The promise of 5G

Consumers are intrigued, but will they pay?

October 2018
Objectives and methodology

Consumers are largely satisfied with their current home and mobile internet services; however, there’s mounting frustration with overall reliability, speed and cost. As a nationwide deployment of 5G draws near, it becomes increasingly important to understand how consumers feel about their existing home and mobile broadband services and what they perceive about this next generation of wireless technology, of which only 46% are familiar.

Doing so will allow companies to make more informed decisions about the network devices, services, and applications that will depend on 5G. Specifically:

- Network operators and their suppliers can optimize overall deployment and performance
- Companies who are developing applications and services can do so more confidently
- Employers deploying IoT, automation and AI can better understand opportunities

We asked 1,000 home and mobile internet users questions in several categories:

- How satisfied are you with your current home and mobile internet services?
- Have you heard of 5G and how do you feel about its potential?
- What do you want and expect from 5G internet, both in your home and on your mobile devices?
- What is your willingness to pay for 5G, and why?

**Methodology:** During September 2018, PwC surveyed a nationally representative sample of 1,000 Americans between the ages of 18-64 who have access to the internet via an online survey conducted by a leading global research firm.
Honest feedback: what consumers really think

What do you wish your current home internet provider knew about your service?

“I just want consistent service that I don’t have to worry won’t work one day.” — Male, 37

“I think it’s great! I hardly ever have a problem; it’s fast and I don’t have a complaint.” — Female, 34

“I am very disappointed in the service and the price; yet they don’t care because I have no other choice in this area.” — Female, 64

“Their plans don’t offer enough differentiation to be priced as disparately as they are.” — Male, 27

“I pay a great deal for internet and use very little. I wish there were plans based on usage or more accurately, how many items you tether to the home internet. I feel that the charges do not reflect my actual needs.” — Female, 39
Today’s home internet leaves room for improvement

Overall satisfaction with today’s internet services is high, with 92% and 87% of users at least somewhat satisfied with their mobile and home internet services respectively. However, more consumers are “completely satisfied” with their mobile internet (50%) than with their home internet service (38%).

Compared to one’s home internet, mobile internet seems to hold more value for the money. Reasons for this include:

- **More consumers feel as though they currently pay too much for the internet in their home** (51% agree) compared to the internet on their mobile device (36% agree), despite the opposite being true. It might not feel this way since home internet is priced by speed, not usage, but the reality speaks volumes—when comparing price by how much data is used on each platform, the average cost of internet is $0.34/GB in the home vs. $20.02/GB on mobile.¹

- **Consumers are largely forced into using a particular home internet service yet are able to freely select their mobile provider.** The #1 reason why consumers chose their current home internet service provider was availability, with 21% saying “It was the only option available where I live.” Conversely, the primary reason behind choice of mobile provider was loyalty, with 20% saying “I'm a loyal/longtime customer of my service/brand.”

It’s also worth noting that current dissatisfaction with home internet may have depressed uptake in the usage of connected devices/IoT at home. Improved home internet enabled by 5G could turn the tide toward increased adoption and greater usage of connected things overall.

“My home internet is extremely inconsistent. I feel I pay way more than what it’s worth for basic internet. I wouldn’t mind what I pay if my internet consistently worked.”

Female, 34, who was not aware of 5G, finds it very appealing

Awareness of 5G needs improvement

46% of respondents were familiar with the term “5G” without prompting, with familiarity skewing heavily towards males. Awareness of 5G is also higher in urban vs. rural areas (50% vs. 40%).

“Now that I know about 5G, I’m pretty excited about it and hope that it’s as great as it’s been built up to be.”

Female, 25, who was not aware of 5G, finds it very appealing

The idea of 5G is very appealing

Once defined, the idea of 5G technology is appealing to nearly everyone (93-98% across all age segments); 62% of consumers find 5G “very” appealing. Interest peaks among 18-24-year-olds (71% “very appealing”).
Honest feedback: what consumers really think

If you could change one thing about your current home internet service, what would it be?

“Improve reliability within different areas of the home.” — Female, 53

“Cost.” — Male, 31

“Make it faster! I need more speed.” — Female, 42

“Smoother use.” — Female, 31

“Ensure that I’m getting what I pay for.” — Male, 39

“When my children come home with their laptops, phones, etc., the speed slows down.” — Female, 63
Reliability is top priority

Inconsistency is a current pain point for consumers and is largely contributing to overall dissatisfaction: 43% agree that the internet on their mobile device “cuts in and out sometimes/is not always strong,” while 37% say the same for their home internet, and how it “disconnects for no reason.”

Thus, it’s no surprise that if consumers could change just one thing about their current internet, both in and out of the home, the majority would change its reliability—more so than speed, data and cost.

Reliability is the top consumer “must-have” for internet across the board.

