



UNICA NEXT

Telefónica Telco Cloud Program

GCTIO Architecture Officer
March 2020

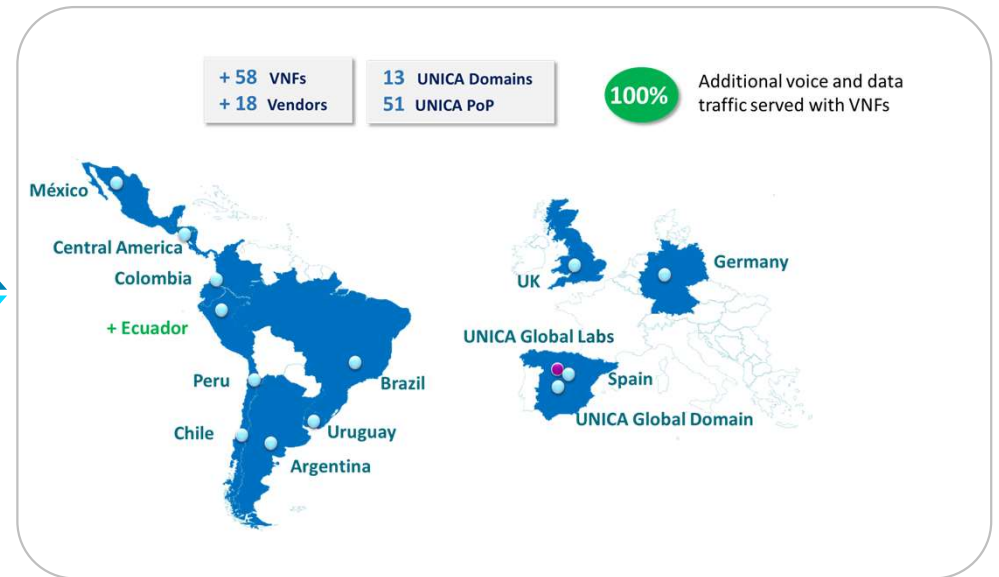
USO INTERNO

#RECONECTA

First release of the program (UNICA) has been successfully deployed in all Telefonica Operations, with 58 DataCenters and multiple network services in production



UNICA 2018



UNICA Target 2019

UNICA NEXT Principles

Network & IT

Virtualization of all Telefónica applications (both network and IT vApps)

- Network functions, VNFs, have specific latency and networking requirements

VM & Containers

Support virtualization in traditional and advanced modes

- Modern applications (e.g.: 5G components) are designed following a modular architecture based on containers in order to avoid dependency on specific operating systems,, but these apps will coexist for some time with traditional virtualization based on virtual machine

Hybrid Cloud

Support deployment in public and private clouds

- Deployment of network functions will be done on a layered basis (central / regional / local) where some may be deployed in public clouds for different cost and technical efficiency reasons but others may not

+ EDGE

Support EDGE

- Applications that are part of the so-called EDGE have strict latency and networking requirements that may not be possible to deploy on public cloud and may even impose specific hardware requirements (e.g.: use of specific processors for video gaming apps)

Telco Cloud architecture can be Split in three layers ...

Orchestration

Entity in charge of running the activation flows required to load the software defining a network function or an IT system in a virtualized environment as well as scale it as needed

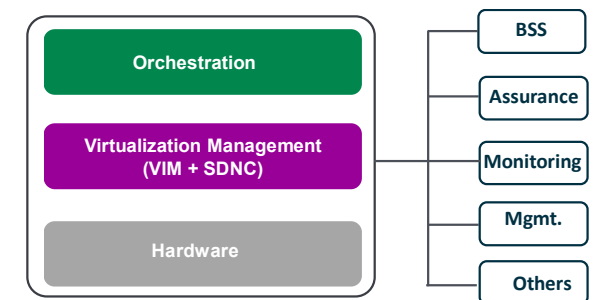
Virtualization Management (VIM + SDNC)

Entity in charge of configuring the hardware required in order to optimize the execution of virtualised network functions and IT systems

