2007-2008
Mobile Unified Communications

By Peter Brockmann and Steven Taylor

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Executive Summary

Mobile communications has been a part of the enterprise communications firmament since the very first cellular call made by Martin Cooper of Motorola in New York City on April 3, 1973, to his cross-town rivals at Bell Laboratories. Today, mobile communications penetrates all segments of society to the point where there are more than a billion mobile phone users, and where Europe has more cell phones than people.

Unified communications promises to integrate and extend real-time person-to-person communications throughout the enterprise and across the public telephone network and mobile operator domain. This **State-of-the-Market Report on Mobile Unified Communications** reviews the drivers, challenges and 12-month action plans of over 250 users, recommenders and others involved in the purchase and implementation of mobile unified communications.

Key Findings

- Top drivers: higher employee productivity is the top driver for 75% of respondents.
- Top challenges: cost of implementation of mobile unified communications is the most frequent challenge for 46% of respondents; security and poor multi-vendor feature transparency loom large too.
- Average benefits from productivity improvements:
  - » 29% higher customer satisfaction.
  - » 27% higher employee satisfaction.
  - » 18% more sales.

Mobile unified communications is here to stay. Integrating the mobile users' voice and real-time communications services into the fabric of the enterprise communications architecture is an outstanding opportunity to release impressive benefits and to leverage the increasing powers and flexibility of new generations of mobile devices.

KUBERNAN STATE-OF-THE-MARKET REPORT

Published By
Kubernan
www.Kubernan.com

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Introduction

Modern enterprise voice communication systems and services have changed dramatically over the past decade, but not as quickly as one might think. The transition from digital to IP-based took several years to break out of the early adopter segment and reach an inflection point (more IP ports shipping than digital ports), which is generally thought to have occurred sometime during 2005. That's because the equipment industry needed to close two major gaps that severely affected user acceptance. One was that the original IP phone was a 2-wire IP phone: one wire for communications (Ethernet) and the other wire for power. Standards-based Power over Ethernet technologies were needed in both switching products and IP phones to address this problem, which took time to invent and deploy throughout the various available products and vendors.

The other gap was one of audio quality: in the early days of IP PBXes, a shared voice and data network often sounded bad. Voice packet streams were frequently interrupted with other normal business traffic such as email or web transactions. The IEEE community created Quality of Service functionality in Ethernet to assure packet prioritization and delivery consistent with users' expectations for business voice communications. More recently, the Wi-Fi working groups adopted and vendors deployed QoS-based features to address this problem on that class of infrastructure.

Enabling quality experiences with IP-based voice was just the beginning. Today, under the industry label of "unified communications," enterprises of all sizes are adopting systems capable of integration with a growing array of enterprise collaboration applications – voice over IP products and services together with instant messaging, email, video, high definition video, calendaring, web conferencing, audio conferencing and the special networking case of unified communications in a mobile setting. The goal for much of these integrations and solutions is greater employee productivity – click-to-this, drag-to-that, lookup this answer. Saving a few seconds on frequently used transactions over hundreds and thousands of employees saves time, earns revenue and satisfies customers better.

Mobile unified communications is a special case because up until recently, mobile communications for most users has been largely independent infrastructure, services and devices provided by licensed mobile operators or carriers. These large networks and systems have been isolated from the enterprise, connected only by the public telephone network. In this report, "unified communications" refers to person-to-person real-time communications and includes plans and usage of hosted, CPE digital or IP-based voice and related services. In this report, we also reviewed the priorities and plans for mobilizing services using cellular and/or enterprise-owned campus Wi-Fi networks to make employees more accessible and therefore more productive.

More recently, heightened competition in mobile email services and innovation in devices have stimulated market demand for better display, battery, user interface, third-party software integrations and faster, more secure and lower cost data capabilities of both the campus Wi-Fi network and the mobile operator's network. Today, enterprise-driven "fixed-mobile convergence" is more about extending common enterprise real-time features with mobile operator and device capabilities than it is about seamless call handoff between the carrier-enterprise network boundaries.

Credible Perspective of Users & Recommenders

The results presented in this report are from the completed survey responses of over 250 communications professionals from around the world. Figure 1 shows the distribution of roles in the mobile unified communications purchasing process and confirms the perspectives of survey participants.

As expected, many respondents have multiple roles in the process with the most frequent role being recommenders and users. Both of these classes of respondents have much invested in the success of the project, since recommenders gain professional stature with a successful implementation and users gain the productivity benefits of being more accessible. Sixty per cent of the total responses have "Recommend" authority, 45% were users,

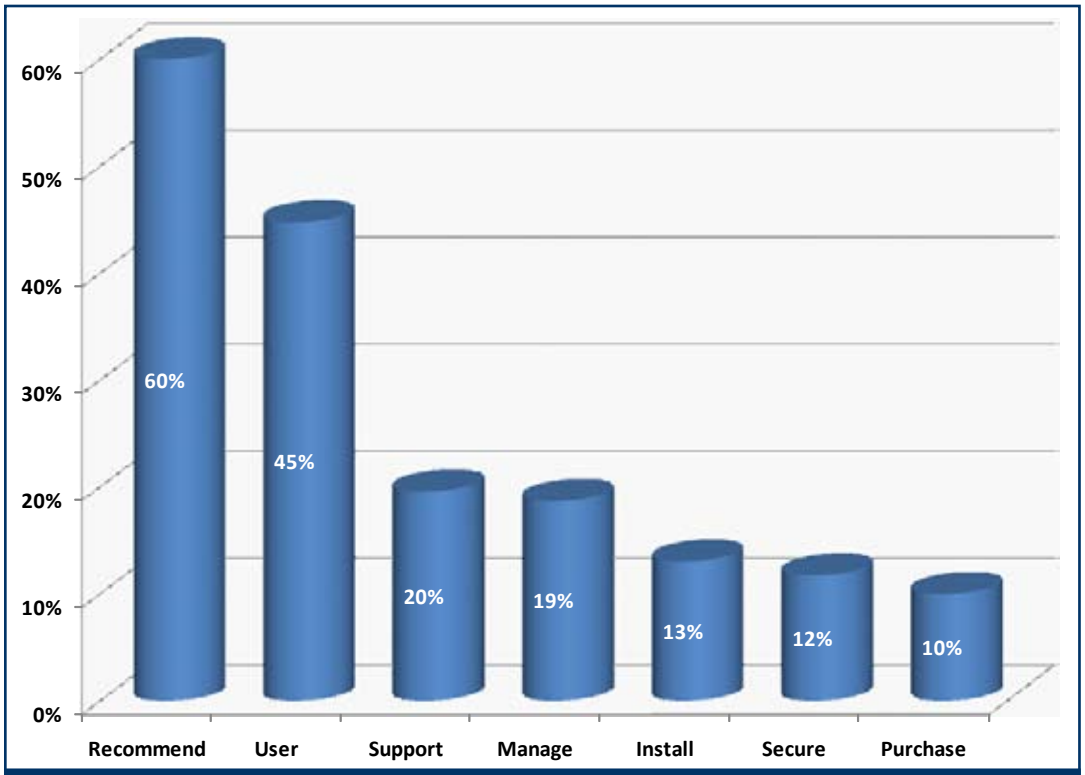

Figure 1 – Distribution of respondent roles in the mobile unified communications purchase process.

20% were responsible for support, and 19% were responsible for management. (Respondents were asked to check all that applied.)

Mobile Devices & Services Reimbursement Practices Acknowledge the Importance of Being Mobile

Mobility services and devices are sufficiently important to enterprises that they reimburse some or all employees for mobile communications products and services, despite the high relative cost per minute of service as compared to the cost of wireline-based enterprise voice services. In Figure 2, it is shown that, of those not answering "Don't Know/Not Applicable":

- 92% of employers reimburse some or all employees for mobile devices such as PDAs, smartphones and plain old mobile phones (18% reimburse all employees).
- 87% of employers reimburse some or all employees for mobile data expenses for email and mobile browsing including public Wi-Fi hot spot services (16% reimburse all employees).
- 89% of employers reimburse some or all employees for mobile voice services (20% reimburse all employees).

