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The iPass Mobile Workforce Report

Understanding Enterprise Mobility Trends and Mobile Usage

The Impact of an "Always Connected" Mobile Workforce

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The iPass Mobile Workforce Report

Executive Summary

This quarter's iPass Mobile Workforce Report uncovered several interesting mobility trends. Highlights included:

- **The mobile device continues to be a tether that creates an on-demand workforce** – always at the ready to handle work or personal business. Even while on vacation, a mere 5.9 percent of employees surveyed completely disconnected, 36.3 percent said that they were always connected, and the majority of mobile employees who connected while on vacation did so for work.
- **Mobile devices are used for both work and personal business**. In fact, 94.4 percent of mobile employees surveyed used their smartphone/cell phone for both work and personal business. Even among iPad and tablet PC users, a surprising 90.6 percent planned to use it for work.
- **The line between consumer and business applications has also blurred.** Across the board, most respondents were using email, calendar, text messaging, browsing and other applications for both work and personal use on their smartphones. The only exception was social media, which was primarily accessed for personal use.
- **Nearly 97 percent of mobile employees carried two or more mobile devices,** and almost 50 percent carried three or more. The most popular mobile device was the laptop, followed by the smartphone and cell phone.
- **The majority of mobile employees (76 percent) had their smartphone bill paid fully or partially by their companies.** And while the majority of smartphone users were choosing Wi-Fi to connect, the primary reason stated (31.8 percent) was because it is faster than 3G.

Introduction

For the past several years, the concept of "the consumerization of IT" has been used to define the challenge that CIOs are facing when trying to manage the chaos resulting from consumer devices encroaching into the workplace. iPass doesn't believe that consumerization of IT adequately describes the sea change going on in the workplace. Deeper changes are arising that will affect how employees will be managed and measured, and how business will be conducted. More importantly, these changes will impact the role of IT as an organization – representing both a major challenge and an opportunity for today's enterprises.

Mobile Workforce Productivity

Today's employees are blending work and consumer tasks seamlessly. A mobile worker sits in a Starbucks working on a writing project. She doesn't want to be distracted, so she only has two applications open on her laptop (word processing and a browser for quick research). At the same time, she has her smartphone at hand notifying her when work email arrives. She checks her work email, and then checks her personal email, then goes to Facebook. A friend on Facebook has just posted a link to his blog covering an interesting management issue. She reads his blog, which helps her clarify a point on her work project. Were her various computing activities personal, professional or a mix of both? It is hard to tell since she has easily moved back and forth between the two worlds.

This quarter's iPass Mobile Workforce survey revealed that 5.5 percent of employees used their mobile phone/smartphones exclusively for work and only 3 percent used them only for personal communications. Most employees used them for a combination of both. Also, 7.1 percent of mobile employees carried two separate phones – one for just work and one for personal use.

The mobile device has now become a tether that creates an on-demand workforce – always at the ready to handle work or personal business.

Even while on vacation, a mere 5.9 percent of employees completely disconnected and 36.3 percent said that they were always connected. The majority of mobile employees who connected while on vacation did so for work. An on-demand workforce delivers huge benefits to the enterprise in the area of increased workforce productivity as well as in customer service, crisis management and day-to-day operations. It also allows employees to stay connected with their personal and professional communities.

As workers mix personal and business activities, measuring productivity of remote employees has become a challenge. How should productivity be measured for an employee who frequently works remotely? Who takes off at 4 pm to coach their child's sports team, who attends staff meetings while commuting, and who considers end-of-day to mean midnight? As a result of this ambiguity, there will be a shift in how organizations will measure productivity going foward. It is still unclear how to measure mobile productivity effectively, but most analysts believe it will be easier than in the past. According to Seth Siegel, a director at Deloitte Consulting LLP:

> *"On the productivity side, the measures can be trickier. Though many organizations value "soft" benefits like improved morale and better work-life balance, the hard-nosed finance types want to see real performance improvements. They want to know that workers are getting their work done more effectively – and that they're not going to soccer games or doing laundry. Fortunately, early leaders in workplace innovation offer plenty of good advice about the most important metrics – and how to track them. They've been able to demonstrate that performance measurement in a web-enabled environment can be easier to manage than in the good old days of punch cards and time clocks. Indeed, their efforts have been able to provide good evidence to suggest that workers who have the freedom to work from anywhere at any time often do just that – logging in more hours and getting more accomplished than their counterparts who come into the office every day."* [i]

