Deloitte.



2018 Global Mobile Consumer Survey: US Edition

A new era in mobile continues

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Major changes typically don't occur overnight. This is certainly true of mobility, where several interdependent factors need to coalesce for the market to take significant steps forward.

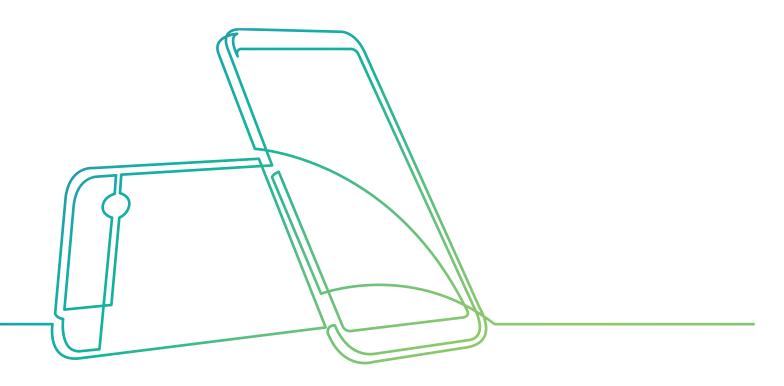
While we saw hints of these developments in 2018, one major story remained unchanged from our previous survey: the smartphone's position at the center of the mobile universe. The smartphone continues to reign supreme as consumers' preferred device for most online actions, as well as for controlling and monitoring a host of daily activities.

As a result, Americans now view their smartphones about 14 billion times per day—an average of 52 looks per user.¹ Smartphones have become so indispensable that some consumers fear they use them too much.

These are just some of the findings from the US Edition of Deloitte's 2018 Global Mobile Consumer Survey. For this year's report, Deloitte surveyed 2,000 US-based consumers to learn more about behaviors and trends that are influencing a wide range of wireless and mobility products and services. This eighth edition of the Global Mobile Consumer Survey also highlights the differences among US consumers across generational divides—capturing findings from six distinct age groups, ranging from ages 18 to 75.

While smartphones continued to thrive over the past year, other mobile platforms (including tablets) showed signs that the market is still trying to figure out if—and where—they fit. At the same time, all consumer age groups showed increased awareness about data privacy and security.

Meanwhile, US consumers expressed growing interest in voice-assisted technologies, certain Internet of Things (IoT) applications and devices, and the introduction of fifth-generation (5G) wireless technologies.



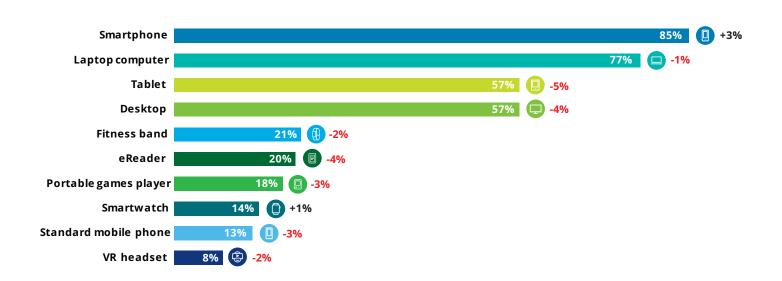
Smartphones take center stage—again

Smartphones thrive as some other devices stall

Over the past year, smartphones easily remained the most favored mobile device among US consumers. According to our survey, their market penetration rose from 82 percent in 2017 to 85 percent in

2018 (see figure 1)—three times the growth rate of smartwatches (the only other mobile device that increased its market penetration over the last year).

Figure 1. Device penetration 2018 and year-on-year growth



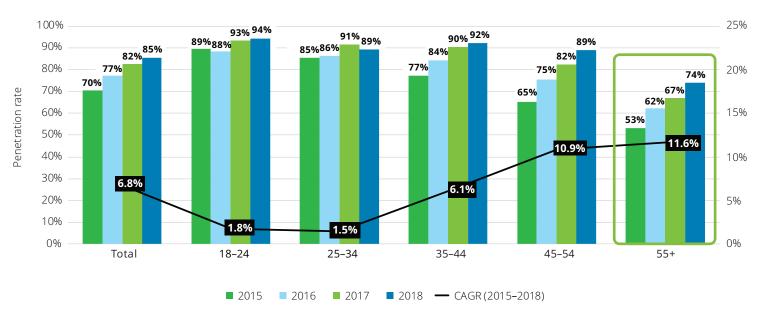
Q. Which, if any, of the following devices do you own, or have ready access to?

