^c Jelefínica

PRESS RELEASE

RAKUTEN MOBILE AND TELEFONICA SIGN MOU TO COOPERATE ON OpenRAN

• Companies to work together to support and develop OpenRAN architecture in 5G networks

Madrid, Spain and Tokyo, Japan, September 16, 2020 – Rakuten Mobile, Inc., and Telefónica, S.A. announced today the signing of a Memorandum of Understanding (MoU) to cooperate on a shared vision to advance OpenRAN, 5G Core and OSS (operations support systems).

"We're excited to collaborate with Telefónica on this shared vision of advancing OpenRAN," said Tareq Amin, Representative Director, Executive Vice President and CTO of Rakuten Mobile. "I envision our partnership to also co-explore further development around Rakuten Communications Platform that will enable operators around the world to take advantage of cost-effective cloud-native mobile network architecture that is secure and reliable."

Enrique Blanco, Chief Technology & Information Officer (CTIO) at Telefónica, said: "Telefónica strongly believes that networks are evolving towards end-to-end virtualisation through an open architecture, and OpenRAN is a key piece of the whole picture. Beyond the flexibility and simplicity that OpenRAN will provide, it will change the supplier ecosystem and revolutionise the current 5G industry in the medium and long term. At the same time, open and virtualised networks will lead to a new telco operating model. Telefonica and Rakuten Mobile have signed this MoU to work towards evaluating and demonstrating the capability and feasibility of OpenRAN architectures and make them a reality."

Under the terms of the MoU, Rakuten Mobile and Telefónica plan to collaborate on the following:

- To research and conduct lab tests and trials to support OpenRAN architectures, including the role of the AI (Artificial Intelligence) in the RAN Networks.
- To jointly develop proposals for optimal 5G RAN architecture and OpenRAN models as part of industry efforts to achieve quicker time to market, new price-points, and the benefits of software-centric RAN.
- To collaborate in building an open and cost-effective 5G ecosystem, based on open interfaces, that will help accelerate the maturity of 5G with global roaming.
- To develop a joint procurement scheme of OpenRAN Hardware and Software that will help increase volumes and reach economies of scale, including CUs, DUs, RRUs, and other

Telefónica, S.A.

Dirección de Comunicación CorporativaTel: +34 91 482 38 00Ronda de la Comunicación, s/nemail: prensatelefonio28050 Madridhttp://saladeprensa.t

Tel: +34 91 482 38 00 email: prensatelefonica@telefonica.com http://saladeprensa.telefonica.com @Telefonica

Telefínica



necessary network equipment and/or software components.

In addition, the companies will also jointly work on 4G/5G Core and OSS technology utilized by Rakuten Mobile in Japan and its Rakuten Communications Platform.

About Rakuten Mobile

Rakuten Mobile, Inc. is a Rakuten Group company responsible for mobile communications, including mobile network operator (MNO) and mobile virtual network operator (MVNO) businesses, as well as ICT and energy. Through continuous innovation and the deployment of advanced technology, Rakuten Mobile aims to redefine expectations in the mobile communications industry in order to provide appealing and convenient services that respond to diverse customer needs.

About Telefónica

Telefónica is one of the largest telecommunications service providers in the world. The company offers fixed and mobile connectivity as well as a wide range of digital services for residential and business customers. With 342 million customers, Telefónica operates in Europe and Latin America. Telefónica is a 100% listed company and its shares are traded on the Spanish Stock Market and on those in New York and Lima.

For more information about Telefónica: www.telefonica.com

Media Inquiries

Rakuten Mobile Corporate Communications Department global-pr@mail.rakuten.com (+81) 50-5817-1104

Telefónica Corporate Communications prensatelefonica@telefonica.com +34 914823800

###

Telefónica, S.A.