Alcatel·Lucent
Enterprise

Enabling Real-Time Business Conversations That Span Locations and Devices

Five Essential Ingredients for Enterprise Communications in a Smart Phone World

Abstract

Enterprises today are driven by several converging trends, including the continuous innovation in consumer technologies (such as smart phones); the integration of younger, technology-savvy individuals in the workforce; the distribution of workers across locations; and the accelerating pace of change in business. For optimal agility and productivity, businesses need to empower employees with the technology that supports collaboration and conversation across devices and locations and in real time. This paper highlights five essential attributes for a converged communication infrastructure that supports true business conversations. These requirements include dynamic conferencing, user-centric connections, meaningful presence information, native video capabilities, and social and application context.

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Introduction

The past decades have wrought enormous changes in how individuals communicate. From landlines to cell phones to smart phones with streaming video and social networking applications, people have never had the choice of so many possible channels for connecting with each other.

These changes have profound implications for the enterprise workplace, where individuals work in one-on-one situations, deliver one-to-many presentations and collaborate in group environments. Many businesses have taken advantage of the increase in bandwidth and connectivity to create 'virtual' workforces that include employees at remote offices, third-party partners, mobile employees and telecommuters.

The pace of innovation in technology offers new possibilities for improving productivity, putting pressure on businesses to incorporate new capabilities in the communications equipment and services they provide to employees. However, business adoption is necessarily more cautious than consumer adoption — requirements for availability and security are more stringent, and many consumer applications do not scale to address the needs of the mid-sized or large enterprise.

Today's enterprises need to provide employees with the innovative technologies that will enable engagement, efficiency and collaboration if they are to remain competitive and agile. And employees expect a wide range of options — the 'smart phone' package of capabilities — in the business environment.

According to a report by the Yankee Group, "Workers self-state that their productivity increases by as much as 40 percent when they are provisioned with mobile form factors such as tablets, smartphones and netbooks. They also say mobile e-mail and voice are the most important technologies that enable them to remain productive away from the workplace, while wireless broadband, instant messaging and smartphone applications follow not far behind.[1]"

At the same time, businesses must work within budget and security constraints. They must consider factors such as total cost of ownership, long-term viability, and integration with existing business applications and environments. They do not want to manage complex communication environments with multiple servers, technologies and management / provisioning interfaces.

To understand the underlying communication technology need, it is critical to first understand the business need: real-time, dynamic collaboration and communication across locations and individuals, integrated with the contextual information that drives business decisions and processes.

Converging Trends in Business and Communications

Several converging trends are affecting enterprise communication requirements:

Rapid changes in consumer technology. Twenty years ago, new communication technologies flourished in the workplace, then moved to the consumer space as they became commoditized. Employees had Internet connections and personal computers in their offices before these technologies reached their homes. Today, innovation often happens first in the consumer market. Simply look at the video, voice, data and application technologies available on smart phones carried by high school students. The enterprise is sometimes seen as a technology backwater, where IT groups are perceived as preventing employees from using the applications and devices they use at home.

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[1] Source: Enterprise Acceptance of Consumerization Opens the Floodgates to Mass Adoption, Yankee Group, February 2011

Digital natives entering the workforce. As the generation that grew up with smart phones and Facebook enters the workforce, it brings different expectations for interacting with peers and colleagues. According to Marc Prensky, author of *Don't Bother Me, Mom — I'm Learning*, "Their preference is for sharing, staying connected, instantaneity, multi-tasking, assembling random information into patterns and using technology in new ways." Even e-mail seems slow and old-fashioned to this real-time generation.

Increasingly distributed and mobile business environments. Business decisions today are made and implemented by teams that span many locations, for a variety of reasons:

- Outsourcing to third-party companies
- Remote and global offices
- Employee mobility
- Telecommuting

In these distributed organizations, the difficulty often lies in locating and connecting with the right knowledge experts in the organization, at the point of need.

Accelerating pace of business. The pace of business is accelerating and those who cannot keep pace will suffer. David Meerman Scott's book, *Real Time Marketing and PR*, presents the case that — in a business environment increasingly driven by real-time interaction on social networks — businesses must now react in mere hours to external events. This kind of agility requires real-time communication and collaboration — a challenge in widely distributed organizations.

These various trends are converging to put new pressure on businesses to support rich, online collaboration and conversations. In fact, businesses that fail to proactively provide communications solutions may lose control of employee communications, as people use consumer devices and applications outside of IT governance and security controls.

Enabling Business Conversations and Collaboration

Businesses that want engaged, responsive employees with optimal productivity across locations and devices must supply the communications capabilities to support these employees. This means taking many of the options available in the consumer space — video, social networks, mobility-integrated applications — and supporting equivalent capabilities in the enterprise.

To determine how best to support business communications, one should look at the desired communication model: real-time, meaningful collaboration across devices and locations. In essence, businesses want to offer employees the same type of interaction and collaboration that they would have if they were all working in the same physical office, where individuals 'drop by' offices, call in an expert and make decisions in real time.