Multi-Use Devices

One of the issues with the consumerization of IT is that the assumption is made that there is a significant technical difference between a consumer and a business device. Take for example, Apple's iPad. An analyst recently conveyed that he misjudged the iPad when it was first introduced. In recent discussions with business customers, the analyst was amazed at how seriously businesses were evaluating the iPad or tablet devices for employees. This quarter's iPass survey confirmed this observation. According to survey results, 16.3 percent of mobile employees had an iPad or tablet PC device, and an additional 33.2 percent planned to purchase or receive one in the next six months. A surprising 90.6 percent of those planned to use it for work. iPass believes that Apple must evolve the iPad to better meet the needs of the enterprise or other vendors will essentially copy the form factor and tailor it to the business environment.

Whether a device is targeted to the consumer or to a business user is largely dependent on the applications that are most often used. And even these lines are not drawn clearly. iPass survey results found that people used most applications for both work and personal use.

iPass believes that the new mobile workforce productivity market will mature in the next five years with robust tools for managing the proliferation of devices, measuring productivity and return, structuring liability, mitigating risk, ensuring access, maintaining a level of control and containing costs. These challenges are not new to IT, but will become exacerbated with increased mobility and the proliferation of cloud computing.

Cloud Meets Mobile

Mobile broadband networks, multi-use devices and cloud computing have forced businesses to move from the protection of their own private networks to the unsecured open range. Employees now move transparently between the corporate network, campus roaming, public and private Wi-Fi, broadband and their home networks. They access data centers in the cloud that bypass the company's outmoded VPN and store privileged business information on their unsecured mobile devices. IDC recently estimated that 70 percent or more of enterprise data now resides in some form on mobile devices, and remarkably, approximately three out of four organizations lack comprehensive formalized policies for dealing with mobile devices and data.[ii]

For IT, the old security model of building a moat around the data center has broken down. IT can no longer enforce a safe perimeter around their employees and the company's assets. While cloud computing is still early on the adoption curve, it is hard to find a CIO who doesn't have a cloud strategy. According to InformationWeek's July 2010 Cloud and IT Staffing Survey:

> *Three-fifths of strategic IT managers responding to our survey say their companies have either adopted cloud services or plan to within the next 24 months. By contrast, only about one-third of IT staff say this is the case. That doesn't mean we just happened to survey IT staff and middle managers in companies that are less likely than average to be moving functions to the public cloud. Rather, cloud providers really are targeting line-of-business executives, who in turn are insisting that their CIOs evaluate these services and adopt where they make business sense. The word may not have trickled down just yet, but all operational managers and staff should be thinking about the cloud's long-term impact on their roles.*[iii]

In the world of networks without borders, IT now needs to be even more focused on managing risk and not losing sight of containing costs. The IT managers of the future will need real-time information to access and optimize their networks, and will need to address the question of how to secure a device they do not own.

At the same time, as more users and data-intensive applications shift outside the LAN, carriers have responded by moving away from flat rate data plans to usage-based data plans. Of course there is more and more free Wi-Fi available, but when choice is presented to the user, 34.8 percent of those surveyed admitted to gravitating to the easiest route for connectivity – even if it was not the most cost effective. IT managers will need to ensure that their users stay productive without incurring unnecessary costs.

Methodology

This quarter's iPass Mobile Workforce Report is based on information from two sources:

- Responses to the iPass survey of more than 1,100 mobile enterprise employees between July12 and July 30, 2010. 54 percent of respondents were from North America, 30 percent were from Europe and 10 percent were from Asia Pac. The survey respondents were asked about their mobile productivity, work habits and related experiences.
- Enterprise mobile broadband usage data collected by iPass across its user base of employees at 3,500 enterprises from April 1 through June 30 of 2010.

***iPass mobile employee* definition:** *any worker using any mobile device (including laptop, netbook, smartphone, cellphone or tablet) who accesses networks (other than the corporate LAN or WLAN) for work purposes.*

Mobile Workforce Survey Results

Always On, Always Connected

This quarter's iPass Mobile Workforce Survey asked mobile employees if they stayed connected during vacation. The answer was a resounding yes. 94.1 percent reported that they stayed connected either always or occasionally during vacation.

