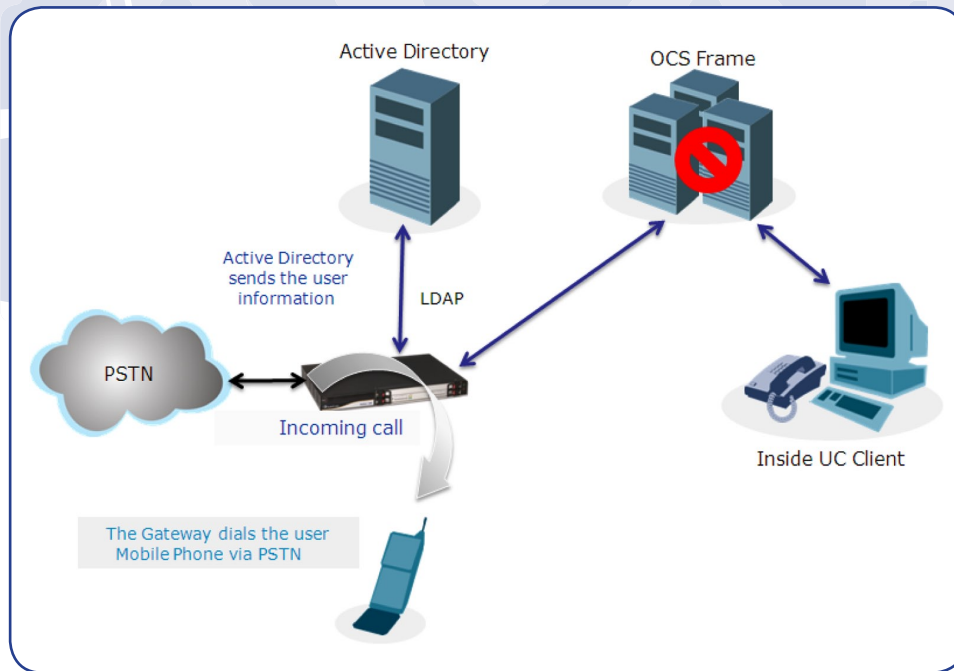
When the Enterprise introduces the Microsoft solution into the existing telephony network, it should avoid acquiring additional TDM trunks from the legacy PBX vendor (which is usually required by most Media Gateway vendors). AudioCodes "Drop and Insert" configuration allows the Enterprise to move

from its PBX install base into an all-IP solution with no additional investment in the old legacy PBX (by avoiding connection of the existing TDM PBX to the Microsoft Unified Communications network via the Media Gateway). By placing the AudioCodes Media Gateway between the PBX and the existing trunk connected to the PSTN, the AudioCodes Media Gateway may intercept all calls and reroute them to the TDM PBX or to the Microsoft Unified Communications network according to the user information. Therefore, the Enterprise can save on the redundant costs of legacy TDM trunk cards, as well as the operational costs of reconfiguring the legacy PBX for the new configuration, since the PBX configuration is left unchanged.



Using AudioCodes' Active Directory Lookup Service

AudioCodes' advanced Active Directory Lookup feature allows the Enterprise to manage and maintain user location information, facilitating additional migration of Enterprise customers from legacy voice to Microsoft Unified Communications. During the migration phase, the Media Gateway can route incoming calls based on user location information, obtained from the Microsoft Active Directory. The call is routed to Microsoft Office Communications Server 2007 for enabled Microsoft Office Communications Server 2007 voice users, while a user that has not yet migrated to the Microsoft Office Communications Server 2007 will receive all calls on the existing telephone infrastructure. Another service that is an inherent feature of the Active Directory Lookup is survivability. In cases where Microsoft Office Communications Server 2007 is not reachable, the Media Gateway (based on the incoming DID), can query the Active Directory for the user's pre-defined alternative phone number (e.g., mobile, home, etc.) and route the call via a fallback route, thus resulting in higher call completion and service quality. These features provide significant operational cost savings during the migration phase of the enterprise infrastructure from legacy voice to VoIP, by automatically supporting smart routing of phone calls, based on the existing Active Directory database.



Summary

Enterprises, which migrate from legacy telephone systems to Microsoft Unified Communications, can expect significant cost reductions. Selecting the right Media Gateway vendor for this solution will result in quicker and simpler return on investment. The use of Media Gateway features such as described in this Application Note can make the migration simpler and smoother, saving both capital and operational costs, as well as making the life of the Enterprise network manager much easier.

About AudioCodes

AudioCodes Ltd. (NasdaqGS: AUDC) provides innovative, reliable and cost-effective Voice over IP (VoIP) technology, Voice Network Products, and Value Added Applications to Service Providers, Enterprises, OEMs, Network Equipment Providers and System Integrators worldwide. AudioCodes provides a diverse range of flexible, comprehensive media gateway, and media processing enabling technologies based on VoIPerfect™ - AudioCodes' underlying, best-of-breed, core media architecture. The company is a market leader in VoIP equipment, focused on VoIP Media Gateway, Media Server, Session Border Controllers (SBC), Security Gateways and Value Added Application network products. AudioCodes has deployed tens of millions of media gateway and media server channels globally over the past ten years and is a key player in the emerging best-of-breed, IMS based, VoIP market. The Company is a VoIP technology leader focused on quality and interoperability, with a proven track record in product and network interoperability with industry leaders in the Service Provider and Enterprise space. AudioCodes Voice Network Products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, cable, enhanced voice services, video, and Enterprise IP Telephony markets. AudioCodes' headquarters and R&D are located in Israel with an additional R&D facility in the U.S. Other AudioCodes' offices are located in Europe, India, the Far East, and Latin America.

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