



PRESS RELEASE

12 December 2023

EVOLVED-5G project: EXPERIMENTATION AND VALIDATION OPENNESS FOR LONG-TERM EVOLUTION OF VERTICAL INDUSTRIES IN 5G ERA AND BEYOND

[H2020 – Grant Agreement No. 101016608]

The EVOLVED-5G Service Package is a software bundle to facilitate developers for the creation, verification, validation and certification of Network Applications. It is Virtual Machine (VM) as a downloadable package to be installed for local use. The EVOLVED-5G Service Package ease and allows developers to initiate in the development of Network Applications. Within this VM, the developer can interact with the Dummy Network Application to understand how a Network Application does the network communication with NEF and TSN through CAPIF.

The EVOLVED-5G Service Package includes:

- 1) An SDK including libraries and a Command Line Interface (CLI) tool, that enables developers for:
 - a) The creation of a Network Application repository where they can create their own code / Network Application by making use of the SDK libraries.
 - b) The generation of Network Applications from a template using the CLI tool.
 - c) Verify, validate and certify in a virtualized environment using the CLI tool by launching different pipelines, the Network Application interaction with NEF and the TSN service exposure through CAPIF.
- 2) Dummy Network Application, an example of Network Application that illustrates the behavioural functionalities that a Network Application must have in the EVOLVED-5G environment. Developers can view and change the code of the Dummy Network Application to create their own. They can also run the different verification pipelines against the Dummy Network Application.
- 3) NEF services, that emulate the Northbound APIs of 3GPP's Network Exposure Function (NEF) so developers can check the Network Application interaction with NEF. Three APIs have been implemented to be used by Network Apps: Location, Connection monitoring and QoS Awareness.
- 4) CAPIF services implement the core function of the Common API Framework, specified in 3GPP Rel. 17. By using these services, Network Applications are aligned with the related standard, i.e., they adopt an interoperable and secure way to interact with APIs exposed by API providers that reside at the mobile network (e.g., NEF).
- 5) TSN Frontend, that exposes an API to request network configurations related to TSN and deterministic communication. There is a set of pre-defined configurations which can then be customized by developers.

Developers can download the VM from a link shared in the Wiki (<https://wiki.evolved-5g.eu/>) and import it to their preferred hypervisor.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101016608



This press release is also available at EVOLVED-5G website
<https://evolved-5g.eu/> under **Press Releases** section.

EVOLVED-5G embraces the potential of the emerging Network Application ecosystem under a twofold scope: i) to build an open experimentation facility for Network Application creation, validation, and certification, and ii) to provide the means and the tools for long term evolution of 5G-enabled vertical industries.

EVOLVED-5G is an EU H2020 ICT-41-2020 funded research project which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101016608.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101016608