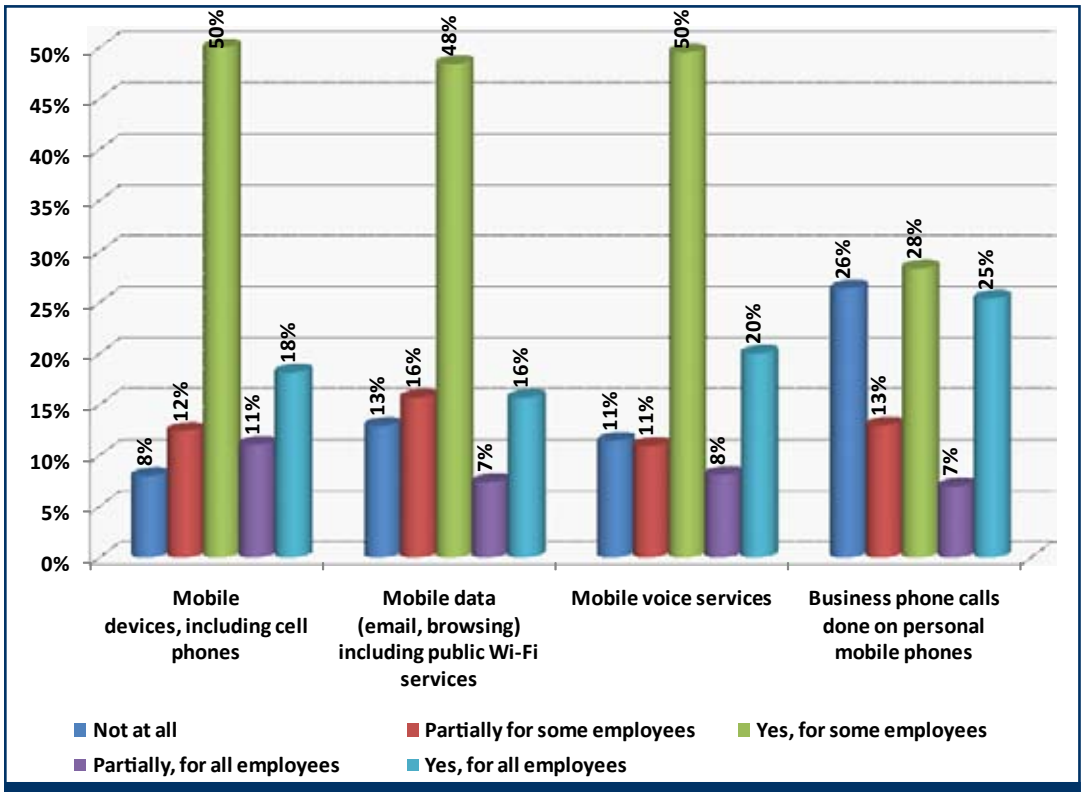

Figure 2 – Many elements of mobile communications are reimbursable by most employers. For example, only 8% of organizations do not reimburse employees for their mobile phone purchases.

- 74% of employers reimburse some or all employees for business phone calls made on personal mobile phones (25% reimburse all employees).

Given this high rate of reimbursement, it is clear that mobile services are acknowledged as important and standard components of virtually every business' communications infrastructures.

Despite the state of reimbursements today, enterprises do not necessarily support just any device for any employee or class of employee. Enterprises remain careful to support the optimal device (or nearly so) for the right employee class and work style. Often, more than one device is supported for the same user in that a road warrior might get a laptop with softphone client and an email capable smartphone.

Adoption by Class of User

For the large campus-oriented roaming users - typically physical plant, security and IT employees in campus-based organizations such as educational institutions, government and healthcare – the cellular-only mobile phone, often supporting push-to-talk walkie-talkie service capabilities, was the most popular choice for 30% of respondents, followed by laptops with softphone clients (26%). The Wi-Fi only handset was the third most popular option for 18% of respondents. This class of user was the most frequent user of Wi-Fi-only devices (Figure 3).

For road warriors – typically the territory sales executive or customer support technician, but not executive - the plain-old cellular phone was the most frequent choice for 34% of respondents, and the smartphone capable of mobile email service was appropriate for 26% of respondents. Third was the laptop with softphone capabilities for 25% of respondents.

A special class of road warriors, the international road warrior, suffers from the exorbitantly high international roaming fees. These unregulated fees are typically controlled by carrier agreements, are often set at $1/minute or more, and do not fall into the typical mobile operator minute plans. Roaming occurs when a user with a registered telephone number in one country travels or roams into the radio network of a partner-operator. Calls made to the user's telephone number are made on the "visiting" network as if the user were in his home territory and both the home and visiting operators split the extra revenues. This is a particular problem in Europe where European operators earned 8.5 billion euros in 2006 from these fees, prompting threats from the European Parliament to regulate these fees. International road warriors are frequently fitted with cellular-only mobile phones (30%) or smartphones capable of mobile email (30%). Third most popular was the laptop with softphone client, which was the choice for 22% of respondents.

Executive employees, who often are required to make decisions or be aware of important near-real-time changes to market conditions, customers, competitors, or the business pro-

cess, are most likely to have smartphones capable of email (31%). This class of employee was the initial target of the world's first mobile email service – the BlackBerry - introduced in 1999. Thirty-one per cent are equipped with cellular only mobile phones, while 22% have laptops with softphone clients.

In summary, for these classes of employees several significant factors are visible:

- Companies support more than one device class to address the diverse needs of their business user communities.
- Cellular-only mobile phones are the most frequent choice for at least 30% of companies regardless of the employee class. They are the least expensive devices surveyed and can easily complement other technologies such as laptops with softphone clients.
- The device of choice for executives and international road warriors is the email-capable smartphone or cellular-only mobile phone.
- Laptops with softphone clients are the choice for at least 22% of companies across all classes of users. This is an effective option for nomadic situations where call length, participants and topic require a more stable connection or more private communications typically found in a hotel room, for example.

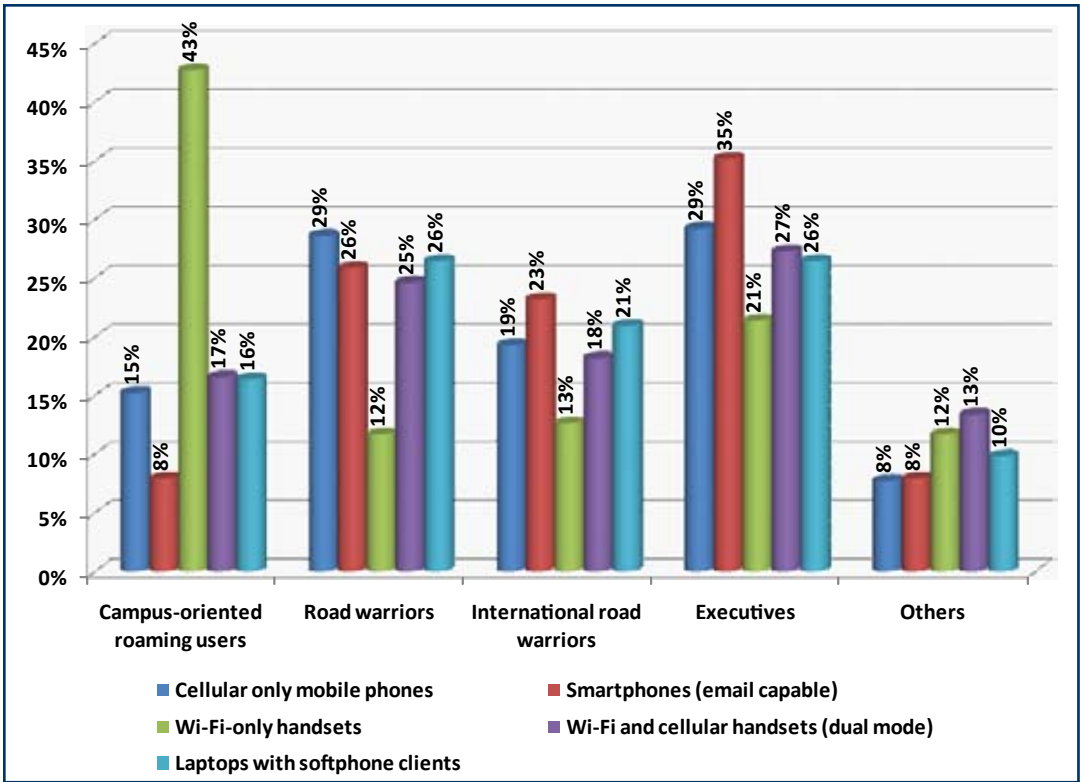

Figure 3 – Percent of device category supported for which class of employee. For example, 43% of Wi-Fi-only handset–supporting organizations use the device for campus-oriented roaming users.