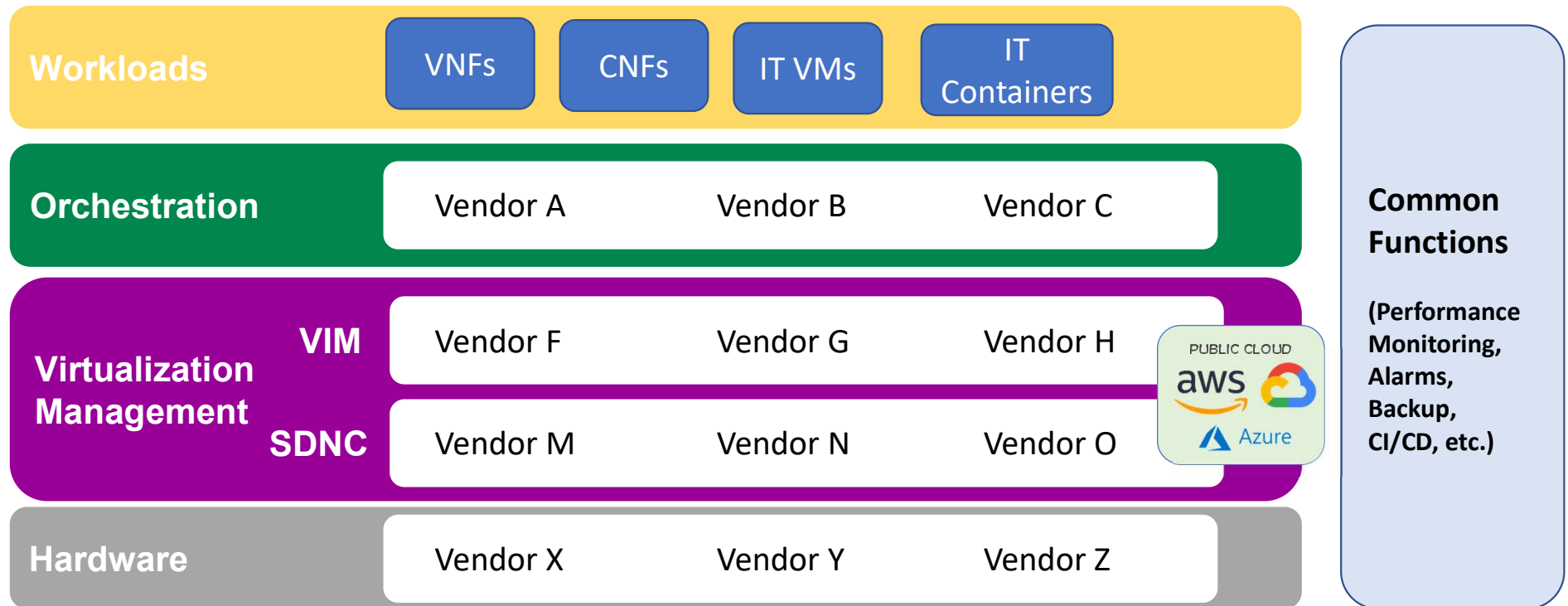
Hardware

HW (processors, memory, ...) where the software is loaded in order to run a virtualised network function or IT system

