# Guidelines

The EVOLVED-5G Service Package it is a wholesome of all developments carried out in EVOLVED-5G related to Network Applications. This VM is composed by the following elements:

* **CAPIF**, it is a complete 3GPP API framework that covers functionality related to, on-board and off-board API invokers, register and release APIs that need to be exposed, discovering APIs by third entities, as well as authorization and authentication
* **NEF**, it implements the standardized NEF APIs in a configurable emulated environment, where the user can define specific simulation environments (e.g., number and type of UEs, position of gNBs etc.).
* **TSN**, it is a set of standards with the intention to provide deterministic connectivity (e.g., bounded latency) over Ethernet networks. TSN Application Function, is a key component to ensure the quality through the end-to-end connectivity that enables the 5G network to act as a transparent TSN Bridge.
* **SDK**, it is composed by two main tools i) CLI tool, creating a repository in GitHub as well as locally, performing the Network App’ configuration, i.e., file and folder structure, by means of the Network App Template and ii) SDK libraries, set of Python classes that provide abstraction towards the 5G APIs and enhance Network Apps with 5G capabilities
* **Dummy Network App**, it is a non-functional piece of software designed to reproduce behavioral functionalities an actual Network App must have in the EVOLVED-5G project. It has connectivity with all the exposure services (CAPIF, NEF and TSN).

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 App to understand how a Network App does the network communication with NEF and TSN through CAPIF.

# EVOLVED-5G Service Package requirements

The host machine will need at least 25 Gb of hard disk free also, 2048 Mb of RAM and once CPU.

The user must support and have enabled AVX instructions set from their CPU, otherwise CAPIF will not work because mongo database requires such instructions to work properly.

In case your CPU does not have such AVX instructions set, in Windows you still can use the VM by executing the following commands in the PowerShell (executed as administrator):

* bcdedit /set hypervisorlaunchtype off
* DISM /Online /Disable-Feature:Microsoft-Hyper-V

Although, this can cause some problems on other programs such as Docker Desktop for Windows.