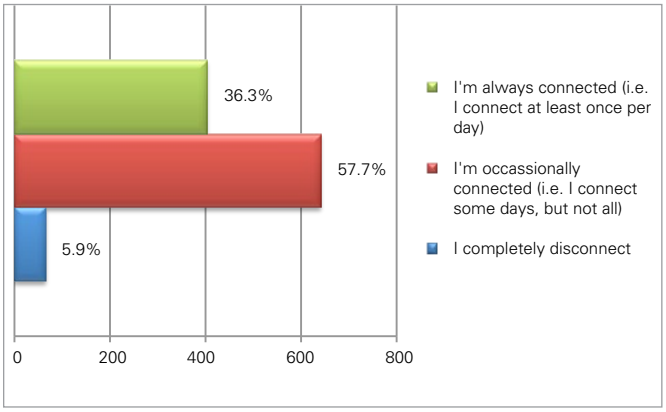

Figure 1 – Do you stay connected during vacation?

Of those that stayed connected during vacation, 75.4 percent connected either primarily for work or equally for work and personal reasons. Only 5.8 percent connected for only personal reasons.

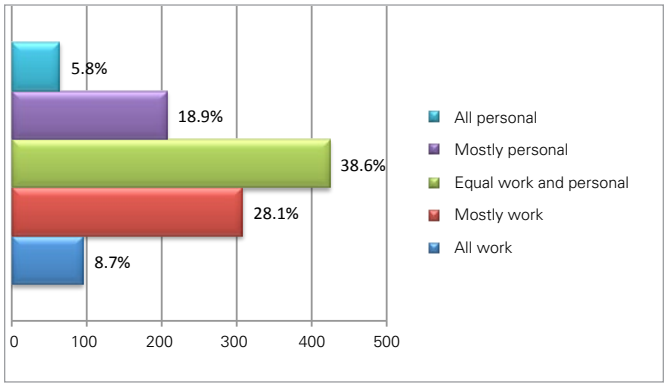

Figure 2 – Why are you connecting when on vacation?

The survey also revealed that the majority of respondents (53.6 percent) never truly disconnected from technology. For the 46.4 percent of mobile employees that did disconnect from technology, their reasons for completely disconnecting were mostly situational, (e.g., in a location with poor connectivity) rather than purposeful.

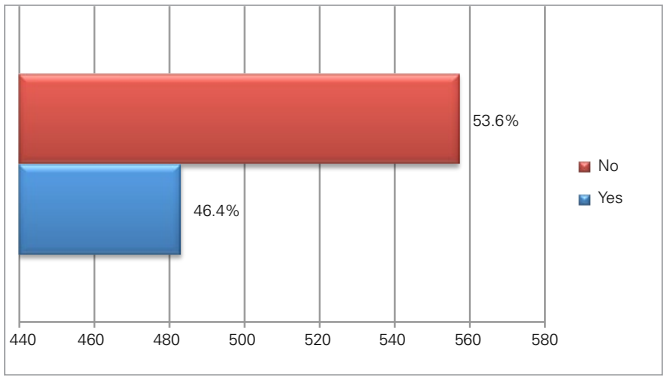

Figure 3 – Do you ever completely disconnect from technology?

Disconnect Comments

"Just fed up with technology and want to detox. Hey, it happens to us all!" systems engineer, consulting firm (US)

"Dec 2008, Hawaii cruise, personal choice and limited or no internet access," vice president, customer experience, accounting firm (US)

"2 hours before bed while watching TV and sleeping," vice president, technology company (US)

"On vacation, when there are no critical professional issues. My girlfriend complains every time when I connect to the corporate network on vacation," employee, large manufacturer (Germany)

"Evening out with friends. Want to focus all my attention on friends and family. Would be rude not to do so." –senior communications manager, consumer goods manufacturer (UK)

Stay Connected Comments

"I try to disconnect, but I can never do it completely unless I've forgotten my electronics, which has only ever happened once," analyst, research institute (Canada)

"Too many responsibilities and issues to deal with 24/7," IT manager, engineering firm (US)

"With a BlackBerry and internet it is too easy to stay connected," manager, software company (Australia)

"I feel lost without my laptop and internet or at least my BlackBerry," systems consultant, defense contractor (US)

"I get bored easily. It's easier to entertain myself with email or RSS" web developer, university (US)

Multi-Use Devices

This quarter's iPass survey asked mobile employees how many devices that they carried regularly for both work and personal reasons. The survey results revealed that 96.6 percent of mobile employees carried two or more mobile devices, with almost 50 percent carrying three or more devices.

