
NEW 5G INNOVATIONS BOOST MOBILE DATA SPEEDS

- Ericsson's latest 5G air interface initiative improves reliability and performance – to address IoT and Internet of Skills applications, as well as responding to the smartphone proliferation
- Industry first, new advanced Multipoint Connectivity with Distributed MIMO, connects 5G mobile device to multiple 5G radio sites, delivering several MIMO streams
- Ericsson's live 5G test networks in Stockholm, Sweden and Plano, Texas now welcome mobile operators, eco-system partners, academia, tech media and analysts to experience the future of mobile communications

Today, your LTE smartphone receives transmissions from one cell at a time, and many different techniques are used to ensure that you stay connected as you move between cells. But, with smartphone subscriptions set to more than double, suggesting an eightfold increase in traffic by the end of 2020, today's mobile technology alone won't be sufficient to maintain high quality connections as traffic grows, while satisfying new challenging demands. This is exacerbated by a growing number of connected things, the so-called Internet of Things or IoT, jockeying for mobile network links.

The next generation of mobile networking, known as 5G, is expected to be commercially available around 2020, but Ericsson (NASDAQ:ERIC) already has live indoor and outdoor 5G test networks in Sweden and the US. Ericsson's latest 5G technology initiative provides a way to deliver drop-free, higher capacity mobile connections for both people and things.

Mischa Dohler, Chair Professor of Wireless Communications and Head of the Centre for Telecommunications Research (CTR), King's College London, says: "High-speed, highly reliable mobile networks are foundational to the tactile internet and the internet of skills that it will enable. The results that are being achieved in Ericsson's live 5G test networks -- much faster data rates, more resilient connections-- are critical to unleashing the new use cases that will drive 5G."

Ericsson's latest 5G initiative sounds deceptively simple; a 5G mobile device connects to several 5G cells at the same time, this is known as multipoint connectivity. It provides the resiliency to ensure that the device maintains a high-quality connection with the 5G network as it moves between cells. It also enables the transmission of several different sets of data signals (Multiple Input Multiple Output, or MIMO, streams) to the mobile device over the

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same radio frequency channel. This is called distributed MIMO, and it can increase downlink throughput by 100%. The combined technical capability is called Multipoint Connectivity with Distributed MIMO.

Dr. Håkan Andersson, 5G Strategic Product Manager, Business Unit Radio, Ericsson, says: "To be ready for commercial networks in 2020, 5G research and development now has to come out of the labs and into live test networks. Multipoint Connectivity with Distributed MIMO, supported on Ericsson's 5G air interface, is just the latest example of 5G initiatives moving into live test network implementation."

Multipoint Connectivity with Distributed MIMO involves very sophisticated signaling methods, which are not part of today's LTE standards, to control the mobile device's interaction with the network. So, while LTE technology is evolving to become an integral part of tomorrow's 5G networks, 5G will also include innovative new air interfaces (including signaling, modulation schemes and other software-driven innovations) between the device and the network. Ericsson's 5G air interface initiative, labeled "NX", includes this new Multipoint Connectivity with Distributed MIMO capability.

5G will involve the entire future communication eco-system, from devices to mobile access, IP core and into the cloud. Ericsson's latest 5G test network initiatives focus on the interactions between mobile devices and the radio access network, in both indoor and outdoor circumstances.

Ericsson's 5G test networks, including both 5G mobile devices and 5G radio base stations, are running live at the company's premises in Plano Texas and in Stockholm. The company welcomes mobile operators, eco-system partners, members of academia, tech media and analysts to visit these sites to witness and interact with Ericsson 5G innovations.

NOTES TO EDITORS

Video: [Live 5G Test Network - Multipoint Connectivity with Distributed MIMO](#)

White Paper: [5G radio access – technology and capabilities](#)

[5G Media Kit](#)

[Ericsson and King's College London collaborate to realize the potential of 5G](#)

[Ericsson 5G delivers 5 Gbps speeds](#)

Download high-resolution photos and broadcast-quality video at [www.ericsson.com/press](#)

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.

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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 2014 were SEK 228.0 billion (USD 33.1 billion). Ericsson is listed on NASDAQ OMX stock exchange in Stockholm and the NASDAQ in New York.

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