Adoption by Category of Device

From a devices perspective, as shown in Figure 3 above, the most frequent user class for cellular-only mobile phones is the road warrior (29%), with the email-capable smartphone being supported for executives at 35% of respondent organizations. Several advantages of Wi-Fi only devices in the campus-oriented roaming application accounts for 43% of Wi-Fi device choices since:

- It leverages the existing enterprise-managed Wi-Fi environment and doesn't attract monthly bills from mobile operators.
- Campus users are generally roaming at walking speeds making the session-handoff exercise considerably less difficult and more reliable, since a wireless operator need not be involved.
- These devices are useful only in the campus setting, so users can leave them behind in the office, allowing the device to recharge once they are done for the day.

The laptop with softphone client has been deployed as a standard choice for executives (26%) and roadwarriors (26%), enabling them to participate in nomadic work-at-home or work-at-hotel calls and conferences over IP networks, where cellular coverage might be too expensive due to roaming, or where the signal strength is low, or where the participants or topic require more stable, quiet or private communications.

Dual mode Wi-Fi – cellular devices is an emerging amalgam category with much promise. Early generations of the category lack battery strength, processor power, a consistent user interface when operating in both Wi-Fi and cellular settings and plain-old mobile operator resistance manifested as requests by the mobile operator(s) to disable some of the most powerful applications and features of the device when in Wi-Fi mode. Despite this "bag-gage," the commitment by manufacturers hints that successive generations of devices will be closing the user expectations gap and in future studies ought to grow beyond the low percentage of organizations supporting the device category today.

Market Penetration

Across the inventory of mobile devices supported by enterprises, as shown in Figure 4 above, some device categories are more widely supported than others:

- Extremely strong support for cellular-only mobile phones
- Most organizations support email-capable smartphones and laptops with softphone clients
- Among the least-supported devices were Wi-Fi only handsets and dual mode Wi-Fi-cellular devices

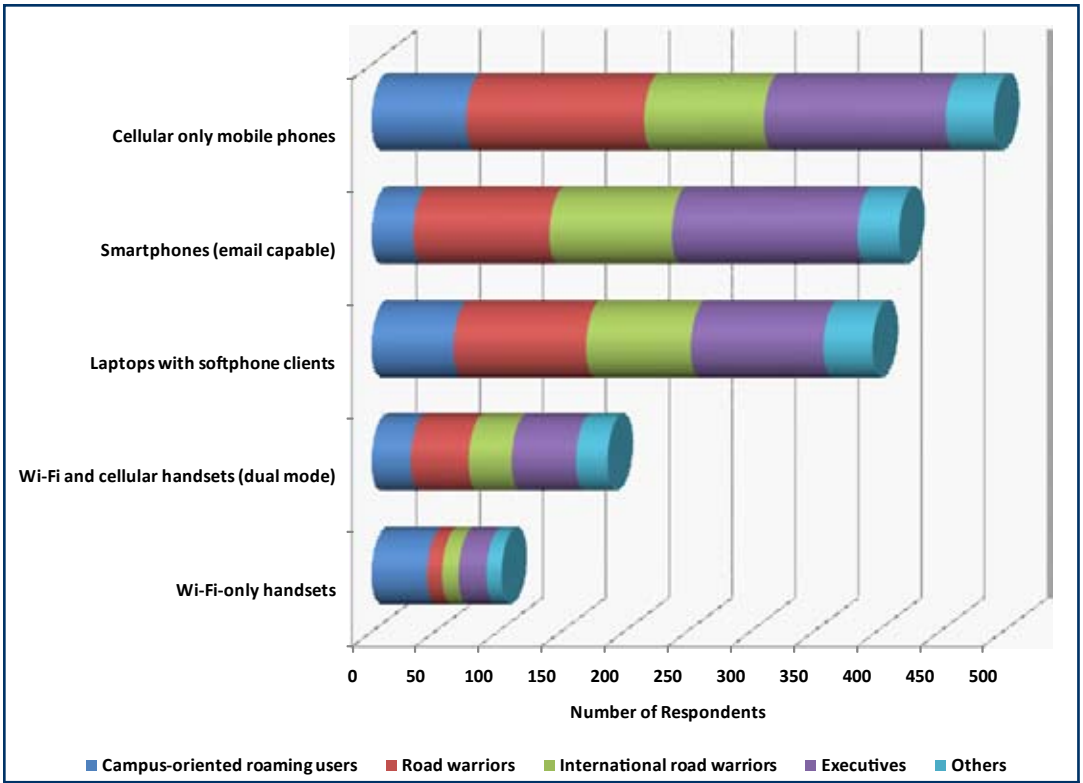

Figure 4 – Number of respondents supporting various device categories by class of user. Respondents were asked to select all that apply which leads to multiple selections and totals greater than the number of respondents.

Many of the improvements in WLAN capabilities, described in the Kubernan State of the Market report on Wireless LANs, are designed to improve the quality and privacy of the user experience. These new capabilities are likely major contributors to the expected growth in organizations that support Wi-Fi only devices and the dual mode Wi-Fi – cellular device.

Moving Markets, or Not?
The Drivers, Challenges, and 12-month Action Plans

Higher productivity is a compelling business driver for most important enterprise IT initiatives. It's fundamentally about squeezing time out of important business processes. Higher productivity typically manifests its benefits as accelerated processes.When aimed at customer-facing employees, this increased productivity can lead to more satisfied customers and greater sales. The typical productivity priority for the past decade has been business process automation initiatives such as sales force automation, customer relationship management integrations, enterprise resource planning systems, human resources management and financial control systems. Now, according to Figure 5, mobile unified communications (75%) can be added to the list.

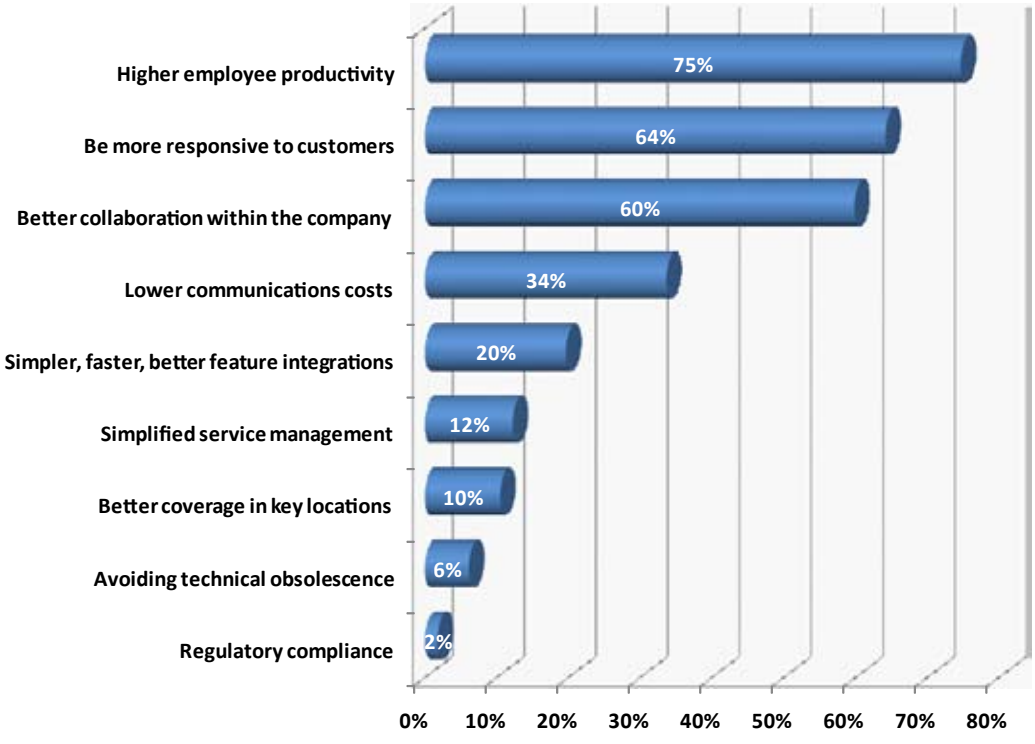

Figure 5 – Enabling higher employee productivity is the top driver compelling enterprises to adopt mobile unified communications.