Alcatel-Lucent has identified five essential attributes that technology supporting this type of business conversation must have:
1. Real-time, dynamic conferencing
2. User-centric connections
3. Meaningful presence information
4. Native video capabilities
5. Social knowledge & application context

Real-time, Dynamic Conferencing

Traditionally, people worked with colleagues via one-on-one, real-time interactions, mostly in-person or by telephone. Or they scheduled meeting rooms and times in advance and everyone crowded in to make decisions. In today's mobile, global business environment, conference calls now follow the traditional meeting model, with organizers reserving time, media and bandwidth in advance.

This kind of scheduled, meeting-centric approach to business collaboration stifles spur-of-the-moment collaboration and innovation and violates the 'real-time' nature of social interactions that employees are accustomed to as consumers. According to research by Frost & Sullivan, "Only 29 percent of Gen Y workers think meetings used to decide on a course of action are very efficient, compared to 45 percent of Boomers[2]."

A 'collaborative conversation' solution for business should support real-time, native conferencing capabilities — the ability to expand from a one-on-one to a group discussion in much the way that someone might confer with a colleague in a nearby office in real time. Ideally, participants should be able to add or remove collaborators on the fly, as the need arises in the decision-making process. The ability to make decisions and move forward outside of scheduled meetings supports business agility, which is essential in such a fast-changing environment.

User-Centric Connections

Connecting with a colleague or partner should not require an intimate knowledge of what devices they have available or might prefer to use.

For example, imagine that two employees want to consult in real time with a third person on a project they're discussing. Having identified the right resource, the first problem is determining which device to use to reach the person, given the current time of day and what they know about the person's location and preferences:

- The desk/office phone is a safe first choice, but people are frequently away from their desks.
- The mobile phone is a good second choice, although the caller might worry about interrupting the recipient during a current meeting.
- Text messages are a good alternative for some people, as the recipient can choose to respond in their own time. But whether or not the recipient welcomes text messages, and responds to them, depends in part on their age, disposition and texting skills.
- E-mail is a good non-real-time channel, although with e-mail overload being so common, it's quite possible that a simple request for a consultation will end up in a list of 50 things to scan through and act on.

In trying to connect with people, we are faced with complex issues of technology, location and even communication etiquette. Ironically, the abundance of communication options in the work environment makes it difficult to connect with other people at the moment we most need to do so.

On the receiving end, the abundance of devices causes other problems. Businesses have outfitted employees with a plethora of communication devices, including mobile phones, WiFi or DECT devices for roaming on campus, a desk phone or PC client application on the desktop, and conference room equipment.

People often need to switch from one device to another and, in doing so, interrupt the proceedings or lose track of important conversations and context. Our devices can get in the way of seamless conversations.

For example, a product manager driving into the office receives a mobile phone call from a vice president asking for details on the product. The call continues through the commute to the office where the employee, still tethered to the mobile phone, struggles to find the supporting files needed on the laptop and then e-mail them to the vice president to accompany the discussion. A better solution would be to have the conversation shift seamlessly to a smart deskphone on arrival in the office, without loss of context or conversation.

Smart business conversation technology will free the employee from the tether of specific devices. For example, employees should be able to:

- Identify a preferred device or group of devices on which people can contact them for collaboration, and direct incoming connection requests to groups of devices.
- Dynamically identify a preferred device — such as a meeting room with video equipment — for a temporary period of time.
- Transparently shift from one device to another during a conversation without interruption or loss of context.

Meaningful Presence Information

If we define business conversations as fluid, dynamic real-time conversations, where participants may join and leave at any time, then participants need to know in real time who is available, and for what purpose.

With so many possible communication devices available, and ubiquitous cellular and data coverage, the boundaries between professional and private life and time are blurring. This situation makes it more important than ever that any business conversation solution have rich, granular location and presence-based context built in.

For example, any solution should be able to provide information about:

- Whether an individual is available.
- On what media/for what (video, voice only, conferencing, etc.).
- Physical location (Is it the middle of the night?).
- The importance of the interaction (Is it my manager? The Vice President? A vendor?). Employees should be able to screen and filter interactions for optimal productivity.

For example, an executive on vacation at the beach might only be available for very important projects, and only by phone. Presence capabilities should include this kind of granular, business-specific availability information.

Native Video Capabilities

In the consumer space, people are accustomed to video communications using services such as Skype, Google Talk and Apple FaceTime from laptops, tablets and smart phones. The cost of high quality, real-time video has declined, while bandwidth availability increases.

Video conferencing is a big win for businesses trying to control expenses while managing global teams and projects. With a workforce increasingly accustomed to online video interactions in their personal lives, business conversations must include the ability to use video interactions for white board discussions, and for non-verbal facial and body language cues that convey additional meaning and inform team dynamics.

