NetWorld2020 SME Working Group

SME Success Story - 2020

Azcom Technology

Azcom Technology is a leader company in advanced wireless communication, with two decades of experience in the wireless Telecom market. We developed a complete suite of software IPRs and hardware platforms to build and deploy commercial and special purpose solutions for cellular communications, automotive, aerospace, home automation and mobile applications. Our business includes both products and services. The most recent product of our wireless portfolio is a LTE/NB-IoT small cell, customizable for different solution, such as providing private LTE/NB-IoT deployments, and available also in NIB configuration along with our Core Network EPC. Azcom Technology offers also services, from turnkey solutions to the optimization of third party software for a wide range of clients and in different areas from industrial 4.0 to automotive to home automation. This year Azcom is engaged in development for its first Open RAN compliant product.

Azcom involvements in H2020 framework started in 2015, when Azcom joined the 5GPPP Phase 1 5G Novel Radio Multiservice adaptive network Architecture (NORMA) project (http://www.it.uc3m.es/wnl/5gnorma/). 5G NORMA aimed to develop a novel mobile network architecture that provides the necessary adaptability in a resource efficient way able to handle fluctuations in traffic demand resulting from heterogeneous and dynamically changing service portfolios and to changing local contexts. In the contest of 5G NORMA Azcom have developed the Native Multi-Service Architecture Proof of Concept (PoC), showing the support of service flexibility using the decomposition of mobile network functions and their allocation to the edge cloud or central cloud, based on the service requirements. In this demo Azcom small cell functionality has been extended to support the control commands received from an external orchestrator. This work opened Azcom small cell product to the new frontier introduced in the 3GPP Release 15 standard including the implementation of Distributed Unit (DU) and Radio Unit (RU), also enabling software defined mobile network control.

Azcom focus is not limited only to the 5G mobile infrastructure, and in the 5GPPP Phase 2 Azcom joined the 5G Convergent Virtualised Radio Access Network Living at the Edge (CORAL) project (http://5g-coral.eu/). 5G CORAL aims to deliver a convergent 5G multi-RAT access through an integrated virtualized edge and fog solution that is flexible and scalable, where Edge Data Centre (DC) are smaller data centres than clouds, located typically closer to the connectivity nodes and Fog Computing Devices (CD) provide computing, storage and/or networking capabilities on terminals or a near-terminal infrastructure nodes and access point. Consequently, new delay sensitive services can be provided. Azcom contributed to the Connected Car PoC, where 5G CORAL technologies, functions application and services, can be run on the vehicles, in the On Board Unit (OBU) and on the Road Side Unit (RSU). Compared to a legacy architecture where all the application and

services are placed beyond the core network, this configuration leads to a quicker and distributed manner information exchange, resulting in an optimization of the network response, improving driver safety.

Azcom designed and developed the OBU and integrated the RSU with all the required 5G CORAL vehicular applications, services and network functions, exploiting also an innovative multi-RAT approach. The importance of the OBU has been grown since it is also used as the basic block of the implementation carried on by Azcom in the European C-ROADS project (https://www.c-roads.eu/platform.html) which aims to implement and test, in real traffic conditions, cooperative systems based on V2X technologies and involve technology partners.

Azcom next steps are focusing in the direction of an implementation of ORAN interface, and renewed interest in H2020 and Horizon Europe projects to adjust the Azcom future vision and direction.

For more details see: http://www.azcomtech.com/

Contact: info@azcomtech.com