Other top factors driving the adoption of mobile unified communications after higher employee productivity were the desire to be more responsive to customers (64%), better collaboration within the company (60%), lower communications costs (34%) and simpler, faster, better feature integrations (20%).

In contrast, the challenges preventing the adoption of mobile unified communications are shown in Figure 6. Here, the cost of implementation is the top challenge chosen by 46% of respondents, while the next three choices are tied for second most frequent challenge at 31%: concerns about security, device interoperability and lack of multi-vendor feature transparency.

Often times, the cost of implementation declines either as the solution matures or as the benefits become more obvious. Generally costs decline over time as the competition, integrators and customers learn how to sell, buy and accelerate deployments. In addition, as the benefits become more obvious, better documented, and more widely known, the perceived gap between cost and benefits collapses.

Interestingly, the secondary challenges – security, device interoperability and lack of multi-vendor feature transparency –each can contribute to higher costs. Security functionality,

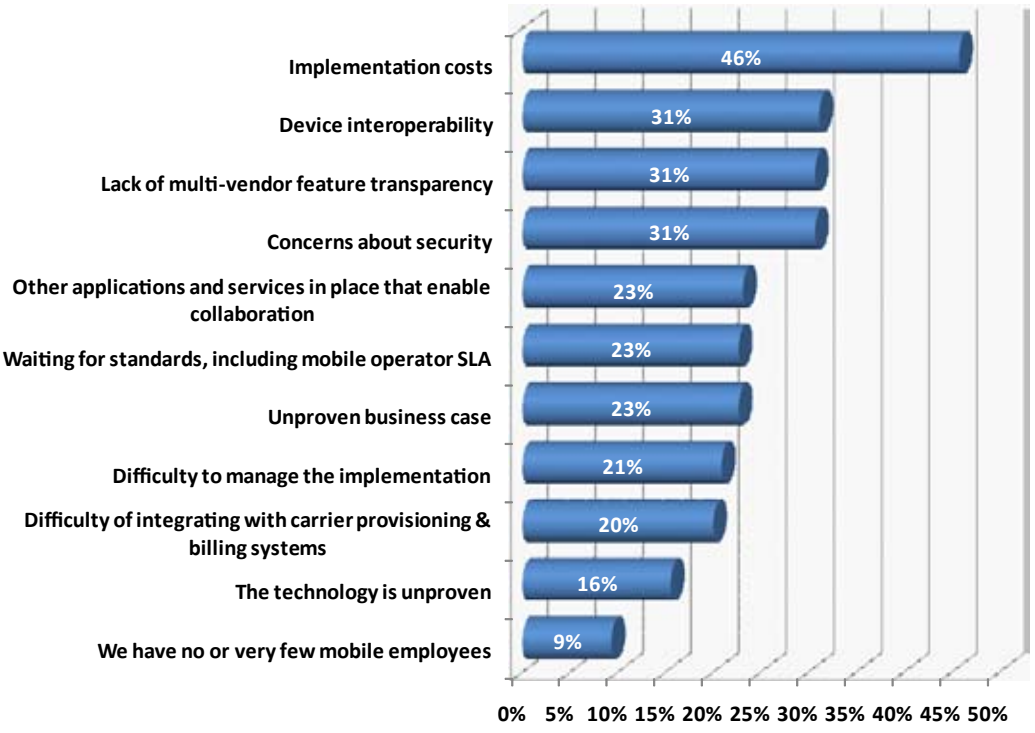

Figure 6 – The challenges preventing broader adoption of mobile unified communications.

including privacy and device attack-prevention technologies, can impact the processor requirements of supported devices. This functionality can also require a security infrastructure integrated with separate servers operating adjacent to email or other enterprise applications.

Device interoperability issues affect the cost of user training and limit feature interactions to only a subset of target users, since not all devices support the same operating system and third-party development programs. BlackBerry devices use a Java model; Nokia devices use Symbian OS; both Motorola, HTC and Palm use Microsoft Windows Mobile; and Apple uses the iPhone OS. No developer can write one application for devices from all these vendors. This lack of interoperability increases support costs and reduces feature transparency across the devices.

Extending enterprise telephony features into the mobile environment as part of a mobile unified communications solution requires, for most implementations, a degree of integration with the enterprise IP PBX system. Many enterprises are not homogeneous in their choice of telephony brands, by virtue of different strategies over time, mergers and acquisitions, and long lifecycles of original purchases. Thus, the complexity of integrating multiple approaches to mobile unified communications may also contribute significantly to higher implementation costs.

Further compounding the challenge in enabling mobile unified communications is the upgrade cycle itself. Because most applications are dependent on users, on their devices, and on server implementations, simply upgrading the server may not do much to upgrade the complete implementation. Untrained users may miss out on important improvements to the processes and features. *The use of obsolete or unsupported devices* by target users may delay the activation of key features for many users because of user resistance to change, the fear of functionality loss and the cost of replacement devices. Even if the device is reimbursed by the enterprise, the user has to engage in a purchase process and reimbursement voucher procedure - something that may cause user inertia and thereby foul the delivery of timely benefits.

All of these factors contribute to the complexity of adapting, delivering and realizing the benefits of mobile unified communications.

Enabling new mobile features like click-to-conference and instant messaging for mobile users is seen as the highest priority action for 38% of respondents (Figure 7). This makes it easier for busy executives and road warriors to participate in conference calls while travelling extracts wasted time, perhaps improving the frequency of calls starting on time. Instant

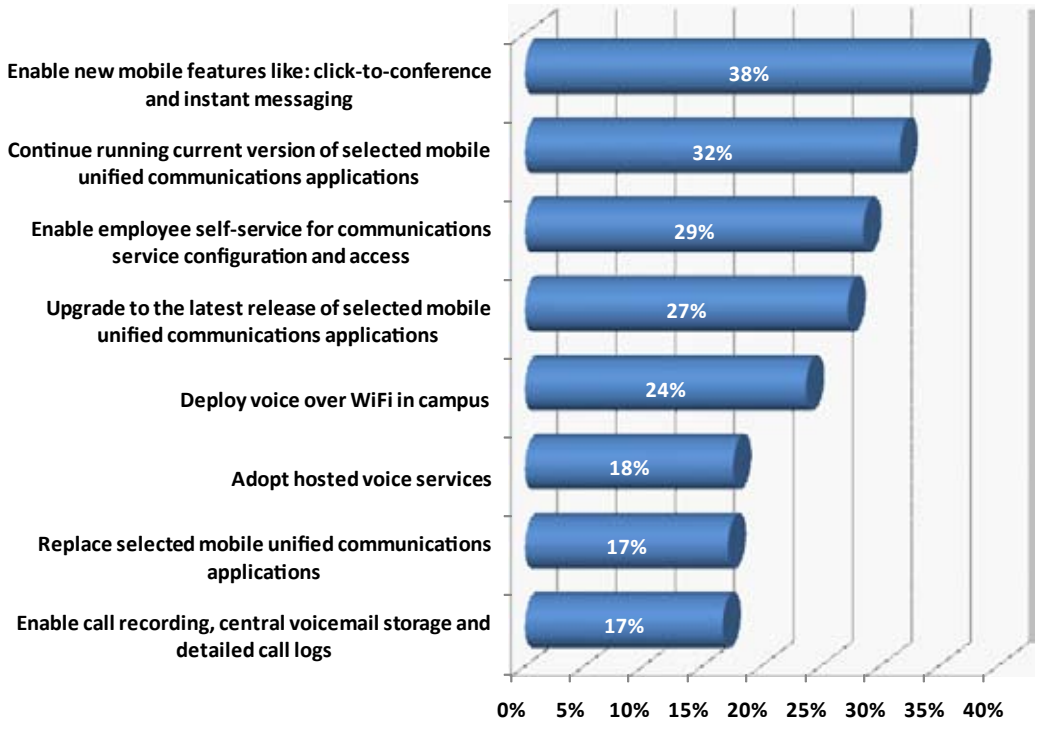

Figure 7 – Users plan to take these actions over the next 12 months to enable productivity improvements promised by mobile unified communications.

messaging is an excellent service option for getting short answers from executives who may or may not be connected via mobile email.