... that interact with other systems within the Telco Operator

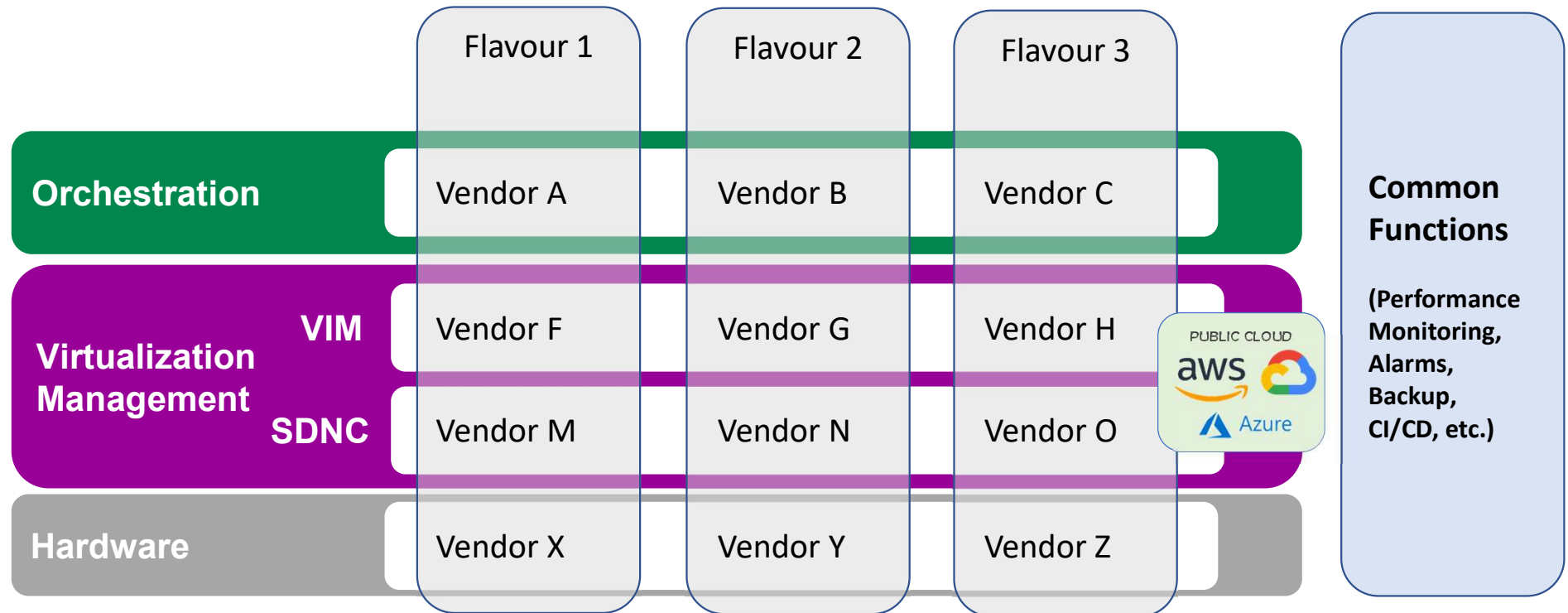


Unica-NEXT architecture



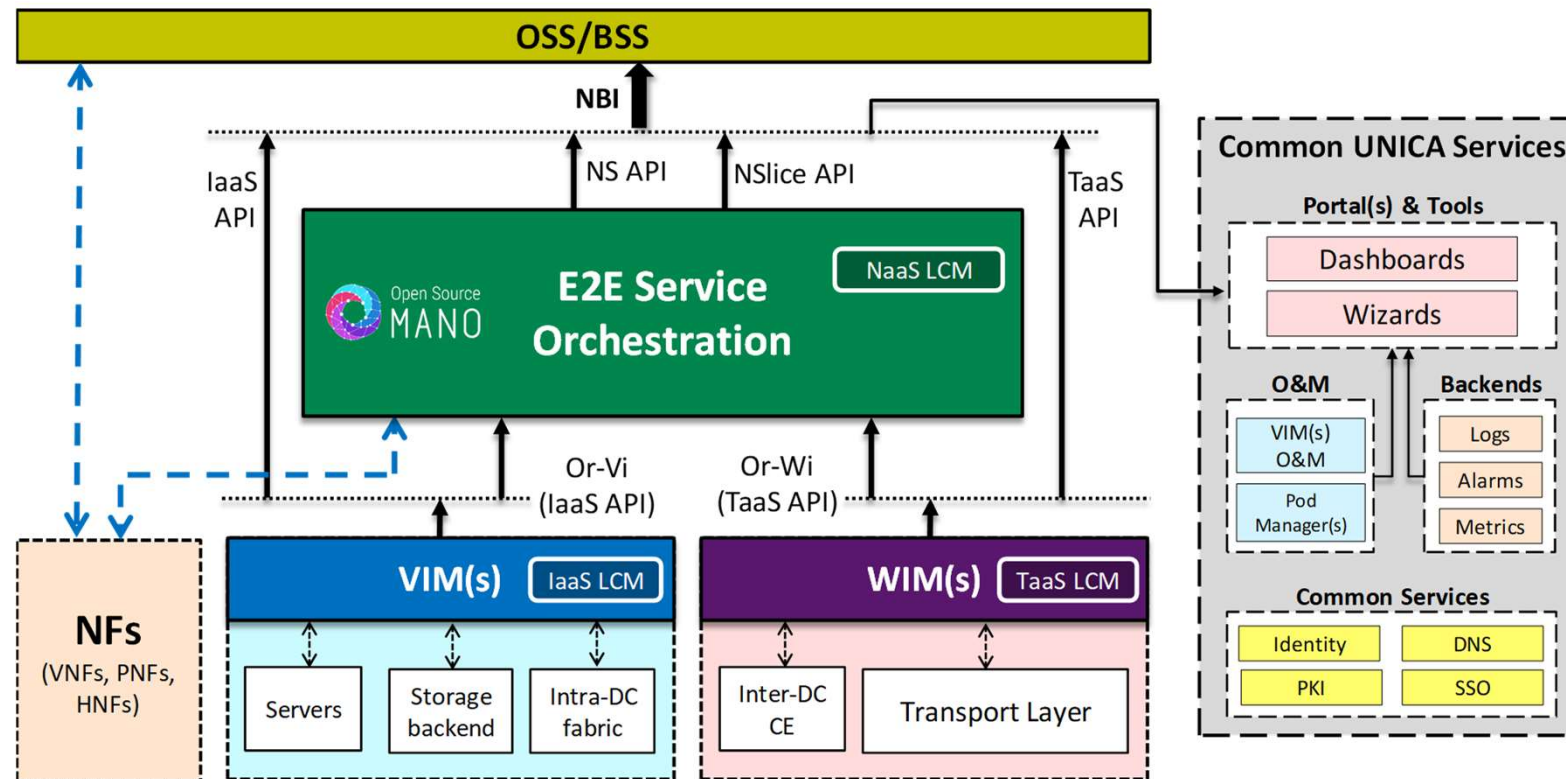
