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OSM Architecture

Gerardo García (Telefónica, OSM TSC Chair)

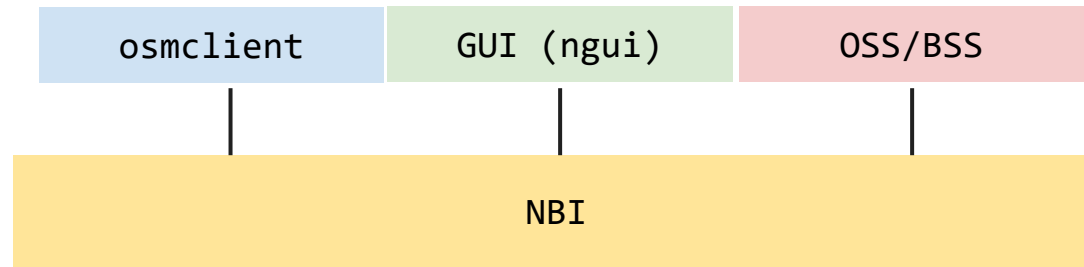
OSM Training Seminar - SLICES

13/02/2024

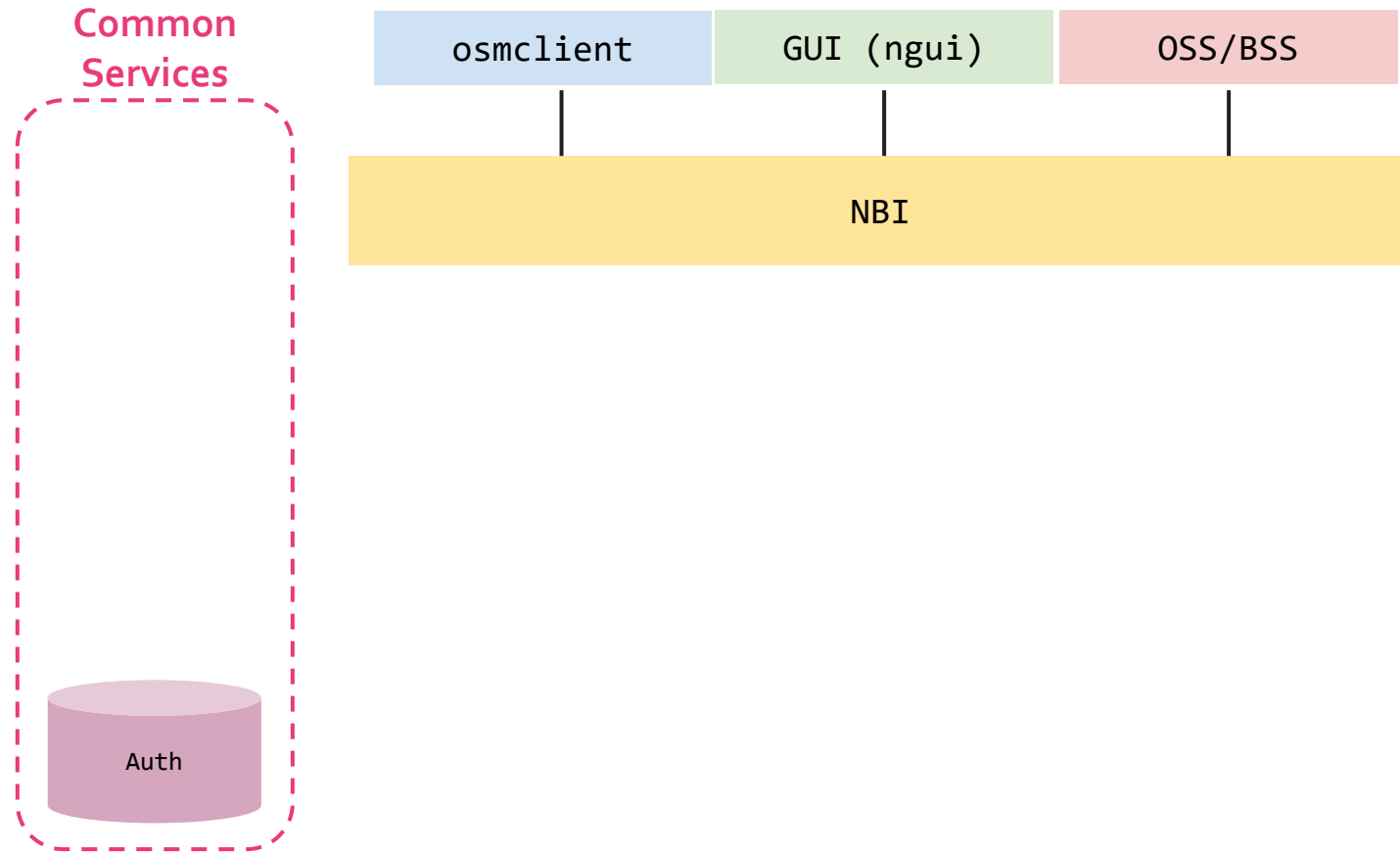