The second most frequent action planned over the next 12 months (32%) is to maintain the current version of selected mobile unified communications applications, while the third most frequent plan is to enable employee self-service communications service configuration and access (29%).

Significant Productivity Gains Expected from "Must Have" Features

Users were also asked to rate the importance of 15 mobile unified communications features. The three most frequently rated "must have" features were rated "must have" by most respondents. The critical features are single voicemail box, corporate directory access from mobile phone and click-to-call from corporate directory list from mobile phone.

Consistent with the factors driving enterprise adoption of mobile unified communications, productivity improvements are expected by most organizations and were estimated across five categories – time gained by mobile users, time gained by desk-bound users, more sales, higher customer satisfaction and higher employee satisfaction. Figure 8 shows the distribution of respondents' estimates of productivity improvements on implementation of the "must have" features.

The sum of the products of the percent of a range times the midpoint of the range yields the average expected benefit. The average improvement is:

- 29% higher customer satisfaction since employees are more accessible.
- 27% higher employee satisfaction since employees spend less time waiting.
- 20% more time for mobile employees to do their jobs.
- 18% more sales as a result of shorter cycle times.
- 18% more time for desktop-based employees to do their jobs.

Interestingly, the largest group of zero improvement respondents (16%) believed that sales would not increase as a result of mobile unified communications, while 11% expect no improvement in the productivity of desktop-based employees. Although 84% expect sales to improve with faster access to the right resource, faster access to the right answers, and faster voicemail retrieval, some organizations may not have sales processes and cycles that depend on mobile sales people. Similarly, although 89% of respondents expect desktop users to be able to have more time to do their jobs as a result of mobile unified communications, some organizations may not have operations requiring communications between

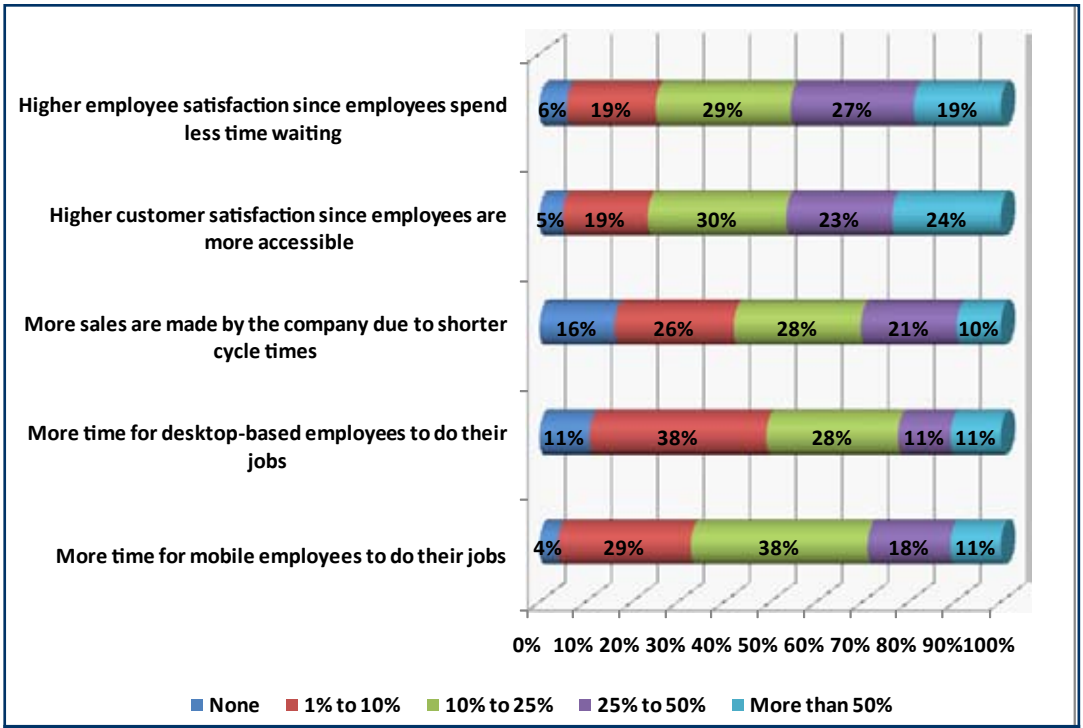

Figure 8 – Users expect significant productivity improvements from the "must have" features.

desktop-based users and mobile users. In these organizations, desktop users' productivity is not coupled to mobile users.

Conclusion

Mobile unified communications is here to stay.

Organizations everywhere are looking to improve the productivity of the mobile employee and thereby improve customer satisfaction, employee satisfaction and revenues. Challenges in cost, in security and in interoperability are steep, but not insurmountable, particularly as successive generations of devices grow in power, flexibility and popularity.

The compelling benefits of mobile unified communications are well understood in terms of improved customer satisfaction, improved employee satisfaction and greater revenues. No less than 84% of respondents expect a positive impact of 10% or more as a result of mobile unified communications.

It is clear that broader adoption of mobile unified communications applications and solutions are therefore likely in the coming year, as organizations upgrade their device inventory and begin to address the productivity needs of executives, road warriors and campus-oriented service employees.

About the Authors

Peter Brockmann is the President of Brockmann & Company (http://www.brockmann.com), a high tech research and marketing consulting company in the areas of: telepresence, unified communications, enterprise mobility, and e-mail integrity. A frequent writer and presenter on issues in communications and business technologies, Brockmann's career has spanned executive roles at 3Com, Nortel, startups in mobile VoIP and business process automation, enterprise middleware companies and application service providers.

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Business Optimized Communications:

Nortel's Unified Communications Mobility Solutions

by Tony Rybczynski
Director of Strategic Enterprise Technologies

From the Sponsor

NORTEL

Hyperconnectivity is a megatrend, where everyone and everything that would benefit from being connected to the network will be connected. Enterprise Transformation, which capitalizes on Hyperconnectivity to not only impact how work is done across an increasingly mobile and virtualized organization, but also to redefine how business processes are organized and accelerated.

Nortel's business strategy for Enterprise Transformation has three elements: Business Optimized Communications, Business Optimized Networking and Integration Services. The foundation of Business Optimized Communications is Unified Communications (UC) and the extension of Unified Communications to business applications to accelerate business processes. Unified Communications delivers rich communications capabilities for nomadic, and for locally and universally mobile users. Business Optimized Communications relies on Business Optimized Networks, both wired and wireless, that are the foundation of today's businesses. Finally, Nortel Integration Services provide the resources, expertise, best-in-class practices and processes required for the intelligent design, professional implementation and evolution of Unified Communications.

