

# What Do Consumers Want from Public Wi-Fi? Gain Insights from Cisco's Mobile Consumer Research

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It seems that the iconic “Wi-Fi Here” badge is turning up everywhere these days. Once found on coffee shop windows to indicate that patrons could connect their mobile devices to the Internet, the symbol can now be seen in countless public venues. Wi-Fi can now be found everywhere from retail stores and hotels to airports, doctor’s offices, and even airplanes. Recent Cisco research found that consumers now own an average of three mobile devices each, almost all of which are Wi-Fi capable. ABI Research estimated that there were 4.9 million public hotspots in 2012, which they expect to grow by 30 percent in 2013 to 6.3 million<sup>1</sup>. It’s no wonder that we are seeing a huge increase in public Wi-Fi hotspots as mobile users look for places to connect their multiple devices when they are away from home or the office.

For many businesses and public locations, providing Wi-Fi to customers has almost become like electricity or water, a cost of doing business. Many service providers are now constructing extensive networks of public Wi-Fi hotspots for use by their mobile or home broadband customers. The intention is to enhance and differentiate their offering, with the goal of retaining their customers’ business. However, very little knowledge is currently available about how consumers are actually using public Wi-Fi and how they view the overall experience. To derive business value from the deployment of Wi-Fi hotspots, businesses and service providers need to better understand how consumers are using public hotspots and what can be done to improve the experience.

To learn more, Cisco conducted a survey of 620 U.S. mobile users to understand their needs and behaviors, current and future use of public hotspots, and unmet demands. The research findings are important, because they can help businesses and service providers understand the size of the opportunity, develop winning strategies, and optimize their Wi-Fi offerings and network deployments to derive greater business value. This document is part of a series presenting 2013 Cisco mobile consumer research findings. Additional white papers cover changing mobile usage and consumer behavior, as well as opportunities in new localized mobile services.

## I Want My Public Wi-Fi

A remarkable 70 percent of mobile users are now using public hotspots, with 57 percent of those users accessing one at least weekly (Figure 1). This is a significant increase from our 2012 mobile consumer survey, which found one-third of mobile users taking advantage of a public hotspot at least weekly and only 13 percent connecting more than once per week<sup>2</sup>. Today those numbers have more than doubled. Close to six out of ten public Wi-Fi users now connect to a hotspot at least weekly, and one-third connect more than once a week.

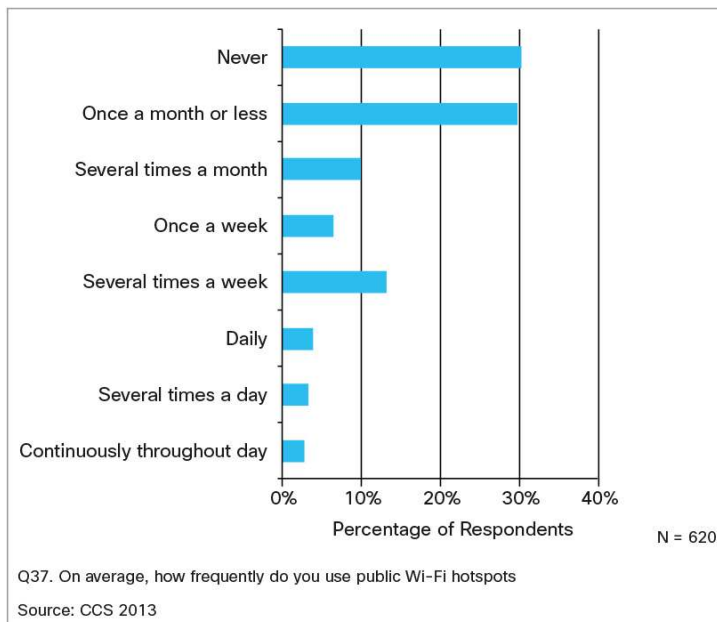
The profiles of public Wi-Fi users and the 30 percent minority of mobile users who never access a public hotspot are very different. The nonusers tend to be older (average age of 45.8, compared to 37.9 years for frequent users), and they are less likely to be employed (on average, 49 percent are employed full time, compared to 59 percent of frequent users). Nonpublic Wi-Fi users tend to have fewer connected mobile devices than the frequent users, with an average of 2.6 devices, compared to 3.3 devices.

