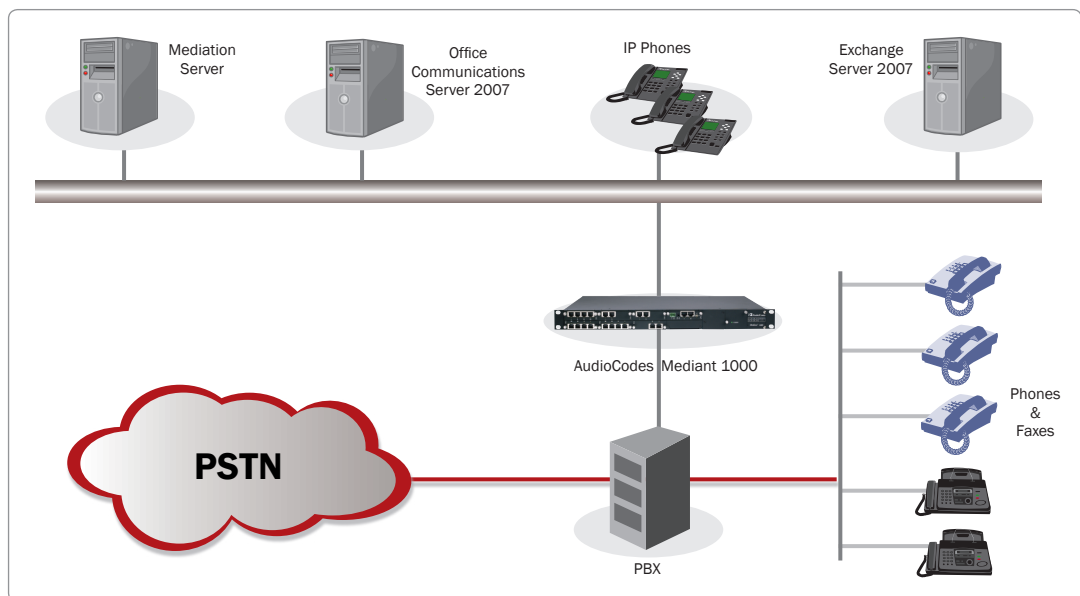


## Ten “Golden Rules” for Selecting a VoIP Gateway for Microsoft Unified Communications Solutions

Selecting a Microsoft certified gateway may not be enough to make the ideal choice for your office network. There are other important factors, which should first be uncovered and considered for optimizing the gateway selection.

Microsoft is expanding its offer with “Microsoft Office Communications Server 2007” and “Microsoft Exchange Server 2007”, aimed at increasing employee productivity, by means of collaboration, presence detection, and most significantly, unification of all messages “bombarding” Information workers today.

Many of these advanced tools rely on transparent connectivity of voice and media via a VoIP gateway interfacing between the Microsoft Unified Communications Solution and legacy PBX and PSTN networks, or IP-PBX systems. The option to continue using existing office telephony equipment (while securing previous investments and know-how) allows a gradual, cost-effective, and safer migration towards Microsoft solutions – surely beneficial factors for any IT or telephony manager.



