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On

5G takes a center stage with Huawei at MWC 2019 leading the way

Introduction

5th Generation Mobile Network or “5G” is an evolution of the radio technologies that have rapidly evolved in multi directions since the launch of analogue cellular systems in 1980s. Today, Artificial Intelligence, Internet of Things (IoT), Blockchain, Augmented reality and Virtual reality, Autonomous vehicles, Drones, Robots, Automation, Smart communities, Immersive education and so many other technologies are being explored for their wide use cases and applications. However, these are only a few things we can think of and develop today. 5G is a technology inventing and evolving itself; the convergence of technology and telecom will surprise the world with more creative and innovative products in future which are beyond imagination.

To leverage the full potential of 5G, it is important for network operators to address three critical things. The first is size. While 4G can support thousand connections within each cell, 5G should be able to provide connectivity to millions of such connections in each cell. Second is bandwidth. To cope with the increased demand for video, 5G should be at least 10 times faster than 4G and be better at maintaining these speeds consistently. Last is latency. Latency is the key to applications like autonomous vehicles, which require a request to be sent and response to be generated in nano-fractions of second. 5G will require latency much lower than current 4G networks offer.

5G was the talk of the town this year at the Mobile World Congress (MWC) 2019, with technology vendors and operators coming together to share their perspectives on the technology along with a vision for the future on how different 5G use cases will impact our daily lives.

Huawei leading the 5G readiness race

Huawei stands strong on the above crucial factors, ready to address all requirements. Globally, Huawei has shipped more than 40,000 5G base stations and obtained 30 5G commercial contracts till now. Apart from that, Huawei has increased its R&D spend in areas such as fixed access transmission, wireless and core networking.

Huawei has become one of the few companies to offer 2G, 3G, 4G, and 5G connectivity on a single chip with the launch of its new Balong 5000 5G modem, a 5G chip which is 2.5 times faster than any other such similar product in the market on the basis of power consumption, performance, weight, size, deliverability and maintainability. The company also launched its new 5G-oriented outdoor site solution, Super Blade Site, a solution designed for full outdoor deployment. This solution increases the site deployment efficiency and helps operators quickly deploy sites in dense urban areas and high-speed railway scenarios with limited space requirements and low rental costs.

Huawei's equipment is 30% more efficient owing to its new advanced access point (AP) powered by the Balong 5000 and a new intelligent algorithm. Its new 5G active antenna unit (AAU), the device which transmits the 5G signal, weighs just 32kg and facilitates network optimisation, leading to around a 10% network power saving as a result of its power optimisation at the site. Huawei has also deployed SkySight, a 5G-enabled drone for emergency communications; and a new rural mobile broadband solution RuralStar Lite targeting cheaper deployments in remote areas.

Huawei is also planning to introduce a new technology to support autonomous driving, which requires faster operation for driverless cars by automating network workflows. Apart from these developments the

company has also built a number of smart and innovative products, including ultrafast flash storage, a datacentre switch backed by artificial intelligence, a Wi-Fi 6 access point, and AI-powered software-defined cameras. And, we cannot miss out the one of a kind, Huawei Mate X foldable smartphone launched recently.

Gulf nations in the Middle East have ambitious plans to mark their presence on the global ICT market landscape by launching 5G. Countries like Kingdom of Saudi Arabia, Qatar and the United Arab Emirates have embarked on their national transformation drives and have recently taken active steps towards 5G adoption. In the KSA, Al Khobar was the first city to test a 5G Network recently. In Qatar, one of the leading telecom operators rolled out its 5G Supernet deployment, offering a band of 3.5 GHz for commercial 5G network. Similarly in the UAE, a commercial 5G network was launched catered by fixed wireless services at selected locations by a leading telecom operator. Supporting this strong vision and mission of the Gulf countries, Huawei, has been a preferred choice in the region.

As a result, Huawei has successfully partnered with telecom operators in the Middle East to support them in launching 5G services. In the UAE, Etisalat and Huawei have formed a strategic partnership to deploy an end-to-end 5G network as the operator plans to launch 600 new 5G sites within 2019.

In KSA, STC and Huawei collaborated on the 'Aspiration Project' which will see the operator modernise its existing wireless network as well as launch 5G in support of the Kingdom's NTP 2020 and Vision 2030 initiatives. Similarly, VIVA in Kuwait announced its plans to roll out 5G with Huawei while VIVA Bahrain signed an agreement with Huawei to upgrade its existing infrastructure based on non-standalone 5G core, 4/5G dual mode radio unit and high capacity backhauling technologies, supporting the operator with transmission network's high capacity ready hardware allowing it to scale up as and when required in a secure manner.

While other global competitors are claiming their leadership in the market, what makes Huawei stand ahead of the competition is its comparison with counter products in terms of power consumption, performance, weight, size, deliverability and maintainability.

Outlook

5G will eliminate the need for wires as the last mile of connectivity within homes and enterprises. As innovations in 5G networks multiply, we will see greater implications on business. The 5G-powered enterprise will be far less constrained by its physical office location, due to improved service delivery capabilities that will enhance employee and customer engagement through business communications, new services, and Internet of Things. All this will lead to businesses that are more robust, more integrated, and more productive. The decision of selecting the right technology partner will be crucial for telcos in order to sustain and scale up in the initial stage as well as in the long run when competition intensifies. With a strong product range and regionally relevant 5G use cases, Huawei is in a good position to help regional operators introduce new products and solutions that can support their digital transformation and growth.

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