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<sup>1</sup>“Wi-Fi Access Points,” ABI Research, June 2013.

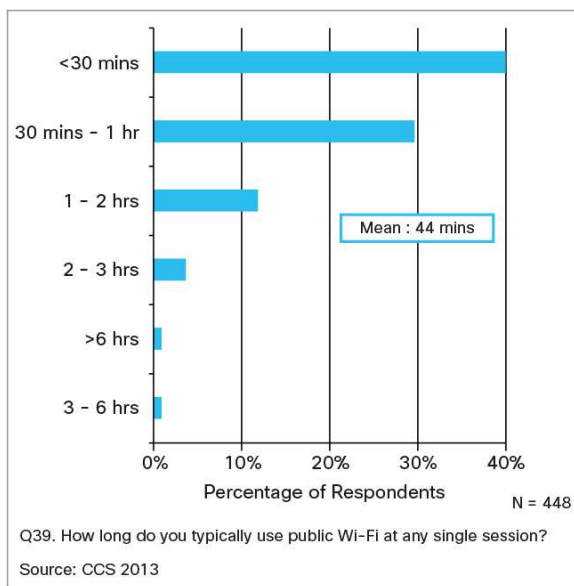
<sup>2</sup>“What Do Consumers Want from Wi-Fi?” Cisco, [http://www.cisco.com/web/about/ac79/docs/sp/SP\\_Wi-Fi\\_Consumers.pdf](http://www.cisco.com/web/about/ac79/docs/sp/SP_Wi-Fi_Consumers.pdf).

**Figure 1.** Public Wi-Fi Usage Frequency



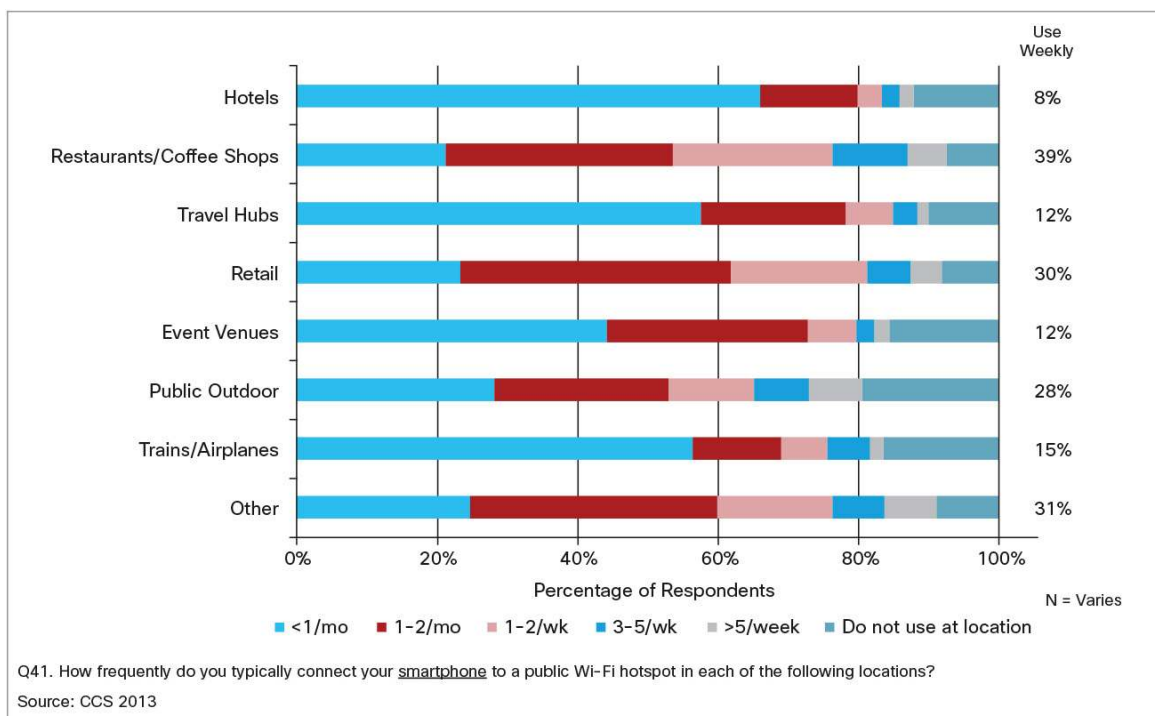
While many of these connected consumers may just connect to a hotspot for a brief time to collect their latest email or check some information on the web, almost one-half of users are spending longer than 30 minutes connected to a public hotspot (Figure 2). In fact, mobile users spend an average of 44 minutes connected to the Internet every time they use a public Wi-Fi hotspot. And 17 percent of users measure their individual public Wi-Fi sessions in hours rather than minutes.

