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For nearly a decade now, Qatar has been focused on transforming itself into a truly connected information society where technology—with its incredible capacity to inspire and propel change, innovation, and progress—.touches all households and individuals, as well as local businesses, government agencies, and other stakeholders. Led by the Supreme Council of Information and Communication Technology (ictQATAR), the government has made steady strides toward its goal of creating a competitive knowledge-based economy that will enrich the lives of all members of society well into the future. This effort is driven by the broad, aggressive five-year National ICT Plan, which aims to double the ICT sector’s contribution to the GDP, double the ICT workforce, achieve ubiquitous high-speed broadband access for households and businesses, achieve mass ICT and Internet adoption by all segments of society, and achieve wide accessibility and effectiveness of all key government services.

In total, the government will invest more than QR 6.2 billion to advance this digital agenda by 2015, with a particular focus on developing the cutting-edge, next-generation communications infrastructure that so many other improvements depend on. Currently, ictQATAR is working with telecommunications operators and others to accomplish the following: build an advanced fiber-to-the-home network that will expand universal high-speed broadband; manufacture and launch Qatar’s first high-capacity communications satellite; install two new international submarine cables that will improve international connectivity and overall service; and extend free Wi-Fi access across the country. Such progress is crucial to meeting the growing demand for faster, more secure networks, ramping up connectivity, and—ultimately—boosting overall ICT access and usage among households and individuals, businesses, government agencies, and other important sectors in Qatar.

Such advances in infrastructure—along with the ongoing telecommunications market liberalization, a stronger legal, regulatory, and security framework for ICT competition and expansion, enhanced education systems, and other proactive initiatives—have helped create an ICT boom in Qatar. After an enormous amount of growth in a relatively short period of time, a review of the ICT landscape today shows that the country is more connected than ever before. Record numbers of people are using mobile phones, computers, the Internet, broadband connections, and newer technologies like smartphones and tablet computers, whether it’s to learn, to access e-government information and services, to entertain themselves, to shop, to conduct banking or business transactions, or—above all—to connect with others.
In order to monitor progress, ictQATAR has been tracking several important indicators of ICT penetration and usage among certain key sectors in Qatar—households and individuals, businesses, government, education, and health—for the last several years. This report, *Qatar’s ICT Landscape 2013: Households and Individuals*, will assess the latest findings; it is based on the results of a 2012 survey of 1,880 people living in the country, including a representative group of Qatari citizens, members of the expatriate workforce and their families living in households, and transient laborers.

While this new data confirms that Qatar continues to make great headway when it comes to the ICT landscape, barriers to a truly digital future remain, including a lack of ICT skills that is particularly pronounced among Qatari women and seniors, as well as transient laborers. Other obstacles include the high cost of technology equipment, the lack of access for certain populations, and lingering concerns about viruses, privacy, and inappropriate content on the Internet.

Still, there’s no doubt that the climate for ICT progress is ideal in Qatar, which has the most competitive economy in the Middle East and North Africa region, according to the World Economic Forum’s *Global Competitiveness Report 2012–2013*. Specifically, the country’s nominal GDP doubled between 2006 and 2011, thanks to strong natural gas revenues and government investments in areas such as petrochemicals and financial services. At the same time, Qatar’s relatively small population has exploded, growing nearly 64 percent between 2006 and 2011, to 1.71 million people, in large part due to an influx of foreign immigrants working in the construction industry and other thriving fields. Household income has also increased, so it’s no surprise that people in Qatar have more disposable income to spend on various products and services—including information and communication technology.

As a result of these favorable conditions, as well as the government’s extensive commitment to and investment in a range of technology initiatives, Qatar has emerged as one of the leaders in ICT penetration and usage, not only in the Middle East and North Africa region, but also worldwide. For example, Qatar ranked above all other Arab nations on the International Telecommunication Union’s (ITU) 2012 ICT Development Index (IDI)—which measures access, use, and ICT capability and skills in order to compare overall ICT advances across countries—with its standing improving to 30 out of 151 nations, overall. In the process, Qatar has joined high-income Asian and European economies in the top fifth of IDI countries, with Korea, Sweden, Denmark, Iceland, and Finland leading the way.

ictQATAR is committed to regularly tracking and reviewing this type of ICT progress, both within the country and compared to regional and global peers, in publications such as this one. As a result, Qatar will be able to judge where it stands at any point—and to identify any roadblocks or challenges it faces along the way—and then to make timely adjustments or additional investments in new programs and initiatives when necessary. This will insure that the country continues to advance on the path toward transforming itself into a highly connected, knowledge-driven economy.
In order to continually monitor Qatar’s progress toward becoming a vibrant, inclusive knowledge-based economy, ictQATAR contracted International Data Corporation (IDC) to conduct a large-scale study on the current state of ICT penetration and usage among households and individuals in Qatar in 2012, following similar research projects in 2008 and 2010.

Qatar’s ICT Landscape 2013: Households and Individuals, the resulting report, is primarily based on 1,880 face-to-face interviews with a representative sample of people living in Qatar, including a mix of genders, nationalities, ages, and geographic locations.

During these interviews, which were conducted in February and March 2012, subjects were asked questions about their personal technology use, as well as household composition and habits.

Thus, the study provides all data and analysis on two levels: household and individual. This takes into account the fact that even if digital devices or services are available in a home, it doesn’t mean that each and every resident is using them. Additionally, some individuals may use computers or log on to the Internet solely at school or at a public Internet café, due to the lack of household access. For the purposes of this study, for individuals, penetration is defined as the percentage of individuals who have used a device or service over the past 12 months; for households, penetration is defined as the percentage of households that own a device or have access to a service.

Because of its relatively small population and prosperous economy, Qatar has attracted a range of expatriate workers in recent years, including professional workers and their families and also a large base of transient laborers who tend to stay in the country for short periods of time. This means that Qatar’s overall population constantly fluctuates. Therefore, in order to render the most accurate possible picture of the country’s ICT penetration and usage for both this landscape report and subsequent analysis, IDC chose to broadly classify Qatar’s overall population based on economic participation, duration of residence, and nature of work. For the purposes of the study and this report:

- **Mainstream Population** refers to both Qatari citizens and mainstream expatriates, or foreign workers employed in various high- and low-skill jobs who typically reside in the country for at least a few years, along with their families.

