Is Unified Communications the Next Stage of Mobility?
An NEC White Paper
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Executive Summary

While mobility applications are rapidly being deployed around the world, Unified Communications (UC) is still in its early-adoption stage. Most analysts and vendors define UC as the integration of numerous applications including presence, collaboration, conferencing, unified messaging, contact center and mobility. However, UC should be thought of in business terms as a technological advance that answers business needs. Unlike UC, mobility is not strictly an application, and it is far more than just a subset of UC. Rather, it is a catalyst that leverages the value of all UC applications. Thus, when making a business case for UC, applications that involve mobility—such as softphones, smartphones, fixed-wireless dual-mobility devices and mobility clients—usually contribute the most significant ROI.

This white paper defines both UC and user mobility in its various forms; it then goes on to discuss the robust growth of mobility today and the pervasive complexity that confronts employees working in a mobile mode. It then describes the relationship that has grown up between mobility and UC, with evidence showing that the mobility adoption rate is currently driving the rate of UC adoption. After giving examples of how mobile-UC unleashes productivity in four industries, the paper concludes by suggesting that—instead of mobility being treated as a subset of UC—UC could be the next stage of mobility where business communication is simplified and productivity maximized for workers while away from their desks.

What is Unified Communications?

As one would expect with any new business technology, vendors and analysts have differing opinions on what UC is. A sampling of manufacturers’ and analysts’ definitions can be found in the NEC white paper entitled, What is Unified Communications, Really? Gartner’s definition of UC is simply stated and easy to understand because it focuses on the benefits of UC for users:

UC products (equipment, software and services) [are] ... those that enhance individual, workgroup and organizational productivity by enabling and facilitating the control, management, integration and use of multiple enterprise communication methods.²

UC Strategies.com, an alliance of leading communication industry advisors, analysts, and consultants, defines UC as simply, “communications integrated to optimize business processes.”³

UC keeps workgroups connected, enabling collaboration and streamlined business processes. It helps employees become more productive by simplifying their communications process and by giving them easy access to advanced applications that help them stay in touch and work smarter.

UC optimizes many innovations:

- Single-number reach contributes considerable business value because it eliminates guesswork over which number to call. Each employee has only one phone number with find-me/follow-me intelligence built in.
- A single handheld device allows employees to travel between the enterprise wireless LAN-enabled areas on campus and off campus via cellular service.
- An intuitive interface makes the device easy to use and reduces training.
- Rich presence gives users important information about the individual they want to contact, for example, work status (“in meeting,” etc.), before they begin dialing or initiate a chat or instant-messaging (IM) session.
- One-button conferencing makes it easy to initiate IM and chat sessions, and launch collaboration applications.
- Unified messaging enables users to pull up all messages (fax, email, voice mail) in one inbox, accessible from anywhere via a Web connection.
As one can see, UC is built around simplifying the user experience and giving users exactly what they want. Thus, a diagrammed depiction of UC rightly places the user in the center, as in Fig. 1. With UC, the user can easily access many services (conferencing, collaboration, unified messaging, etc.) via devices, web portals, desktop applications and special applications. This representation concurs with the generally accepted notion of what UC is.

What is User Mobility?

Although user mobility is commonly thought of as a service such as when someone says they have “cellular service”, mobility is not a service at all; rather, it is a work state an employee is in while away from his or her desk. This may seem like an academic distinction, but in reality it is not. Employees require a connection to one or more systems before they can work in a mobile mode—IP telephony (voice over IP), cellular, wireless LAN Wi-Fi data, or voice-over-wireless LAN (VoWLAN), for example.

While it may be popularly assumed that the picture of an employee talking on a cell phone while driving in a car sums up user mobility, the subject has many facets:

- If an organization has IP telephony service, any employee can use any company telephone as his or her extension anywhere on campus or in any branch office—even if that office is thousands of miles away—by logging in with an extension and a user name. This is known as “extension mobility.”
- An employee can talk into a USB headset connected to a laptop from home, conference room or hotel room. Users can download a mobile softphone on their laptops and operate them either via wired Ethernet or a wireless Web connection.
- An employee can go on line to a specific web site that enables the user and other employees use of a full-featured Web-based SIP softphone without having to download software or use a VPN.
- An employee can work in a company conference room with a laptop connected via a wireless connection.
- An employee can walk anywhere on the corporate campus, talking on a Voice over Wireless LAN handset.
- An employee can work anywhere on or off campus and access the corporate database, presence and other UC services on a dual-mode device, enjoying all the key features available from a desktop phone.

Notice how many of the above examples describe employees in a stationary state. Mobility encompasses much more than talking on a cell phone while driving a car.
Why Should Businesses Support Mobility?

The mobility market is experiencing explosive growth thanks to the convincing business case that can be made for keeping workers connected while away from their desks. A few facts:

• The number of tele-workers is increasing three to seven percent per year.\(^4\)
• Workers are continually turning into road warriors.\(^5\)
• Sixty-four percent of enterprises are adopting WLANs.\(^6\)
• Fifty percent of enterprises say they plan to increase their investments in WLANs.\(^7\)
• Forty-nine percent of small and mid-sized businesses are adopting WLANs.\(^8\)
• Of all organizations installing WLANs, 95 percent achieve positive ROI.\(^9\)

Approximately forty percent of workers today are mobile, and that number is on the rise. The enterprise wireless market is growing at a 40 percent compound annual growth rate and is expected to become a $2.74 billion market by 2008.\(^10\)

Why is User Mobility So Complicated?

The mobile experience is anything but simple today. Some business people carry two mobile devices with them, a PDA for wireless data and a cellular phone for voice communications. And chances are those devices have multiple phone numbers. When employees want to reach each other, they are never sure they are dialing the best number.