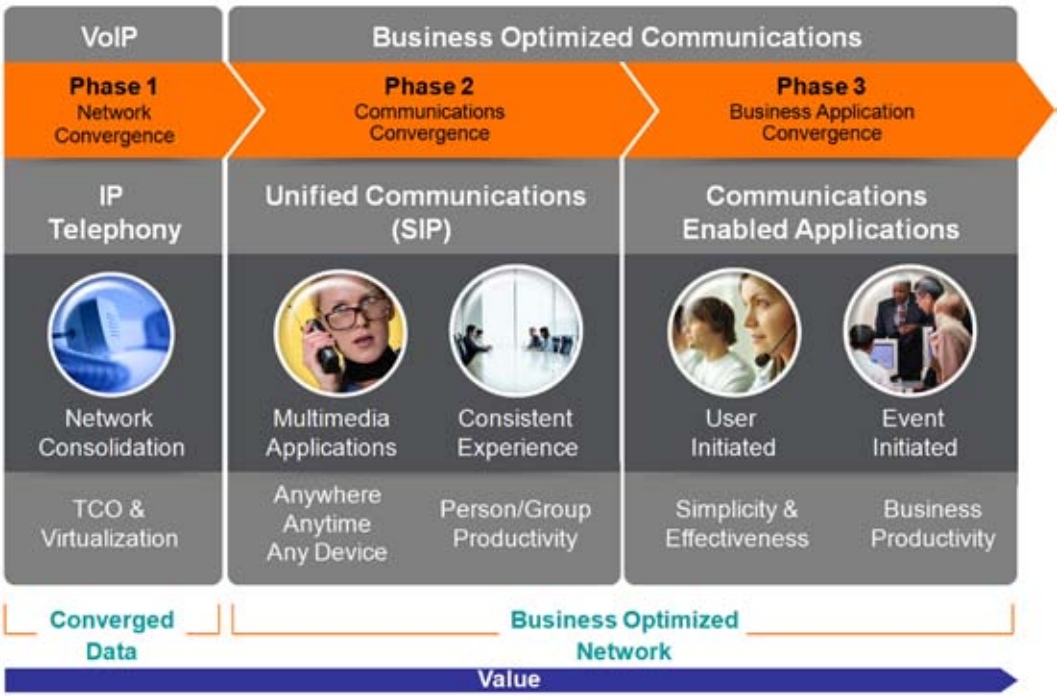


Figure 1: Communications Evolution Drives Enterprise Transformation

Unified Communications- The Foundation for Enterprise Transformation

Today, the hyperconnected user has to deal with multiple devices, multiple numbers and passwords, multiple inboxes and multiple security environments. Missed calls, telephone tag and security exposures are some of the challenges today's user experiences. These challenges are a consequence of disparate applications, networks and services. Nortel is addressing this problem on two fronts:

- **Unified Communications** - which combines presence with real-time communication modes such as IM, telephony, video and application sharing, and near-real-time communications modes like email and voicemail, into a single experience. Unified Communications creates a collaborative environment that blends communication services with personal productivity tools, like calendaring and directories.
- **Mobility solutions** - extend the reach of Unified Communications, so that a consistent user experience can be delivered on any device, anytime, anywhere.

Augmenting Unified Communications with a comprehensive mobility strategy will ensure that these investments collectively deliver a greater business impact than they would individually. Some incremental benefits include:

- Lower communications costs by leveraging Wi-Fi connectivity and Fixed-Mobile Convergence (FMC) solutions
- Improved personal productivity from simplified usability and much improved employee accessibility
- Improved group productivity from richer collaboration

Nortel has been positioned by Gartner in the Leaders quadrant in the '2007 Unified Communications Magic Quadrant' report.

Delivering a Unified User Experience

Fundamentally, a Unified Communications solution must be easy to use and must be consistent across different desktop and mobile devices. Nortel's approach to provide a **unified user experience** is to:

- Continue to deliver industry-leading integration with Microsoft Office Communicator, desktop applications including Outlook/Exchange and Office, and Active Directory, by leveraging Nortel's unique partnership with Microsoft and its Innovative Communications Alliance
- Continue to deliver industry-leading integration with the IBM Lotus Notes and Sametime client Access to UC applications by leveraging Nortel's broad partnership with IBM.

- Deliver mobility and FMC solutions that provide a consistent user experience across different networks and devices.

Nortel has delivered tightly integrated Unified Communications solutions with Microsoft to over 300 customers with over 900,000 licenses and has announced plans to integrate its enterprise and carrier hosted Communication Servers with OCS 2007.

The Nortel Microsoft Partnership

1. Unique branded Innovative Communications Alliance, driving joint account planning, common marketing and channel development.
2. Technology collaboration resulting in tight integration of Unified Communications enterprise and carrier hosted solutions, evolving to transformed solutions based on a common software platform.
3. Nortel as the preferred services integration partner for joint ICA solutions.

The Nortel IBM Partnership

1. Software communications and business solutions for SMBs.
2. Integrated Unified Communications solutions with Lotus Notes and Sametime.
3. SOA framework for Communications Enable Applications to accelerate business processes simply and rapidly.
4. Business optimized networking for highest QoE for Unified Communications and Websphere applications.
5. End-to-end services combining Nortel and IBM competencies

In-Building and Wide Area Mobility For Always On Communications

Almost 90% of corporate employees conduct business in locations other than their headquarters. But even within the walls of the enterprise, mobility is being engrained in business processes as wireless LANs are built out and equipment refreshes introduce Wi-Fi laptops and other mobile devices. These developments combined with flexible work styles are driving mobility requirements that include consistency across different types of access networks, devices and communication services. Nortel's approach for mobility is to

- Deliver mobility solutions optimized for different types of mobile workers

- Deliver in-building mobile unified communications, utilizing wireless LANs and Wi-Fi mobile capability
- Deliver wide area mobile unified communications utilizing carrier services and cellular devices
- Provide consistency across mobile elements with Fixed-Mobile convergence (FMC) solutions

Baylor Health Care System has deployed a Nortel communications enabled healthcare solution for radiologists equipped with mobile Unified Communications clients.

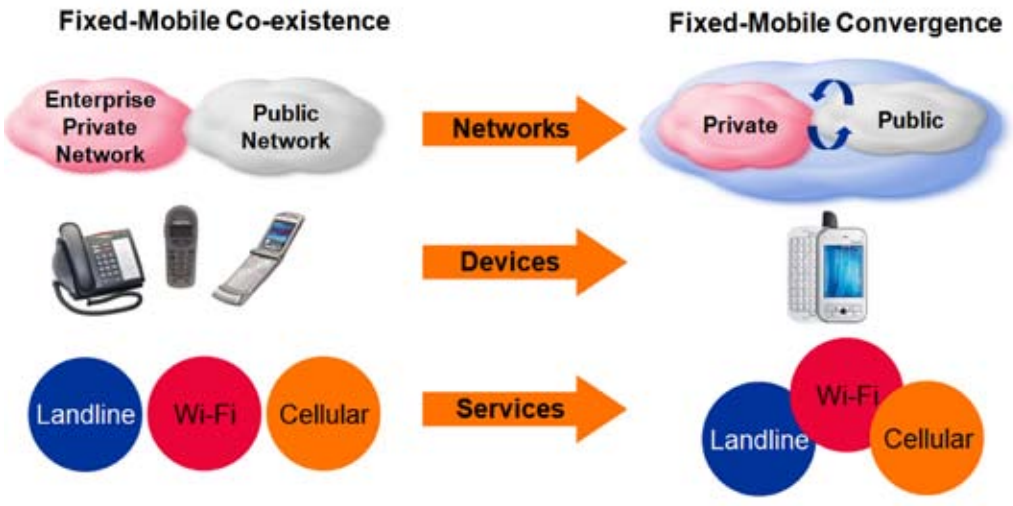
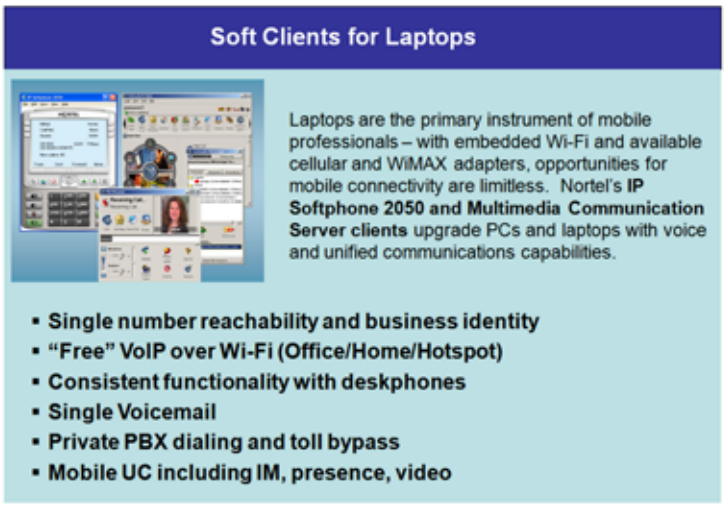


Figure 2: Fixed-Mobile Convergence (FMC) solutions consolidate networks, devices and services

Focusing on the User

There are three general classes of mobile user - which class best describes your target users will point you towards the optimal mobility solution. User can be **nomadic** in the sense that they go from place to place and want connectivity when they get there. Users can be either **locally mobile** within the locale of their work place such as a hospital ward, or retail floor for example, or **universally mobile** requiring always-on communications from any location.