- **Transient Labor** predominantly consists of semiskilled or unskilled expatriate workers with low levels of education living in temporary housing. Constituting an estimated 26 percent of Qatar’s total population, transient laborers are
often employed in the construction sector and normally live in the country for six to 12 months.

- **Overall Population** is the total populace of the country, including both the mainstream and transient labor populations.

- **A Household** includes all people who occupy a housing unit that is intended for year-round and not seasonal or migratory use. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements. Mainstream expatriate households include families as well as groups of single men and women residing together in a household.

Employing these parameters, data is broken down throughout the report in two ways: one using the overall population figure, per standard global practice, and another using the “mainstream” population only. This allows for a greater focus on the country’s long-term residents. Emphasis is also placed on statistics for Qatari citizens alone, whenever possible.

Finally, to accurately gauge its advancement toward universal ICT adoption, it is important for Qatar to measure its progress against regional and international peers. In order to do so, the study also involved secondary research with a range of additional resources, including international organizations that analyze ICT-related country data, such as the International Telecommunication Union (ITU), the United Nations (UN), and the World Economic Forum (WEF), as well as the Qatar Statistics Authority. The specific countries used to benchmark Qatar’s current performance across a wide range of key ICT indicators were: Australia, Bahrain, China, India, Ireland, Kuwait, Norway, Oman, Saudi Arabia, Singapore, South Korea, Sweden, the United Kingdom, and the UAE. (The rationale for selecting these countries is outlined in the methodology appendix on page 26)
Overall, Qatar’s ICT Landscape 2013: Households and Individuals reveals that ongoing developments in the country’s ICT environment have resulted in a huge amount of progress over a relatively short period of time. Still, the report also identifies several challenges that must be addressed in order for Qatar to achieve its goal of establishing a vibrant, innovative, inclusive ICT sector that will fuel its economy and provide societal benefits for all.

Looking at the most recent data from 2012, several clear trends emerge:

**People in Qatar Are More Connected Than Ever Before.** Today, on average, a household in Qatar owns three mobile phones, two computers, and one smartphone, and people are using these technologies to access the Internet in ever-greater numbers. In fact, between 2008 and 2012, computer penetration among individuals more than doubled, while Internet use soared to 69.3 percent, up from 38 percent, over the same four-year period. The progress is even more impressive among mainstream individuals, with a rise in computer penetration to 89 percent and continued growth across all other basic ICT infrastructure areas, including mobile phones, now at a near-universal 99.5 percent. Internet penetration for this group also increased significantly to 88 percent—a rate that is among the best in the Arab region, on par with ICT-advanced countries like South Korea and the UK, and just a step behind leaders such as Norway and Sweden, which have 93 percent and 90 percent Internet penetration, respectively.

**Broadband Access Is on the Rise.** Eighty-five percent of households in Qatar now have a broadband connection, up from 80 percent in 2010, and mobile broadband subscriptions, in particular, are on the rise. This means that a growing number of people have enhanced access to the latest Internet technologies, from gaming and high-quality entertainment features to video conferencing and large-file-sharing solutions that will facilitate telecommuting and other 21st-century business opportunities in the country. But the speed of broadband is still a major issue, with half of all households surveyed using low-end speeds between 256 Kbps and 1 Mbps; this can greatly impact how quickly websites load, the speed at which files and other data can be downloaded, and the quality of live streaming video and audio, causing stuttering and long delays. Such frustrations may have contributed to the drop in overall satisfaction rates for Internet services—including speed issues, specifically—between 2010 and 2012. Notably, higher-speed broadband connections are found more among Qatari households than expatriate ones. Looking ahead, the country’s ongoing infrastructure improvements will vastly boost broadband speed options by 2015, further enabling both social and economic development.
Qatari Youth Are Leading the Way. Qatari citizens between the ages of 15 and 24 have the highest ICT penetration rates of any age group, across the board, including for computers (97 percent), the Internet (98 percent), and mobile services (approximately 100 percent). They are also blazing the way with smartphone usage—not only for basic functions like voice calls and email, but increasingly for web browsing, instant messaging, next-generation entertainment features, and social networking, which they engage in far more frequently than other age groups. In addition, the newer tablet computers are most popular with young people in Qatar, who, as a group, appear to recognize the importance of advanced computing and Internet skills. This—along with recent improvements in the country’s education system that have resulted in Qatar being ranked 1st in the Middle East and Africa and 13th overall for mathematics and science instruction by the World Economic Forum’s Global Competitiveness Report 2012–2013—bodes well for the country’s continued development of a knowledgeable, innovative ICT workforce, and for the digital future in Qatar, as a whole.

Despite the Progress, a Majority of People in Qatar Still Face ICT-Related Barriers. The biggest obstacle to universal ICT penetration and usage rates in Qatar—and, in the long run, to a true knowledge economy—remains a widespread lack of ICT skills among parts of the population, particularly female and older Qatari citizens, and transient laborers. The high cost of buying or renting computers and a lack of access to technology are other commonly reported obstacles, especially among the typically less educated, less affluent transient laborers.

The Future of ICT in Qatar Is Convenient and Portable. The use of handy, versatile smartphones has surged in Qatar over the last few years, spurred by factors such as increased availability, improved mobile broadband services, and a better choice of Internet data packages from providers. Today, more than half of mainstream individuals own a smartphone, with the highest penetration levels among young people. In addition, a growing number of Qatari citizens are also buying tablet computers, with a quarter of households now owning and using at least one of these lighter, more compact devices. Such findings suggest that portability is the wave of the ICT future in Qatar: today, less than half of the mainstream Internet users in the country use a stationary desktop computer to access the Internet, with 87 percent using a laptop, 55 percent using a smartphone, and 14 percent using a tablet computer to log on instead.