Unica-NEXT architecture

In UNICA-NEXT

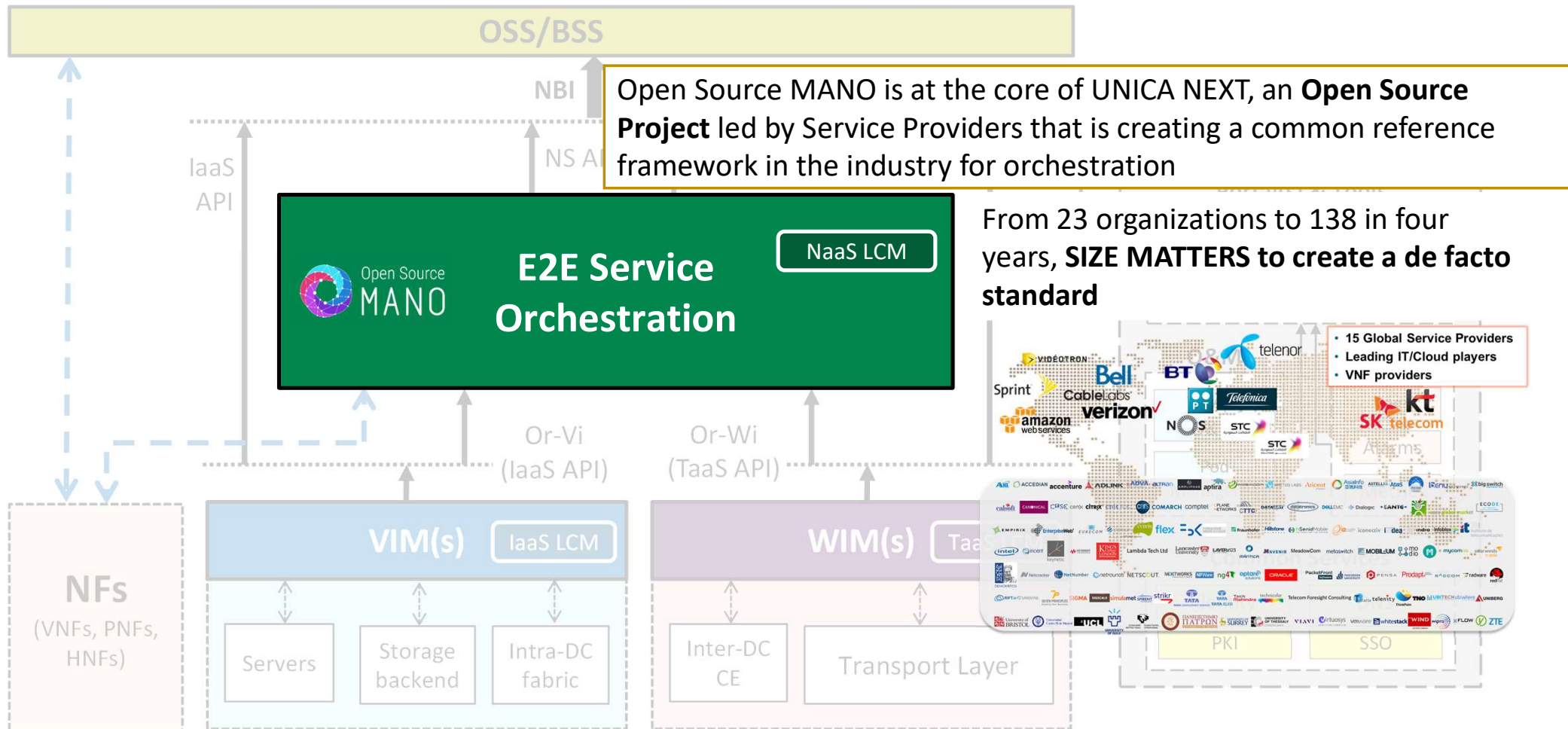


we are defining a limited number of reference combinations (flavours)