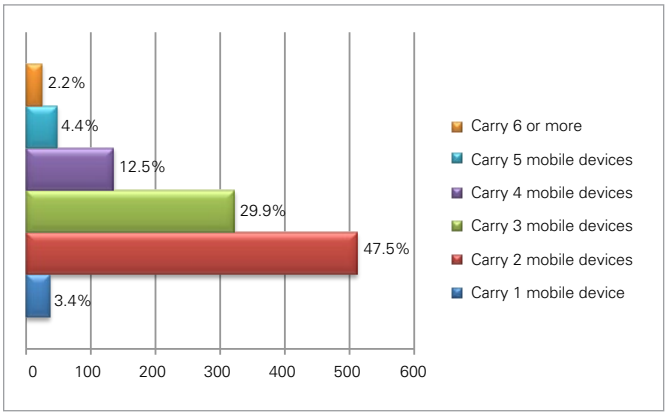

Figure 4 – How many of the following mobile devices do you have/carry regularly for work and personal use?

The top device carried was a laptop, with most everyone who carried two or more devices carrying a laptop. The next most common devices were smartphones and cell phones. The survey did find some adoption of tablet PCs and iPads by the most gadget-equipped users. The survey also found that if an employee carried only one device, it was usually a cell phone or a smart phone (80 percent).

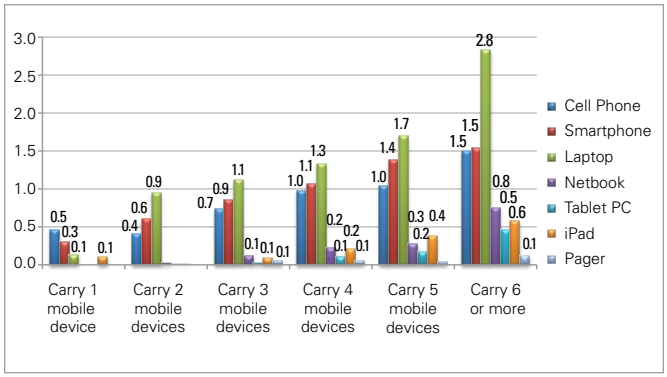

Figure 5 – What types of mobile devices do you have/carry regularly for work and personal (average total number of device type)?

To arm this mobile workforce, the survey revealed that the majority (76 percent) of mobile employees had their mobile phone or smartphone bill either fully or partially subsidized by their employers. However, 15.3 percent of mobile employees paid everything out of pocket with no compensation from their employers.

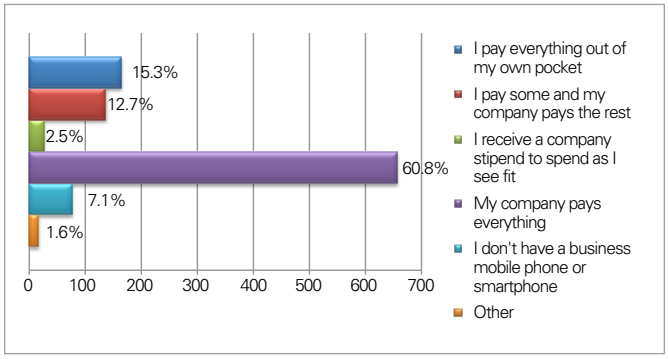

Figure 6 - Who pays for your business mobile phone or smartphone service plan?

The most interesting finding was related to the use of mobile devices. Across the board, employees were using them for both work and personal reasons. In terms of mobile phones/smartphones, there was overwhelming use of the devices for work purposes, with 94.4 percent of mobile employees citing work usage on their mobile phone/smartphone. Only 15.6 percent had a dedicated approach to their mobile phones/smartphones with 3 percent using them exclusively for personal and 5.5 percent using them exclusively for work.

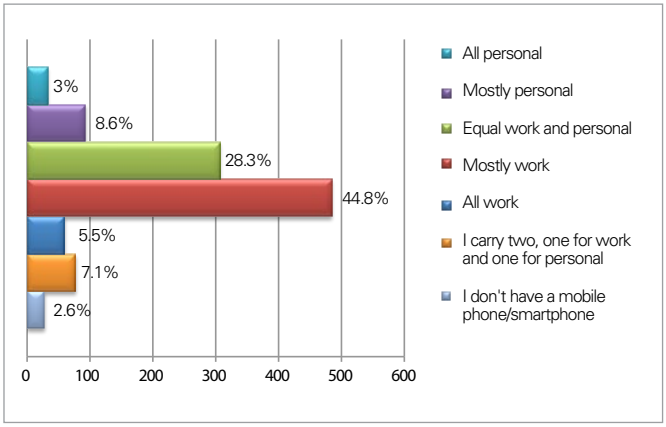

Figure 7 - How do you use your mobile phone/smartphone?