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NBI

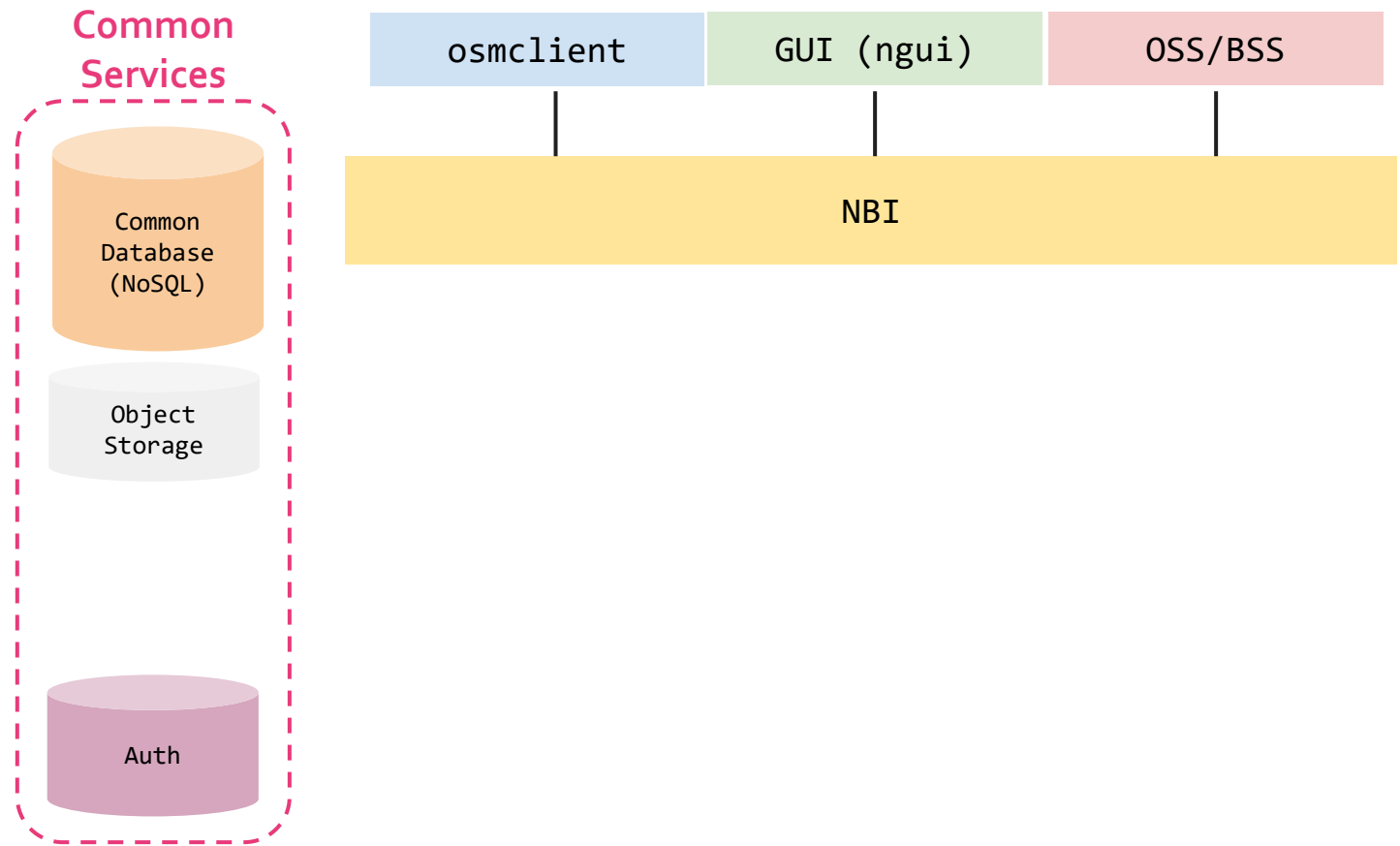
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