A Framework to boost the potential of network-in-a-box solutions

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ABSTRACT:

The expected heterogeneous connectivity provided by the fifth generation mobile network (5G) implies a huge revolution in the telecommunication field. Here, virtualisation and software implementation of network elements have been positioned as a key elements for this revolution. At the same time and as a consequence of the evolution of these two paradigms, network-in-a-box solutions have also emerged as a potential way in the deployment of networks, offering a portable infrastructure. Here, this work presents a framework for easing the management tasks of the network-in-a-box devices, allowing abstracting the hardware and software implementation of these kind of solutions. We provide an experimental validation of the framework through the deployment of a portable cellular network. Besides, a Cloud Gaming service is launched on this scenario, showing the versatility and strengths that the framework provides to these novel solutions.

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