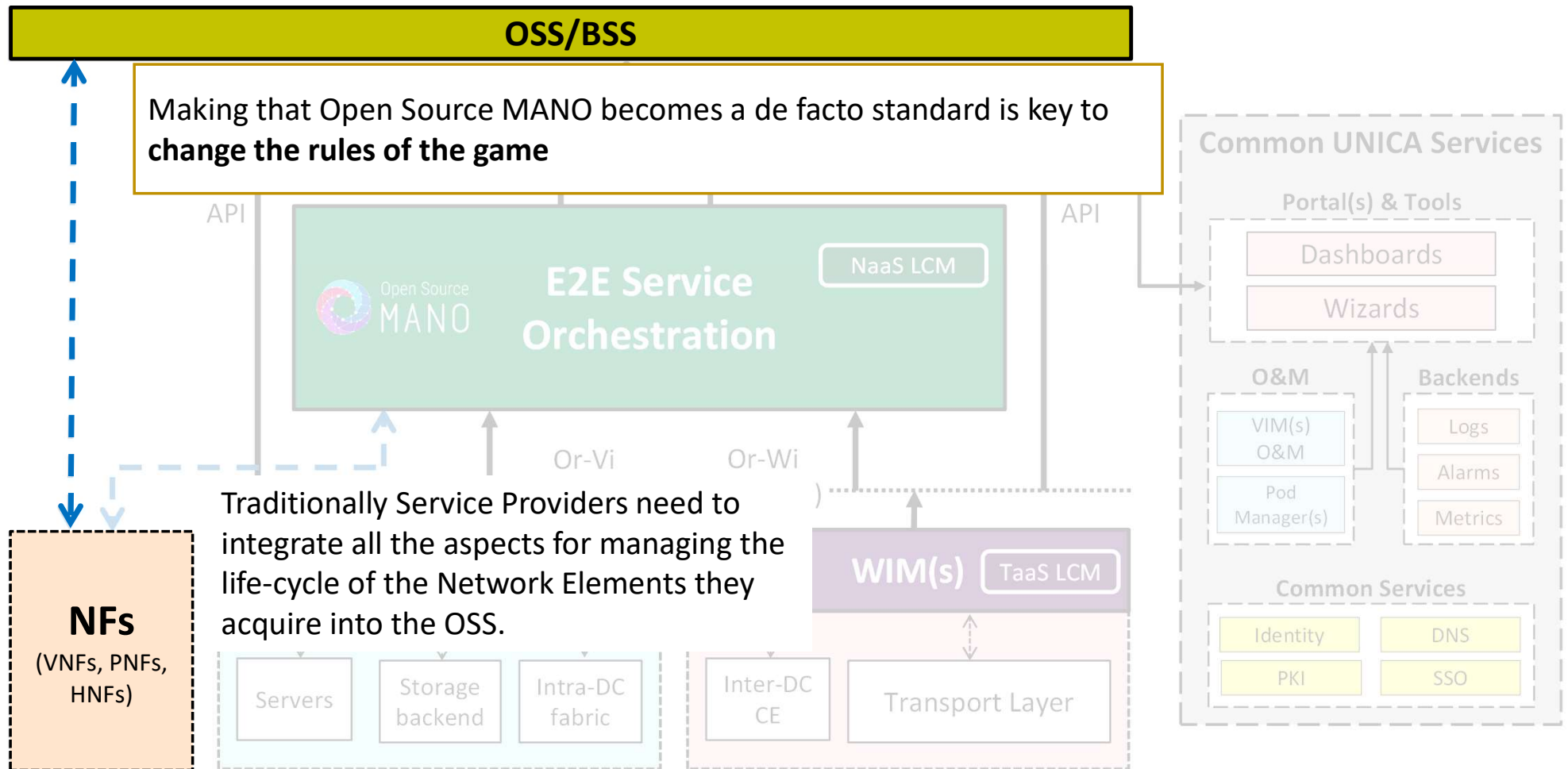
Adding OSM as the main option in the Orchestration layer within UNICA NEXT guarantees to be ready for 5G and Zero Touch Automation