Source: Deloitte Global Mobile Consumer Survey, US edition, August 2017, August 2018. Base: All respondents US, 2017: 2,000; 2018: 2,003.

This finding might be considered unsurprising, given the smartphone's domination of the consumer device landscape since its inception a little over a decade ago. One strong indication of consumers' increasing reliance on smartphones "as a hub" is that 20 percent of US adults now use the device as their primary form of online access at home, rather than using a traditional broadband service.²

In our survey, growth in smartphone penetration was strongest among older age groups—particularly US consumers aged 45–54 and 55+ (see figure 2). This finding also reflects the already strong smartphone market penetration among younger generations almost reaching saturation levels with penetration percentages hovering around 90 percent.

Figure 2. Smartphone penetration by age group



Q. Which, if any, of the following devices do you own, or have ready access to?

Source: Deloitte Global Mobile Consumer Survey, US edition, August 2015, August 2016, August 2017, August 2018. Base: All respondents US, 2015: 2,069; 2016: 2,000; 2017: 2,000; 2018: 2,003.

Across virtually all age groups, however, US consumers are viewing their smartphones more often than ever before. US smartphone owners now look at their phones an average of 52 times daily—an increase of about 6 percent over last year. As a result, 39 percent of US consumers think they use their smartphones too much. And, contrary to the common perception, 60 percent of 18- to 34-year-olds admit to smartphone overuse, the highest level of any age group. What's more, 63 percent of US consumers report they're

trying to limit their smartphone usage—but only a little more than half of that percentage (32 percent) are succeeding in cutting back.

And yet, the appeal of smartphones remains strong, whether the phone is new, old, or even a secondhand device. For example, more than 80 percent of smartphone owners bought their latest device within the last two years. Younger users (particularly those aged 18–44) tend to replace their smartphones sooner than other age groups. That said, users are holding onto their smartphones longer.

Smartphones act as a hub for myriad activities

Across most age groups, smartphones remain the preferred mobile device for a broad range of activities—from checking bank balances and social networks, to watching short videos and making video calls, to reading the news, playing games, taking photos, and creating videos (see figure 3).

While the smartphone has established itself as the "Swiss army knife" of mobile devices, it appears that other popular devices such as tablets have more specific uses among different age groups. This finding highlights an important distinction between smartphones and other connected devices.

Figure 3. Preferred devices for online activities

Activity	Total	Male	Female	18-24	25-34	35-44	45-54	55-64	65-75
Browse shopping websites	Laptop	Laptop	Laptop	Laptop	Phone	Laptop	Laptop	Laptop	Desktop
Make online purchases	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop/ Desktop	Desktop
Checkbankbalances	Phone	Phone	Phone	Phone	Phone	Phone	Laptop	Desktop	Desktop
Checksocial networks	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Laptop
Video calls	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Voice calls using the Internet (VoIP)	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Watch short videos	Phone	Phone	Phone	Phone	Phone	Phone	Laptop	Laptop	Laptop
Online search	Laptop	Laptop	Laptop	Laptop	Phone	Laptop	Laptop	Laptop	Desktop
Read the news	Phone	Phone	Phone	Phone	Phone	Phone	Laptop	Laptop/ Desktop	Laptop/ Desktop
Playgames	Phone	Gaming console	Phone	Phone	Gaming console	Phone	Phone	Phone	Tablet
Take photos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Record videos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone

Q. Which, if any, is your preferred device for each of the following activities?

Source: Deloitte Global Mobile Consumer Survey, US edition, Jul-Aug 2018.

Base: All smartphone owners ages 18-75 US, 2018: 1,705.

Note: Laptop does not include hybrid.

Smartphones also serve as a hub for monitoring and controlling a wide variety of actions and devices. Among the most popular smartphone uses are tracking fitness levels, controlling musical choices on speakers, casting video from phone to TV, selecting TV content, monitoring calorie intake, and controlling home security and heating/cooling systems.

