Will CBRS Begin to Displace Wi-Fi in 2020?

Anatoli Levine, Director Products and Standards at the world's leading IP communications enabler Softil,looks at likely trends for the telecoms industry in 2020

. Anatoli Levine, Director, Products & Standards at MCC enabler Softil

TEL AVIV, ISRAEL, November 12, 2019 /EINPresswire.com/ -- Delivering a technology outlook for 2020 might prove to be more difficult this year as just the year itself, 2020, begs 20/20 perfect vision. What we do know with reasonable certainty is that Moore's Law is still relevant with the speed and capabilities of computers continuing to double every few years. However, many futurists in the telecoms industry now believe that Moore's Law will reach its limits in 2020 as chipmakers hit serious physical limitations.

However, the interesting spin on Murphy's Law lies in the fact that while computing capabilities are doubling every few years, the demand for the same computing capabilities is constantly exceeding supply. This is an important factor to keep in mind as this fuels the drive for the faster, better and bigger technologies.

Let's look at the main technology trends for the telecoms industry in 2020.

CBRS

Whether you have heard of this acronym before or not, you might want to start paying attention to it. There is every chance that CBRS will rise in prominence over the next few years starting in 2020. CBRS stands for Citizens Broadband Radio Service and is the 150 MHz-wide band of the 3.5 GHz spectrum (3550 MHz to 3700 MHz) recently allocated by the FCC. The world lost its wires a while ago and spectrum now is one of the most precious commodities. CBRS has the potential to displace Wi-Fi for many applications such as in-building access, enterprise communications, and industrial IoT. The CBRS Alliance was founded in 2016 by six companies – today, the alliance has about 120 members, and some have already started commercial trials of CBRS products. CBRS technology now marketed under the name OnGo and also identified as Band 48 in 3GPP is the ultimate enabler of

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Private LTE deployments where private LTE makes sense – airports, utilities, seaports, mines, and more. That's why Samsung S10, Google Pixel 3 and iPhone 11 all support Band 48.

5G

No matter how you spin it, the world lost its wires a while back and our life is fully dependent on mobile communications. Don't agree? Drop your smartphone off a bridge. It won't be long before you go to a store to buy the next one.

Our increasing reliability on mobility and connectivity demands more and more from mobile networks hence the need for more capable networks which 5G technology should provide. In 2020, we will see more 5G trials and pilots come to market as more 5G chipsets become available.

However, don't expect 5G to be available to all even in the most advanced markets by the end of 2020. The millimeter wave, which is widely used and the most available today for 5G radio connectivity, has serious distance and line of sight limitations and will require an overbuild of radio access solutions. Sub 6 GHz radio access technology offering lesser speeds than the millimeter wave without its limitations is still in its early stages. 5G is coming, but it might not be before late 2021 when it becomes available to all.

Voice is the New UI

Alexa, Google and Siri had been ruling our homes for some time now and these technologies will continue advancing in the office space. However, there is a significant difference between trusting Alexa with your weather forecast for tomorrow and requesting a delivery of a building map on your mobile phone as emergency services start a rescue operation. There is more work to be done to enhance trust, reliability, and usability of Voice as the sole user control option for mission-critical, or even business-critical, scenarios. But efficiency and convenience needs will trumpet all obstacles as technology becomes more reliable and better integrated with "back office" magic. We should expect innovative Voice UI to become the "wow" factor of the next few years before becoming the norm.

IoT + Analytics + AI = More [and better] Automation

Lumping all the darlings of yesterday and today together in 2020 – how un-elegant, right? IoT generates data, massive amounts of data, and opens the ability to control the source of data. This data onslaught needs to be analyzed, often in real time, and the decision might need to be made – possibly in real time - to better train machines. Connecting IoT, Analytics and AI together to automate decision making is the classic AI use case. Despite all the talk about IoT and AI, we are still in the very initial stages of "what's possible" in these technologies. The journey will continue in 2020 and for quite a few years ahead – and we should expect some lifestyle changing effects as we move forward.

Edge Computing

Old news you might say, but not quite. Yes, cloud computing has become the new norm, but it's apparent that some data and computational power need to be available when cloud connection is lost. This is commonly known as Edge Computing. While the need became apparent some time back, the usage and implementation of Edge Computing remains mostly opportunistic. With the increase in the use of IoT, Industrial IoT, AI and automation, we can expect that the need for well-defined, always available and reliable Edge Computing will also continue to rise. It is not surprising that one of the latest work items started a few months ago in 3GPP SA6 is called Application Architecture for Edge Apps (EDGEAPP. You can expect Edge Computing to evolve in 2020 and beyond.

About Softil

Softil is today’s de-facto IP communications leader and enabler for more than 800 corporations across the globe. Its technological achievements include the pioneering of Voice and Video over IP with a wide range of embedded technologies and testing solutions, combining our unique expertise in standards-based signalling, multimedia and IMS. Softil’s award-winning suite of Protocol Stacks, including IMS, Diameter, SIP and H.323, as well as its state-of-the-art BEEHD client framework, provide the core technology behind the rich media applications and products of today’s Enterprise, IMS/VoLTE, and Mission Critical communications industry.

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