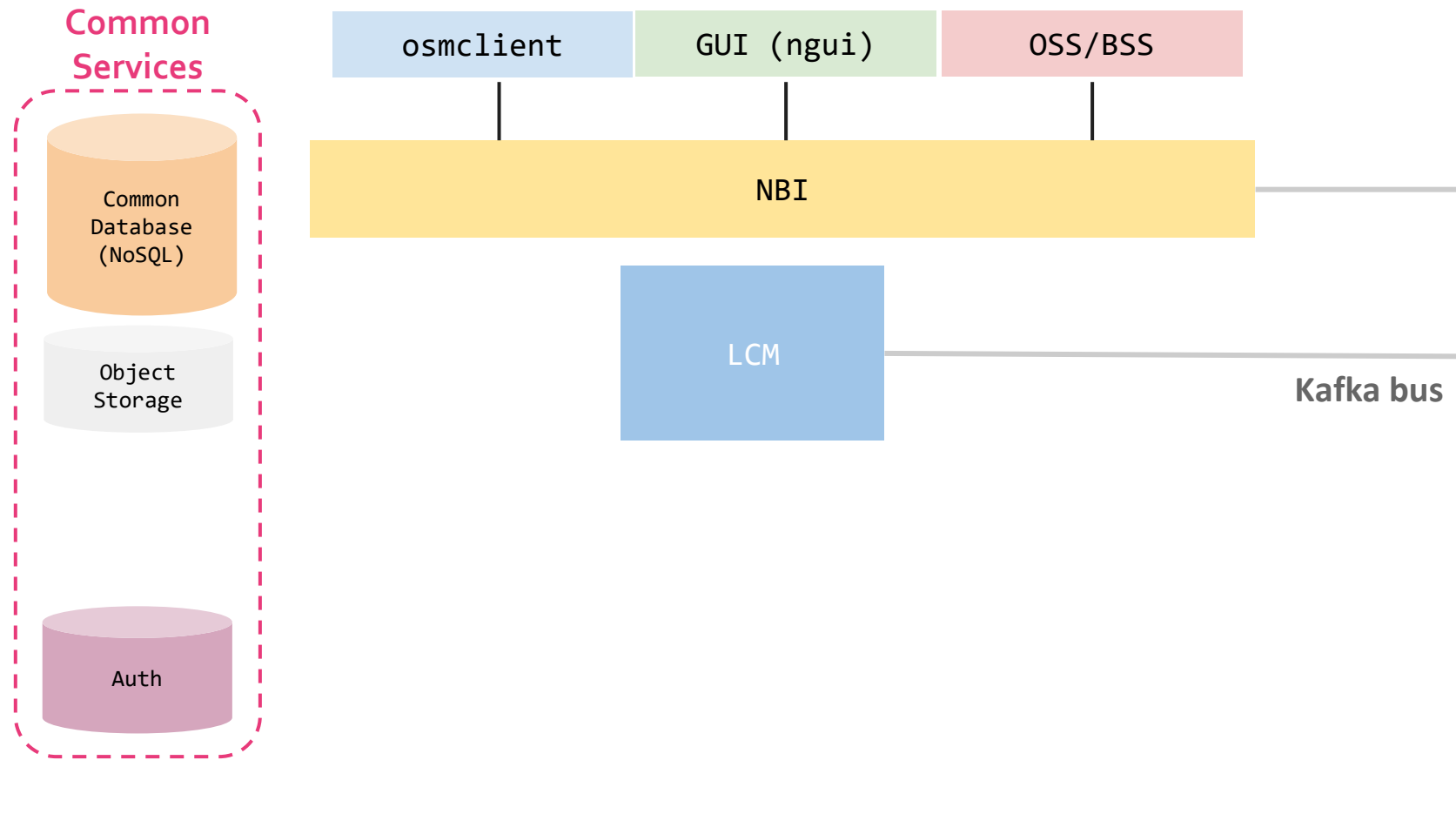
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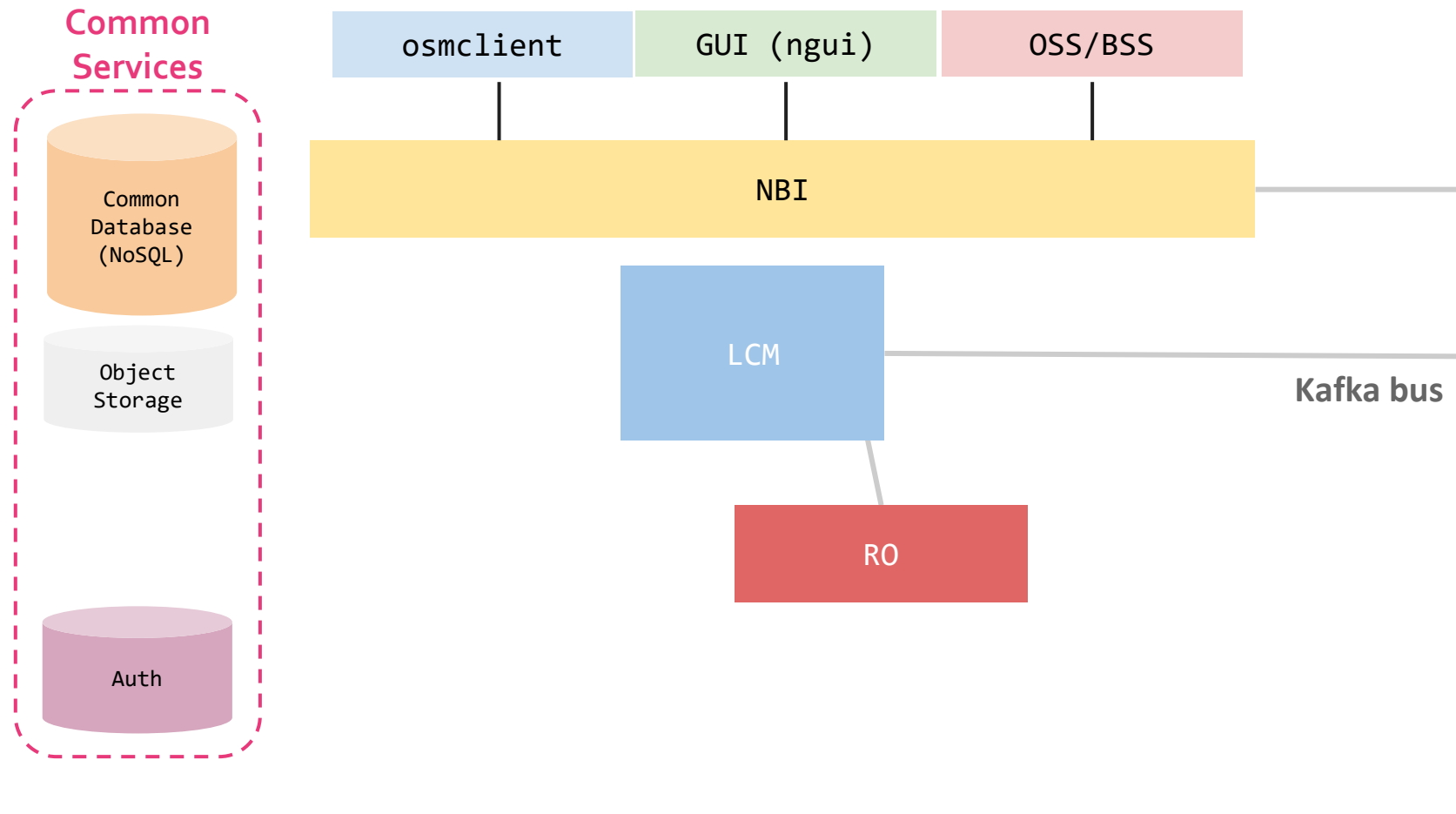