While smartphones are a go-to device across a vast array of communication channels, multiyear usage growth is strongest in Internet-based communications such as SMS, voice calls, email, and social networks.

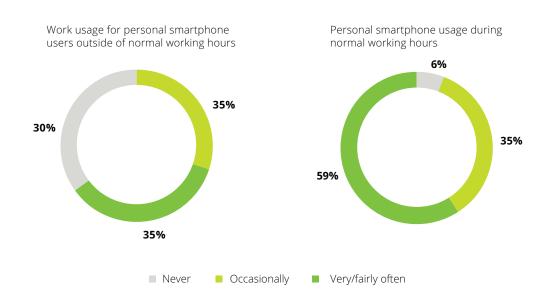
"Always connected" consumers see line blur between work and play

It's no secret that smartphones are a primary driver of today's "always connected" lifestyle. While the line separating work and play used to be fairly distinct, smartphone-enabled connectedness is now making work time more personal, and personal time more work-oriented (with personal time edging work time by a slim margin).

For example, more than a third of adults report that they use their smartphones "very/fairly often" for business purposes outside normal working hours. And 59 percent say they use their personal smartphone during normal working hours "very/fairly often" (see figure 4).

When it comes to getting work done, the primary uses of smartphones are email (56 percent of respondents), making standard calls (52 percent), calendar management (37 percent), using maps (34 percent), and communicating with colleagues/clients via instant messaging (24 percent).

Figure 4. Smartphone usage for work and personal purposes



Q. During a typical working week, how often, if at all, do you use your smartphone for business purposes outside of your normal working hours? Do you use your phone for personal purposes during your normal working hours? Does your smartphone usage for personal purposes distract you at work?

Source: Deloitte Global Mobile Consumer Survey, US edition, Jul-Aug 2018.

Base: All smartphone owners ages 18-75, who are working: 1,111; smartphone owners who use smartphone for personal purposes at work: 1,039.

Maturing mobile behaviors affect tablets, wearables, mPayments

Tablets and wearables face an inflection point

While smartphones continued their momentum over the past year, the same was not true for tablets. Judging from our survey results, it's becoming increasingly clear that consumers view tablets as opportunistic devices, best suited for a few specific tasks—as opposed to the smartphone, which consumers use for everything. In addition, larger smartphone screen sizes are probably causing many consumers to reconsider whether they really need a tablet.

As a result, tablets suffered the largest year-over-year decline in market penetration of any device category in our survey, slipping from 62 percent to 57 percent. It now appears that 2018 may have marked an inflection point in smartphone vs. tablet market penetration across all age groups. While smartphone penetration grew in all age groups except for one (25- to 34-year-olds), tablet penetration dipped across the board.

Other market studies illustrate this trend as well, with some analyst firms attributing tablets' sales slump to a lack of both innovation and high-profile product launches.³

Another revealing finding in Deloitte's survey is the relative absence of tablets as a preferred device for various mobile activities. Only one age group (65+) named tablets as a favored device for a particular activity (playing games). Tablets (52 percent) now rank behind smartphones (94 percent), laptops (74 percent), desktop computers (71 percent), smartwatches (67 percent), and fitness bands (60 percent) in daily usage among respondents (see figure 5).

Figure 5. Mobile device usage (daily)



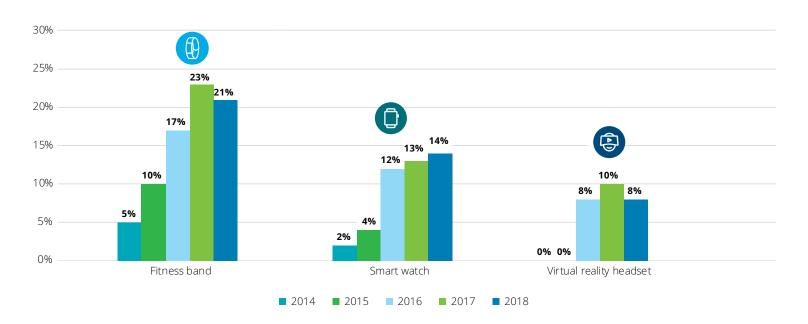
Q. When was the last time you used each device?