Nomadic users are very well served by Wi-Fi laptops. Equipped with a multimedia SIP client and

twinned with the desktop phone when in the office, Nortel solutions deliver an unprecedented richness in multimedia while delivering a consistent telephony experience with desktop phones. Virtual Private Network (VPN) technology provides remote access security when connecting over the Internet via DSL, cable modem, hotel Ethernet port, home Wi-Fi router or Wi-Fi hot spot.

Locally mobile or campus mobile workers, such as functional specialists in for example retail or healthcare, require mobile devices that provide wireless LAN voice and data roaming across the building. These generally take the form of single-mode voice over WLAN handsets or VoIP-enabled PDAs, possibly equipped with built-in or peripheral devices, such as barcode readers, RFID scanners or printers. Adding a multimedia client provides collaborative capabilities including presence and instant messaging, control over call routing and access to corporate directories.

Universally Mobile workers, such as executives, sales, support and field workers, with broad off-site mobility needs are looking for comprehensive capabilities in a single device with cellular connectivity. While mobility has become an essential competitive capability, complexity from having to issue

Voice over WLAN Handsets

On-site mobile workers and campus professionals have a routine mobility requirement that stays within enterprise WLAN coverage areas. Nortel's **WLAN Handset 6100 series** provides a seamless and cost-effective on-site Wi-Fi mobile communications extension.

- **Single number reachability and business identity**
- **"Free" VoIP over Wi-Fi**
- **Compact design with rugged housing**
- **Private PBX dialing and toll bypass**
- **Consistent functionality with deskphones**
- **Single Voicemail**
- **Mobile communications without cellular charges**

Fixed-Mobile Convergence for Cell Phones

The simplest form of Enterprise FMC is cellular **mobile extension** – a feature of Nortel's Unified Communications framework that extends native features of the enterprise communications servers across cellular networks to mobile phones.

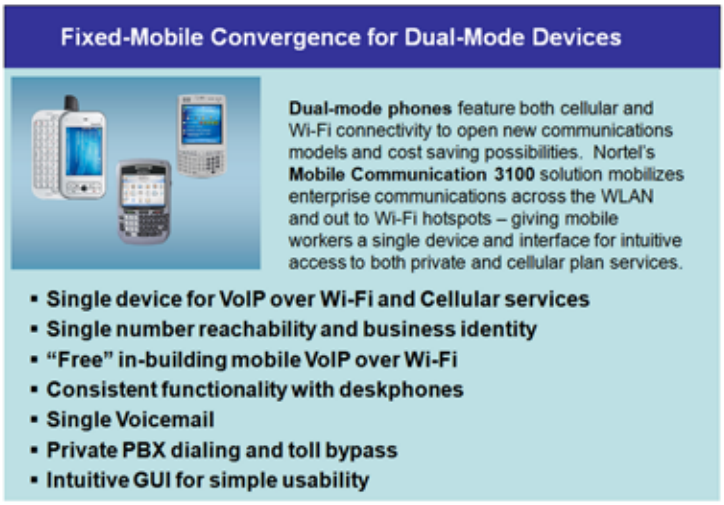
- **Single number reachability and business identity**
- **Simple, quick, "clientless" implementation**
- **Compatible with any cellular device**
- **Consistent functionality with deskphones**
- **Single Voicemail**
- **Private PBX dialing and toll bypass**

Fixed-Mobile Convergence for Smartphones

Another form of **mobile extension** utilizes the enhanced capability of **Smartphones**. Nortel's **Mobile Communication 3100** solution provides a softclient-gateway architecture enabling advanced FMC features accessible through the smartphone's rich graphical user interface (GUI).

- **Single number reachability and business identity**
- **Advanced call control for lowest cost communications**
- **Consistent functionality with deskphones**
- **Single Voicemail**
- **Private PBX dialing and toll bypass**
- **"Click-to-call" from corporate directory**
- **Intuitive GUI for simple usability**

and manage multiple devices and services combined with escalating costs for public mobile services (increased minutes, more users, roaming charges, and data services) have become escalated concerns of the enterprise.



Knowledge workers are often both nomadic and universally mobile. With both on- and off-site requirements, they are best served by FMC solutions that leverage today's smartphones and PDAs, which extend enterprise telephony and unified communication services across the mobile carrier's service domain. Dual-mode devices have the added advantage of enabling local mobility and high-speed data service over wireless LANs without incurring any cellular charges whatsoever. With up to 2/3rds of all cellular calls either originating or terminating in the office, this capability promises significant cost savings.

Closing Thoughts

Today's segmented communications silos are an impediment to business productivity. Unified Communications solves this problem, removes bottlenecks and transforms communications into a unified user experience. Extending this capability to meet the needs of different types of workers requires mobility solutions that leverage today's available wireless technologies, mobile services and devices. Nortel augments its Unified Communications capability with Microsoft and IBM partnerships and user-optimized mobility solutions to deliver a consistent experience on any device, anytime, anywhere.

Appendix

Methodology and Demographics

The Webtorials subscriber base was asked to participate in an online survey about their experiences with and plans for deploying Mobile Unified Communications. The data was collected in October, 2007.

Whenever appropriate, questions were in a multiple-choice format and included a "Don't Know," "Not Applicable" or "Other (please specify)" option. Also, whenever possible, the order of the multiple choice answers was randomized so as not to bias the survey respondent by the order in which the options were presented. Answers in this report are limited to the more than 200 respondents who completed the entire survey.

The following figures provide further demographic details.

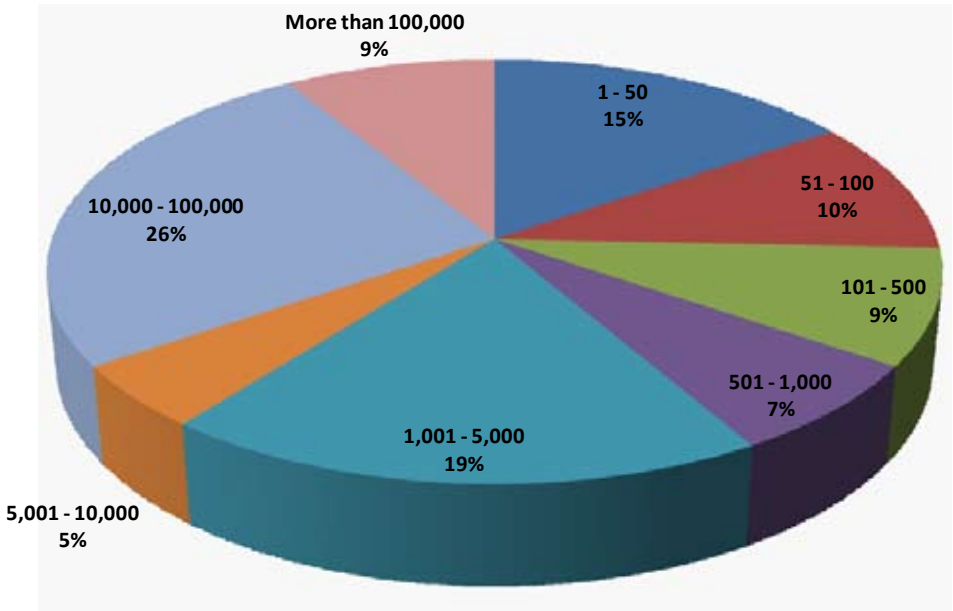


Figure A1: How many employees are there in your organization?