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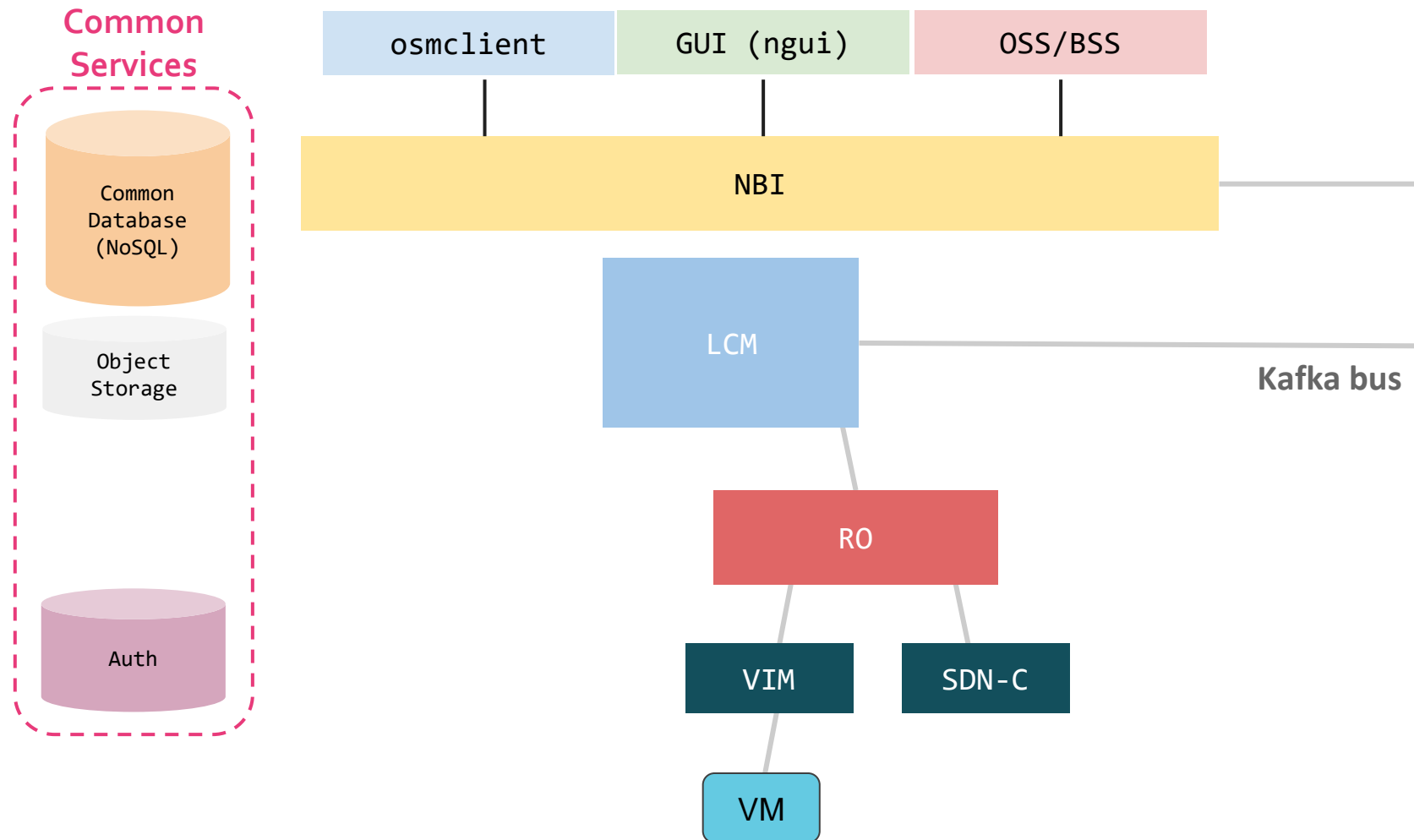