Source: Deloitte Global Mobile Consumer Survey, US edition, Jul-Aug 2018. Base: All respondents ages 18–75, 2018: smartphone: 1,705; laptop computer: 1,552; desktop/tower computer: 1,137; smartwatch: 273; standard mobile phone: 252; fitness band: 413; large tablet, over 9 inches: 707; small tablet, 7–9 inches: 638; e-book: 400; portable games player: 356; VR headset: 169.

In the case of wearables, market penetration of the smartwatch increased over the past year (by 1 percentage point) while the market penetration for both fitness bands and virtual reality headsets decreased from 10 percent to 8 percent.

Smartwatches undoubtedly benefited from their increasingly tight integration with smartphones, which boosts their utility and value. On the other side of the coin, perhaps one of reasons for fitness bands' decline is that smartwatches now integrate features once unique to fitness trackers. As a result, some fitness-band makers are being squeezed out of the market. The increased screen sizes, performance, and versatility of smartphones have probably also negatively impacted categories such as e-books and portable game players (see figure 6).

Figure 6. Wearable device penetration



Q. Which, if any, of the following connected devices do you personally own or have ready access to?

Source: Deloitte Global Mobile Consumer Survey, US edition, Jul-Aug 2018. Base: All respondents ages 18–75, 2018: smartphone: 1,705; laptop computer: 1,552; desktop/tower computer: 1,137; smartwatch: 273; standard mobile phone: 252; fitness band: 413; large tablet, over 9 inches: 707; small tablet, 7–9 inches: 638; e-book: 400; portable games player: 356; VR headset: 169.

One bright spot for wearables is that daily usage is growing for owners of fitness bands (60 percent, vs. 53 percent in 2017) and smartwatches (67 percent, vs. 62 percent in 2017). However, this data also indicates that significant percentages of consumers still

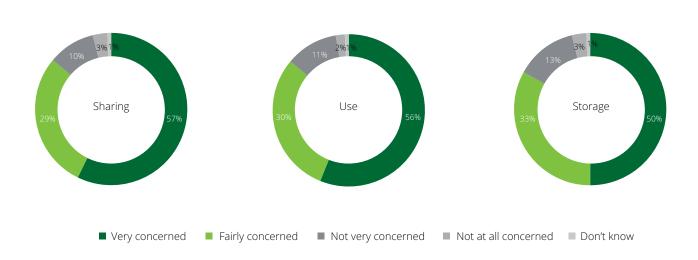
are not using their smartwatches and fitness bands on a daily basis. In the case of smartwatches, this may be an indication that consumers still haven't found the "killer app" that will invite broader adoption and usage.

Consumers show high awareness of data privacy and security risks

Not surprisingly, an overwhelming majority of our survey respondents are concerned about privacy issues related to their personal data. As awareness of new technologies expands, so does awareness of the problems they may cause.

In Deloitte's survey, respondents expressed their greatest concern about sharing personal data with third parties and about usage of their personal data (86 percent are "very" or "fairly" concerned about each one). In addition, 83 percent are "very" or "fairly" concerned about storage of their personal data (see figure 7).

Figure 7. Level of concern about how companies treat personal data



 $Q. \ To \ what \ extent, if at \ all, would \ you \ say \ you \ are \ concerned \ about \ how \ companies \ you \ interact \ with \ online...?$

Source: Deloitte Global Mobile Consumer Survey, US edition, Jul-Aug 2018.

Base: All phone or smartphone owners ages 18–75 who think companies use or share their personal data: 1,647.

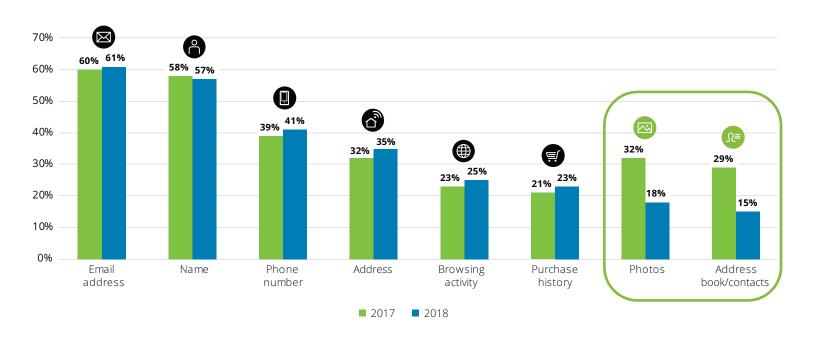
These concerns are translating into increased awareness among respondents about usage of their personal data. For example, 85 percent of respondents now believe that companies with which they

interact online use their personal data "all" or "most of" the time (compared with 83 percent who said the same last year). In addition, 80 percent feel that online companies share their personal data with third parties "all" or "most of" the time (vs. 77 percent in 2017).