But video conferencing in the enterprise is more complex than its consumer counterpart. Use cases for video in the enterprise are varied, and include:

- Supporting mobile/global workforces and telecommuting, while keeping employees fully engaged.
- Enabling real-time collaboration and team-building for distributed teams.
- Offering one-to-many distance learning and customer presentations to support and educate customers, no matter where they are located.

IT departments typically must choose between room-based, desktop and telepresence options, or a mix of the three. Some of these options necessitate a significant upfront investment, requiring technology components such as telepresence systems or Multipoint Control Units (MCUs). The technology must match the business need: a large investment in telepresence room equipment may not deliver the expected ROI if the business needs more flexible video from various locations.

In today's increasingly video-enabled communication environment, businesses should be able to support day-to-day video needs at every employee's desk, without requiring expensive MCU equipment. They need systems that offer native video switching without a massive investment in a third-party video system. These integrated systems can offer services to suit a wide range of business requirements, including video- and web-conferencing, voice-activated video switching for team meetings, one-to-one video calls, and integration with existing SIP-based meeting room equipment. Costly MCU equipment can then be reserved for specialized video needs, such as video flow mixing.

Social Knowledge and Application Context

The final ingredient in supporting business conversations is providing access to the information and context that powers the conversations. Once the right people are connecting and interacting, they need the right information to support effective collaboration.

Solving this problem is not trivial, yet its implications to the business are significant. Empowering employees with the right information, at the right time and in the right context, is essential to improving both efficiency and effectiveness.

The information to fuel conversations may reside within and outside the organization, in both traditional structured forms (databases) and unstructured data (text, e-mails, blogs, etc.), and participants may not know in advance who the appropriate experts are.

From internal 'Twitter-like' applications to enterprise blogs and forums, many businesses are turning to social media and Web 2.0 tools to facilitate collaboration and leverage individual contributions and knowledge in a complex business environment. These tools will undoubtedly be part of the business knowledge landscape moving forward.

Any platform for business conversations must make it easy for participants in the conversation to access and share content from a wide variety of sources, including:

- An enterprise knowledgebase
- Customer Relationship Management (CRM) or contact center applications
- Social media applications both inside and outside the enterprise

For example, a contact center agent handling a customer call might require specialized expertise outside the contact center. The agent could request a consultation in real time with a content expert. The expert accepts the request, joins the conversation, and automatically sees the current context of the customer call from the contact center software on their smart deskphone. This leads to a faster call resolution for the customer and uses the expert's time most efficiently.

Integrating Business Conversations in Enterprise IT

Dealing with the communication environment as described above — native conferencing and Web-based collaboration, delivered to any device, with voice-activated video switching — seems like a tall order for any IT department. The potential tasks of managing the technology and provisioning the services can easily overwhelm IT services, and inhibit adoption.

The total cost of ownership and return on investment for any business communications solutions are influenced by the difficulty of managing the solution over time. Does it require many additional servers to deploy, manage and maintain? Is it complex to manage, or does it adapt easily to changing business conditions, such as adding or moving users and services?

It's true that there are many complex, expensive and proprietary solutions on the market today. At the same time, technologies and standards such as the Session Initiation Protocol (SIP) have evolved to support interoperability between different vendor components, and the ability to expand and deploy services on IP networks.

Enterprises adopting this type of technology platform must do so with an eye to security, up-front costs, ongoing management cost and effort, and the ability to leverage existing communication investments. No businesses want to perform a "forklift" upgrade of their communications environment, so it's critical that the solution be able to work with existing technologies while simplifying the overall management tasks involved in supporting business conversations. IT groups should look for:

- Interoperability in multi-vendor communication environments through standards like SIP.
- Unified management of all components of the environment.
- Simplified provisioning.
- Ability to integrate with legacy applications for rich context and applications.
- Flexibility in client devices/tablets; it should not require proprietary, expensive hardware devices.

Finally, the 'business conversation' environment must be easy and attractive to use. Employees are accustomed to the usability of today's consumer devices, including smart phones and tablets with touch screen capabilities. Any business solution should have a similarly intuitive interface. Otherwise, adoption will suffer, eroding the benefits of online collaboration and business conversations.

Conclusion

Enterprises' business communications needs today far exceed the capabilities of one-to-one telephony, scheduled conference calls and e-mail. True collaboration and business agility requires that individuals can connect and reconnect with others in real time, regardless of location or device.

With the ability to instantly add participants, video capabilities and social communities into the decision-making environment, employees can engage with others in meaningful and effective ways, enabling business responsiveness and agility.

Alcatel-Lucent OpenTouch: A Platform for Collaborative Business Conversations

Alcatel-Lucent is helping enterprises turn communications into meaningful conversations and business services with its OpenTouch™ solution. This converged communications suite delivers native multimedia and multi-device conversation services, helping users better engage with customers, partners and peers, and improving productivity at work.

Alcatel-Lucent OpenTouch offers a seamless user experience, with native conferencing capabilities across devices and locations over time. With OpenTouch, enterprises can leverage existing platforms in a multi-vendor environment, and the open SIP architecture offers flexible deployment options.

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