E-Government Awareness and Usage Has Stalled. While the majority of mainstream individuals report that they are familiar with Qatar’s extensive e-Government services, less than a quarter of this population has actually used even one in the past year—exactly the same percentage as in 2010. Additionally, a full third of mainstream individuals are completely in the dark about these offerings. Qatari citizens are the most aware of e-Government services, and the most likely to use them to pay traffic fines and apply for a Smart ID Card, among other tasks. Mainstream expatriates, on the other hand, are more likely to apply for and renew visas, health cards, and residence permits. Looking ahead, both groups are open to exploring and using e-Government services via cell- and smartphones, suggesting that the development of additional mobile e-Government platforms will increase usage.

A more detailed analysis of these and other findings follows in the individual sections of this report.
ICT Penetration and Usage

Continuing almost a decade of remarkable progress, the 2012 landscape data once again shows gains for nearly every key indicator of ICT penetration and usage among households and individuals in Qatar, including mobile, Internet, broadband, and newer devices like smartphones and tablet computers (see Figure 1).

In particular, the country’s mainstream population is now highly connected: mobile, computer, and Internet penetration rates for this group have risen consistently since 2008, and are now at an all-time high. Today, more Qatari citizens and mainstream expatriates are using multiple digital devices—including the very latest technologies—to access the Internet for a range of increasingly advanced communication needs.

Digital Devices

Mobile penetration in Qatar now stands at approximately 100 percent.

For Qatari citizens, the figure is 98 percent, including 96 percent of women and 94 percent of seniors—demographic groups that tend to lag far behind with computer and Internet access.

In addition, this is the one category where transient laborers have penetration rates as high as those of the mainstream population.

In the overall population, however, computer penetration declined to 67 percent in 2012, from a high of 72 percent in 2010. This dip is partially explained by an increase in the less educated, less affluent transient labor population, which tends to rely far more on cheaper mobile phones for their communication and technology needs—namely, staying in touch with family in their home countries. Just 20 percent of transient laborers use a computer, compared to 87 percent of mainstream individuals.

The fact that this large group of transient laborers is included in overall penetration rates often

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**Figure 1**: ICT Penetration at Individual Level in Overall Population

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>32%</td>
<td>72%</td>
<td>77%</td>
</tr>
<tr>
<td>Internet</td>
<td>38%</td>
<td>69%</td>
<td>69.3%</td>
</tr>
<tr>
<td>Mobile</td>
<td>94%</td>
<td>99%</td>
<td>99.5%</td>
</tr>
</tbody>
</table>

Overall population 2008 n=1182, 2010 n=1700, 2012 n=1880
obscures the significant progress made among Qatari citizens and mainstream expatriates in computer and Internet penetration and other important ICT indicators.

Among the mainstream population, the findings are much more encouraging, both locally and globally. To start, households in Qatar now own more computers than ever before with an overall penetration rate of 92 percent. This figure is similar to those of current ICT leaders like Norway and Sweden.

Computer penetration has also risen sharply for mainstream individuals—87 percent, up from 70 percent in 2008. This rate is on par with ICT-advanced countries such as the UK and South Korea.

The use of laptops continues to climb, with the household penetration rate jumping from 81 to 84 percent between 2010 and 2012. At the same time, desktop penetration fell by 12 percentage points, denoting an ongoing shift toward less cumbersome, more convenient devices that can be used “on the go,” including smartphones and tablet computers (see section on the latest devices on page 12).

Clearly, there has also been a move toward ownership of multiple devices: today, on average, a household in Qatar owns three mobile phones, two computers, and one smartphone (see Figure 2). Qatari households are even more connected than their expatriate counterparts, with an average of six mobile devices, three computers, and three smartphones.

**Internet Penetration and Usage**

In recent years, the government and other stakeholders have demonstrated a strong commitment to making the Internet more accessible and affordable for all who live and work in Qatar by making significant investments in the country’s domestic and international broadband networks, expanding Internet connectivity at a range of educational institutions, developing extensive free Wi-Fi access at public parks, and more.

Such initiatives continue to pay off: overall individual Internet penetration increased slightly in 2012 among those surveyed, to 69.3 percent, while mainstream use continued to grow at a rapid tick. Today, 88 percent of mainstream individuals log on, up from 82 percent in 2010 and 68 percent in 2008. The current rate is on par with all GCC peers, as well as highly networked

**Figure 2: Household Connectivity**

<table>
<thead>
<tr>
<th>Device</th>
<th>Avg. No./HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone</td>
<td>69% 1.65</td>
</tr>
<tr>
<td>Mobile Phone</td>
<td>99% 3.64</td>
</tr>
<tr>
<td>Fixed Telephone Line</td>
<td>70% 0.74</td>
</tr>
<tr>
<td>Television Set</td>
<td>95% 1.62</td>
</tr>
<tr>
<td>Satellite Antenna (dish)</td>
<td>79% 1.13</td>
</tr>
<tr>
<td>Tablet PC</td>
<td>25% 0.35</td>
</tr>
<tr>
<td>Laptop</td>
<td>84% 1.57</td>
</tr>
<tr>
<td>Desktop</td>
<td>50% 0.6</td>
</tr>
<tr>
<td>Computers (includes all types)</td>
<td>92% 2.52</td>
</tr>
</tbody>
</table>

Average Household Size 4.40

Source: Households and Individuals Survey, 2012; Households n=1566
countries such as Singapore, South Korea, and the UK; global leaders like Norway and Sweden are also in sight, at 93 and 90 percent Internet penetration, respectively (see Figure 3).

The landscape data shows that Qatar’s mainstream Internet users are not dissimilar from their counterparts in other countries, logging on to socialize, to keep up with the news, to entertain themselves, and, increasingly, to shop or conduct other financial transactions. In 2012, people went online most often to use email, followed by instant messaging. Sixty-one percent of mainstream users also report using social networking sites on a daily basis.