Our survey findings underscore the reality that although consumers' awareness of privacy and security risks is relatively high, this awareness isn't triggering changes in their sharing habits for most types of personal information. Willingness to share other categories of information remained about the same year over year (see figure 8), with the biggest increase coming in sharing of respondents' own

addresses (35 percent, vs. 32 percent in 2017). The decreased willingness to share address book contacts may also be connected to new rules about how developers obtain, use, and share information about customers' friends and other contacts.⁴

Figure 8. Information consumers share with companies online



Q. Thinking about companies that you may interact with online, as far as you are aware, which, if any of the following types of information do you already share with them?

Source: Deloitte Global Mobile Consumer Survey, US edition, August 2017, August 2018. Base: Selected respondents US, 2017: 1,826; 2018: 1,865.

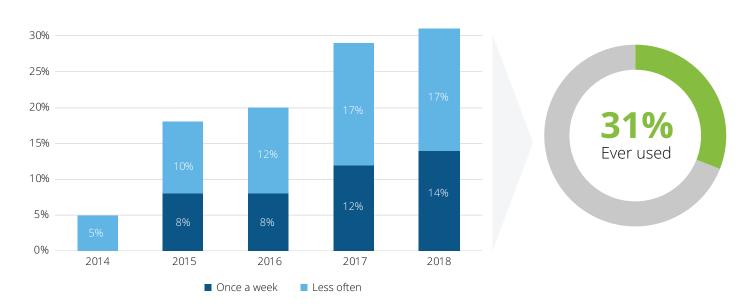
Mobile payments: Security worries, lack of clear benefits

When it comes to mobile in-store payments (mPayments), our survey results show that consumer behavior is still in the early stages of development. Only 31 percent of our survey respondents indicated that they have ever used their mobile device to make an in-store payment, and just 14 percent do so on a weekly basis (vs. 12 percent in 2017).

While there are many reasons for the slow growth of mobile in-store payments, such as non-acceptance of mPayments in many retail locations, security concerns (named by 42 percent of respondents) and lack of perceived benefits (42 percent) are the main culprits (see figure 9).

It's interesting to note that while consumers are showing increased awareness about certain areas of security and privacy (as explained in the previous section), they may be making a mistake by allowing concerns to affect their behaviors regarding mPayments. This is unfortunate since mPayment applications represent a more secure option than using a physical credit or debit card. Unlike physical payment-card terminals, mPayment apps do not use card information for transactions. Instead, they generate digital tokens that function like credit card numbers but are useless if stolen.⁵

Figure 9. In store mPayments use



Q. How frequently, if at all, do you use your phone to do at least one of these things (make an in-store payment)?

Source: Deloitte Global Mobile Consumer Survey, US edition, August 2017, August 2018. Base: All phone owners, 2017: 1,826; 2018: 1,865.

Voice assistants, 5G represent top opportunities in coming year

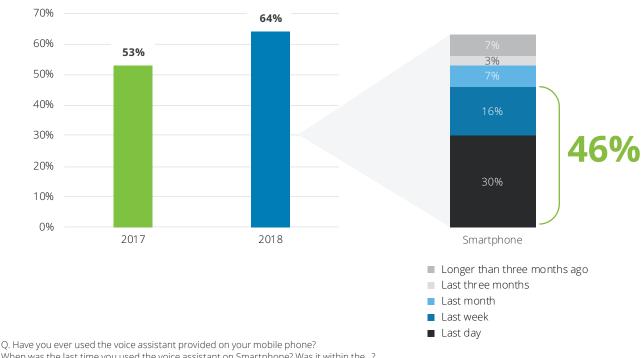
Voice-assistant technologies are "making noise" with consumers

Our latest survey revealed that several mobile technology trends gained momentum over the past year. One of those is the increasing impact of voice assistants, which many believe could be the next big thing in human-computer interaction, after touch.

