

Press Note

TIM brings in field Virtual Radio Access Network, the 5G evolution of the mobile internet

The new cloud architecture improves the efficiency and flexibility of the mobile network, thus optimising the quality of the service

Turin, 21 December 2016

TIM, first in Europe and among the first companies in the world, marks a further step on the road towards 5G, experimenting on live network, in collaboration with Altiostar, the Virtual Radio Access Network (vRAN) technology which makes it possible to improve the quality of the current mobile network and increase its efficiency.

The new architecture, successfully tested first at the innovation laboratories in Turin and now in the field at Saluzzo, represents an important transformation of the mobile access network, making it possible to fully exploit LTE advanced functionalities, by coordinating signals from various radio base station (Carrier Aggregation inter-site and Comp inter-site), using a centralised and virtualised infrastructure.

The tests conducted in the field have confirmed the maturity of the solution and the benefits expected in terms of improvement in performance and quality of the service offered. For this initiative a virtual server has been installed in Turin, more than 60 kilometres away from the Saluzzo antennas, which has demonstrated its ability to coordinate radio base station even at considerable distances, without affecting connection and performance, thanks to efficient transmission techniques based on Ethernet fronthauling.

The flexibility, the scalability and the possibility of introducing algorithms developed by third parties for the new virtualised architecture enable efficient management of increasing mobile traffic and its rapid changes through the introduction of new SON (Self Organizing Network) functionalities such as innovative methods of automatic network configuration developed by TIM and tested on the Altiostar solution.

With this new technological finishing line crossed, TIM confirms its leadership in the innovation of superfast broadband networks for the purpose of improving the quality of digital services on the go, for maximum customer satisfaction. Virtual RAN in fact constitutes a further element in the evolution to 5G, in response to the growing demand for superfast broadband on the move.

TIM GROUP

TIM is the largest ICT operator in Italy, an enabler of the country's digital life. High quality for the customer and distribution of premium digital services and content, thanks to the development of innovative infrastructures, are the keywords. Investment in fibre and 4G in the three years 2016-2018 will be over 4.5 billion euros, to continue the rapid extension of coverage. In October 2016 fibre already reached 56% of households and 4G reached 95% of the population. The coverage target for the end of 2017 is about 80% in fibre and 98% with 4G. Abroad, TIM Brasil is one of the main players in the Brazilian market. A leader in 4G coverage, it aims at further development of the superfast broadband network. telecomitalia.com

Altiostar

Altiostar is the Pioneer in virtualised RAN (vRAN) with Ethernet fronthaul. Its unique eNodeB solution is designed to improve quality of experience of the mobile network, enhance spectral efficiency and reduce Total Cost of Ownership (TCO). Altiostar has developed a wide portfolio of eNodeB solutions for all notable frequencies and for all deployment scenarios. The vRAN solution is the foundation for evolution towards 5G. It provides elastic scalability, low-risk innovation, with a common NFV+SDN enabled platform. This

Telecom Italia S.p.A.

Registered Office: Via Gaetano Negri, 1 - 20123 Milan

Tax Code / VAT no. and registration with the Milan Business Register: 00488410010 - Registration in the A.E.E. Register (index of Manufacturers of Electrical and Electronic Equipment) IT08020000000799

Share Capital €11,677,002,855.10 fully paid up Certified e-mail address [Casella PEC]: telecomitalia@pec.telecomitalia.it



provides significant cost savings, using commercial-off-the-shelf hardware and LTE-A advanced feature capability, based on C-RAN architecture. VRAN offers the most efficient platform to make Mobile Edge Computing a reality. altio.com or follow us on Twitter @altio

TIM Press Office

+39 06 3688 2610

www.telecomitalia.com/media

Twitter: @TIMnewsroom

Altio

Media Contact

Bryan Guthrie

Designer, Product Marketing

bguthrie@altio.com | +1 855-709-0701

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