PRESS RELEASE
NOTA DE PRENSA

Madrid, Spain, June 11, 2020

ETSI awards the best PoC demonstration with OpenSourceMANO to a team including researchers from UC3M and IMDEA Networks

The award-winning work is “OSM PoC 10 Automated Deployment of an IP Telephony Service on UAVs using OSM” by Borja Nogales, Iván Vidal, Víctor Sánchez, Francisco Valera, Luis F. González and Arturo Azcorra

ETSI has awarded the best Proof of Concept (PoC) demonstration of OpenSourceMANO (OSM, a system that is standardized by ETSI) during the Release EIGHT cycle with OSM PoC#10 Automated Deployment of an IP Telephony Service on Unmanned Aerial Vehicles using OSM to a group of researchers from University Carlos III of Madrid and IMDEA Networks. The organization has valued “the originality, visibility and technical merit to the exhibition and dissemination of the work of the OSM community”.

Borja Nogales (UC3M), Iván Vidal (UC3M), Víctor Sánchez (IMDEA, UC3M), Francisco Valera (UC3M), Luis F. González (UC3M) and Arturo Azcorra (IMDEA, UC3M) have worked on a flexible platform composed of unmanned aerial vehicles (UAV, commonly known as drones), capable of supporting the cost-effective deployment of network services in geographically delimited areas through the use of Network Function Virtualization (NFV) technology. It is important to take into consideration that NFV is considered one of the key-enabling technologies in the development of the 5th generation of mobile networks.

One of the objectives of this experiment is to showcase the automatic deployment of an Internet Protocol telephony service through OSM over a network of interconnected drones, leveraging the capacities of the configured NFV environment. As they explain, although the protocol focuses on a specific type of network service (i.e., IP telephony), the described steps may serve as a general guide to deploy other type of network services.

The researchers have proved that the Proof of Concept demonstrates the practical feasibility of automating the deployment of telecommunication services over resource-constrained devices, particularly drones. However, they highlight that the applicability of this solution to different environments and its potential adaptation will require a careful study in a case-by-case basis.

This work has been partially supported by the European H2020 5GRANGE project as well as by the 5GCIty project funded by the Spanish Ministry of Economy and Competitiveness. In addition to the ETSI award, it was selected by OSM as one of its benchmark Proofs of Concept.

About ETSI

ETSI is a European Standards Organization (ESO). They define as “the recognized regional standards body dealing with telecommunications, broadcasting and other electronic communications networks and services”. Furthermore, this organism provides its members with an open, inclusive and collaborative environment, which pretends to contribute to the development and testing of global standards for ICT systems, applications and services.

Automated Deployment of an Internet Protocol Telephony Service on Unmanned Aerial Vehicles Using Network Functions Virtualization
About Us

IMDEA Networks Institute is a research organization on computer and communication networks whose multinational team is engaged in cutting-edge fundamental science and technology. As a growing, English-speaking institute located in Madrid, Spain, IMDEA Networks offers a unique opportunity for pioneering scientists to develop their ideas. IMDEA Networks has established itself internationally at the forefront in the development of future network principles and technologies. Our team of highly-reputed researchers is designing and creating today the networks of tomorrow.

Some keywords that define us: 5G, Big Data, blockchains and distributed ledgers, cloud computing, content-delivery networks, data analytics, energy-efficient networks, fog and edge computing, indoor positioning, Internet of Things (IoT), machine learning, millimeter-wave communication, mobile computing, network economics, network measurements, network security, networked systems, network protocols and algorithms, network virtualization (software defined networks – SDN and network function virtualization – NFV), privacy, social networks, underwater networks, vehicular networks, wireless networks and more…

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