Judging from our survey results, the smartphone remains a highly popular platform for voice-assistant usage. For example, nearly twothirds (64 percent) of survey respondents now use a voice assistant on their smartphones—compared to 53 percent in 2017. What's more, nearly half (46 percent) employed this capability on their smartphones within the "last week"—and almost a third (30 percent) did so within the "last day" (see figure 10).

However, when it comes to regular usage, voice-assisted speakers are the platform used most frequently for voice-controlled activities. Sixty-nine percent of respondents report that they use voiceassistance capabilities on their voice-assisted speaker weekly, and 47 percent do so daily. These usage-frequency levels easily outpace those of smartphones, tablets, TVs, laptops, and other devices.

Figure 10. Voice assistant usage on smartphones



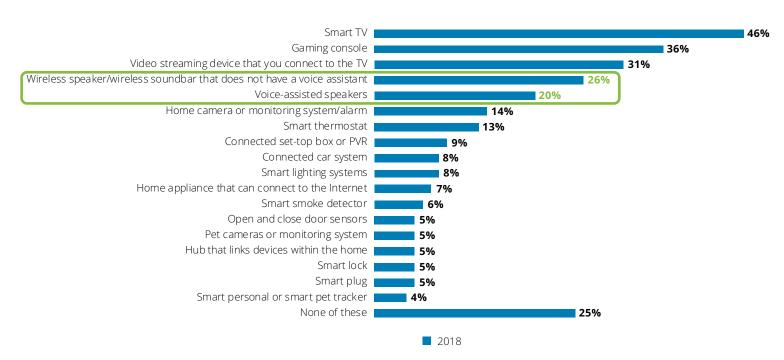
When was the last time you used the voice assistant on Smartphone? Was it within the ...?

Source: Deloitte Global Mobile Consumer Survey, US edition, August 2017, August 2018. Base: Selected respondents US, 2017: 1,634; 2018: 1,705.

As a result, market penetration of voice-assisted speakers nearly doubled over the past year (growing from 12 to 20 percent). That ranks voice-assisted speakers fifth in market penetration (see figure 11) among all IoT devices (trailing only smart TVs, game consoles, video streaming devices, and non-voice-enabled wireless speakers).

Our overall voice-related findings align with those of the most recent Deloitte Media Trends survey, which shows that more than half of US consumers use a voice-based assistant, while a third of them use it on a weekly basis.⁵ Despite the availability of complex applications for digital assistants, however, most consumers prefer using them to perform simpler actions such as searching for information, playing music, and making phone calls.⁷

Figure 11. Connected device penetration



 $Q.\ Which, if any, of the following connected devices do you personally own or have ready access to?$

Base: All respondents ages 18-75, 2018: 2,003.

Note 1: In the 2018 edition, gaming consoles include Nintendo Switch which was in a separate category in the 2018 questionnaire. In 2018, the ownership of Nintendo Switch consoles was 1 percent.

Note 2: Smart personal or smart pet tracker, smart lock, and smart smoke detector were added in 2018; the option for Wireless speaker/wireless soundbar has been adjusted in 2018 with the addition of "that does not have a voice assistant."

Consumers eagerly await 5G networks and smartphones

With 5G services scheduled to begin mass deployments in 2019, anticipation is building among consumers. They're looking forward to 5G's faster data-transfer speeds, lower latency and improved responsiveness, and its ability to connect many more devices (including IoT devices and sensors) simultaneously. 5G's enormous capacity and drastically reduced latency will deliver performance that is superior to that of 4G/LTE technologies.

Overall, 60 percent of respondents indicated that 5G is either "fairly" (34 percent) or "very" (26 percent) important to them now, compared with 55 percent who felt that way a year ago (see figure 12). The perceived importance of 5G is highest among the 25–34 age group (77 percent believe it's either "fairly" or "very" important), followed by the 35–44 (73 percent) and 18–24 (69 percent) age groups.

