



NOTA DE PRENSA PRESS RELEASE

TELEFÓNICA INVESTS IN ALTIOSTAR'S OPEN RAN TECHNOLOGY TO ACCELERATE NETWORK TRANSFORMATION

- Under the partnership Telefónica becomes full member of Altiostar's new Technology Advisory Committee
- Telefónica Innovation Ventures joins latest round of technology investors in Altiostar

TEWKSBURY, MA/Madrid, Spain– October 17, 2019 – Telefónica, through its corporate venture vehicle Telefónica Innovation Ventures (TIV), and Altiostar, the pioneer in open virtualized RAN (open vRAN) technology, today announced a strategic partnership that aims to accelerate the telecom industry's transformation towards the next-generation wireless networks. Under the partnership, Telefónica will invest in Altiostar and become full member of Altiostar's newly-created Technology Advisory Committee alongside representatives from Altiostar's other investors.

The Case for New Network Architecture

Both Telefónica and Altiostar were early members of the O-RAN Alliance, an industry consortium formed in 2018 to foster open architecture and standardized interfaces that are critical for building and deploying next-generation wireless infrastructure. Today's announcement is a significant milestone in this collaboration. Telefónica is a global telecom provider with operations in 14 countries for which this transformation is key to its long-term success.

Telefónica began an extensive evaluation of technologies that can run on commoditized hardware through open and standardized interfaces in June 2018. The results were shared with the industry later that year at the Telecom Infrastructure Project (TIP) Forum where Altiostar was selected as one of the leading vendors, in terms of compliant end-to-end platforms, for deployments in Latin America. Last February, Telefónica released a whitepaper on open access architecture and edge computing outlining its vision to build networks that can be assembled from interchangeable module components under Telefónica's control.

Telefónica selected Altiostar as its open RAN partner of choice. With this investment, Telefónica is executing on this vision and paving the way for both established and new telecom operators to adopt open, cloud technologies and deploy web-scale networks in the future.

"Telefónica is leading the disruptive transformation of the Telco industry. For us, 5G means a unified network where all types of accesses, platforms and cores will converge into a single virtualized, modular and programmable computing platform. We were pioneers in adopting cloud technologies at the core network, and with open RAN we will be able to create a fully softwarized, web-scaled radio access network with unprecedented capacity and performance. Altiostar is one of the fundamental





pieces required to expand our network capabilities and make them available to our customers at the speed of software", said Enrique Blanco, Telefónica Global Chief Technology and Information Officer.

"Our investment in Altiostar, through Telefónica Innovation Ventures, will help us innovate in order to build the next generation of networks, improving efficiencies and leveraging network flexibility to develop potential new services to our customers", said Gonzalo Martin-Villa, Telefónica Chief Innovation Officer, responsible for Telefónica Innovation Ventures, among other areas.

Since its founding, Altiostar has been the industry's champion of open RAN. Splitting the RAN into a virtualized centralized unit and virtualized distributed unit running on Commercially Off-The-Shelf (COTS) x86 server hardware is something that Altiostar pioneered and has tested with real commercial traffic in partnership with many operators, a the first step towards open access networks. Now, the industry recognizes the advantages and the need for open RAN and is coming together in various alliances and consortiums to standardize open architectures.

"This future is not possible through the continued deployment of traditional RAN solutions. To be successful, operators must embrace new innovative solutions that possess the openness, programmability and automation delivered through a software-defined, cloud-native platform and an open supply chain. We are honored that a global operator like Telefónica is joining us on the journey of innovation in the RAN industry through disaggregation, network virtualization and building a multi-vendor open ecosystem," said Ashraf Dahod, CEO and Chairman of Altiostar.

About Telefónica Innovation Ventures

Telefónica Innovation Ventures (TIV) is Telefónica's corporate venture vehicle to invest and build strategic partners aligned with Telefónica's global strategy. TIV invests directly in tech startups, or through a network of leading venture capital funds in which TIV participate as a limited partner in key markets for Telefónica. Currently, TIV's portfolio is formed of 10 startups invested directly and more than 80 startups invested through 9 venture capital funds. TIV has offices in Silicon Valley and Madrid, with an investment scope focused on Europe, US, Israel and LATAM.

About Altiostar

Altiostar provides a 5G-ready virtualized open RAN software solution that supports open interfaces and disaggregates the hardware from the software to build an open multi-vendor web-scale network. This solution supports macro and small cells, indoor and outdoor, enabling interference management, carrier aggregation and dual reception to improve the efficiency of the network and enhances the Quality of Experience for the user while providing broadband speeds. Operators can add intelligence, quickly adapt the software for different services and automate operations to rapidly scale the network.

Telefónica, S.A.