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# Qualcomm, Ericsson and SK Telecom announce collaboration on 5G NR trials to accelerate wide-scale 5G deployments

**-- Trials will be compliant with the 5G NR 3GPP specification, the global 5G standard; driving ecosystem towards rapid commercialization at scale --**

SAN DIEGO, Dec. 19, 2016 /PRNewswire/ -- Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, Ericsson, and SK Telecom today announced plans to conduct interoperability testing and over-the-air field trials based on 5G New Radio (NR) standards being developed based on specifications in 3GPP. The trials intend to drive the mobile ecosystem toward rapid validation and commercialization of 5G NR technologies at scale, enabling timely commercial network launches based on 3GPP Rel-15 standard compliant 5G NR infrastructure and devices.

In the trials, the Companies will showcase new 5G NR technologies that utilize wide bandwidths available at higher frequency bands to increase network capacity and achieve multi-gigabit per second data rates. These technologies will be critical to meeting the increasing consumer connectivity requirements for emerging consumer mobile broadband experiences such as virtual reality, augmented reality and connected cloud services. Additionally, the proliferation of 5G NR technology can make it more cost-effective and easier for multi-gigabit Internet service to reach more homes and businesses.

The trials will employ 3GPP 5G NR Multiple-Input Multiple-Output (MIMO) antenna technology with adaptive beamforming and beam tracking techniques to deliver robust and sustained mobile broadband communications at higher frequency bands, including non-line-of-sight (NLOS) environments and device mobility. It will also make use of scalable OFDM-based waveforms and a new flexible framework design that are also part of the 5G NR specifications. The trials are expected to yield valuable insight into the unique challenges of integrating 5G NR technologies into mobile networks and devices.

"As we did in both 3G and 4G, we are excited about collaborating with leading operators and industry stakeholders such as Ericsson and SK Telecom to accelerate the path to 5G," said Matt Grob, executive vice president and chief technology officer, Qualcomm Technologies, Inc. "The roadmap of 5G technologies is incredibly complex, and trials based on the global 3GPP 5G standard, such as this, are critical to continuing our long history of leadership integrating advanced wireless technologies in form-factor accurate devices to ensure timely deployment of 5G networks."

"As 5G rapidly gains momentum, a globally agreed and unified standard becomes imperative to achieve early commercialization of 5G and build an efficient ecosystem around it," said Alex Jinsung Choi, EVP, Chief Technology Officer, SK Telecom, "As 3GPP NR is a global 5G standard, we are delighted to announce early 3GPP NR trials with leading 5G players, Ericsson and Qualcomm, with which we have made remarkable world's first footprints in the past with previous generations of groundbreaking mobile technologies."

"5G is the greatest opportunity our industry has ever experienced. It will enable operators to move into new markets and build new revenue streams with radically new business models and use cases," said Ulf Ewaldsson, senior vice president and chief technology officer, Ericsson. "This important 5G standard-based trial collaboration will demonstrate compliance to 3GPP and support the accelerated commercialization of the global 3GPP 5G standard. On the road to 5G, Ericsson is working with leading operators and ecosystem players to enable innovative use cases on a global scale."

The interoperability testing and trials, which will launch in Korea starting in the second half of 2017, are intended to track closely with, as well as help accelerate, the first 3GPP 5G NR specification that will be part of Release 15 – the global 5G standard that will make use of both sub-6 GHz and mmWave spectrum bands. Tracking the 3GPP specification is important because it promotes adherence and validation with the global 5G standard, accelerating the time to standard-compliant devices and infrastructure. It will also drive forward compatibility to future 3GPP 5G NR releases.

## **About Qualcomm Incorporated**

Qualcomm Incorporated (NASDAQ: QCOM) is a world leader in 3G, 4G and next-generation wireless technologies. Qualcomm Incorporated includes Qualcomm's licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its products and services

businesses, including its semiconductor business, QCT. For more than 30 years, Qualcomm ideas and inventions have driven the evolution of digital communications, linking people everywhere more closely to information, entertainment and each other. For more information, visit Qualcomm's [website](#), [OnQ blog](#), [Twitter](#) and [Facebook](#) pages.

#### **About SK Telecom**

SK Telecom (NYSE: SKM, KSE: 017670), established in 1984, is Korea's largest telecommunications company with more than 29.15 million mobile subscribers, accounting for around 50% of the market. The company reached KRW 17.137 trillion in revenue in 2015. As the world's first company to commercialize CDMA, CDMA 2000 1x, CDMA EV-DO and HSDPA networks, SK Telecom launched the nation's first LTE service in July 2011. SK Telecom also became the world's first mobile carrier to commercialize 150Mbps LTE-Advanced in June 2013 and 225Mbps LTE-Advanced in June 2014 through Carrier Aggregation (CA). In line with its efforts to swiftly move towards the next-generation mobile network system, or 5G, it successfully commercialized 300Mbps tri-band LTE-A CA in December 2014 and launched LTE-Advanced Pro in June 2016. As of the end of June 2016, the company has over 20.03 million LTE and LTE-Advanced subscribers. Based on its strength in network operations business, SK Telecom is seeking new growth engines through three innovative platforms namely Lifestyle Enhancement Platform, Advanced Media Platform and IoT Service Platform. For more information, please visit [www.sktelecom.com/en](http://www.sktelecom.com/en) or email to [skt\\_press@sk.com](mailto:skt_press@sk.com).

#### **About Ericsson**

Ericsson is the driving force behind the Networked Society – a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, business and society to fulfill their potential and create a more sustainable future. Our services, software and infrastructure – especially in mobility, broadband and the cloud – are enabling the telecom industry and other sectors to do better business, increase efficiency, improve the user experience and capture new opportunities. With approximately 115,000 professionals and customers in 180 countries, we combine global scale with technology and services leadership. We support networks that connect more than 2.5 billion subscribers. Forty percent of the world's mobile traffic is carried over Ericsson networks. And our investments in research and development ensure that our solutions – and our customers – stay in front. Founded in 1876, Ericsson has its headquarters in Stockholm, Sweden. Net sales in 2015 were SEK 246.9 billion (USD 29.4 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

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