It's important to note, however, that interest in 5G rose across all age groups over the past year—even among those aged 65+ (a jump from 22 percent to 31 percent).

Interestingly, 29 percent of survey respondents now believe that their current 4G/LTE network speed at home is either "a little" or "much" faster than their home Wi-Fi (vs. 27 percent in 2017). Twenty-nine percent perceive no difference in speed, and 22 percent say their 4G/LTE is either "a little" or "much" slower than their home Wi-Fi.

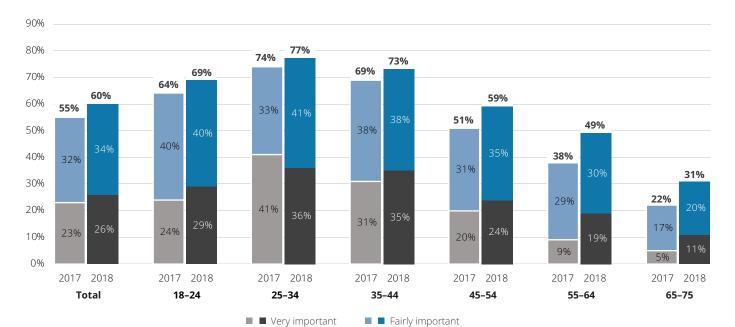


Figure 12. 5G importance across age groups

Q. If your carrier offered 5G wireless data speeds—10 times faster than 4G—how important would this be for you?

Source: Deloitte Global Mobile Consumer Survey, US edition, August 2017, August 2018. Base: Selected respondents US, 2017: 1,826; 2018: 1,865.

Consumers are excited about IoT—but will they pay?

Our survey confirmed significant consumer interest in IoT solutions—particularly the connected car (with 85 percent of respondents expressing interest) and connected home (73 percent interested). However, many have reluctance about actually paying for these services.

Connected car

The perceived value of most connected car functions rose over the past year, with route tracking, maintenance, and traffic/weather updates ranking highest (see figure 13).

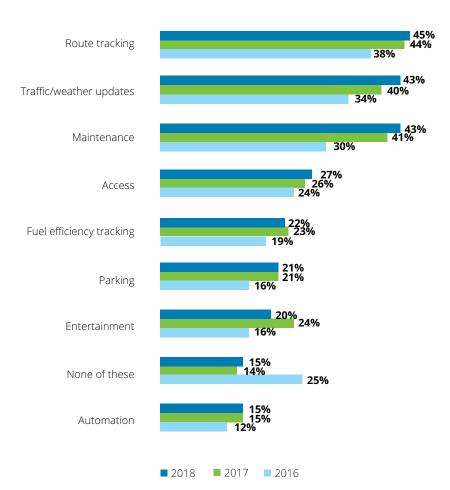
However, consumers' willingness to pay for specific connected car applications declined across the board in this year's survey. Even for the most valued connected car applications—route tracking, maintenance, and traffic/weather updates—anywhere from 53 to

59 percent of respondents said they wouldn't be willing to pay for these services at all. And, if they were to pay for these services, most would want to pay less than \$10 per month. Given that these highly valued services are already available to consumers free of charge through other web- and smartphone-based applications, it is easy to understand consumers' hesitation to pay.

Connected home

Among all potential IoT devices and services for the connected home, survey respondents view home control and home monitoring solutions as having the greatest potential value (named by 55 and 53 percent of respondents, respectively).

Figure 13. Most valued connected car capabilities



Q. Technology is rapidly allowing consumers to connect their cars to the Internet. Which of these would you find of greatest value if your car would connect to the Internet?

Base: all respondents ages 18-75, 2016: 2,000, 2018: 2,003.

Note 1: In the 2018 edition, gaming consoles include Nintendo Switch which was in a separate category in the 2018 questionnaire. In 2018, the ownership of Nintendo Switch consoles was 1 percent.

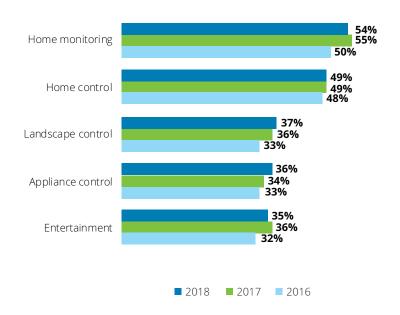
Note 2: Smart personal or smart pet tracker, smart lock, and smart smoke detector were added in 2018; the option for wireless speaker/wireless soundbar has been adjusted in 2018 with the addition of "that does not have a voice assistant."

