



Embedded Network Services for 5G Experiences

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Deliverable D4.3

Pre-integration of CESCO, two-tier cloud and service orchestration – Overall platform unification

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Executive Summary – Abstract

The purpose of this deliverable is to provide the description of the implementation of the platform components as well as their demonstration and evaluation results, under realistic conditions. In essence, this deliverable reports Tasks 4.3 and 4.4 of the original 5G ESSENCE Grant Agreement, by focusing upon the definition, design and implementation of the 5G ESSENCE solutions to manage the network embedded E2E services over the 5G ESSENCE virtualised infrastructure.

Within the original 5G ESSENCE framework, clear breakthroughs have been targeted in the fields of high-performance virtualisation, service delivery and resource orchestration, with ultimate goals being the critical issues of resource efficiency and latency reduction. These have been achieved through the support of a converged cloud-radio environment, the orchestration of diverse types of lightweight virtual resources and the support of live VNF migration.

The organization of the document follows a straightforward approach and, after the introduction of Section 1 where the motivation and the basic concepts are given, the subsequent Section 2 provides the main modules and functionalities of the Main DC. The environment setup procedure is also presented here.

Moving on, Section 3 describes the CESC Manager (CESCM) modules and functionalities, providing also the appropriate modules for the RAN data analytics and the deployment of the carrier Ethernet service. The pre-integration phase and the relevant procedures are presented in Section 4. It contains a special subsection for the best practices followed during that phase and also, it provides the technical description and the plans for the final demonstrations of the components developed in the project. Section 5, on the other hand, provides the telemetry operations applied in the 5G ESSENCE NFV-based systems, as well as the dynamic telemetry operations and actions for distributed infrastructures. The document concludes with a short summary and the references section.

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