## Ten “Golden Rules” that allows you to make the best selection for a Microsoft Certified VoIP Gateway

- 1. Voice Quality** – It must be noted that a user’s satisfaction is greatly affected by basic voice quality. Did we say basic? Well, the outcome is indeed basic but the algorithms and technology designed to overcome delay, jitter, noise, echo, packet loss and other “disasters” are far from basic. Using Microsoft embedded voice recognition features requires even better support of high voice quality for reliable voice recognition results. Research your vendor’s references and qualifications, usually benchmarked by organizations, such as ETSI, and remember to test it yourself.
- 2. Office Communications Server 2007 and Exchange Server 2007 on a single gateway** – Is your gateway capable of operating with both servers simultaneously? Can you use the same E1/T1 interface for connecting your PBX to both servers simultaneously? Can your gateway support SMDI for voicemail as well as a digital trunk for your PBX? This ability allows the re-use of your investment when beginning with one application and subsequently adding the other.
- 3. Fax & legacy analog interfaces support** – Since Office Communications Server 2007 currently does not natively support Fax, a gateway enabling high quality Fax/T.38 is essential for keeping your office fax machines operational. In addition, supporting analog interfaces also allows the easy integration with existing interfaces for alarm systems, etc.
- 4. “Mix and Match”** – Delivering to a variety of organizations (branch offices) requires the ability to “tailor” a gateway by mixing and matching line modules (FXS, FXO, E1, T1, BRI), which assists in reducing stock and speeding up deployment. In addition, a “Pay-as-you-Grow” approach of adding line modules or increasing capacity by a software license can help you control your new gear investments in parallel with actual service ramp-up.
- 5. “Certify the non-certified”** – A non-certified IP-PBX is limited in its connectivity to Microsoft Unified Communications solutions. This problem can be solved by a gateway that performs IP-to-IP mediation between the two (SIP-to-SIP or SIP-to-H.323). Such a gateway solves interoperability issues for both sides. As a system integrator serving a variety of organizations, each with their own variety of IP-PBX solution, an extensive gateway interoperability list is a significant advantage. Notice also the need for re-certification of your IP-PBXs with Office Communications Server 2007 R2. IP-to-IP Mediation support in the gateway can work around this limitation, as well. Does your IP-PBX vendor require you to buy a user license for enabling each user for the Microsoft environment? Using IP-to-IP Mediation in the Gateway can save on this cost too.
- 6. “Carrier-grade ready”** – No, this is not a mistake. In dealing with large enterprises and mainly businesses of a critical nature, “carrier-grade” standards are often required. Enterprises are demanding high service availability, manageability of large-scale networks and high capacity on a single gateway (1000’s of ports). Is your gateway “carrier-grade ready”?
- 7. “One-Stop-Shop” gateway vendor** – System Integrators or telephony/IT managers will benefit from having a single vendor for the smallest branch phone/fax adaptor, as well as the headquarter’s “heavy duty” gateways. Additionally, check that your gateway vendor portfolio includes a full range of interfaces (FXS/FXO, BRI, E1/T1 and even T3, STM-1/OC3) and VoIP control protocols (SIP/H.323/H.248). Make sure that using the same supplier for all types of gateways also means using the same user interface for Gateway configuration and provisioning, saving on staff training and installation costs.

- 8. Redundancy and Survivability** – Do you want your Microsoft Unified Communications system to be backed up using your existing TDM PBX infrastructure? Do you want to use your Active Directory or ENUM services for call re-routing? Selecting a Media Gateway that can support an extensive implementation of internal call routing tables, as well as an external standard interface to Active Directory and ENUM services allows easy migration from the existing TDM infrastructure to the Microsoft Unified Communications environment, while providing support for flexible call routing for survivability and redundancy.
- 9. “Hard-coded” vs. “Soft-coded” gateway** – Flexible on-site programming of the gateway functionality is often required to meet specific dialing plans or advanced configurations. Are these parameters “hard-coded” and require vendor intervention, or is a quick on-site modification possible by a simple configuration tool? How many PBX vendors and localization flavors does your media gateway vendor support? Can you easily integrate the gateway in all of your global locations? Can you easily integrate it with all of your voice mail servers? Think about how much a wide interoperability record and “soft-coding” can save you time.
- 10. “Future Proof” gateway provider** – Microsoft has currently defined two types of gateways: “Basic” (which requires a mediation server for the Microsoft proprietary voice coder), and “Basic Hybrid” (which runs a mediation server on an internal processor). Make sure that your selected Gateway vendor has the support for both Gateway configurations and is also capable of supporting the Microsoft RTA Codec in its DSPs to meet the future requirements for direct connection of the gateway to the Microsoft environment, without the need for a Mediation Server.

Revealing these potentially “hidden” factors will allow you to make the optimal choice, when selecting a VoIP gateway, which is instrumental for a successful and cost-effective deployment of Microsoft Unified Communications.



## 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 leader focused on VoIP communications, applications and networking elements, 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, Residential Gateways, IP Phones, Media Servers, Session Border Controllers (SBC), Security Gateways and Value Added Applications. AudioCodes underlying technology, VolPerfectHD™, relies primarily 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 emerging Voice networks.

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