

## Selecting Unified Communications Solutions

seeing more of a demand for the ability to set priorities and be able to determine what kind of QoS can be delivered and what priorities various services receive.”

“The U4EA solution is an enabler in terms of doing that; it’s principally predicated on QoS algorithms and capabilities which we call GoS [Guarantee of Service],” says Epps. “So QoS is a vital element of our platform, along with the other components such as routing, Internet access, firewalling and session control. Rolling all of these things together into our Fusion platform, we believe we have put a very powerful enabling device into the market that helps deal with some of these bandwidth management and other issues one encounters at the edge, that can slow the expansion of UC.”

“Looking at the ‘bigger picture’, we’re just an enabler, we’re one box in the overall system,” says Epps. “I feel there are two ways of looking at this: the enterprise play and the hosted play. When thinking of players in the industry, the ones that are really driving UC development, the group I immediately think of consists of, traditional PBX providers, principally Avaya, Cisco and Nortel, because certainly most medium-to-large enterprises – and to some degree smaller businesses – all have PBXs. They’ve been around for years, and their users haven’t all moved to a hosted environment, at least not yet. However, if a business has just started up within the last year or so, they may not have a PBX; they may have gone to a hosted or managed play. Even so, traditional PBX players are big drivers of the UC story as we see it today. All of the vendors are figuring out ways to expand and capitalize off of UC.”

“Cisco, for example, has their own IP PBX, they have their Call Manager software and they bought WebEx, so they have the infrastructure to be more of a turnkey provider or enabler in terms of delivering UC, versus anybody else I’m aware of in the industry today,” says Epps.

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

By Yariv Golan-Atir, AudioCodes

Having a Microsoft certified gateway is not enough when making the ideal selection for your office network. Are there any “hidden” factors which should be considered?

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 importantly, the unification of all messages “bombing” information workers today.

Many of these advanced tools rely on transparent connectivity of Voice and media via a VoIP gateway, which lies between the Microsoft Unified Communications Solution and legacy PBX, IP-PBX or the PSTN network. The ability to keep on using existing office telephony equipment (while securing past investments and know-how) allows a gradual and safer migration towards Microsoft solutions – surely a major factor for any IT or telephony manager.

### We will outline 10 “Golden Rules” for the best selection.

**1. Voice Quality** – It must be noted that a user’s satisfaction is greatly affected by basic voice qual-

ity. 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. 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? This ability allows the re-use of your investment when beginning with one application and subsequently adding the other.

**3. Fax 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.

**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 both 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 parallel to actual service ramp-up.

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"Nortel is also becoming quite active in terms of providing UC solutions, mostly because of their partnership with Microsoft. Nortel I believe tends to call UC 'multimedia' communications. But they also have the necessary capabilities to provide powerful and compelling solutions, and they are pushing the technology through their Multimedia Communication Server [MCS] as they expand into delivering UC from their PBX base. They can work behind the huge footprint of users that Microsoft has out there that rely on the Microsoft Exchange Server and Outlook. I see Nortel certainly being a key player in UC," says Epps.

"Avaya also an interesting UC player," says Epps, "though in my opinion I don't see them as currently being quite as aggressive as Nortel and Cisco. And then, of course, there's Microsoft itself, which is doing a great deal to expand UC capabilities via such things as OCS 2007.

My only question is – when do I get my "Outlook IP Telephone"? (Just kidding.) **UC**

*Richard Grigonis is Executive Editor of TMC's IP Communications Group.*

### Companies mentioned in this article:

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|-----------------------|--|
| Alcatel-Lucent        | <a href="http://www.alcatel-lucent.com">www.alcatel-lucent.com</a> |
| Avaya                 | <a href="http://www.avaya.com">www.avaya.com</a>                   |
| Cisco Systems         | <a href="http://www.cisco.com">www.cisco.com</a>                   |
| HP Services           | <a href="http://www.hp.com">www.hp.com</a>                         |
| Microsoft             | <a href="http://www.microsoft.com">www.microsoft.com</a>           |
| NEC Unified Solutions | <a href="http://www.necunified.com">www.necunified.com</a>         |
| Nortel Networks       | <a href="http://www.nortel.com">www.nortel.com</a>                 |
| Sagem-Interstar       | <a href="http://www.faxserver.com">www.faxserver.com</a>           |
| Siemens               | <a href="http://www.siemens.com">www.siemens.com</a>               |
| Spanlink              | <a href="http://www.spanlink.com">www.spanlink.com</a>             |
| U4EA Technologies     | <a href="http://www.u4eatech.com">www.u4eatech.com</a>             |

**5. "Certify the non-certified"** – Non-certified IP-PBXs are limited in their connectivity to Microsoft Unified Communications solutions. This problem can be solved by a gateway which 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 varying IP-PBX solution, an extensive gateway interoperability list is a significant advantage.

**6. "Carrier-grade ready"** - No, this is not a mistake. When 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 (thousands 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 headquarters "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).

**8. Branch Office Survivability** - In many distributed IP telephony environments, a branch office is totally dependent on the link to a central server and on its continuous operation, even for basic

room-to-room calls. Few gateways act as local "emergency" call managers in branch offices, during failure, offering a cost-effective survivability solution. Is your gateway "stand-alone survivable"?

**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? Think of the time "soft-coding" can save you.

**10. "Future proof" gateway provider** – Microsoft has defined three types of gateways: "Basic" (which requires a mediation server for the Microsoft proprietary voice coder), "Basic Hybrid" (which runs a mediation server on an internal processor), and an "Advanced" gateway (which does not need a mediation server at all). The "Advanced" gateway is not currently available and few vendors plan to offer it. Is your gateway provider "Future proof"?

With these, we have uncovered several "hidden" factors for selecting the optimal VoIP gateway, an instrumental element in a successful and cost-effective deployment of Microsoft Unified Communications.

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