The survey asked mobile employees which applications they used on their smartphones, and whether they used the applications for work or personal reasons. Again, the survey found that for most applications, mobile employees used them for both work and personal reasons. The biggest exception was social media, with 52 percent reporting that they didn't use it on their smartphones.

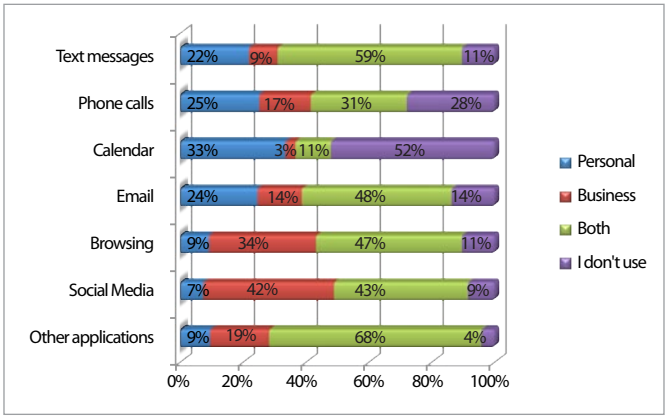

Figure 8 - How do you primarily use your smartphone?

The survey also asked mobile employees if they were adopting the iPad or tablet PCs. The vast majority (82.2 percent) did not currently have a tablet device. Only 9.3 percent of those surveyed had an iPad, and 6.8 percent had a tablet PC. An iPad is an "add-on" device. If respondents had an iPad, they were more likely to have a laptop and smartphone/cellphone (one or the other).

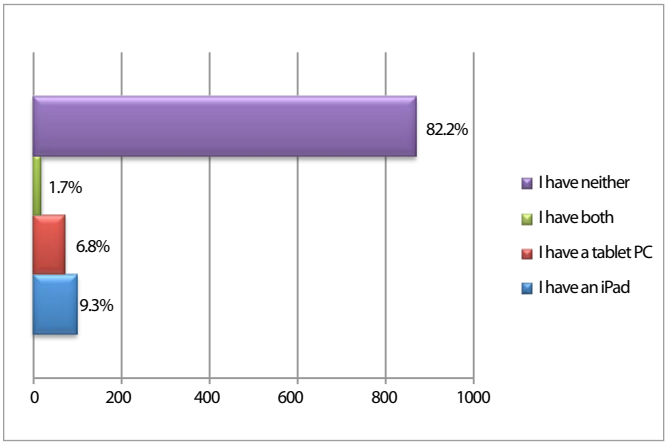

Figure 9 - What type of tablet device do you have?

The survey then asked respondents if they planned to get an iPad or tablet PC in the next six months. Surprisingly 26.3 percent planned to get an iPad, and 6.9 percent planned to get a tablet PC. The survey also found that employees that paid their own mobile phone/smartphone bills were more likely to have or plan to buy an iPad.

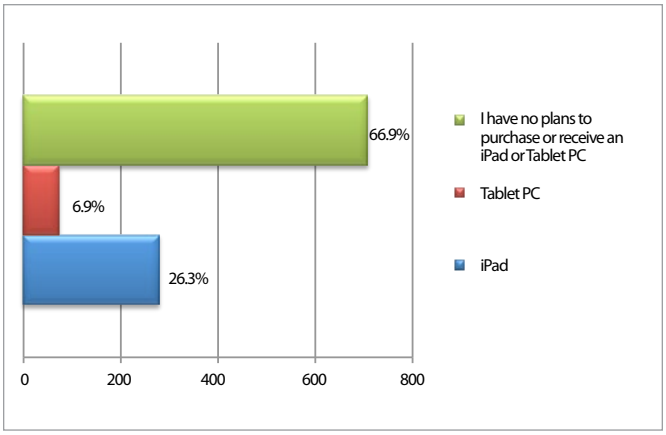

Figure 10 - What type of the following devices do you plan on purchasing or receiving within the next six months?

The survey then asked how they planned to use the iPad or tablet PC. Of the 50.4 percent of mobile employees who either had an iPad or tablet PC or planned to get one in the next six months, 90.6 percent expected to do some work on their iPad or tablet PC.