**Figure 2.** Average Length of Single Public Wi-Fi Session (Using Public Wi-Fi)



Smartphones are the predominant mobile device used in public Wi-Fi hotspots. As Figure 3 shows, approximately 80 percent of all smartphone owners connect to public Wi-Fi at some point during the week. Almost one-third of smartphone owners are connecting to hotspots in retail stores, outdoors, or other public locations, such as libraries or doctor offices, at least weekly. Tablets owners most often use public Wi-Fi in hotels, travel hubs, coffee shops, and trains and airplanes. However, aside from coffee shops, the greatest weekly use of public Wi-Fi for tablets occurs in retail, outdoors, and other public locations. Public Wi-Fi use by laptops shows a business-user profile similar to that of tablets, with use occurring most frequently in hotels, travel hubs, coffee shops, and trains and airplanes. Laptops are used much less frequently on a weekly basis, only 10 to 15 percent of usage in most public Wi-Fi locations.

**Figure 3.** Frequency of Public Wi-Fi Usage by Locations for Smartphones (Smartphone Owners)



Email is the primary communication application that consumers use over public Wi-Fi. Fifty-three percent of smartphone and laptop users and 27 percent of tablet users use email while connected to a public hotspot. By contrast, 20 percent of laptops, 16 percent of smartphone, and only 12 percent of tablet owners use video calling or conferencing over public Wi-Fi. Web browsing and social media are popular applications used over public Wi-Fi. Fifty-five percent of smartphone and laptop users and one-third of tablet owners are browsing the web on public hotspots. Smartphones are the preferred device for accessing social media on public Wi-Fi (45 percent), compared to 40 percent for laptops and 23 percent for tablets. Music and video streaming and downloading are used less often over public Wi-Fi, with laptops being the preferred device (28 percent), followed by smartphones and, more distantly, tablets.

### The Public Wants What the Public Gets

The seventy percent of consumers using public hotspots are generally quite satisfied with the service. They give high ratings to the ease of use, quality, and overall experience of public Wi-Fi (Figure 4). Areas for improvement include speed, security, privacy, and, of course, coverage.

**Figure 4.** Customer Satisfaction with Public Wi-Fi

Attribute	Dissatisfied	Neutral	Satisfied	Mean
Overall Experience	9%	24%	67%	3.8
Login/Connection	14%	32%	54%	3.6
Ease of Use	9%	23%	68%	3.8
Speed	23%	28%	49%	3.4
Quality	16%	28%	55%	3.6
Payment	15%	39%	46%	3.5
Value for Money	18%	34%	48%	3.4
Security & Privacy	24%	39%	37%	3.2
Customer Service	20%	39%	42%	3.3
Coverage	29%	29%	42%	3.2