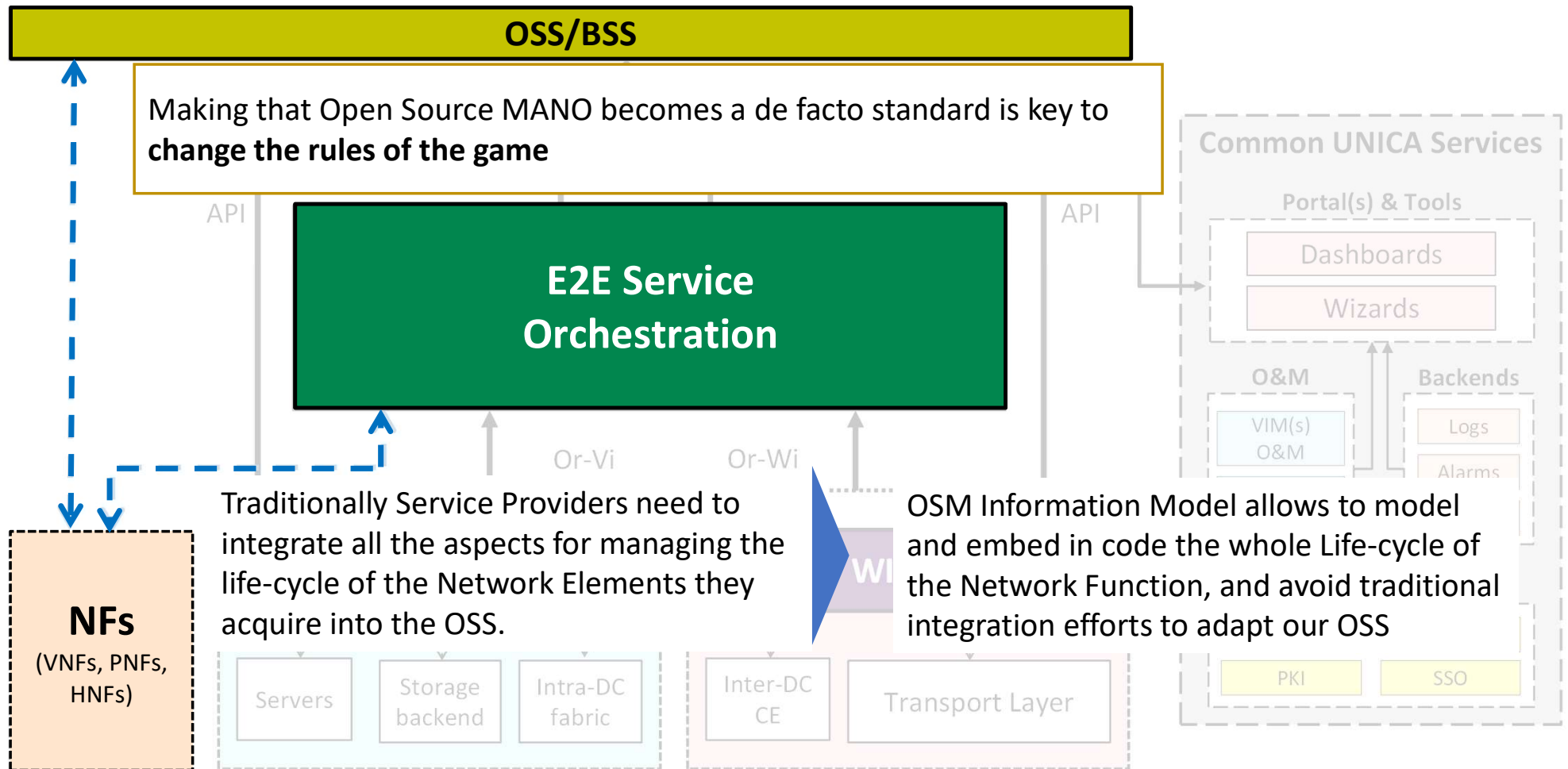
The role of OSM within UNICA NEXT



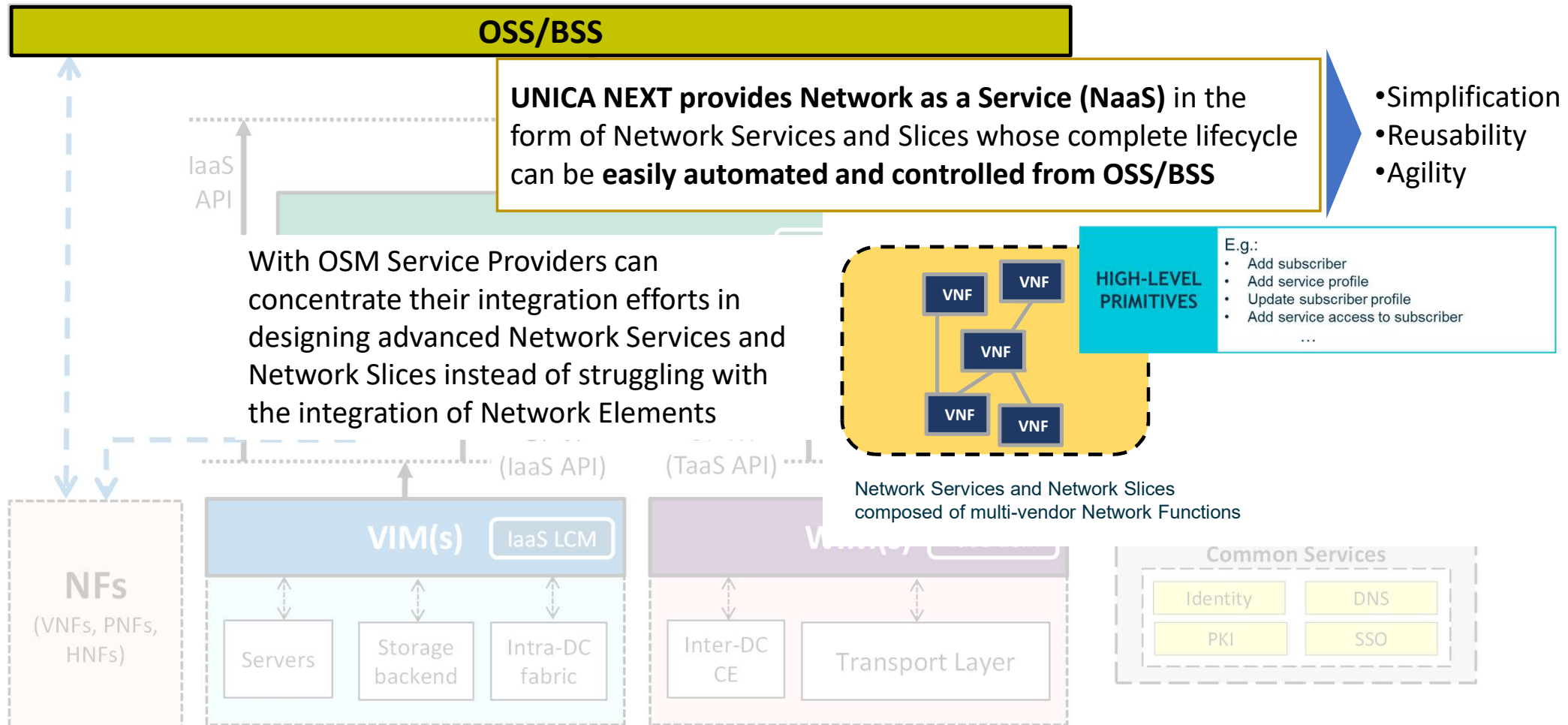
The role of OSM within UNICA NEXT



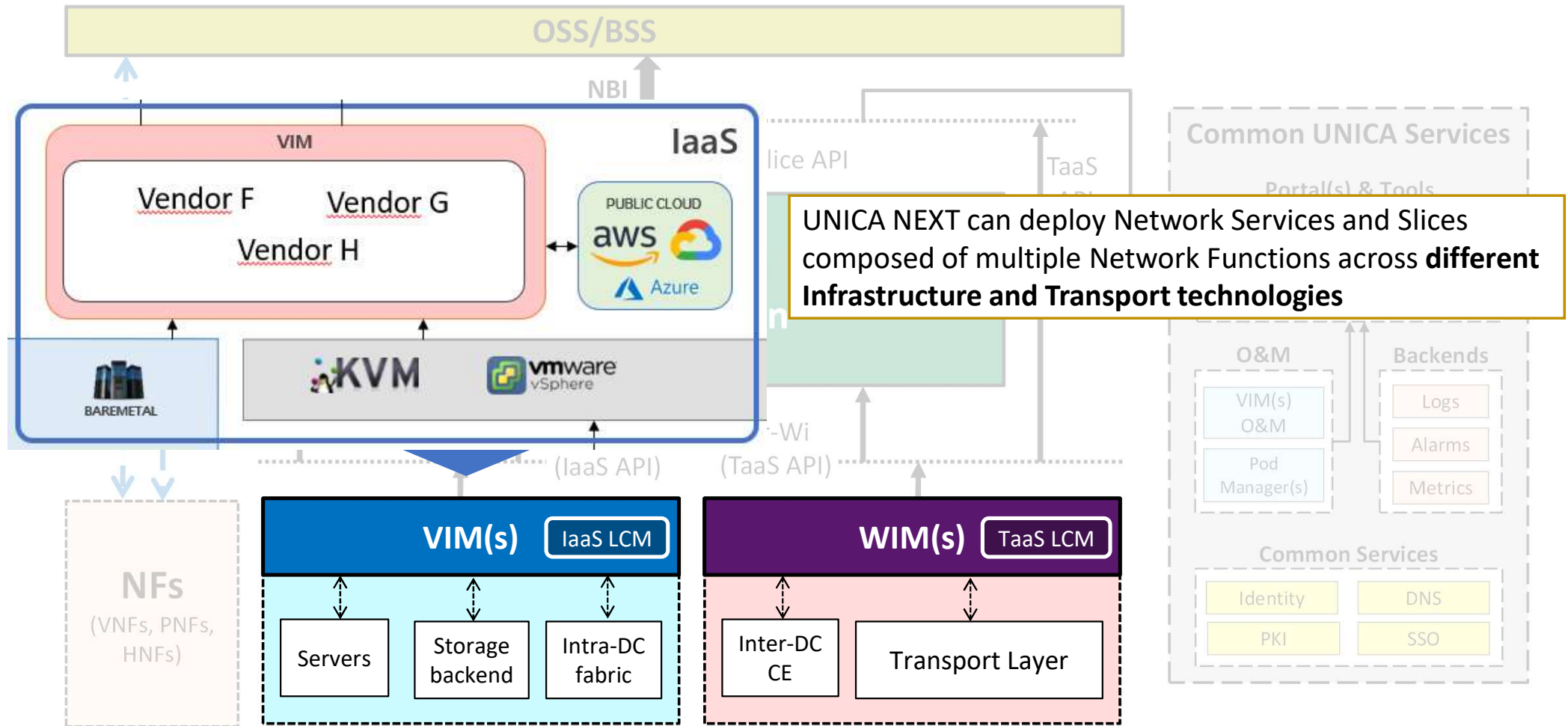