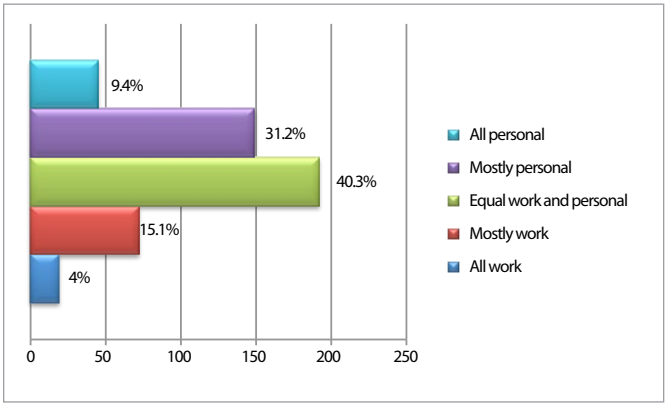

Figure 11 - How do you use or plan to use your iPad or tablet PC?

The survey also asked about inflight Wi-Fi usage, even though the technology is still early on the adoption curve. The results showed that the majority of respondents (60 percent) still had not connected using inflight WiFi. For those who had connected, the laptop remained the most popular device (31.1 percent), followed by the mobile phone/smartphone (15.3 percent).

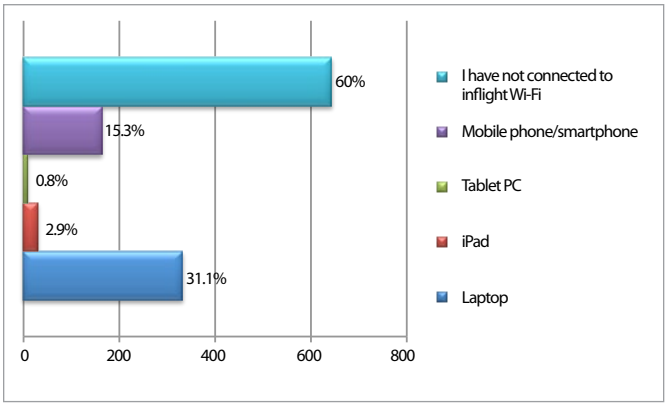

Figure 12 - During your most recent use of inflight Wi-Fi, what type of device did you connect with? Notes: respondents could check more than one device.

Wi-Fi Usage on the Smartphone

With the change in carrier plans and 3G performance issues, the majority of smartphone users chose Wi-Fi – 31.8 percent because it is faster and 15.6 percent because it is cheaper. Users that paid the bill themselves were more likely to use Wi-Fi.

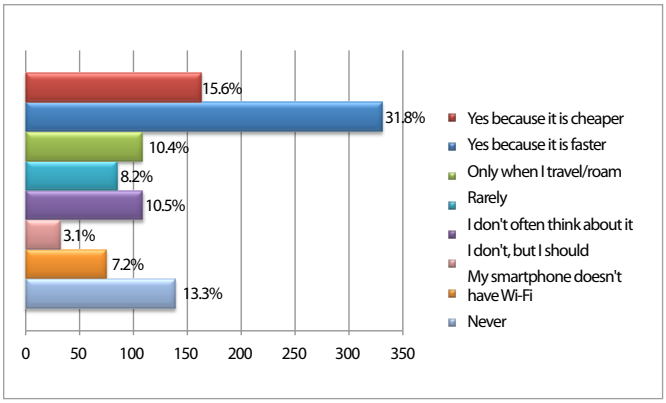

Figure 13 - Do you proactively use Wi-Fi for your smartphone connectivity when it is available?

iPass Q2 Mobile Usage Data

Mobile usage numbers for the second quarter of 2010 remained steady. The iPass Survey looked at data for home users, business travelers, popular venues and most popular airports.

