OSM Architecture
OSM and NFV Architecture
OSM in ETSI NFV Architecture
OSM Architecture
OSM Architecture

NBI
OSM Architecture

- osmclient
- GUI (ngui)
- OSS/BSS

NBI
OSM Architecture

Common Services

osmclient   GUI (ngui)   OSS/BSS

NBI

Auth
OSM Architecture
OSM Architecture

Common Services

- Common Database (NoSQL)
- Object Storage
- Auth

Applications

- osmclient
- GUI (ngui)
- OSS/BSS

Control Plane

- NBI
- LCM

Kafka bus
OSM Architecture

Common Services
- Common Database (NoSQL)
- Object Storage
- Auth

Kafka bus
- osmclient
- GUI (ngui)
- OSS/BSS
- NBI
- LCM
- RO
- VIM
- SDN-C
- VM

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OSM Architecture

Common Services
- Common Database (NoSQL)
- Object Storage
- Auth

Components:
- osmclient
- GUI (ngui)
- OSS/BSS
- NBI
- LCM
- VCA
- N2VC
- RO
- VIM
- SDN-C
- VM
- Kafka bus
OSM Architecture
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OSM Architecture

Common Services
- Common Database (NoSQL)
- Object Storage
- TSDB (Metrics)
- Auth

OSM Architecture Components
- osmclient
- GUI (ngui)
- OSS/BSS
- NBI
- LCM
- RO
- VCA
- N2VC

Kafka bus
- POL
- MON

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OSM Architecture
OSM Architecture

1. Unified Northbound Interface (SOL005-based), decoupled from LCM
2. E2E orchestration through Life Cycle Manager (LCM)
3. Message bus for async communications
4. Common DB, auth and object storage
5. Integrated components for policy, fault, performance management and placement
6. Complete control through CLI and UI
7. Execution environments for VNF configuration
Examples
Identity & Assignment Operations

When dealing with the creation, modification or deletion of users, projects and roles, the interacting components vary according to the selected backend.

<table>
<thead>
<tr>
<th>CommonDB (mongo)</th>
<th>CLI</th>
<th>UI</th>
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<tr>
<td></td>
<td>(1) API call</td>
<td>(2a) Local DB calls</td>
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<td></td>
<td></td>
<td>(2b) Keystone methods calls</td>
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<tr>
<td>identity &amp; assignment</td>
<td></td>
<td>(3a) Keystone DB call</td>
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<tr>
<td>keystoneDB (mysql)</td>
<td></td>
<td>(3b) External backends integration</td>
</tr>
<tr>
<td>identity &amp; assignment</td>
<td></td>
<td>identity only</td>
</tr>
</tbody>
</table>

(2a) Local DB calls
(2b) Keystone methods calls
(3a) Keystone DB call
(3b) External backends integration
Uploading packages

When reading, uploading, modifying and deleting a Network Slice Template, Network Service Package or VNF Package, the following components interact.

CLI Example: `osm nfpkg-create myvnfpackage.tar.gz`
Adding VIM/SDNC

When registering new VIMs or SDN Controllers, the following components interact.

CLI Example: `osm vim-create --name myVIM --user myuser --password myprecious --auth_url http://172.21.7.5:5000/v3 --tenant mytenant --account_type openstack`
Adding a K8s Cluster

When registering new Kubernetes clusters, the following components interact.

CLI Example: `osm k8scluster-add --creds myCredentials.yaml --version '1.26' --vim myVIM --description "My K8s cluster" --k8s-nets '{"net1": "myVIMnet"}' myK8Cluster`
NS instantiation

When launching a new instance of a Network Service or Slice Instance (n x VNFs), the following components interact.

CLI Example: `osm ns-create --ns_name myNS --nsd_name myNSD --vim_account myVIM`

(*) continuous activities
When launching a Day-2 primitive over a NS, the following components interact.

CLI Example: 

```
$ osm ns-action myNS --vnf_name 1 --action_name myAction
```
Thank You!