Top 5 internet “must-haves”

<table>
<thead>
<tr>
<th>Home internet</th>
<th>Mobile internet</th>
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<tbody>
<tr>
<td>1. Reliable</td>
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<tr>
<td>2. Secure</td>
<td>2. Unlimited data</td>
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<tr>
<td>5. No buffering</td>
<td>5. Fast</td>
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When thinking of internet in the home/when looking for a mobile wireless provider, which of the following features are most important to you? “Have to have,” “Nice to have,” “Don’t care either way.”

Source: PwC Consumer Intelligence Series 5G survey, 2018

Portability is an added benefit of 5G in the home

In addition to faster speeds and lower latency, 5G in the home brings with it a host of other benefits, including the possibility of less wires, faster do-it-yourself installation, and portability of the service to bring it to other locations when not at home. But do consumers care?

- 66% of home internet users find portability “very appealing”
- 57% find DIY-installation “very appealing”
- 39% said the wireless aspect of 5G in the home makes it “even more appealing”

Reaction to 5G being completely wireless

14% thought my home internet was already wireless
20% I don’t care about wires as long as my internet is fast
39% Makes 5G for homes even more appealing
27% Will it cost less?

What is your reaction to 5G being completely wireless?

Source: PwC Consumer Intelligence Series 5G survey, 2018
One third are willing to pay more for 5G

The business case for 5G isn’t ideal—the rollout and implementation will be costly, and there’s growing concern around small profit margins. But what if internet users are willing to pay more for 5G service?

If 5G delivers on its promise, a third of internet users will pay more for the technology—33% would do so for 5G in the home, while 31% would do the same on mobile.

But how much more would consumers be willing to pay?

Among all surveyed respondents, on average, consumers would be willing to pay an extra $5.06/month for 5G internet service in the home, and an extra $4.40/month for 5G internet on mobile.

Notably, more consumers are willing to pay a premium for 5G in the home than on mobile. As it is, home internet users are less satisfied with their current service, and they feel as though they are already overpaying. What’s a marginal increase in price for a significant improvement in service?

“I like the idea of 5G. It sounds very appealing, but I don’t know if I would be willing to pay a lot more for it. If it was reasonably priced (where I’m only paying no more than $10 extra per month) then I think it’s a great idea. It would be nice to be completely wireless and be able to travel with it.”

Female, 34, who was not aware of 5G, finds it very appealing
Honest feedback: what consumers really think

What do you wish your current mobile phone provider knew about your internet service?

“It’s 2018. I feel like I should have internet wherever I go, especially for the price I pay.” – Male, 32

“I wish they’d offer longtime loyalty customer discounts.” – Female, 50

“That it is a good company with decent priced plans with outstanding customer service.” – Male, 53

“Unlimited is unlimited and should not slow down at any moment.” – Male, 22

“I wish my coverage or service could be more consistent. Every once in a while, I’ll go to one place and have full LTE coverage, then the next time I go to that same place, I won’t have a signal.” – Female, 23
Speed warrants a premium

Though reliability is a consumer’s top priority, it’s speed for which consumers will pay an upcharge. Faster internet, both in and out of the home, is the primary reason why consumers said they would be willing to pay more for 5G.

Notably, benefits having to do with video specifically hold more weight among mobile internet users. More would pay a premium for 5G if it provided “better quality video” on their mobile device (29% vs. 25% of home internet users) and “decreased buffering while streaming video” (25% vs. 19%).

Reasons why consumers are willing to pay more for 5G

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<tr>
<td>Faster data speeds</td>
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<td>Portability</td>
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<td>Consistent coverage throughout the house</td>
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<tr>
<td>Increased reliability</td>
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<td>More bandwidth to accommodate more devices in the home</td>
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<th>Mobile internet</th>
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<td>Faster data speeds</td>
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<tr>
<td>True and consistent unlimited data</td>
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<td>Increased reliability</td>
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<tr>
<td>More consistent coverage outside of the house</td>
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<tr>
<td>Better quality video</td>
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What about 5G wireless internet service in the home/on your mobile makes you willing to pay more? You may select up to three benefits. Source: PwC Consumer Intelligence Series 5G survey, 2018
Honest feedback: what consumers really think

If you could change one thing about your current mobile provider regarding the internet, what would it be?

“More reliability.” — Male, 45

“How they shut off their data halfway through the month even when I don’t leave WiFi.” — Female, 28

“Cheaper prices and loyalty programs.” — Female, 34

“Less buffering on videos.” — Male, 20

“Price. I think I should get a lower price for unlimited 4G because I have so many devices through them and I always pay my bill early or on time.” — Female, 37
Despite the benefits, 5G is not an immediate need

53% of mobile internet users said they would be willing to make a switch for 5G:

- 32% would switch providers
- 21% would switch mobile device brands
- 19% would switch platforms/OS

However, being amenable to change does not equal urgency, and most consumers are not in a rush to get the new technology—in a scenario where a new mobile device would be required to access 5G, only 26% said they would rush out to buy one, even if they were not yet eligible for an upgrade.

