



Partnering to demo the first-of-its-kind live testbed of the ESA ARTES project SATis5

VT iDirect, SES and Fraunhofer FOKUS demonstrate live over-the-air testbed with SATis5, showcasing 5G deployments as part of the FOKUS FUSECO Forum Nov. 15-16, 2018 in Berlin, Germany.

SATis5 consortium members, VT iDirect, SES and Fraunhofer FOKUS partnered to showcase a first-of-its-kind live satellite-5G testbed. This demo shows how satellite connectivity can integrate into a 3rd Generation Partnership Project (3GPP) network architecture, comprising a Software-Defined Networking (SDN), Network Functions Virtualization (NFV), and Multi-access Edge Computing (MEC)-enabled 5G testbed. The successful test leverages iDirect's modems, hub and 3GPP-enabled core, with SES geostationary satellite Astra 2F. The demonstration also showcases efficient edge delivery and network

slicing of eMBB and mMTC over satellite building upon Fraunhofer FOKUS' Open5G core network as a proof-of-concept for their integration into a full 5G architecture.

The demo showcases:

- First over-the-air live demo with SATis5 testbed
- The successful integration of satellite into a standard 3GPP network architecture
- Satellite communications exercising SDN and NFV technologies
- Network Slicing of enhanced Mobile Broadband (eMBB) and massive Internet of Things (mMTC) use cases over satellite
- End-to-end orchestration over satellite and terrestrial links

"The goal of SATis5 is to foster industry collaboration that ensures satellite's place in the future 5G connected world. SATis5 is helping drive major milestones and deliverables led by key innovators across the satellite and telecom industries. This is critically important work that will help service providers worldwide reach significant new markets and shape the future of how the world connects."

*Richard Lord, Vice President,
Engineering, Strategic Initiatives, VT iDirect*

The work presented has been conducted as part of the ongoing ESA ARTES Advanced Technology project, "SATis5: Demonstrator for Satellite Terrestrial Integration in the 5G Context" (ESA Contract No. 4000120663/17/NL/CLP). The views expressed herein are those of the authors and do not necessarily reflect the official opinion of the European Space Agency.



SATis5

First over-the-air live demo with SATis5 testbed at the FOKUS FUSECO Forum in Berlin on Nov. 15-16, 2018.