In terms of specific online tasks among mainstream users, downloading movies and music tops the list, followed by reading newspapers and magazines and getting information about goods or services. One in four also reported engaging in e-commerce and online banking activities over the last year—an increase from 2010—indicating a growing comfort level in this sector. Notably, the global craze for blog-ging has yet to catch on in Qatar, with only one in eight mainstream users stating that they have created a personal web page or a blog of any kind (see Figure 4).

Detailed Findings

Source: Households and Individuals Survey, 2010 and 2012
Other countries—ITU World Telecommunication ICT Indicators Database 2011 (2010 Data)

Figure 3: Internet Penetration in the Overall Population—International Benchmarks

<table>
<thead>
<tr>
<th>Country</th>
<th>Internet Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>93%</td>
</tr>
<tr>
<td>Sweden</td>
<td>90%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>85%</td>
</tr>
<tr>
<td>Korea (Rep. of)</td>
<td>84%</td>
</tr>
<tr>
<td>Australia</td>
<td>76%</td>
</tr>
<tr>
<td>Singapore</td>
<td>70%</td>
</tr>
<tr>
<td>Ireland</td>
<td>70%</td>
</tr>
<tr>
<td>China</td>
<td>34%</td>
</tr>
<tr>
<td>India</td>
<td>8%</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>78%</td>
</tr>
<tr>
<td>Oman</td>
<td>63%</td>
</tr>
<tr>
<td>Bahrain</td>
<td>55%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>41%</td>
</tr>
<tr>
<td>Kuwait</td>
<td>38%</td>
</tr>
<tr>
<td>Qatar 2010 (overall)</td>
<td>69%</td>
</tr>
<tr>
<td>Qatar 2012 (mainstream)</td>
<td>88%</td>
</tr>
<tr>
<td>Qatar 2012 (overall)</td>
<td>69.3%</td>
</tr>
</tbody>
</table>

Source: Households and Individuals Survey, 2012; Internet users n=1405

Figure 4: Types of Specific Tasks Performed Online by Mainstream Internet Users

<table>
<thead>
<tr>
<th>Task</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downloading/watching movies/music</td>
<td>69%</td>
</tr>
<tr>
<td>Reading/downloading newspapers/magazines</td>
<td>59%</td>
</tr>
<tr>
<td>Getting information about goods or services</td>
<td>55%</td>
</tr>
<tr>
<td>Finding, downloading, and installing software</td>
<td>50%</td>
</tr>
<tr>
<td>Getting information from general government organizations</td>
<td>45%</td>
</tr>
<tr>
<td>Education and learning activities</td>
<td>37%</td>
</tr>
<tr>
<td>Playing or downloading games</td>
<td>35%</td>
</tr>
<tr>
<td>Using peer-to-peer file sharing</td>
<td>32%</td>
</tr>
<tr>
<td>Purchase or place orders for goods and services</td>
<td>25%</td>
</tr>
<tr>
<td>Online banking</td>
<td>24%</td>
</tr>
<tr>
<td>Getting information related to health/services</td>
<td>24%</td>
</tr>
<tr>
<td>Interacting with general government organizations</td>
<td>20%</td>
</tr>
<tr>
<td>Creating a web page/blog</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: Households and Individuals Survey, 2012; Internet users n=1405
Internet users in Qatar overwhelmingly prefer to log on from home and also, to a lesser extent, at work. For now, relatively few of those surveyed choose to go online at public locations such as schools, libraries, or cybercafés, although a growing number of people are using the Internet on the go with mobile phones, smartphones, and PDAs—especially Qatari citizens (see Figure 5).

Indeed, 4 percent of the overall population reports that they use mobile technologies as their sole means of logging on—as opposed to traditional computers of any sort. This trend is particularly relevant for transient laborers, whose Internet penetration rates rose from 9 to 25.5 percent between 2010 and 2012, driven largely by the growing number of laborers who are accessing the Internet using their mobile phones.

**Broadband**

With rising Internet use, in general, as well as a growing demand for the latest and greatest online technologies for entertainment, business, and other purposes—including high-definition movies, live-streamed video and audio, online gaming, video conferencing, and large-file-sharing solutions—broadband services are definitely the wave of the future, both in Qatar and around the globe.

As a result of government investment, ongoing massive infrastructure improvements, better service options, and increased ICT awareness, overall broadband penetration among households continues to expand in Qatar, from 41 percent in 2008 to 80 percent in 2010 to a high of 85 percent in 2012. Specifically, 89 percent of households with Internet in the survey use a fixed ADSL broadband connection, a slight decline from 2010. This drop is explained by the fact that mobile broadband penetration increased significantly from 10 percent to 18 percent over the same time period, with 7.4 percent of households with Internet access now using only mobile broadband services to get online.

Still, although broadband penetration is high, international Internet bandwidth per user in Qatar is far below the global average, according to the 2012 Web Index from the World Wide Web Foundation and the ITU’s ICT Development Index (IDI). As they report, connection speeds for users remain quite low. The survey results show that currently only 4

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**Figure 5: Location of Internet Access among Mainstream Users, by Frequency of Use**

<table>
<thead>
<tr>
<th>Location</th>
<th>Every Day</th>
<th>Less Frequent</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>81%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Education Place</td>
<td>7%</td>
<td>63%</td>
<td>10%</td>
</tr>
<tr>
<td>Workplace</td>
<td>41%</td>
<td>13%</td>
<td>46%</td>
</tr>
<tr>
<td>Community Access Place</td>
<td>41%</td>
<td>35%</td>
<td>4%</td>
</tr>
<tr>
<td>Commercial Access Place</td>
<td>41%</td>
<td>35%</td>
<td>4%</td>
</tr>
<tr>
<td>Someone’s Home</td>
<td>56%</td>
<td>39%</td>
<td>5%</td>
</tr>
<tr>
<td>On the Go Using Mobile Phone</td>
<td>53%</td>
<td>14%</td>
<td>33%</td>
</tr>
<tr>
<td>On the Go Using Smartphone/Tablets</td>
<td>47%</td>
<td>10%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Source: Households and Individuals Survey, 2012; Mainstream Internet users n=1405
percent of households with broadband access have the fastest available speeds of 4 Mbps or more.