Home Users

iPass mobile usage data collected from April 1 through June 30 of 2010 indicated that while 55 percent of employees were working from home, it was less than two times a month. Additionally the data showed that 18 percent logged in from home at least two to five times per month, and 14.1 percent logged in at least five to 10 times per month:

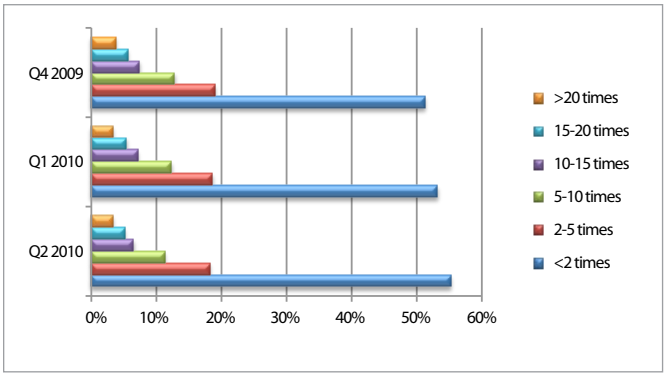

Figure 14. Average number of times mobile workers logged in from home per month during the fourth quarter of 2009, and the first and second quarters of 2010. (Results are based on 500K users and 6.5M user sessions.)

Business Travelers

Business travel remained steady during the quarter, with 11.9 percent on the road six or more days in Q2, the same as in Q1, and 10.1 percent in Q4:

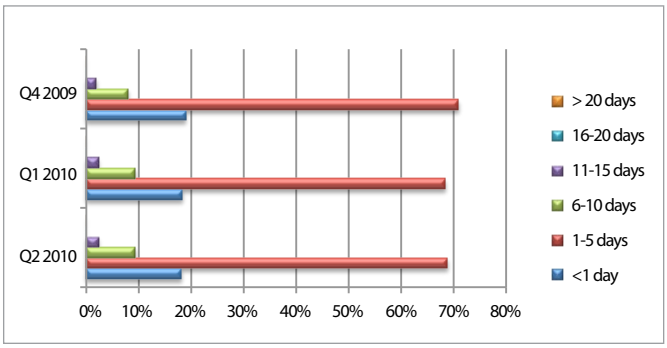

Figure 15. Number of days mobile workers who traveled were on the road in the fourth quarter of 2009, and the first and second quarters of 2010. (Results are based on 250K users and 1.3M user sessions.)

Venues

Across the board, connectivity sessions at venues remained consistent between Q2 and Q1. Hotels continued to be the most popular place to log in when on the road followed by airports and retail, but mobile workers logging in from convention centers connected for the longest amount of time:

	Q2 2010 Sessions per 100 workers	Average Session Length (minutes)	% Total	Q1 2010 Sessions per 100 workers	Average Session Length (minutes)	% Total	Q4 2009 Sessions per 100 workers	Average Session Length (minutes)	% Total
Hotel	285	88.2	40.2%	287.1	90.9	41.6%	243.7	91.5	42.6%
Airport	191	32.8	26.9%	187.5	33.6	27.2%	155.6	32.6	27.2%
Retail	158.8	48.9	22.4%	137.9	52.3	20%	97.3	55.9	17%
Restaurant	63	43.9	8.9%	65.4	45.1	9.5%	58.1	46	10%
Convention Center	3.6	123.8	0.5%	3.6	131.7	0.5%	2.9	107.4	0.5%
Other	8	38.3	1.1%	7.8	39.9	1.1%	14.4	52	2.5%

Figure 16: Locations and length of time for employee logins. (Results based on 250K users and 1.9M user sessions.)

Airports

O'Hare regained the top spot on the list of airports, up from 5th place in Q1. Heathrow saw a significant decline, tumbling from the number three spot in Q1 to the number 17 spot in Q2. This could have been due to the volcanic ash cloud that shutdown air travel in and out of the UK in Q2.

