



# Lowering 3G Bills and Increasing Availability with Wi-Fi

WHY HOTSPOTS MAKE SENSE FOR SMARTPHONE USERS



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# Lowering 3G Bills and Increasing Availability with Wi-Fi

## WHY HOTSPOTS MAKE SENSE FOR SMARTPHONE USERS

### Introduction

Smartphones and other Web-friendly mobile devices are taking enterprise IT departments by storm, and are often brought into the workplace as employees' personal devices. While analyst firms IDC and Strategic Analytics both confirm that sales of cellular handsets dropped sharply during the first quarter of 2009 as part of the global economic recession, the smartphone market is still going strong.

According to Gartner, Inc. in its August 12, 2009 "Gartner Says Worldwide Mobile Phone Sales Declined 6 Per Cent and Smartphones Grew 27 per cent in the Second Quarter of 2009" press release, "Smartphone sales surpassed 40 million units, a 27 per cent increase from the same period last year, representing the fastest-growing segment of the mobile-devices market."<sup>1</sup> As smartphones grow in popularity, IT staff must face the realities of supporting them, addressing the increased complexity, security, and cost issues that these new devices place on the organization.

iPass has a proven track record for simplifying complexity, increasing security, and managing costs for supporting mobile laptop users—and it provides these same benefits to smartphone users as well. As cost is commonly seen as the most pressing concern, this paper will focus on strategies for addressing rising 3G costs through the use of Wi-Fi on smartphones.

### Why Wi-Fi Matters for Users—and the Enterprise

As innovative models like the iPhone put more PC-like capabilities into ultra-compact, multi-functional packages, their utility and ease-of-use are becoming irresistible. Many factors are driving mobile platform diversity into the enterprise, including:

- More powerful and capable hardware platforms with vastly increased processing power and memory; large, bright touchscreens; embedded GPS; and multi-radio chipsets that often combine 3G cellular, Wi-Fi and Bluetooth support.
- More sophisticated operating systems. Notably, the iPhone, BlackBerry, and Nokia S60 deliver full Web capabilities previously reserved for large-screen computers.
- An explosion of new Web-based applications, such as WebEx conferencing, Skype VoIP, video streaming, sales force automation, and trip planning are quickly becoming indispensable.
- The Millennials (aka the Net Generation) have been the early drivers of the smartphone market. These mobile-savvy users rely on their smartphones for personal connectivity and treat them as essential accessories. As this group enters the workforce, they use smartphones for both personal and business access—whether IT likes it or even knows about it.
- The rapid growth and use of 3G and Wi-Fi networks has conditioned personal users, business users, and their customers to expect highly available access and responsiveness.

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<sup>1</sup> Gartner, Inc. Press Release, *Gartner Says Worldwide Mobile Phone Sales Declined 6 Per Cent and Smartphones Grew 27 Per Cent in Second Quarter of 2009*, August 12, 2009.



With early adoption starting in corner offices and executive suites, IT departments are now finding themselves having to support devices they previously prohibited or benignly neglected. Because smartphones blur personal and professional use, it seems inevitable that IT must facilitate their use. Over time, most will probably decouple device and service provisioning. Within certain guidelines, users will purchase their own devices and then IT will provide a service plan and proper integration to the enterprise environment, including remote access.

## Wi-Fi Helps Enterprises Lower Smartphone Bills

One of the most important developments in smartphone evolution is the growing support for both wide area 3G cellular networks and local Wi-Fi hotspots, which provides tremendous flexibility and potentially significant cost savings. According to ABI Research, 74 percent of people who have Wi-Fi on their mobile phone use it, and 77 percent say they will seek Wi-Fi in their next phone as well. That's encouraging news for enterprises that are struggling to control rising mobility expenses.

Here are five cost-saving reasons why enterprises should take a serious look at promoting the use of Wi-Fi on smartphones:

### ***1. Wi-Fi can offload 3G data use***

No matter how obvious the productivity and efficiency benefits may be, picking up the tab for users' 3G cellular plans can be a significant expense, especially during a recession. Using Wi-Fi when it's available—especially with the explosive growth of free Wi-Fi—can offload megabytes from user plans, reducing the costs to the enterprise while supporting users with their preferred mobility platform.

