



## Small cEII<sub>S</sub> coordinAtion for Multi-tenancy and Edge services

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#### Deliverable D2.4

### Specification of the Infrastructure Virtualisation, Orchestration and Management – First Iteration

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## Abstract

Management and orchestration of resources and services are essential features for the SESAME deployment. Those functions are carried out by the Virtual Infrastructure Manager (VIM) and the CESC Manager (CESCM) components in the respective architecture.

The CESCM is a centralised entity designed to be the main management element of multiple clusters of CESC as well as individual CESC, the network services and the individual VNFs that compose them. As a result, it incorporates management elements from the 3GPP and the ETSI NFV MANO standards, leveraging existing interfaces definitions providing fine-grained tuning configuration capabilities. The CESCM is meant to be used by the infrastructure owner and the operators that offer services on such infrastructure.

The VIM is associated to the virtual infrastructure that is built in a cluster of CESC, namely the Light DC (Data Centre). It is in charge of managing the virtualisation layer created on top of the underlying physical hardware, providing an interface for the CESCM to the virtual resources and networks of a cluster.

This document presents a detailed description of SESAME's VIM and CESCM functionality, internal modules and interfaces, as an extension of the general information provided in Deliverable D2.2. Additionally, infrastructure management workflows involving these components are provided as "guidelines" for a better understanding of the communication between modules.

The contents of this document form the basis for management and orchestration functions in SESAME and will be used as reference for the development of the Proof-of-Concept implementation of the CESCM and VIM components.