

NetworldEurope SME Working Group

SME Success Story – October 2022



5G-EPICENTRE partners Nemergent Solutions, Athonet and One Source

The success story involves 3 SMEs from 5G-EPICENTRE and an academic partner providing a 5G testing platform. The joint work is devoted to Public Protection and Disaster Relief (PPDR) NetApps and associated capabilties. Especially on 5G Quality of Service (QoS) management as an enabler for advanced service operations, usability of the 5G capabilities, and adjustment of networks for PPDR needs. More precisely, PPDR-oriented NetApps with the 5G network within the framework of Mission Critical Communications (MCX) and the associated QoS.

Thanks to the direct interaction between MCX NetApps and the 5G Core Network (5GC), it is possible to guarantee the QoS conditions required for this type of solutions both for default traffic and specific traffic, via direct and dynamic requests to the 5GC's Policy Control Function (PCF) or Network Exposure Function (NEF). The 5G network, by handling the required QoS for MCX, demonstrates its capability to be a key enabler for future communication solutions in the PPDR ecosystem. This work constitutes an important step towards securing mission-critical network conditions in 5G and fosters the transition of PPDR communication solutions to new use cases and business models in commercial mobile broadband networks.

Among the involved partners, Malaga experimentation platform is used, which provides a 5G private network located at the University of Malaga (Spain) enabling the main data center available for the deployment of the NetApps including a native Kubernetes (K8s) multi-master deployment. Among the SMEs, the 5GC SA mode is provided by Athonet, the 3GPP standards-aligned MCX NetApp linked with the 5GC's PCF as a unique AFis provided by Nemergent Solutions and the situational awareness Mobitrust platform associated with the NEF is provided by One Source.