Instead, half of all households with broadband use speeds within the range of 256 Kbps to 1 Mbps, which can greatly impact how quickly websites load and the rate at which data can be downloaded, as well as cause stuttering, lag time, and long delays (see Figure 6). For example, to download a DVD-quality movie of 4 GB takes nearly 35 hours with a 256 Kbps connection, compared to 53 minutes with 10 Mbps and just over five minutes with 100 Mbps.

Notably, Qatari households are more likely to have higher speed broadband connections than expatriate ones (see Figure 7).

Looking ahead, many of the current infrastructure projects underway, including the new fiber-to-the-home and LTE networks, will boost available bandwidth and significantly enhance both the speed and the quality of broadband services. Thus, by 2015 it is projected that 95 percent of households in Qatar will have access to broadband speeds of 100 Mbps, which will vastly improve performance and—in all likelihood—overall satisfaction with Internet services (see section on satisfaction, page 14).

Mobile Broadband
According to the recent ITU report, Measuring the Information Society 2012, mobile broadband is growing faster than any other ICT indicator on a global level. This is reflected in Qatar, where mobile broadband adoption also continues to expand as a result of infrastructure improvements, specific provider initiatives, and growing ownership of smartphones, among other reasons. In fact, 18 percent of mainstream individuals now use mobile broadband services, up from 15 percent in 2010. The penetration rate for Qatari citizens is more than double that of mainstream expatriates (32 versus 15 percent).

According to ITU’s 2012 ICT Development Index, Qatar has the leading mobile broadband penetration rate in the GCC and also compares well to leading countries like Sweden and Korea.

Still, despite significant improvement in data download speeds in recent years, mobile broadband remains slow compared to the available fixed broadband speeds, both in Qatar and around the world. But ongoing infrastructure developments like the fiber-to-the-home network will boost broadband speeds available and enhance quality, overall.
The Latest Devices

Cumbersome, stationary desktop computers appear to be on the way out in Qatar. The landscape data shows that mainstream residents—especially those who are young and well educated—are increasingly adopting the more advanced new devices that can be used on the go, such as smartphones and tablet computers.

Interestingly, gender discrepancies are much less pronounced with these devices: not only are women keeping pace with men when it comes to smartphone penetration, they are actually using tablets more often (see Figure 8).

Qatari citizens have particularly taken to this next-generation technology, with a 96 percent household penetration rate, versus 64 percent in expatriate households. In addition, 66 percent of Qatari citizens own and use a smartphone compared to 52 percent of mainstream expatriates.

As with technology, in general, young people continue to lead the way, with a 95 percent smartphone penetration rate among Qatari youth, specifically.

Such smartphone adopters tend to be incredibly avid and savvy Internet users, especially compared to those with older-generation, basic mobile phones. In addition to making and receiving calls, they are using their smartphones for increasingly sophisticated ICT purposes, including frequent web browsing, emailing, and social networking (see Figure 9).

Smartphones

Numerous advances continue to fuel smartphone penetration in Qatar, including the availability of a broader range of models and improved and expanded mobile broadband coverage and services. Above all, it seems that people increasingly want or need to access the Internet—with its boundless information and communication tools—in a more immediate, on-the-go fashion.

Today, 69.3 percent of all households own a smartphone, as do 55 percent of mainstream individuals. This includes relatively similar numbers of men and women.
Tablet Computers
Along with the penetration of smartphones, that of easy-to-use, portable, next-generation tablet computers is also on the rise in Qatar, with a quarter of mainstream households owning at least one of these devices. Significantly, 11 percent of women in the mainstream population use tablet computers, versus only 8 percent of men—one of the only ICT categories where women have higher penetration rates (see Figure 8).

Once again, Qatari citizens have been particularly early and vigorous adopters of tablets, with a 64 percent household penetration rate versus 17 percent among expatriate households. On an individual basis, 20 percent of Qatari use a tablet, compared to 7 percent of mainstream expatriates (see Figure 10).

Unsurprisingly, tech-savvy young citizens in Qatar have the highest penetration of tablet computers across all population groups, at 44 percent—higher than their 41 percent penetration rate for desktop computers. Again, this indicates that the ongoing move away from fixed technology and toward ever more portable and convenient devices is especially marked among younger generations.

Thanks in large part to these handy new devices, a growing number of people in Qatar are accessing the Internet on the go, away from a desk or some other stationary location: in fact, less than half of mainstream Internet users now use a desktop computer to go online, with 87 percent using laptops, 55 percent using smartphones, and 14 percent using tablet computers (see Figure 11).

These rates are even more pronounced for Qatari citizens, 86 percent of whom use a smartphone to get online, and 32 percent of whom use a tablet computer (see Figure 11). Furthermore, 85 percent of Qatari women report that they use a smartphone to access the Internet, far more than the 73 percent who say they employ a laptop and 56 percent who say they use a desktop computer. Along with the other positive gender trends in this category, this finding indicates that newer technologies may finally help close the persistent gender gaps in ICT penetration and usage.
Satisfaction with ICT Services

According to the 2012 landscape data, the mainstream population is satisfied with current mobile phone services in Qatar. However, there was a decline in overall Internet service satisfaction, driven largely by expatriates.

Indeed, Qatari citizens are far more content than both mainstream expatriates and transient labors with all of the country’s ICT-related services, even though they report spending nearly 80 percent more on telecommunications than expatriates. This could be explained by the fact that expatriates, who have at least one international comparison point and often more, may be accustomed to faster, more reliable, or less expensive ICT services elsewhere.

Mobile Phone Services
The ongoing liberalization of Qatar’s telecommunications sector has resulted in increased competition, better quality mobile coverage, and a greater choice of mobile services—including mobile broadband services—among other consumer benefits.

Thus, it’s not surprising that two out of three individuals in Qatar today are satisfied with their mobile service. Those surveyed report higher levels of satisfaction in nearly all categories than in 2010, including actual cost and perceived “value for money,” which indicates how much consumers think a good or service is truly worth. The largest gains came in ratings for easy-to-understand billing and after-sales customer support.