### ***2. Wi-Fi can eliminate exorbitant 3G international roaming fees***

The media is full of stories about exorbitant 3G international roaming fees. If you want real-world numbers, just ask your finance department. International travelers who use their smartphones abroad can easily rack up hundreds and even thousands of dollars in 3G network roaming fees, which run at least \$1 per megabyte and as much as \$10 per megabyte. Even the soon-to-come EU roaming fee regulations only cap the wholesale rates that operators charge one another at €1 per megabyte (\$1.30 per megabyte). So the retail rates that users pay will likely still land in the range of \$2 to \$3 per megabyte. Wi-Fi support in the smartphone lets users access the Internet and enterprise network services much more affordably, and typically at higher speeds.

### ***3. Wi-Fi access can improve application performance***

The bandwidth available on a network access connection can significantly affect application performance, particularly with those involving voice and video. In addition, high latency can destroy usability in voice and video applications. Wi-Fi delivers higher throughput and lower latency than 3G. In other words, Wi-Fi offers faster packet round-trip times. Imagine the possibilities going forward for VoIP over Wi-Fi to reduce 3G bills at home, in hotels and when traveling internationally.



#### ***4. Wi-Fi often provides coverage where 3G doesn't***

In some locations, 3G signals are weak or unavailable. For example, 3G coverage tends to be strong in outdoor urban centers, but weaker or nonexistent in rural areas. In addition, 3G isn't known for penetrating deep within buildings or beyond established coverage areas. In these situations, smartphone users can often maintain access to data services using nearby Wi-Fi hotspots.

In addition, with certain 3G plans, bandwidth decreases as users exceed pre-defined monthly download limits. Wi-Fi helps these users reduce their download volumes and provides high-performance connections if they should exceed their monthly limits.

#### ***5. Wi-Fi gives smartphone users in-flight access***

A number of top-tier airlines currently offer or will soon offer in-flight Wi-Fi to passengers. In fact, Delta Air Lines, the world's largest air carrier, has committed to Wi-Fi enabling its entire U.S fleet by the end of 2009. This is an important capability for smartphone users, particularly in the U.S., where FCC regulations prohibit in-flight cellular network use.

Wi-Fi connectivity lets business travelers make productive use of their time aloft—updating their personal calendars, attending WebEx meetings, checking email, and staying in touch via instant messaging. It's easy to see why many business professionals are choosing the instant-on capabilities and in-the-pocket convenience of using their smartphones for Internet access versus traveling with more bulky laptop systems.

### **iPassConnect Simplifies Wi-Fi Access for Enterprise Smartphones**

Mobile workers have long depended on iPass Mobile Office for simple, secure laptop connectivity to the Internet and corporate networks over a variety of access services. Powered by the iPassConnect™ mobility manager, this valuable service delivers unified access to more than 140,000 Ethernet and Wi-Fi hotspots worldwide, providing smartphone users with a world of alternative access choices. It lets users easily switch between 3G and Wi-Fi connections. In addition, iPass offers an online hotspot finder for locating available connections.

While iPassConnect has long been the connection manager of choice for Windows and Windows Mobile platforms, iPass now brings that simplicity and service consolidation to iPhone, iPod touch, BlackBerry and Nokia S60 Series devices, making users more productive across a wider variety of platforms than ever before.

Most importantly for enterprise IT departments, iPassConnect helps reduce the costs associated with smartphone support by providing a consistent user experience across virtually all network types and devices. It reduces expensive help desk calls and accelerates troubleshooting with connection usage and performance reports. And thanks to flat-rate pricing, iPass allows mobile workers to use iPass on as many devices as they choose, without additional costs.

Let's take a closer look at some of the unique features of each smartphone version of iPassConnect.