The role of OSM within UNICA NEXT



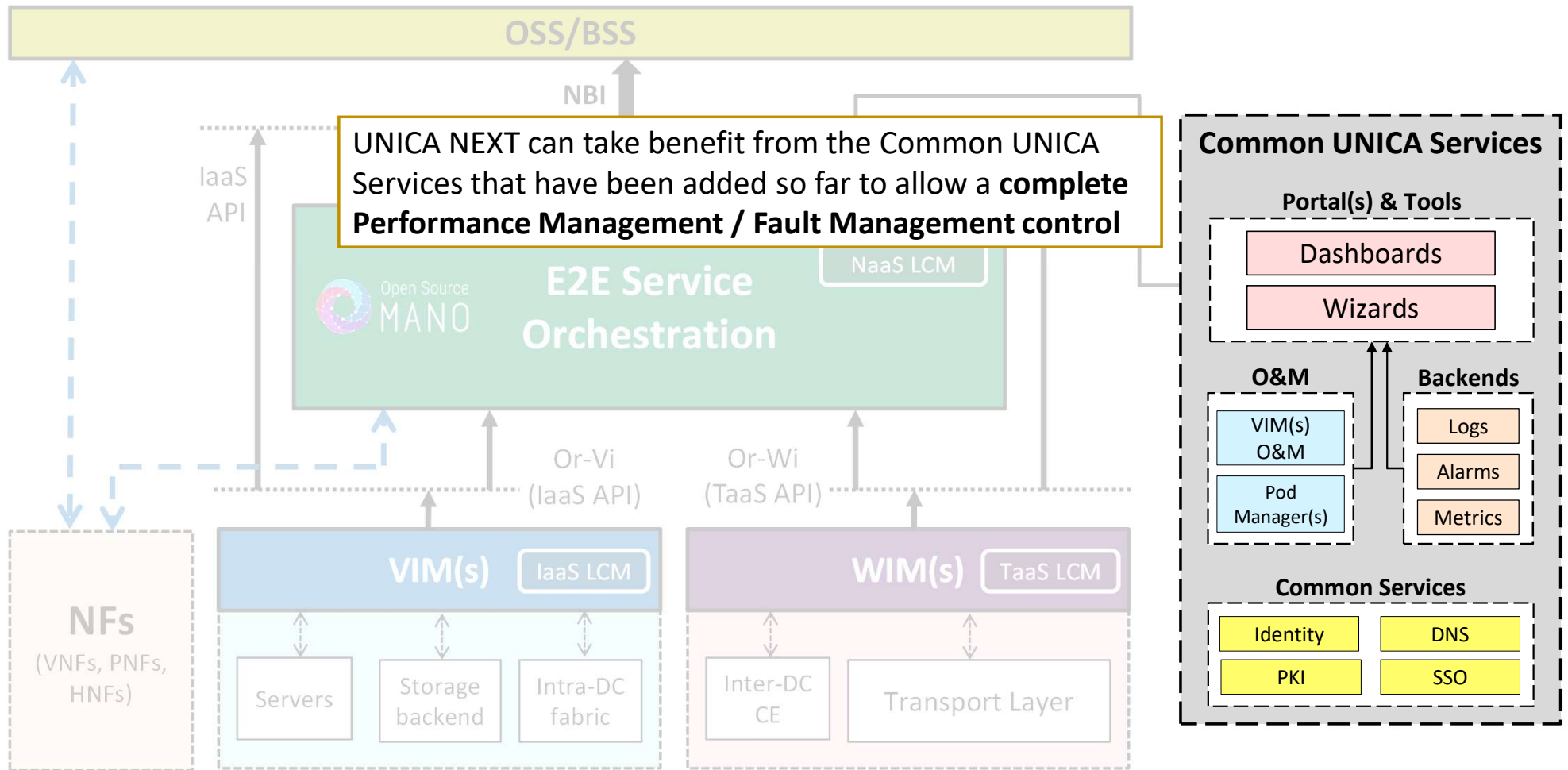
The role of OSM within UNICA NEXT



The role of OSM within UNICA NEXT



UNICA NEXT powered by OSM



UNICA-NEXT

- **Global** program for **Telefónica Telco Cloud**
- Enables **virtualization** of both, **network functions and IT systems**, in Telefónica
- First **UNICA NEXT DCs** in production planned for **2020H2**

Telefónica