Still, the Qatari citizens surveyed reported the highest average satisfaction scores for nearly all aspects of mobile phone services—including value for money and overall service—compared to both expatriates and transient laborers (see Figure 12).

Internet and Broadband Services
The news isn’t as positive when it comes to Internet services. In 2012, 67 percent of the overall population who had used the Internet in the past year expressed high satisfaction with the Internet services provided—a drop from 2010. The key areas of concern were speed, reliability of connectivity, and cost.

The survey indicates that average household spending on Internet services jumped 13 percent between 2010 and 2012 in Qatar, with respondents’ ratings for the actual price of services declining over the same period, along with value for money, which saw the sharpest plunge in satisfaction.

The overall downward trajectory is mainly due to a decrease in satisfaction among mainstream expatriates, who, as a group, are especially concerned about speed issues. Better quality, faster broadband coverage may be more readily available in their home countries.
Qatari citizens, on the other hand, report much higher ratings for cost, value for money, and after-sales customer service attributes (see Figure 13).

Not surprisingly, the higher the broadband speed at home, the more satisfied respondents are with Internet services. In addition, those with higher broadband speeds see much greater value for the money from their Internet services. This suggests that satisfaction levels will improve right along with the country’s infrastructure, which is expected to support broadband speeds of 100 Mbps for almost all households by 2015 (see Figure 14).

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**Figure 13: Satisfaction with Internet Services among Mainstream Individuals (Qatari and Expatriates)**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Mean Score (out of 7.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>4.5</td>
</tr>
<tr>
<td>Value for Money</td>
<td>4.6</td>
</tr>
<tr>
<td>Reliability</td>
<td>5.1</td>
</tr>
<tr>
<td>Speed</td>
<td>5.4</td>
</tr>
<tr>
<td>After-Sales Customer Support</td>
<td>4.8</td>
</tr>
<tr>
<td>Overall Service</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Source: Households and Individuals Survey, 2012

Internet users, Qatari n=437, Expatriates n=968

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**Figure 14: Satisfaction with Broadband Connections among Households with Internet, by Speed**

* A 7-point scale was used to indicate satisfaction levels, with 7 representing highest level of satisfaction and 1 representing the lowest. Percentages above include those who selected the top three categories.

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Source: Households and Individuals Survey, 2012

Households with broadband Internet delivering speed from 256 Kbps to 12 Mbps n=1220
Use of e-Government Services

In recent years, the government of Qatar has devoted significant resources to its e-Government portal, Hukoomi, a one-stop-shop site for 160 information services and 98 transactional e-services such as paying traffic fines and utility bills, and obtaining visas. The site is accessible from the relative comfort of home, through the Internet, and at self-service kiosks, as well as via mobile devices.

Such efforts to use technology to modernize the government, making it both more responsive to and more easily accessible for the people it serves have helped achieve international acclaim in this area: for example, Qatar jumped from 62nd to 48th out of 190 developed and developing countries on the United Nations E-Government Development Index (EGDI) between 2010 and 2012.

Still, public awareness and usage of e-Government services appear to have stalled over the last two years. When it comes to the overall population, nearly half of the people surveyed were not conscious of these services at all, and a mere 17 percent had actually used them in the last 12 months—a drop from 20 percent in 2010.

Among mainstream individuals—the primary targets of the e-Government services—the majority of respondents are aware of the available services, but less than a quarter had actually used them in the last 12 months; this is the same figure as in 2010. A full 35 percent of this group was entirely unaware of e-Government offerings.

Among those who do know about e-Government offerings, about half said they learned about the available services from Internet sources, with another half indicating that word of mouth played a role.

Interestingly, Qatari citizens are the most conscious of e-Government services, and the most likely to use them for services like paying traffic fines and applying for a Smart ID Card. Not surprisingly, when mainstream expatriates log on, it is most often for services that relate to their residence and employment status in the country, including visa and residence permit applications and renewals (see Figure 15). Still, a third of this group was entirely unaware of the range of available services, along with the vast majority of transient laborers.

Satisfaction Rates

On the plus side, once residents do access these services, they are overwhelmingly pleased with them. Among mainstream e-Government users, a robust 96 percent of Qataris and 87 percent of expatriates reported that the services were easy to use, while the vast majority of both groups were highly satisfied with the services provided. This underscores the importance of increasing awareness and further expanding usage.
Figure 15: Types of Activities Conducted by e-Government Services Users (Qataris and Expatriates)

- **Settling traffic fines**: 80% Qataris, 66% Expatriates
- **Paying utility bills online**: 49% Qataris, 35% Expatriates
- **Applying for or renewing visas**: 38% Qataris, 25% Expatriates
- **Applying for a Smart ID Card**: 38% Qataris, 19% Expatriates
- **Making online donations to Qatar organizations**: 16% Qataris, 5% Expatriates
- **Applying for or renewing a Health Card**: 29% Qataris, 18% Expatriates
- **Applying for or renewing a residence permit**: 30% Qataris, 15% Expatriates
- **Registering to search for work**: 13% Qataris, 1% Expatriates
- **Applying for drivers license and viewing application status**: 14% Qataris, 10% Expatriates

Source: Households and Individuals Survey, 2012; Qataris n=153, Expatriates n=260
ICT Barriers

Despite all of the progress documented in Qatar’s ICT Landscape 2013: Households and Individuals, barriers to regular—and even more notably to advanced—ICT use remain, particularly a lack of critical ICT skills.

Specifically, a majority of the overall population (66 percent) report that they face or experience barriers that prevent them from using computers or logging on to the Internet. In addition to the required-skills issue, these obstacles include the high cost of buying or renting technology, a lack of access to computers or the Internet at home, and the high cost of Internet access. Fully one-third of all people still believe that technology is just too complicated.

Such concerns are magnified for certain demographic groups, including women, senior citizens, and especially the large population of transient laborers living in the country at any given time, translating into lower ICT penetration and usage rates. These obstacles must be addressed in order for the country to reach its goal of achieving mass computer and Internet adoption by all segments of society by 2015, and to continue to progress toward a true knowledge-based economy.