#### **iPassConnect for iPhone**

iPassConnect for iPhone provides managed, consolidated Wi-Fi access for both the iPhone and iPod touch platforms. In fact, it's the first enterprise-configurable Wi-Fi application for the Apple iPhone,



making it much easier for companies to embrace this popular smartphone platform. iPassConnect for iPhone offers these users a simple one-touch login to more than 140,000 locations operated by over 100 providers – all using their corporate remote access credentials. While the iPod touch has no built-in 3G connectivity and can only be used with Wi-Fi, a growing number of users have adopted it as their mobile computing platform, so that they don't have to switch mobile phone providers. These users can easily use the iPod touch device with their home Wi-Fi network, but need a solution for syncing email and accessing the Internet or corporate applications when they are out and about or on a business trip.

#### ***iPassConnect for iPhone at a glance***

- Access to more than 140,000 Wi-Fi venues
- One-touch login
- Automatic directory updates
- Service quality information logging and upload for improved help desk response
- iPhone and iPod touch support

#### **iPassConnect for BlackBerry**

BlackBerry smartphones have now evolved from simple email machines, to full-functioning Internet devices that require more bandwidth than 3G can always deliver. But BlackBerry users often find themselves in locations where signal strength and/or speed are not sufficient for their normal data activities on these devices. These users rely on applications for on-line video streaming, sales force automation, trip planning and tracking, amongst others.

iPassConnect for BlackBerry gives users access to the world's largest Wi-Fi hotspot network to bridge the 3G performance gap. iPassConnect for BlackBerry maximizes the potential of business applications on smartphones. For example, CRM software applications can be effectively used when roaming or where 3G coverage is limited.

#### ***iPassConnect for BlackBerry at a glance***

- Access to more than 140,000 Wi-Fi venues
- Easy application installation
- One-touch login
- Automatic directory updates
- Maximize potential of your business applications

#### **iPassConnect for Nokia S60**

iPassConnect for Nokia S60 provides a unique feature that saves end users time and trouble even if they don't use iPass to access hotspots. This platform lets them define connectivity separately for each individual application (for example, always use 3G for email, but Wi-Fi for Web browsing), or it can make the decision for them. iPassConnect for Nokia S60 will automatically select the best connection for the location and the application, transparently to the user.



### ***iPassConnect for Nokia S60 at a glance***

- Access to more than 140,000 Wi-Fi venues
- Connect-on-demand – also known as Application First (invisible connectivity)
- Auto-fallback to second connectivity option (use 3G when Wi-Fi is not available or vice-versa)
- Auto-connect to iPass and non-iPass venues
- Automatic directory updates
- Service quality information logging and upload for improved help desk response
- Automatic application launch

### **iPassConnect for Windows Mobile**

iPassConnect also supports Windows Mobile 6 and 6.1 devices, providing easy access to Wi-Fi, including home wireless networks and campus WLANs. This is in addition to iPass' long-time support of Windows Mobile, including Pocket PC 2003 and Windows Mobile 5.

### ***iPassConnect for Windows Mobile at a glance***

- Access to more than 140,000 Wi-Fi venues
- One-touch login for touch-screen devices
- Automatic directory updates
- Service quality information logging and upload for improved help desk response

## **Tame the Smartphone Onslaught with Wi-Fi and iPassConnect**

Smartphone innovation offers too many choices, opportunities, and convenience to be rigidly standardized within the enterprise environment. Greater diversity in platforms is inevitable. IT organizations must find ways to contain the costs of service and simplify the overall management challenge.

Wi-Fi access services offer an irresistible combination of superior performance and economy, especially when combined with the user convenience and remote management capabilities of a single connection management client and a global hotspot network. iPassConnect client software and the iPass global network are your keys to enterprise-enabled smartphones.

## **About iPass**

iPass helps enterprises unify the management of remote and mobile connectivity and devices. With iPass software and services, customers can create easy-to-use broadband solutions for their mobile workers, home offices, and branch and retail locations, complete with device management, security validation, and unified billing. iPass offerings are powered by its leading global virtual network, on-demand management platform and award-winning client software. The iPass global virtual network unifies hundreds of wireless, broadband, and dial-up providers in more than 160 countries. Hundreds of Global 2000 companies rely on iPass services, including Ford, Nokia and Procter & Gamble. Founded in 1996, iPass is headquartered in Redwood Shores, California, with offices throughout North America, Europe and Asia.



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