Business people who have two communication devices may be the lucky ones. According to a Sage Research Group study published in 2006, workers today have an average of six communication devices—desk phone, business cell phone, personal cell phone, PDA, pager, laptop with Wi-Fi, Wi-Fi phone, softphone, etc.—and an average of five communication applications—unified messaging, instant messaging, conferencing applications and more.\(^11\) This means they have to check multiple voice and e-mail inboxes to retrieve messages. When they are away from their desk and want to reach someone, they have no way of knowing who is available and ready to take their call before they dial.

Employees without unified communications are at a distinct disadvantage when conferencing with co-workers. If they want to initiate a conference call, a white boarding session, an IM or chat session, they have to wait until they return to their desk. Once a session is initiated, they may not be able to transfer the session to a mobile device. So, when users need to head for their next meeting, they may need to hang up rather than continuing their sessions until reaching their destination. They either waste the travel time or are late to their next meeting.

Why is mobility today so complicated? Precisely because in most cases the various channels of communications mobile workers use are not integrated. Likewise, this complexity may serve to explain why, when making a business case for UC, user mobility applications tend to contribute the highest ROI.

The Relationship between Mobility and UC

Prominent among analysts reporting on the relationship between UC and mobility is Blair Pleasant who in a VoiceCon Tour 2007 presentation called mobility “the most important trend,” in UC, “connecting the users.” She specified that “mobility is critical in four out of five top UC applications.”\(^12\) In late 2007, reviewing telecommunications innovations introduced during the year, she wrote, “The mobility theme was everywhere… All of the new [UC] product suites [reviewed by her] feature major mobility components.\(^13\)

Driving both UC and mobility adoption rates is the promise of dramatic productivity gains. Of course, UC adoption is in its infancy while mobility is growing dramatically. It is relatively easy to make the business case that employees working in a mobile mode are more productive when they have use of their laptops and telephones. Isn’t it obvious that they would be even more productive if they had UC services at their fingertips?
According to Yankee Group’s Zeus Kerravala, “UC … adoption has been slow. Mobile UC is right around the corner and may act as a catalyst for greater UC adoption.” He adds as an example, “Integrated presence is much more important when mobile… Integrated presence will help us more efficiently use those ten-minute time slots between meetings or while waiting for a plane.”

Of course Unified Communications can be implemented without mobility. However, when making a business case for UC, individual capabilities such as unified messaging, collaboration, conferencing and presence contribute significant ROI to the degree an organization’s workforce is mobile and can benefit from them in ways desk-bound workers cannot.

While Fig. 1 may be an approximate depiction of UC, in fact it is not accurate to equate mobility with other UC applications. Because mobility has the potential of leveraging the business value of each UC application, we suggest the depiction in Fig. 2. The dotted-line circle indicates mobility’s relative importance to other services.

![Fig. 2](image)

In addition to its rapid adoption rate, mobility carries the potential for being a catalyst that magnifies the business value of other UC applications, thus, generating considerable business value and enhancing ROI.

**Mobility in Vertical Industries**

According to findings in a recent study by Forrester Research, the communication bottlenecks that occur in virtually all industries can be alleviated—and productivity improved—when mobile UC services are implemented.

- When retail stores run popular promotions, it is crucial that store managers, marketing departments and supply-chain partners coordinate their activities to replenish stocks as needed and make certain advertising supports products with adequate inventory levels. While promotions are ongoing, employees operate in a mobile mode in order to avoid the information and decision latency that could result in outages and lost sales. When Forrester Research asked retail store managers whether being able to locate key decision makers on any device using a single address would save time, 75 percent answered “Yes.” Of those, 52 percent thought one-number reach would save 5 to 15 minutes per call.

- Hospitals need communication systems that more rapidly put nurses in touch with nursing supervisors and physicians in order to offset nursing shortages. In addition, when UC in hospitals includes RFID-based location services, nurses in need of medical instruments can find the location of the needed unit quickly and easily. Forrester Research found that 74 percent of healthcare respondents believed portable wireless devices would save the nursing staff at least thirty minutes per day per person for nursing staff. In some hospitals today, wearable push-to-talk devices are enabling nurses and doctors to communicate more efficiently, thus contributing to higher quality health care in spite of nursing shortages.
In the competitive financial services industry, rapid response to mortgage, secured loan and credit card applications is a business requirement. UC addresses communication lapses that cause delays in loan decisions. According to Gartner’s findings, “Loan representatives indicate that UC would allow them to speed decisions and increase the number of loan applications,” which would enable financial institutions to be more responsive to customers and do more business.

Government officials and civil servants often work in a mobile mode, particularly when playing an executive role, while inspecting or regulating infrastructure (housing, highways, dams or bridges) and while enforcing laws and protecting citizens (police, national guard, Federal Emergency Management Administration, and Homeland Security.) When disaster strikes, government leaders may very well be mobile, surveying conditions on the ground while in communication with a centralized command center. If they have UC services on board their mobile devices, they will be able to do a better job of serving and protecting their citizens.

UC, the Next Stage of Mobility?

Over time, as more enterprise customers begin enjoying the benefits of UC mobility services, the UC adoption rate will become even more dependent on the mobility adoption rate. As this happens, the importance of mobility to UC will grow, resembling the relationship depicted in Fig. 3. Notice how “Mobility” is renamed “Mobility Services”.

Thus, it is our assertion that the challenging nature of dealing with multiple applications in a mobile mode necessarily makes the integration of them into a mobile UC system far more meaningful and productivity enhancing. The fortunes of UC will be tied to that of mobility for the foreseeable future. Rather than mobility applications being a subset of UC, it may turn out to be the other way around where UC becomes the next stage of mobility.

Note: Learn more about the business value of UC in the NEC white paper, What’s the Value of Unified Communications?
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