Qatari Women

A majority of female Qatari citizens report that they face barriers to ICT use, including relatively low ICT skills and a lack of understanding of technology, along with a perceived high risk of viruses (see Figure 16).

Such barriers clearly influence ICT participation: The computer penetration rate among Qatari women rose to 62 percent in 2012, but it still lags behind Qatari men, at 89 percent. Furthermore, 66 percent of Qatari women access the Internet, compared to 89 percent of Qatari men (see Figure 17). Local women are also far less likely to use mobile phones and other technologies for more advanced tasks like Internet browsing, emailing, and instant messaging.

Qatari Senior Citizens

Despite their stated interest in technology and the acknowledgement that ICT skills are critical for a variety of reasons, two out of three seniors...
report significant obstacles to actual ICT use. These include a lack of ICT skills, general unease with technology, and “old age.”

Such factors obviously influence penetration and usage rates for this age group: in fact, seniors have the lowest individual penetration rates for computers and Internet use among Qatari citizens, at 34 percent and 38 percent, respectively.

These gender and age gaps help explain why, even though far more Qatari households have computers and Internet connections than mainstream expatriate households, there’s a reversal when it comes to computer and Internet penetration among individuals, with significantly higher rates of both among expatriates. For example, the Internet penetration rate is 97 percent for Qatari households compared to 86 percent for expatriate ones, but among individuals, only 78 percent of Qatari citizens access the Internet, compared to 90 percent of their expatriate counterparts (see Figure 18).

To be sure, this discrepancy reflects the fact that a lower proportion of citizens in Qatari households use this technology—specifically women and especially the relatively high number of seniors in the country who live at home with their families.

**Transient Laborers**

Unsurprisingly, ICT barriers are most pronounced for the less affluent, less educated transient labor population—92 percent of whom report obstacles to ICT usage, versus 53 percent of the mainstream population. The biggest hurdle for this demographic group is the fact that computers and the Internet are not available at home—which is temporary housing, in this case—followed by a lack of ICT skills and the high cost of buying or renting computers and connecting to the Internet.

Such issues obviously play a role in the transient labor population’s extremely low ICT usage: this group has a 20 percent computer and 26 percent Internet penetration rate, versus a respective 87 and 88 percent among the mainstream population. Many of them have not used computers or logged on in the last year, or ever.

**Online Safety**

Despite the fact that people in Qatar are increasingly using the Internet for a range of communication, collaboration, learning, entertainment, and other needs, 66 percent of all mainstream users have concerns about logging on. These include a fear of viruses or...
malware, followed by fears about inappropriate content, privacy concerns, and fears about sharing personal information, as well uneasiness about the use of online banking. A third have no concerns at all (see Figure 19).

Despite the worries, relatively few people in Qatar are employing active safety measures when surfing the web—particularly technologically advanced screening tools. For example, despite the fact that 68 percent of mainstream Internet users report that they have faced virus attacks in the past, less than half of this group report using a tool to filter Internet content. Only one in five use a software tool for online security—for example, to protect their personal information from hackers and identity thieves.

Even so, around 70 percent of all mainstream parents are taking action to protect their children online, with half relying on physical monitoring like overseeing computer use in a common household area, and lesser numbers taking measures such as tracking online activity with screening tools, using blocking software, or discussing Internet safety (see Figure 20).
Highlights of ICT Use among Qatari Citizens

Given the huge, rapid strides that Qatar has already made toward universal ICT access, it’s no surprise that its citizens are more and more aware that computer and Internet skills are the key to their—and the country’s—future. With each passing year, Qatari citizens are also increasingly well connected, both with each other and with the global community at large.

Today, on average, a Qatari household owns six mobile devices, three computers, and three smartphones—a far larger and broader mix than in expatriate households—and individual citizens are using the full range of computers, smartphones, and the Internet in record numbers (see Figure 21).

Overall, the country’s citizens are more savvy when it comes to using technology—including the latest devices such as smartphones and tablet computers—to email, instant message, and social network on a frequent basis, especially when they’re on the go.

Qatari citizens are also increasingly comfortable with a range of online activities, using the Internet as an information-gathering tool to search for information on goods and government services, downloading music and movies, and reading e-books, newspapers, magazines, and other periodicals. In addition, about a third of Qatari Internet users have made e-commerce and online transactions over the past year, more than mainstream expatriates (see Figure 22). Specifically, 24.8 percent of these citizens reported that they’d shopped online in the past six months, with an average 11 purchases during that period.

Despite a continuing gender gap when it comes to ICT use, a growing number of female citizens are accessing the Internet with each passing year, especially with the newer devices. For example, as noted earlier, 85 percent of local women now use a smartphone to get online, while 73 percent use a laptop, and 56 percent use a desktop computer. Those who do are frequently logging on to connect with others, with two out of three of female Qatari Internet users reporting that they email or use instant messaging almost daily, and about half interacting through social networking sites (see Figure 23).
These women are also slightly more likely than the overall Qatari population to use online banking services, and to shop online.

**Qatari Youth**

Following global trends, Qatar’s youngest citizens are its most highly connected, and continue to lead the way when it comes to ICT penetration and usage (see Figure 24).

The majority of young Qataris between the ages of 15 and 24 do not see any barriers to ICT use, and they are particularly enthusiastic adopters of the most cutting-edge technologies, including smartphones and tablet computers. They are also avid Internet users who employ this variety of devices to log on to surf the web for information, to download music and movies, and also to social network—which they do far more than all other age groups (see Figure 25).

Interestingly, one in three young people aged 20 to 24 make Internet-based phone calls every day, something that isn’t common among other Qatari citizens or in the overall population.

