

Unified Communications Meets VoIP: A Marriage Made In Heaven



By now we know that IP systems and networks are being implemented at record pace, as enterprises of all sizes and in all types of industries recognize the value of IP. But contrary to popular belief, the real value of IP and voice over IP (VoIP) is not in inexpensive transport, cheap phone calls, and simpler management of a single network. Rather, the true value is in the new applications IP enables.

Looking beyond network efficiency, VoIP enables a range of applications either not previously available or requiring significant integration and customization, such as the multimedia contact center, integrated Web and audio conferencing, and most notably, unified communications (UC). Converged applications such as UC can take advantage of IP and enable companies to not only increase revenues and decrease costs, but enhance productivity and improve customer service.

But if you're not ready to take the plunge to IP technology, don't worry — you can implement a UC system today on a legacy TDM system, benefit from the UC applications immediately, and still reap the additional benefits when you migrate to an IP network. UC applications are supported by both TDM and IP-based communications systems, and newer UC systems will enable your organization to implement a UC system now, use it with your traditional phone system, and then easily migrate to VoIP later, when you're ready.

UNIFIED COMMUNICATIONS — BEYOND MESSAGING

You're probably asking yourself, isn't unified communications a fancy name for unified messaging? Let's be clear — Unified Communications builds upon UM, but adds much, much more.

Unified messaging delivers user access to voice, fax, and e-mail messages through a single interface, typically via the telephone, desktop PC, or mobile device. Unified communications adds real-time call control, collaboration, media handling, and further integration of voice and data applications.

Additionally, UC systems provide real-time call control and call completion applications including find-me/follow-me services, automated call return capabilities, missed call log with call return capabilities, and outbound dialing from groupware contacts or personal address books.

With UC, users can access their groupware calendar to accept or reject meeting requests via a speech interface over the telephone, set up new appointments or meetings, as well as check to see what is on their schedule.

The latest generation of UC systems includes "personal assistants" with speech recognition technology to help mobile employees manage their communication, including messaging, call control, groupware, and other enterprise data.

The above UC applications are all available today for traditional circuit-switched PBX environments, as well as for IP-PBX environments. However, additional capabilities will emerge with the move to VoIP.

ADDING VOIP TO THE PICTURE

As enterprises implement IP voice and data networks, they are looking for applications that can run on these converged networks, and UC is one of the key applications that can take advantage of convergence.

When the voice server becomes a node on a network, there are more opportunities to integrate voice communication and messaging with other network applications. VoIP and UC have a natural synergy, and with the convergence of voice and data across one network, the barriers to unifying the different communications are immediately lowered. By utilizing standards-based UC and IP-based systems on a single voice and data network, there is little integration required.

We can look at the benefits of uniting UC and IP in two different ways — in terms of the features and functionality, and in terms of the system and network architecture.

The newest generation of IP-enabled UC systems provides opportunities to integrate instant messaging (IM), presence awareness, features such as click-to-call, click-to-conference, Web and voice conferencing, Web or multimedia chat, and document collaboration, all via a common user interface. By integrating these various technologies, UC systems can do more intelligent routing based on what's on the user's calendar, their presence status, and personal rules. UC systems can send instant messages to users to notify them of received messages or other communication events of interest.

When looking at the architectural benefits, IP-based UC systems are simpler to integrate, easier to expand and scale, and less expensive to manage. As VoIP is very standards-driven, the integration of converged applications such as UC is more straightforward and cost-effective given the removal of proprietary interface software and hardware components. When implementing new IP PBXs, it is relatively easy to add UC and it does not require some of the integration efforts that were needed to integrate UC on TDM platforms. The time to deploy UC solutions is greatly reduced in a standards-based, single-protocol environment.

SIP IS THE KEY

Session Initiation Protocol (SIP) has emerged as the protocol of choice within the VoIP market, especially within IP PBX solutions. Because SIP is a signaling protocol for Internet conferencing, telephony, presence, events notification, and instant messaging, it is the ideal protocol to be used by UC systems. Companies like Avaya, Nortel, Siemens, and even Microsoft (with its Live Communication Server) are all embracing SIP as a standard of choice for their VoIP solutions.

According to Blair Pleasant, President & Principal Analyst at COMMFusion, "UC is expected to experience additional market adoption because of the addition of presence capabilities, made possible in part by SIP. Presence will bring about a new set of applications that will further enhance our ability to interact with one another."

When integrating UC and presence, UC systems can offer real-time, presence-based access to people, calendars, and files. We will see "personal communication portals" that provide a unified way to perform various communication tasks, such as handling voice calls, e-mails, and instant messages, based on a personal rules engine. More advanced systems will allow the presence engine to change a user's status based on their calendar (i.e., in a meeting, out of the office, etc.). The UC system will be able to play the appropriate response to callers based on the user's status. Expect to see presence-enabled UC become the real-time collaboration component of enterprise application software.

A GRACEFUL MIGRATION

Migrating to an enterprise unified communications solution doesn't necessarily mean replacing current phone systems or jumping headfirst into the world of IP telephony. Instead, an enterprise can layer a UC solution across all existing office locations and phone switches — both IP and legacy. This can reduce the management burden, provide all users with a consistent set of productivity-enhancing services and present callers with a unified company image while allowing the enterprise to transition its legacy telephony switching environment at its own pace.

Even if customers aren't deploying IP-telephony today, they need to be asking questions about compatibility, and be sure that their UC solutions can work with IP telephony for when they eventually move to IP. In many cases, UC systems are the first step toward a company's eventual migration to IP. Companies can start the migration process by implementing a UC system on their TDM switches, and continue to use the same UC system with their new IP-PBXs when they're ready.

When deploying a UC solution, an enterprise should be able to upgrade its existing phone switches, or migrate to IP telephony, with virtually no disruption to employees and the organization, and no need for retraining. There should be no need to replace the UC solution when a company changes its phone switch or migrates to an IP-based switching solution. The UC solution should simply integrate with the new IP switch. This means that users don't have to learn new interfaces and companies get to keep the same robust set of features and level of reliability they have become accustomed to even as they move to an IP-based telephony environment.

Unified communications systems provide a multitude of benefits to companies of all sizes and across all industries by enhancing communications and productivity. For those companies that are ready to dive into the world of VoIP, unified communications is the ideal convergence application to get started with. For those companies that want to wait a little longer before replacing their legacy PBXs, by upgrading from a legacy voice mail system to a UC system, they can reap the benefits of this leading-edge enterprise communications technology while gradually migrating to a full-blown converged network.

FOR MORE INFORMATION

Applied Voice & Speech Technologies, Inc. ("AVST") is a leader in the unified communications ("UC") marketplace, uniquely combining the strengths of its world-class messaging platform, CallXpress[®], with its speech-enabled call management module, Seneca[®], to create a powerful, next-generation unified communications solution. The Company's products are designed to scale and support organizations of all sizes. For more information please contact us at: www.avstgroup.com or +1.949.699.2300.