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INTRODUCTION

As companies continue to support an increasingly virtual workforce, mobile communications are taking center stage. These days, employees expect to be able to work from anywhere—and a large part of how they do that is by leveraging smart phones to access enterprise applications and communications. Indeed, while the number of mobile subscribers worldwide hit 4.2 billion in 2008, Frost & Sullivan research expects that number will rise to 6.8 billion by 2018—and almost two-thirds of those devices will be Internet-ready.

Smart phones offer significant benefits for organizations and their end-users, especially when companies deploy them to leverage unified communications. But they come at one crucial cost: the high prices associated with cellular services. So as companies start to make smart phones part of their technology roll-outs, they must find ways to keep costs in check while enabling access to enterprise applications and services. Mobile Voice over IP (Mobile VoIP, or mVoIP) can play a significant role in that effort by leveraging Wi-Fi networks to help enterprises lower communications costs without any disruption in quality or services; a user who would ordinarily spend hundreds of dollars on international cellular calls or roaming charges can essentially make all those calls for free.

Mobile VoIP also enables smoother, more effective communications for non-road warriors who nevertheless frequently work outside the office and away from their desk phone. User-driven and location-based presence information helps employees reach contacts exactly when and where they need to; unified communications clients give them access to a full set of collaboration technologies; and support for dual personas helps differentiate between personal and business use.

This paper will look at the growing—and changing—need for mobile communications in the enterprise, discuss the benefits and challenges of mobile communications for businesses and their employees, and identity the key capabilities to look for in a solution provider.

THE CHANGING NATURE OF BUSINESS COMMUNICATIONS

As companies grow increasingly global and dispersed, with employees working from places other than the office on a regular basis, organizations must deploy technology that supports communications and collaboration for a growing, and changing, population of mobile workers. Unified communications, which incorporate voice, presence, conferencing and chat capabilities, make it easier for people to share information, locate experts as soon as they need them, speed and improve decision-making, and drive productivity. But to be truly valuable to all employees, UC technologies—especially voice and presence—must be made easy to use and available to everyone who needs them, regardless of where they are working or on which device.

Redefining Mobile Workers

Mobile workers are no longer limited to the “road warriors” of old—salespeople and executives who spend more time on the road than not. These days, knowledge workers of all kinds are constantly blurring the lines between being on duty and off. In exchange for
more flexibility in their daily lives, employees are more willing to conduct business from places other than the office—while commuting into work, for example, or sitting on the sidelines of their kids’ soccer games. Being reachable by the ones you want to reach you, when you want to be reached, changes the way people remain accessible. To do this, they need the same kinds of mobile communications applications and devices as more traditional mobile workers.

**The Value of Unified Communications**

To stay competitive in an increasingly mobile workplace, companies must find ways to allow their employees to communicate and collaborate anytime, anywhere, and from any device. Unified communications can enable advanced communications among employees, customers and business partners. But as is true with any technology deployment, IT and telecom executives must be able to justify the necessary investment.

Simply by deploying IP communications, companies can immediately lower their telephony and other communications costs through reduced PSTN, international calling, and cellular charges. Extending the technology to mobile devices ensures that even remote workers can communicate with colleagues and customers smoothly and seamlessly, with a single corporate identity—and without incurring astronomical cell phone charges in the process. Indeed, some organizations will find that simply deploying a mobile VoIP solution will effectively pay for a broader UC suite for the entire organization.

**The Growing Need for Collaboration**

For as long as companies have been doing business, they’ve been looking for ways to increase and improve collaboration. Getting employees to collaborate has always been a challenge. Now, savvy companies recognize that they have a rare opportunity to leverage technology to take advantage of a cultural shift, one that is changing how people actually work. Social networking and other collaboration applications encourage and reward information sharing in a way not seen before; they make people more inclined to collaborate.

Businesses can gain a competitive advantage if they respond to this shift by giving all employees access to technology that supports and encourages not just communication, but true collaboration, and by changing their policies and practices to encourage and reward collaboration over individual success. Frost & Sullivan research shows that companies that use collaboration tools have a competitive advantage over those that don’t, and advantage increases as the tools themselves get more advanced.

**MOBILE DEVICES IN THE WORKPLACE: Pervasiveness Is Here**

More people are using smart phones than ever before, and they’re bringing them into the workplace in record numbers. Even if companies don’t provide all employees with an “official” device, employees are making ready use of the smart phones they personally own, but for business. These days, when someone joins a company, it’s very likely they already have a smart phone and expect that level of richness and functionality at work.
Indeed, we are seeing what amounts to a perfect storm for smart phone pervasiveness, with the combination of lower-priced hardware, the growing use of industry standards, higher-quality codecs and network gear, and a rapid change in the way in which people work.