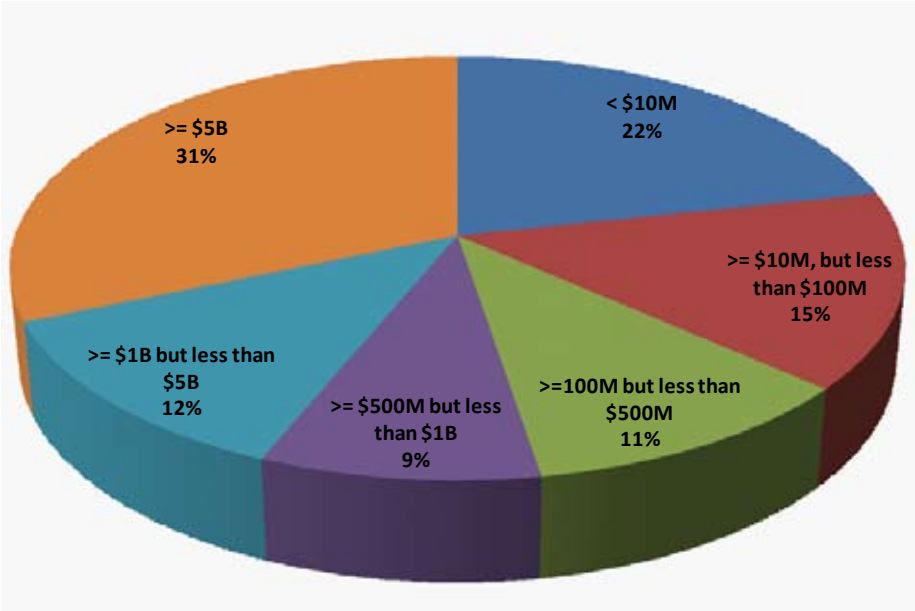


Figure A2: What are the approximate annual revenues of your company?

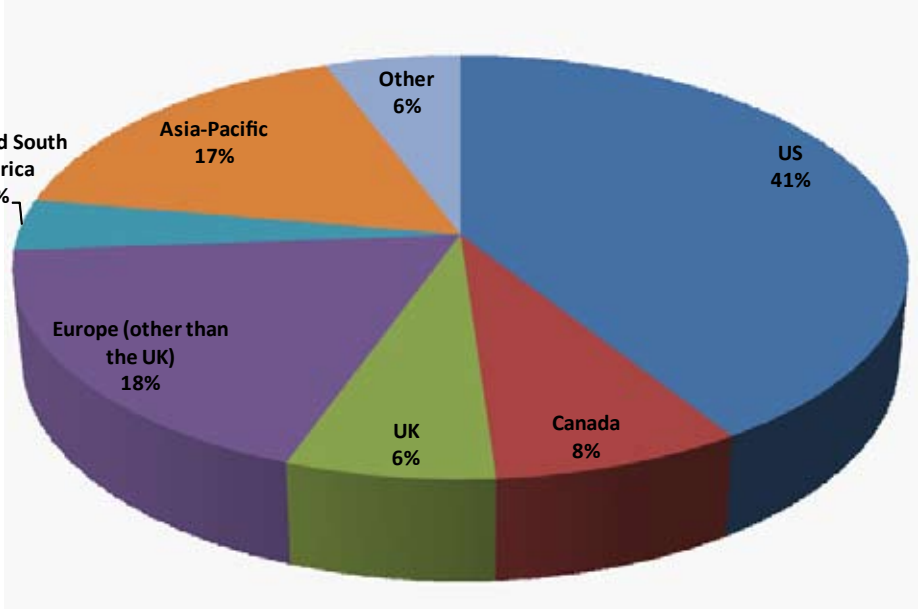


Figure A3: Where is your company headquartered?

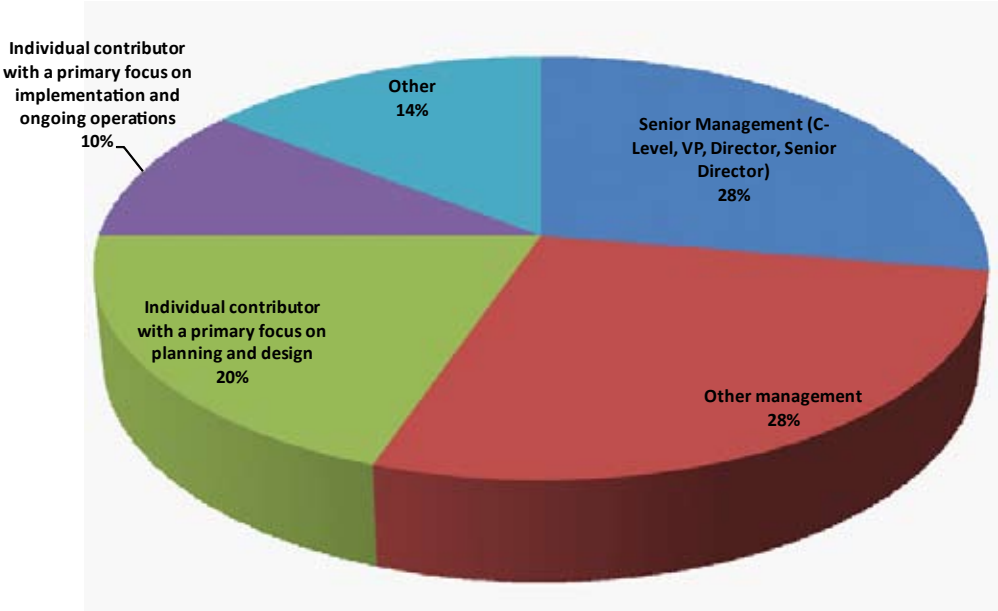


Figure A4: What is your job title?

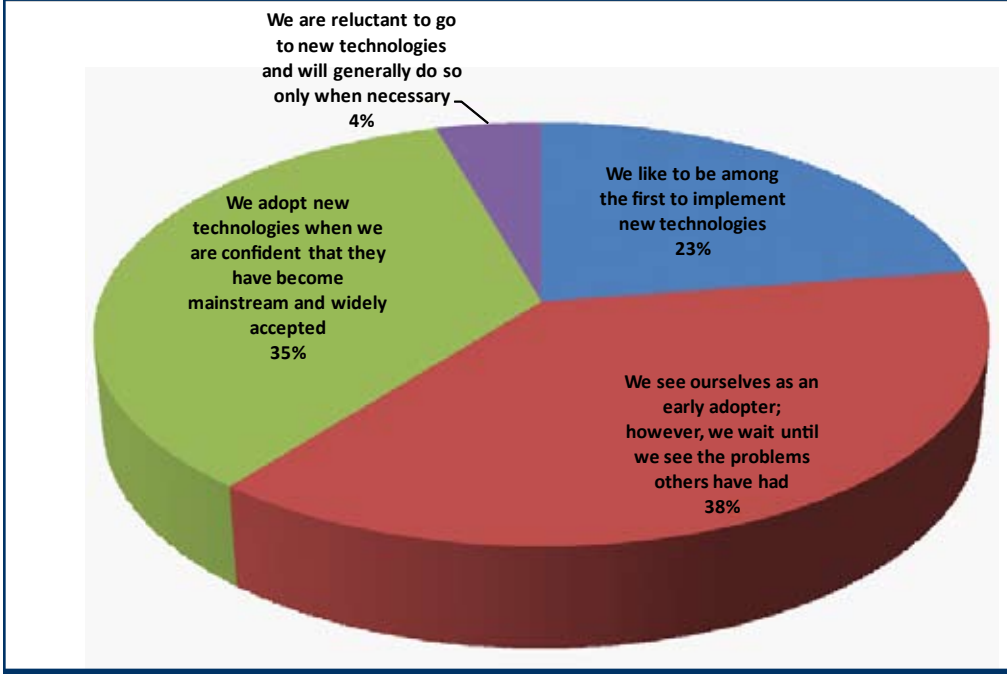


Figure A5: How would you rate your company relative to how rapidly it adopts new technology?