However, only slightly more than half of our survey respondents say they're willing to pay for connected home products and services, with 54 percent naming home monitoring and 49 percent home control (see figure 14).

And, although home monitoring and home control are the two connected-home services most valued by respondents, approximately one in four consumers want to pay "less than \$10 per month" for them.

Some of this reluctance may be tied to consumers' concerns about the vulnerabilities of smart home technologies. Among the top issues cited were the potential for smart home systems to "make it easier for someone to hack into the home system and cause damage or theft," and "the technology may fail, leaving the home vulnerable to damage or theft." Other worries include the potential for smart home technologies to "reveal too much about your personal life," and "it allows your usage to be recorded or tracked."

Figure 14. Willingness to pay for connected home capabilities



Q. Would you be willing to pay for each way of connecting your home to the internet?

Source: Deloitte Global Mobile Consumer Survey, US edition Base: Selected respondents US, 2016: 2,000; 2017: 2,000; 2018: 2,003.

Summary: An inflection point for the entire mobility industry?

More than anything else, this year's survey confirmed that 2018 marked the continuation of the next era of mobile, with smartphones leading the charge. Despite their ubiquity, smartphones managed to increase their market penetration over the past year—along with their reputation as consumers' go-to device for an incredibly broad range of activities.

At the same time, we learned that parts of the mobile ecosystem may have reached an inflection point over the past year. In the case of tablets and certain wearables, this situation is being driven by multiple factors: product maturity and cannibalization, changing consumer behaviors and expectations, and product form factors and feature sets that appeal to narrower ranges of customers when compared with the smartphone.

Looking forward, several mobile technologies are generating considerable consumer interest, including 5G, voice-assistant apps and voice-assisted speakers, and the connected home and car. Adoption rates will depend largely on whether these products can deliver a compelling value proposition. In the case of 5G, of course, availability of 5G-enabled smartphones will be essential to success.

We look forward to following these developments and reporting our findings in the coming year.

About the survey

This Global Mobile Consumer Survey covers 6 continents, 35 countries, and more than 54,000 respondents. The insights in this particular report are extracted and analyzed from data gathered from approximately 2,000 survey respondents within the United States. Fielded by an independent research firm, the survey focuses on consumer behaviors, trends, and opinions for a broad range of wireless and mobility products and services. In addition to exploring year-over-year results and key insights, the survey is also designed to highlight differences among consumers across generational divides—capturing findings from six distinct age groups, ranging from ages 18 to 75.

Contacts

Kevin Westcott

US Telecom, Media & Entertainment Leader Principal Deloitte Consulting LLP +1 213 553 1714 kewestcott@deloitte.com

Craig Wigginton

Vice Chairman
Technology, Media & Telecommunications
Industry Leader, Americas
Deloitte & Touche LLP
+1 212 436 3222
cwigginton@deloitte.com

Mike Curran

Senior Manager Deloitte Services LP +1 404 220 1152 mcurran@deloitte.com

Mic Locker

Principal
Deloitte Consulting LLP
+1 203 423 4727
miclocker@deloitte.com

Kevin Downs

Senior Manager Deloitte Services LP + 1 571 814.7324 kdowns@deloitte.com Marketing inquiries

Ays Aytolu

Senior Manager Deloitte Services LP +1 408 704 2246 aaytolu@deloitte.com

Press contact

Anisha Sharma

Senior Manager Deloitte Services LP +1 212 492 4427 anissharma@deloitte.com

To learn more about Deloitte's 2018 Global Mobile Consumer Survey, please visit: www.deloitte.com/us/mobileconsumer #TrendsInMobile

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A special thanks to Jeanette Watson whose efforts in managing the development process were invaluable.

Endnotes

- 1. For 2018, 270 million unique smartphone users are estimated in the US. With 52 average looks per day, in aggregate US consumers look at their phones 14 billion times a day. https://www.statista.com/statistics/222306/forecast-of-smartphone-users-in-the-us/.
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