**Figure 1: Smartphone OS Shipment Forecast (World), 2009–2015**

**Smart Phones are Everywhere**

Smart phones are no longer exotic devices, or even a small part of the mobile market. Frost & Sullivan research shows that with the recent success of the iPhone, Android, and BlackBerry products in North America, smart phones are expected to grow at an annual rate of about 21 percent in the United States and 20 percent in Canada. At this growth rate, smart phones are expected to surpass feature phones between 2012 and 2013. By 2015, the North American market should grow to more than 320 million connected feature and smart phones.

**Benefits and Challenges**

Wi-Fi has quickly been adopted as a fast and secure wireless standard for connecting to the Internet, thanks in no small part to the hundreds of thousands of hot spot locations around the world, from airports and hotels to bookstores and coffee shops. As data traffic continues to increase, end-users are looking to Wi-Fi-enabled devices as a faster and less expensive way to connect to the Internet using their phones. Furthermore, the wide-spread adoption of Wi-Fi has led to very favorable chip pricing, making it a fairly inexpensive feature for manufacturers to include in their devices.

But challenges exist, including the need to stay current on advancements in mobile technology, such as presence-enabled address books, high processing power, application stores (not many are doing this for business); signaling issues that negatively affect smart
phones’ battery life; the risk of platform fragmentation for open source operating systems; and maintaining pricing stability. That last issue is top of mind for most IT managers as they struggle to give their employees the benefits of smart phones without incurring skyrocketing budgets.

**Cost Concerns and Usage Issues**

When it comes to smart phones, increased competition is driving prices down and features and performance up. But the cost of running the devices continues to rise, especially as users tap data plans for Internet access and use of their other modes of communications (e-mail, IM, etc.). Companies that deploy or support smart phones within the organization must find a way to keep these cellular charges down or risk losing control of their broader communications budgets.

Mobile VoIP can go a long way in this effort, since once companies have deployed it, the cost of any given mVoIP call on a user’s smart phone is effectively free. It addresses issues around international roaming, long distance and overage charges, and it helps companies reduce the number of supported devices by eliminating unneeded devices and licensing agreements.

The technology also makes it easier for companies to integrate with broader unified communications applications, including presence and one-number-dialing capabilities. That, in turn, makes it easier to reach people wherever they are and whatever device they are on. This is especially valuable for users when they are in locations with poor cellular coverage (including conference centers and transit hubs), since they can instead leverage Wi-Fi for voice communications.

The business value of being able to reach employees anytime, regardless of where they are, is significant—especially for small and mid-size organizations, which often expect employees to wear multiple hats, and which usually need to tap expertise and knowledge that exists in only a few people. Being able to reach that information quickly leads to better productivity overall, faster and more effective customer service, and more reliable and responsive decision-making.

**WHAT TO LOOK FOR IN A BUSINESS-GRADE MOBILE VOIP SOLUTION**

Once they decide to deploy a mobile VoIP solution, companies must select a provider that will offer a complete, reliable and secure solution—and ideally, integrate well with the business’ other UC applications.

A good mobile VoIP solution should offer secure remote technology on a global basis, as well as cell data, battery management and Wi-Fi handling capabilities. Also important are native mobile platform support, easy integration with unified communications systems, and E911 for mobiles.

Matching the mobile experience to the human experience leads to greater adoption of converged communications. Users should be able to move seamlessly from premises-based
systems to cellular calls and back, on a single smart phone, without the caller or contact noticing the hand off. Replicating a person’s innate ability to be mobile at all times and stay connected while they are mobile leads to a more consistent experience.

**CONCLUSION**

As companies grow increasingly mobile, with employees working from just about anywhere, smart phones that let employees leverage broader unified communications offer significant benefits, including improved productivity, smoother collaboration, faster business decision-making, and better business continuity. But smart phones can wreak havoc with a company’s cellular phone charges, and they fall short when cellular services are out of range.

As companies start to roll out smart phones to their employees in greater numbers, they must find ways to lower costs, while enabling access to key business applications and services. Mobile VoIP can help by leveraging Wi-Fi networks to lower communications costs without any disruption in quality or services. If companies choose an experienced technology vendor to deliver mVoIP capabilities, they can dramatically reduce costs while improving productivity.
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