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**Figure 23: Frequency of Conducting Online Activities among Qatari Women Internet Users**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Every Day</th>
<th>Less Frequent</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>64%</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>67%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>Social Networking</td>
<td>48%</td>
<td>33%</td>
<td>19%</td>
</tr>
<tr>
<td>Online Learning</td>
<td>76%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Video Conferencing</td>
<td>92%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>IP Telephony</td>
<td>58%</td>
<td>20%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Source: Households and Individuals Survey, 2012; Qatari women Internet users n=176

*Responses Every Day to categories Online Learning and Video Conferencing are considered statistically insignificant due to the small sample size.*

**Figure 24: ICT Penetration by Population Segment**

- **Mainstream Expatriates**
  - Computers: 99.8%
  - Internet: 100%
  - Mobile: 100%

- **Qatari Youth**
  - Computers: 98%
  - Internet: 98%
  - Mobile: 98%

- **Qatari Total Population**
  - Computers: 76%
  - Internet: 75%
  - Mobile: 75%

Source: Households and Individuals Survey, 2012

Mainstream expatriates n=1023, Qatari youth n=159, Qatari total n=543
Despite all of this social networking and a huge online presence, Qatari youths still haven’t caught on to the international blogging craze, with only 19 percent of those aged 15 to 19 and 35 percent of those 20 to 24 reporting that they have created a personal website or blog.

Overall, the landscape data echoes other recent research showing that young Qatars are just as plugged-in as peers anywhere in the world, in terms of connectivity and online usage. According to Qatar’s First Connected Generation: An Assessment of How Qatari Youth View and Use Technology, ictQATAR’s report on Qatari youth, this demographic group is also filled with budding ICT entrepreneurs who continue to harness the power of emerging technologies for both economic and social good, locally and globally.

Taking all of that into account—along with the government’s continued emphasis on boosting ICT skills—there seems no question that computer and Internet penetration and usage rates among Qatars will continue to improve with each passing generation.
Qatar’s ICT Landscape 2013: Households and Individuals highlights many encouraging developments in the country’s ongoing quest to build a competitive knowledge-based economy that will benefit all its people. From climbing mobile, Internet, broadband, mobile broadband, smartphone, and tablet computer penetration rates and the rise of multiple device ownership to citizens’ increasingly sophisticated everyday online habits and the country’s highly connected youth population, it’s clear that technology is an increasingly integral part of life for people in Qatar.

Thanks to these and other advances, the country continues to steadily improve its performance against international benchmarks for almost every key ICT indicator—an important accomplishment and a testament to the nation’s prioritization of technology and its constant efforts to both measure and manage gaps in the expansion of ICT adoption.

Indeed, despite the swift progress of recent years, some barriers to ICT use remain, including a decided lack of skills and a fear of technology that are particularly pronounced among women, senior citizens, and the country’s large population of transient laborers, who tend to lag behind in all key ICT penetration areas. The challenge in the future, then, will be to insure that rising computer and Internet penetration and usage rates are matched with enhanced, advanced ICT education and training, resulting in the sort of high-level, integrated, creative deployment of technology that is necessary to truly expand and diversify the digitally literate workforce, as well as for maximum personal and social enrichment.

Ongoing monitoring efforts and the analysis of current data, including the biannual landscape survey and report, are essential for policy makers as they continue to refine programs. This, in turn, will help ICTQATAR push progress even further—to meet the aggressive ICT goals of 2015 and to cultivate a vibrant knowledge-based economy that will be able to move forward, evolve, and thrive right along with technology itself.
Qatar’s ICT Landscape 2013: Households and Individuals is based on a large-scale, sample-based study of the current state of ICT penetration and usage among these populations, conducted by the International Data Corporation (IDC) in 2012 for ictQATAR.

IDC’s landscape research ultimately included 1,880 face-to-face interviews with residents of Qatar who were 15 years old or above, conducted in February and March 2012. During these sessions, which used structured questionnaires administered by a mix of Arabic, English-speaking, and bilingual interviewers of both genders, subjects were asked about their personal use of technology, as well as household composition and habits, where applicable.

In order to reflect the actual composition of the population of Qatar as closely as possible—in terms of gender, nationality, age, and geographic location—the survey population was selected using the stratified random sampling method, with the ideal population composition breakdown based on the most recent available data from the Qatar Statistics Authority (QSA). However, this sample was boosted for certain segments to improve the quality of analysis, and so end results were weighted at an overall level to reflect the composition.

In the end, the survey group included 543 Qataris, 1,023 mainstream expatriates, and 314 transient laborers.

The margin of error on the results obtained is ±2.26 percent at the 95 percent confidence level. This translates into robust data that can be used to comfortably analyze the various parameters covered in the study. This margin of error increases when the results are analyzed at the subgroup level, such as for Qatari citizens—youth, women and seniors—alone. All refusals and Don’t know responses are excluded from the survey data calculations.

In addition to face-to-face interviews, secondary research was also conducted to obtain further

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**Achieved Sample by Nationality**

- Qataris: 29%
- Mainstream Expatriates and Transient Laborers: 71%

* Sample for Qataris was boosted for richer analysis of different Qatari segments.
Appendix: Methodology

Achieved Sample by Municipality

Comparison of Population Proportion and Achieved Sample by Gender

Comparison of Population Proportion and Achieved Sample by Age

statistics and insights on Qatar’s economic, demographic, and ICT landscape. Sources included:

- International organizations that collect and analyze ICT-related country data, such as the International Telecommunication Union (ITU), the United Nations (UN), and the World Economic Forum (WEF)
- The latest data from the Qatar Statistics Authority
- The most up-to-date Internet databases, articles, and reports on households and individuals, ICT penetration, and other related topics

Based on this research, IDC compiled a list of international data indicators for benchmarking purposes. The countries included for these comparisons were:

- Ireland, Singapore, and South Korea: relatively small countries that quickly developed into solid knowledge economies, becoming models in their respective regions
- China and India: large economies with above-average growth rates that remain in development stages
- Bahrain, Kuwait, Oman, Saudi Arabia, and the UAE: regional peers in the GCC
- Australia and the United Kingdom: countries with particularly advanced ICT adoption rates
- Norway and Sweden: worldwide leaders in ICT penetration and usage

* Sample was boosted for richer analysis of the segment.