Madrid, Spain, June 21, 2019

Ericsson activates 5G NSA technology at 5TONIC open innovation lab

- **The deployment, successfully achieved by Ericsson and Telefónica, includes a new 5G Massive MIMO Radio running on 3.5GHz band, along with virtual Evolved Packet Core and User Data Consolidation**
- **Part of the 5G EVE project, use cases of 5G-controlled Automated Guided Vehicles (AGVs) and real-time video analytics running in the 5TONIC lab have been demonstrated by Ericsson, Telefónica and IMDEA Networks at EuCNC event in Valencia**
- **Ericsson, Telefónica and UC3M boost their partnership in 5G innovation with the launch of EU 5GROWTH project, collaborating with INNOVALIA on 5G solutions for Zero-Defect Manufacturing**

Ericsson (NASDAQ: ERIC) together with Telefónica and IMDEA Networks have demonstrated brand-new 5G use cases for Industry 4.0 and Artificial Intelligence (AI) at the European Conference on Networks and Communications (EuCNC) 2019 event held in Valencia, Spain, June 17-21.

During the event, two concurrent use cases executed over the same 5G end-to-end infrastructure at the 5TONIC lab were demonstrated on 5G EVE booth in Valencia. The first one showed ASTI commercial AGVs connected to 5TONIC's E2E network being remotely and real-time controlled from the edge of the network, meeting the requirements of 10-20 milliseconds maximum end-to-end latency and 99,999 percent reliability.

The second use case characterizes both 5G network and deep neural network performance for real-time image recognition and video analytics based on video streamed across 5TONIC infrastructure to an edge cloud location to a deep neural network application. For both use cases a common KPI framework continuously tracks multiple KPIs - including latency, user data rate, reliability and 5G availability – all displayed on a simple dashboard, making it possible and easy for both communication service providers and vertical industries to carry out early and agile validations of innovative 5G use cases.

These milestone demonstrations were achieved only one year after the 5G EVE project was launched within the lab. In 2018, the 5TONIC co-innovation lab founded by Telefónica and IMDEA Networks in Madrid and backed by Ericsson was selected as EU 5G reference platform for open 5G experimentation and was awarded the 5G EVE project to support that mission.

"5TONIC has consolidated a virtuous cycle of exploration, co-creation and innovation in applied 5G uses cases, enabling 5G initiatives from a wide range of vertical sectors. The lab has certainly become the meeting point for 5G innovation in Spain, as well as a key reference for 5G R&D in Europe. From Ericsson, we are glad to contribute to 5TONIC with our 5G technology and expertise to support that mission", says Manuel Lorenzo, Head of Technology and Innovation at Ericsson R&D Madrid.

Moving forward and as a result of the projects' exceptional results, 5G EVE is also proving instrumental in achieving two basic aims of the 5TONIC lab: to expand its portfolio of vertical

collaborations at both a national and European level; and to catalyse the deployment of 5G E2E infrastructure at 5TONIC lab to support those collaborations.

Further evidence of the new collaborations with verticals enabled by 5G EVE sees Ericsson, Telefónica and UC3M reinforce their alliance in 5G innovation by becoming key players in the EU 5GROWTH project, working in collaboration with Innovalia, in Spain, to develop and validate 5G solutions for Zero-Defect Manufacturing. This project was kicked off on June 10 and has a powerful international reach including the involvement of European operators such as TIM, Altice and Telefónica, vertical firms such as COMAU, EFACEC and INNOVALIA, and top academic institutions like UC3M, Scuola Sant'Anna, and Politecnico di Torino.

In parallel with the ecosystem development, on June 13, Ericsson and Telefónica successfully implemented 5G NSA technology at the 5TONIC open innovation lab. This new deployment includes a new 5G Massive MIMO Radio running on 3.5GHz band along with 5G virtual Evolved Packet Core and User Data Consolidation. The first 5G data transmission has been completed using a 5G WNC Pocket Router and tests will continue with new commercial 5G-capable routers and phones to cater for new uses cases at 5TONIC.

"Completing their 5G technology deployment at 5TONIC lab, Ericsson and Telefónica have fully activated 5G NSA according to Rel 15 of 3GPPP. The equipment supplied by Ericsson includes its sophisticated 6488 Active Antenna System (AAS), with Massive MIMO, and emitting on C Band with Telefónica license. The deployment also incorporates Ericsson Cloud Packet Core and Ericsson User Data Management and Consolidation, which provides complete network functionality for 5G networking at 5TONIC lab in IMDEA Networks premises. A number of experimentation and innovation activities encompassed in both bilateral collaborations of Telefónica with verticals and 5G PPP projects with involvement of Universidad Carlos III, Telefónica and Ericsson (such as 5G EVE, 5GROWTH, 5G-TRANSFORMER) will immediately leverage this complete Ericsson 5G platform", says Arturo Azcorra, Managing Director of IMDEA Networks and Vice chairman of 5TONIC.

About ERICSSON

Ericsson enables communications service providers to capture the full value of connectivity. The company's portfolio spans Networks, Digital Services, Managed Services, and Emerging Business and is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world. The Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York.

About 5TONIC

5TONIC was initiated by Telefónica and IMDEA Networks Institute with a clear vision to create an open research and innovation ecosystem laboratory in which industry and academia come together to boost technology and business innovative ventures. The laboratory promotes joint project development, joint entrepreneurial ventures, discussion fora, events and conference sites, all in an international environment of the highest impact. 5TONIC serves to show the capabilities and interoperation of pre-commercial 5G equipment, services and applications, by leading global companies in the 5G arena. The laboratory was recently awarded Digital Innovation Hub status by the European Commission.

–END–

Traducción al español:
/noticias/2019/ericsson-activa-tecnologia-5g-nsa-laboratorio-innovacion-abierta-5tonic
Original source:
/news/2019/ericsson-activates-5g-nsa-technology-5tonic-open-innovation-lab

About Us

IMDEA Networks Institute is a **research organization on computer and communication networks** whose multinational team is engaged in cutting-edge fundamental science and technology. As a growing, English-speaking institute located in Madrid, Spain, IMDEA Networks offers a unique opportunity for pioneering scientists to develop their ideas. IMDEA Networks has established itself internationally at the forefront in the **development of future network principles and technologies.** Our **team** of highly-reputed researchers is designing and creating today the networks of tomorrow.

Some keywords that define us: *5G, Big Data, blockchains and distributed ledgers, cloud computing, content-delivery networks, data analytics, energy-efficient networks, fog and edge computing, indoor positioning, Internet of Things (IoT), machine learning, millimeter-wave communication, mobile computing, network economics, network measurements, network security, networked systems, network protocols and algorithms, network virtualization (software defined networks – SDN and network function virtualization – NFV), privacy, social networks, underwater networks, vehicular networks, wireless networks and more...*

IMDEA Networks Institute	+34 91 481 6210
28918 Leganés (Madrid) Spain	mediarelations.networks@imdea.org
Avda. del Mar Mediterráneo, 22	www.networks.imdea.org

Twitter: @IMDEA_Networks | LinkedIn | Facebook | Instagram | Flickr | YouTube