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ORANGE AND VODAFONE COMPLETE FIRST 4G CALLS OVER SHARED PILOT NETWORK IN ROMANIA BASED ON OPEN RAN

Orange and Vodafone today announced that they have successfully conducted a pilot with the first real-life experience of 4G calls over a cluster of shared commercial network sites in a rural area near Bucharest, Romania, based on Open RAN technology.

This technological milestone follows the two companies' announcement in February this year that they will build an Open Radio Access Network with RAN sharing in rural parts of Europe where they both have mobile networks.

Open RAN technology decouples software and hardware functionalities. This enables mobile base stations to be upgraded with new features and services remotely, quickly and more cost effectively, reducing the need for site visits thanks to greater network automation. In the context of RAN sharing, it will also allow each operator to operate their own virtualized RAN software on a common cloud infrastructure in future, enhancing operator autonomy and differentiation while sharing network costs.

Within this pilot with commercial traffic, Orange and Vodafone worked together with key vendor partners, individually selected, to demonstrate the benefits of a virtualized radio access network based on Open RAN standardized interfaces, including the ability to make remote software changes.

Drawing on Orange's successful integration tests in the Open RAN laboratory in France, and the experience gained from Vodafone UK's Open RAN deployment, the companies have used the same stack on their shared sites. This includes a Samsung commercial virtualized RAN solution, Wind River abstraction layer on top of hardware to deploy and scale the RAN software, and Dell PowerEdge servers.

Following the successful completion of 4G calls over shared Open RAN sites in a rural location, Orange and Vodafone will soon introduce 2G, which has already been tested successfully in lab, and then 5G.

It will be the first time 2G radio software is fully integrated within a virtualised Open RAN environment in Europe, simplifying its deployment while avoiding the need for more operationally complex overlay solutions.



Bruno Zerbib, Chief Technology and Innovation Officer at Orange, said: "This first pilot deployment of Open RAN within Orange is an important milestone to demonstrate Open RAN is now mature for roll-out in brownfield networks. It opens the door for wider scale deployments across the group, and paves the way towards fully automated and intelligent networks."

Alberto Ripepi, Chief Network Officer, Vodafone, said: "Alongside Orange we have developed a model which will serve as a blueprint to extend mobile networks to rural communities across Europe. Open RAN sharing will allow us to reduce costs by sharing hardware components while independently managing our own RAN software in the cloud to be able to offer differentiated services to our respective customers."

Open RAN offers significant advantages over traditional network sharing. By using open and virtualized RAN and relying on disaggregated software and hardware, Orange and Vodafone will each have greater flexibility when adding new radio sites or upgrading existing ones, while keeping the cost and energy consumption low. Eventually it will also allow operators to run different software containers on the same hardware, providing an operational differentiation and independence.

Today's announcement reinforces the companies' respective and individual commitment to rollout Open RAN as the technology of choice for future mobile networks across Europe, leading to a more resilient and reinvigorated vendor supply chain. The companies' commitment to Open RAN also supports the European Commission's ambitious target to have 5G in all populated areas by 2030.

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About Orange

Orange is one of the world's leading telecommunications operators with revenues of 43.5 billion euros in 2022 and 136,000 employees worldwide at 30 June 2023, including 74,000 employees in France. The Group has a total customer base of 291 million customers worldwide at 30 June 2023, including 246 million mobile customers and 24 million fixed broadband customers. The Group is present in 26 countries. Orange is also a leading provider of global IT and telecommunication services to multinational companies under the brand Orange Business. In February 2023, the Group presented its strategic plan "Lead the Future", built on a new business model and guided by responsibility and efficiency. "Lead the Future" capitalizes on network excellence to reinforce Orange's leadership in service quality.

Orange is listed on Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN).

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About Vodafone

Vodafone is the largest pan-European and African telecoms company. Our purpose is to connect for a better future by using technology to improve lives, digitalise critical sectors and enable inclusive and sustainable digital societies.

We provide mobile and fixed services to over 300 million customers in 17 countries, partner with mobile networks in 46 more and are also a world leader in the Internet of Things (IoT), connecting over 167 million devices and platforms. With Vodacom Financial Services and M-Pesa, the largest financial technology platform in Africa, we serve more than 71 million people across seven countries.

We are committed to reducing our environmental impact to reach net zero emissions by 2040, while helping our customers reduce their own carbon emissions by 350 million tonnes by 2030. We are driving action to reduce device waste and achieve our target to reuse, resell or recycle 100% of our network waste by 2025.

For more information, please visit www.vodafone.com, follow us on Twitter at @VodafoneGroup or connect with us on LinkedIn at www.linkedin.com/company/vodafone.

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