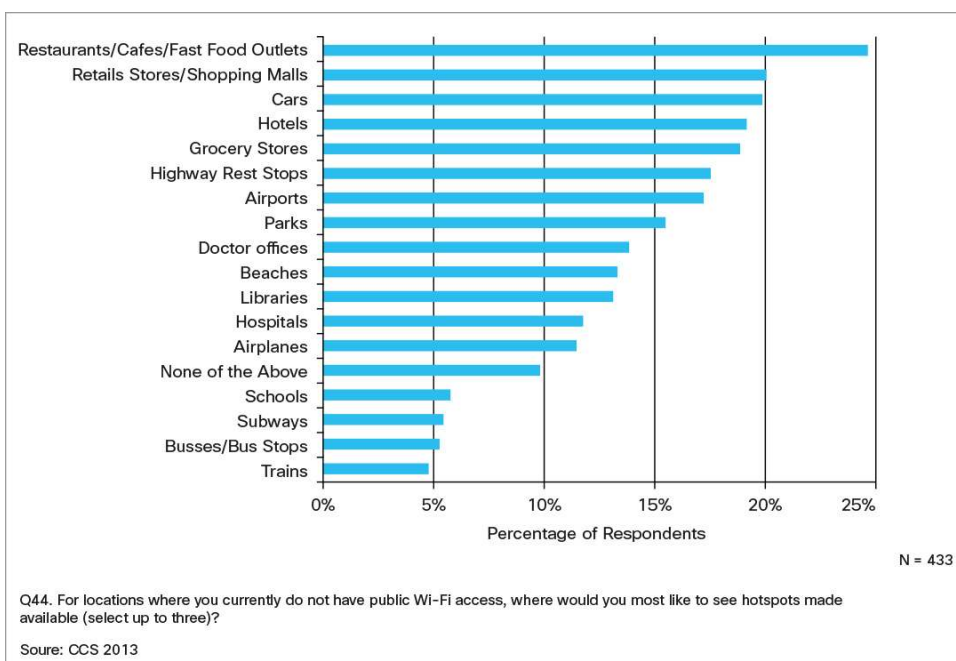
N=433

Q45. Overall, how satisfied are you with public Wi-Fi in each of the following respects? Selection one for each option on a scale of 1 to 5 where 1 equals "Very dissatisfied" and 5 equals "Very satisfied."

Source: CCS 2013

Availability of public hotspots ranks as the number one challenge that mobile users have with public Wi-Fi. They just want more of them in more places. As Figure 5 shows, not only do consumers want more hotspots in the traditional public Wi-Fi locations, like coffee shops, hotels, and travel hubs, but they also expect hotspots to be available wherever they spend their lives outside the home, work, or school. Consumers would now like to see Wi-Fi available in the next tier of locations, such as shopping malls, stores, highway rest stops, doctor's offices, and parks.

**Figure 5.** Preferences for New Public Hot Spot Locations



The general user satisfaction with public Wi-Fi extends to most locations where consumers are connecting (Figure 6). In particular, mobile users are very satisfied with the Wi-Fi connections and experience in hotels, restaurants, and coffee shops. However, consumers see room for improvement in the Wi-Fi offered in public outdoor and retail locations.

**Figure 6.** Customer Satisfaction with Public Wi-Fi Locations

Location	Dissatisfied	Neutral	Satisfied	Mean
Hotels	14%	16%	70%	3.8
Restaurants/Coffee Shops	6%	22%	71%	3.9
Travel Hubs	13%	28%	59%	3.6
Retail	17%	33%	50%	3.4
Event Venues	4%	40%	56%	3.7
Public Outdoor	26%	36%	38%	3.2
Trains & Airplanes	17%	39%	44%	3.4
Other	10%	33%	57%	3.6

N=varies

Q46. Overall, how satisfied are you with the public Wi-Fi network in each of the locations you use it? Selection one for each option on a scale of 1 to 5 where 1 equals "Very dissatisfied" and 5 equals "Very satisfied."

Source: CCS 2013

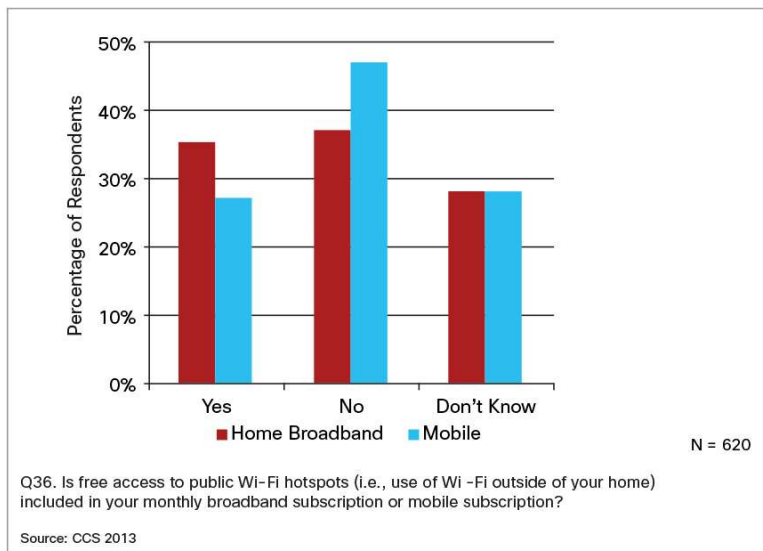
Of the 30 percent minority of mobile users who are currently not using public Wi-Fi, the overwhelming reason given (52 percent of respondents) was that they have no need for it. A quarter of nonusers stated that they do not have mobile devices that they use outside the home. They also expressed concerns about security as one of their top reasons for not using public hotspots.