Willingness to buy a new device right away was highest among young males <40 (36%), African Americans (36%), and consumers who regularly play video games (34%).

“\textit{I will wait to see if it is really all that it claims to be, and then will decide if I make a jump.}”

Male, 37, who was aware of 5G, finds it appealing
## Spotlight: Consumers under 40

Not surprisingly, internet users under the age of 40 hold the most excitement about a future with 5G connectivity. While much of their attitudes and opinions align with the broader population, it’s worth noting where this group falls outside the line.

Younger consumers place more value overall on the internet and what it affords them. Our respondents under the age of 40 were significantly more likely to report a household income of less than $75,000/year, and yet, they were also significantly less concerned with the cost of their internet.

### Consumer perspective on 5G and the internet, by age

<table>
<thead>
<tr>
<th>Under 40</th>
<th>66%</th>
<th>43%</th>
<th>73%</th>
<th>37%</th>
<th>38%</th>
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<td>Find 5G very appealing</td>
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<th>Age 40 and older</th>
<th>57%</th>
<th>32%</th>
<th>63%</th>
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Source: PwC Consumer Intelligence Series 5G survey, 2018
Honest feedback: what consumers really think

Given the history of the wireless industry, how do you feel about what 5G is likely to bring to you?

“More freedom.” – Female, 25

“I’ll wait and see. It sounds interesting but I don’t want to pay more and change all my devices.” – Male, 38

“Not sure...more bills?” – Male, 40

“I think it’ll be a stress reliever because I won’t have to worry about videos buffering.” – Female, 37

“Should I sit back and just wait for 6G?” – Female, 52

“I’m excited to hear about the portability and going completely wireless.” – Female, 63
The opportunity

5G doesn’t just promise a faster version of the 4G internet we have now; by some estimates, 5G will spur $1 trillion in global GDP over the next three years. It will change how consumers digest media, purchase products and services, and operate their homes. And in the workplace, 5G underlies immense potential for automation and proliferation of intelligent environments.

Yet as the industry looks to capitalize on 5G's true potential, there will inevitably be some bumps along the way. The actual deployment of 5G, for one, which involves a costly and time consuming rollout of small cells (of which consumers are accepting if certain needs are met). Other pressing issues include: downward pricing pressure on mobile broadband as the number of provider options grow; the need to define a more streamlined, self-service customer experience; and the need for network operators to capture significant enough return on their investment beyond just access charges. Providers will need to “up their game” in developing new products to monetize more effectively.

For companies to successfully capitalize on 5G in the near term, there are a few key consumer points to keep in mind:

- **Be realistic** about consumer needs and their willingness to pay. 5G technology may be overshooting both.
- **Educate consumers** on 5G and what it enables and provides beyond the obvious. If it is “just” faster and more reliable service, many will wait. If they see the other products and benefits, like longer battery life or portability, the adoption curve can be accelerated.
- **Proceed with caution.** Target 5G rollout towards the most impactful geographic areas.
- **Diversify yourself to avert pricing wars,** especially in the home. 5G home broadband must be differentiated from today’s fixed broadband. In the immediate future, reliability and portability are high on the list of differentiators for users.
- **Prepare for the long haul.** The rollout of 5G is likely going to be prolonged due to a lack of consumer urgency. Take the time and appropriate steps to develop reasons/hooks to accelerate 5G adoption.
- **Understand limits and hesitations.** Ideals of what a 5G future will look like for a consumer is exciting; however, in the near-term, know your audience. For example, consumers are hesitant to pay additional fees for cellular connections for anything other than phones—only 28% have done so on a tablet.
The bottom line

In the near term, incumbent mobile network operators directly responsible for 5G deployment have the most at stake; however, in the long run, the test will be for companies with applications that rely on the internet to deliver products and services. As 5G rolls-out market by market, consumers’ expectations for efficient, reliable and secure interfaces will only escalate, and companies who ignore their exposure to the impact of 5G may be trailing their competitors.
How 5G was defined for respondents

5G refers to the next generation of wireless network technology. Previous wireless network generations include 1G, 2G, 3G, and 4G/LTE. You might recognize 3G and/or 4G/LTE, which most consumers currently use on their mobile devices. Up until now, these wireless networks have been primarily used by only mobile devices outside of the home when not connected to Wi-Fi.

Like the advances seen in previous generations of technology, 5G is expected to bring significantly faster speeds, shorter delays/buffering, and improved reliability. However, unlike previous generations of technology, 5G will not only offer mobile capabilities but may also be offered as a potential replacement for your current home internet connection.
Let’s talk

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