

5G's absence at CES 2019 shows that operators and manufacturers are unclear on what it offers consumers

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Those expecting the first high-profile launches of 5G devices and services at CES in January in Las Vegas were disappointed, but operators and manufacturers seemed happy to wait for Mobile World Congress. The show instead was dominated by discussions about digital assistants, connected cars, televisions and other consumer devices. This article will explore the main talking points from the show.

Disputes between operators over 5G highlight the absence of evidence of the technology's value beyond that of 4G

The highest profile 5G story at this year's CES was less about the technology itself and more about marketing. For example, AT&T was rightly derided by rivals after it replaced an LTE symbol on its phones with an icon for 5G Evolution (5GE), its branding for LTE Advanced Pro services, which are available across approximately 400 cities. However, 5GE only offers a downlink average of around 40Mbps instead of the fibre-like speeds that 5G promises.

Sprint accused AT&T of "blatantly misleading consumers", while T-Mobile tweeted a video of an LTE symbol on a handset being replaced with a sticker marked 9G.¹ Verizon was also critical, ironically because it launched a proprietary version of 5G last year. AT&T was unrepentant, but the move is likely to cause confusion among consumers because its 5GE offering devalues its existing 5G mobile hotspot proposition that it launched in December. 5GE also implies a superior product as opposed to one wedded to LTE. AT&T introduced further complications by announcing in January that it would start deploying its 3GPP-based 5G network this year.

This argument is happening at a time when operators continue to struggle to articulate how 5G will be used by consumers and why they should pay more for it. Verizon CEO Hans Vestberg's keynote at CES struck a familiar note when he stated that 5G delivers such benefits as higher speeds, more capacity, and greater reliability and so on. However, operators are no nearer to working out what clear premium 5G will deliver to consumers as compared with the experience offered by LTE (or advanced versions of it), with the exception of vague references to virtual and augmented reality or cloud gaming. This may explain Verizon's decision to award USD1 million to start-ups if they develop a compelling 5G use case. This move may help to deliver new services, but it also undermines Verizon's own innovation credentials. The success of 5G use cases (such as AR/VR and social broadcasting) will depend on operators partnering with third parties, rather than acting alone.

There were no major smartphone launches at CES, contrary to expectations. Samsung, the world's largest smartphone maker, reinforced the mystery around 5G devices by displaying its prototype in a glass case. However, the industry will get a much closer glimpse at Samsung's 5G plans during its Unpacked event in San Francisco in February (a week before MWC) when it will reveal the latest iteration of its Galaxy handset.

¹ Engadget (8 January 2019), Sprint says AT&T is 'blatantly misleading consumers' with fake 5G. Available at www.engadget.com/2019/01/08/sprint-att-blatantly-misleading-consumers-fake-5g/.

Digital assistants remain at the forefront of competition between tech companies

Amazon and Google both heavily promoted their digital assistants at CES in line with their ambitions to push their digital assistant services further into the consumer device ecosystem. Google stated that its Assistant application now works with more than 1600 smart home brands across more than 10 000 devices. In total, Google Assistant is built into more than one billion devices, which is unsurprising given the application's presence within the Android operating system.

CES showcased the addition of Google Assistant to more third-party alarm clocks, televisions, speakers and sprinklers. Its new features include the ability to write messages, choose music and search for nearby places through Google Maps. Google also revealed the application's Interpreter Mode, which supports dozens of languages across smart displays as well as its Google Home portfolio.

More than 150 products have had Alexa built in, allowing them to be directly controlled by the voice interface. This baked-in compatibility is a strong signal that it is being offered as a differentiating feature. More than 28 000 smart-home products across 4500 brands can be controlled by Alexa through its app or via Amazon's own smart speaker portfolio, a six-fold increase during the past 12 months. It also revealed that more than 100 million devices that use Alexa have been sold worldwide.² Amazon shares common ground with Google in terms of its attempts to embed digital assistants into connected cars, and some prototype vehicles were showcased in Las Vegas.

Alexa's ease of implementation gives Amazon the competitive edge in terms of product reach. The company has been characteristically aggressive in offering developers tools to introduce Alexa into their products. However, Google is keen to catch up with Amazon: this is evident from its announcement that Assistant Connect is an "affordable and easy-to-use" means of integrating its system into new device types. It is built upon its existing smart home platform.

To date, neither Amazon or Google has focused on leading a section of the market with their digital assistants. Instead, both companies are focused on building scale to establish their respective assistants as customers' single interface for a range of services accessed through a variety of device types. New features and partnerships are being introduced at speeds that have not been seen since the early days of smartphones and this trend shows no sign of abating. This makes it difficult for new entrants in this space (as Samsung has discovered with Bixby), but the competition between Amazon and Google is clearly benefiting consumers (and this is all happening without Apple making a concerted play with Siri).

More details of 5G devices and services are expected to be revealed at Mobile World Congress

In February, MWC will showcase further activity within the digital assistant space, and Huawei, Sony and other Chinese manufacturers will join Samsung in revealing their 5G devices. More specifically, the launch of Samsung's foldable phone at its Unpacked event in the same month will see the South Korean manufacturer become the first serious player to embrace a new form factor. However, manufacturers will face a similar

² The Verge (4 January 2019), AMAZON SAYS 100 MILLION ALEXA DEVICES HAVE BEEN SOLD – WHAT'S NEXT? Available at www.theverge.com/2019/1/4/18168565/amazon-alexa-devices-how-many-sold-number-100-million-dave-limp.

challenge to operators in terms of how to deliver enough compelling new features to justify the expense of a more-costly device.

Operators will also face pressure to articulate the tangible consumer benefits of 5G rather than continuing to rely on demonstrations of drones and VR. If 5G is to be as transformative as many stakeholders hope, its benefits will need to be clearly defined and attractive. Operators have arguably had more success in showing off 5G's potential in the enterprise space. It remains to be seen whether they can do the same for consumers.