### Bundling Public Wi-Fi to Reduce Churn

Many service providers around the world are now bundling access to a public Wi-Fi network with their mobile or home broadband offerings to improve customer retention for these core services. Cisco research reveals that operators see significant immediate retention benefits within the first several months after introducing the bundle, followed by an ongoing 10 to 15 percent reduction in customer churn<sup>3</sup>. Our 2012 study uncovered customer ambiguity about whether free Wi-Fi was part of their home broadband or mobile subscription. Paradoxically, although few U.S. mobile operators include public Wi-Fi access as part of their data plan (while most home broadband providers do as part of customers' subscriptions), the majority of people in 2012 associated free Wi-Fi with their mobile provider rather than their broadband operator. That perception seems to be changing. Now, consumers are more correctly identifying the bundling of public Wi-Fi with their home broadband, rather than their mobile service (Figure 7).

<sup>3</sup> "Wi-Fi: New Business Models Create Real Value for Service Providers," Cisco, June 2013.

**Figure 7.** Inclusion of Free Public Wi-Fi with Other Service



Thanks to its early market lead and aggressive marketing, Cablevision enjoys the highest customer awareness, with 60 percent of its broadband subscribers recognizing that Wi-Fi access is part of their subscription. However, other broadband providers, such as Charter, Time Warner and Comcast have made significant improvements in customer awareness of their bundled Wi-Fi offerings by 150, 95 and 35 percent, respectively. Almost one-half of AT&T Wireless customers correctly recognize that public Wi-Fi is bundled with their mobile service. However, awareness in the other major mobile is declining as customers are more correctly identifying their broadband operators as the provider of the bundled Wi-Fi service.

### Conclusion: The New World of Public Wi-Fi

New devices, changes in customer behaviors, and technological advances are rapidly pushing the use of Wi-Fi by mobile users. Cisco's mobile consumer research clearly demonstrates that consumers are using public Wi-Fi to connect their growing collection of mobile devices to the Internet. Public Wi-Fi is now a big part of mobile life. The explosion in the use of public hotspots reflects not only the growth in mobile devices but the move to a more "nomadic" use of these devices and applications. Consumers are generally satisfied with their public Wi-Fi experience, but they want it to be faster, more secure, better quality, and most of all, available in more places. Many mobile providers see this rise of public Wi-Fi as a threat to their traditional mobile business. Other providers are questioning how it fits into their business. Public Wi-Fi offers all service providers new and unique opportunities to enhance their overall mobile customer proposition and experience and explore new commercialization models.

Service providers must consider several important implications and potential strategies for positioning themselves to capture opportunities from public Wi-Fi:

- Incorporate Wi-Fi as an integral part of your portfolio. Use pricing, marketing, and new technological solutions to create compelling and integrated offers and solutions of value to mobile and "nomadic" users.
- Exploit churn reduction and new opportunities. Rapidly develop and rollout robust public Wi-Fi offers for churn benefits and new monetization opportunities.

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- Expand the Wi-Fi footprint in existing locations and new locations through deployment, new business models, and partnerships.
  - Enhance the customer experience by improving the quality, security, and speed of public Wi-Fi service.

Cisco firsthand experience and research indicates that service providers have a unique opportunity with public Wi-Fi. However, there is a frantic “land grab” underway as providers seek to lock up the top real estate for public hotspots. To fully benefit from the new world of public Wi-Fi, the time to act is now.

### About the Survey

Cisco conducted an online survey of 620 U.S. mobile users in August 2013. The survey base was representative of the U.S. population in terms of age, income level, physical distribution, and employment status. Fifty-eight percent of respondents were employed: full-time (46 percent) and part-time (12 percent). The remaining 42 percent were not employed: stay-at-home (9 percent), student (7 percent), unemployed (9 percent), and retired (18 percent). Fifty-two percent of respondents described the area in which they live as suburban, while other living environments consisted of urban (24 percent), rural (16 percent), and semi-rural (8 percent).

The study was also undertaken in Brazil, Italy, Japan, Russia, and the United Kingdom.

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### For More Information

<http://www.cisco.com/go/spwifi>

<http://www.cisco.com/web/about/ac79/sp/index.html#tl>

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