Q2 10 Top 20 Airports Worldwide	Sessions per 100 Workers	Average Session Length (min.)	% Total	Q1 10 Top 20 Airports Worldwide	Q4 09 Top 20 Airports Worldwide
1. O'Hare (Chicago)	12.2	32	6.4%	2. Frankfurt	3. O'Hare (Chicago)
4. Frankfurt	10.9	47.3	5.7%	5. Charles de Gaulle (Paris)	6. Frankfurt
7. Charles de Gaulle (Paris)	9.2	26.3	4.8%	8. Heathrow (London)	9. Charles de Gaulle (Paris)
10. Dallas-Fort Worth	7.8	29.2	4.1%	11. Dallas Fort-Worth	12. Dallas-Fort Worth
13. San Francisco	7.4	31.5	3.9%	14. O'Hare (Chicago)	15. Minneapolis-St. Paul
16. Schiphol (Amsterdam)	7.0	27.7	3.7%	17. Schiphol (Amsterdam)	18. San Francisco
19. Munich	6.3	39.5	3.3%	20. San Francisco	21. Schiphol (Amsterdam)
22. Hartsfield (Atlanta)	5.8	40.5	3.0%	23. Munich	24. Hartsfield (Atlanta)
25. Minneapolis-St. Paul	5.4	29.3	2.8%	26. Minneapolis- St. Paul	27. Heathrow (London)
28. Zurich	4.9	26.5	2.6%	29. Hartsfield (Atlanta)	30. Munich
31. Los Angeles	3.7	31.9	1.9%	32. Zurich	33. Zurich
34. Brussels	3.7	31.2	1.9%	35. Detroit Metro	36. Brussels
37. Newark	3.5	34.3	1.8%	38. Brussels	39. Los Angeles
40. Madrid	2.9	33.4	1.5%	41. Los Angeles	42. Detroit Metro
43. Denver	2.9	39.2	1.5%	44. Houston Intercontinental	45. Houston Intercontinental
46. Tokyo Narita Chiba	2.7	26.6	1.4%	47. Madrid	48. Newark
49. Heathrow (London)	2.7	39.5	1.4%	50. Stockholm	51. Stockholm
52. Houston Intercontinental	2.5	29.3	1.3%	53. Newark	54. Tokyo Narita Chiba
55. Detroit Metro	2.4	30.7	1.3%	56. Tokyo Narita Chiba	57. Geneva
58. Geneva	2.4	26.2	1.3%	59. Geneva	60. Logan (Boston)

Figure 17. Number and percentage of employee logins by airport. (Results are based on 250K users and nearly 500K user sessions.)

OF NOTE: iPass announced its Inflight Wi-Fi service in April of this year. If Inflight Wi-Fi had been counted as a venue, in two short months the service climbed to the 50th most popular airport worldwide for the quarter, ahead of land-based Wi-Fi services at Prague, Milwaukee, Hong Kong and Mexico City, with almost 1 session per 100 mobile workers.

Conclusion

Since iPass issued its first Mobile Workforce Report in February 2010, three key trends have emerged among mobile workers:

- **Redistribution of work across time and space.** Mobile workers are checking in during downtime and even on vacation. When they disconnect, it is usually because they cannot connect.
- **Increased permeability of the boundary between work and life.** Most mobile workers are using their mobile devices for both personal and business reasons. This trend does not change, even with the entry of new consumer devices like the iPad.
- **Increased availability of applications and services in the cloud**, as well as new form factors like the iPad, is making it more difficult for IT to assume a command and control posture as more and more online work tasks can be accomplished outside of the network perimeter.

While many of today's vendors are catering to the lucrative consumer market, according to IDC, one in five adults worldwide will be categorized as a mobile worker by next year, meaning that for the long term, better enterprise mobility services will be required to meet the needs of the mobile worker. Today, workers are bringing consumer technology into the workplace, and both workers and their IT departments are figuring out how to best use them for work. But in many cases, the current workarounds are both inconvenient and ineffective.

Changing platforms (e.g., from iPhone to Android) is fairly seamless. Vendors who believe they can lock in share are overestimating the loyalty of the consumer market, and underestimating the power of the business market. Devices that can easily and successfully be used for both business and personal reasons will win the consumer and business dollar, as well as the hearts and minds of the mobile workforce.

iPass sees the next wave of innovation and the long term market winners in mobility as those that take consumer-focused technology and effectively apply it to the enterprise. Business users want a consumer device with the necessary hooks into the workplace, since they are increasingly comfortable with blending work and personal activities. iPass predicts that a new category of services and tools will need to be established around mobile workforce productivity.

About iPass

Founded in 1996, iPass (NASDAQ: IPAS) is a leading provider of enterprise mobility services with 3,500 customers, including more than 420 of the Forbes Global 2000. The company's mission is to be the voice of the enterprise in the market for mobility services by providing solutions that simply, smartly and openly facilitate access from any device on any network, while providing the visibility and control necessary to contain spiraling mobility costs, maximize mobile user productivity and maintain security in a world where consumers drive enterprise IT. For more information, visit www.iPass.com or the iPass blog, Smarter Connections, at: www.ipass.com/blog.

i Deloitte Consulting LLP, "Deloitte Debates: The Workplace of Tomorrow: Productivity Engine or Safe Haven for Slackers?", 2009

ii IDC , "Worldwide Mobile Security 2009–2013 Forecast and Analysis," April 2009

iii InformationWeek, "Changing Role of IT as Services Ascend," July 10, 2010

iv IDC, Worldwide Mobile Worker Population, 2009-2013, February 2010

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