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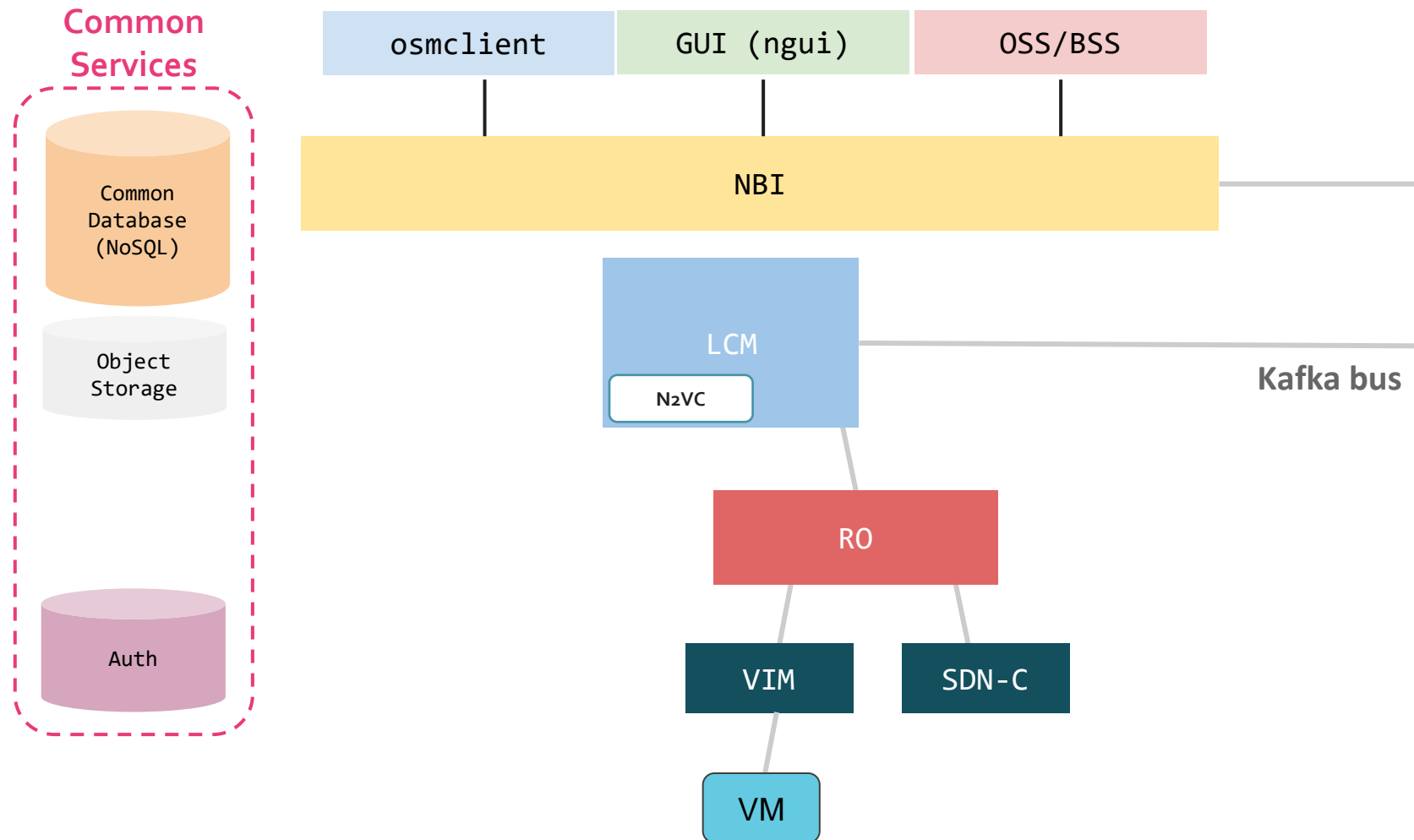
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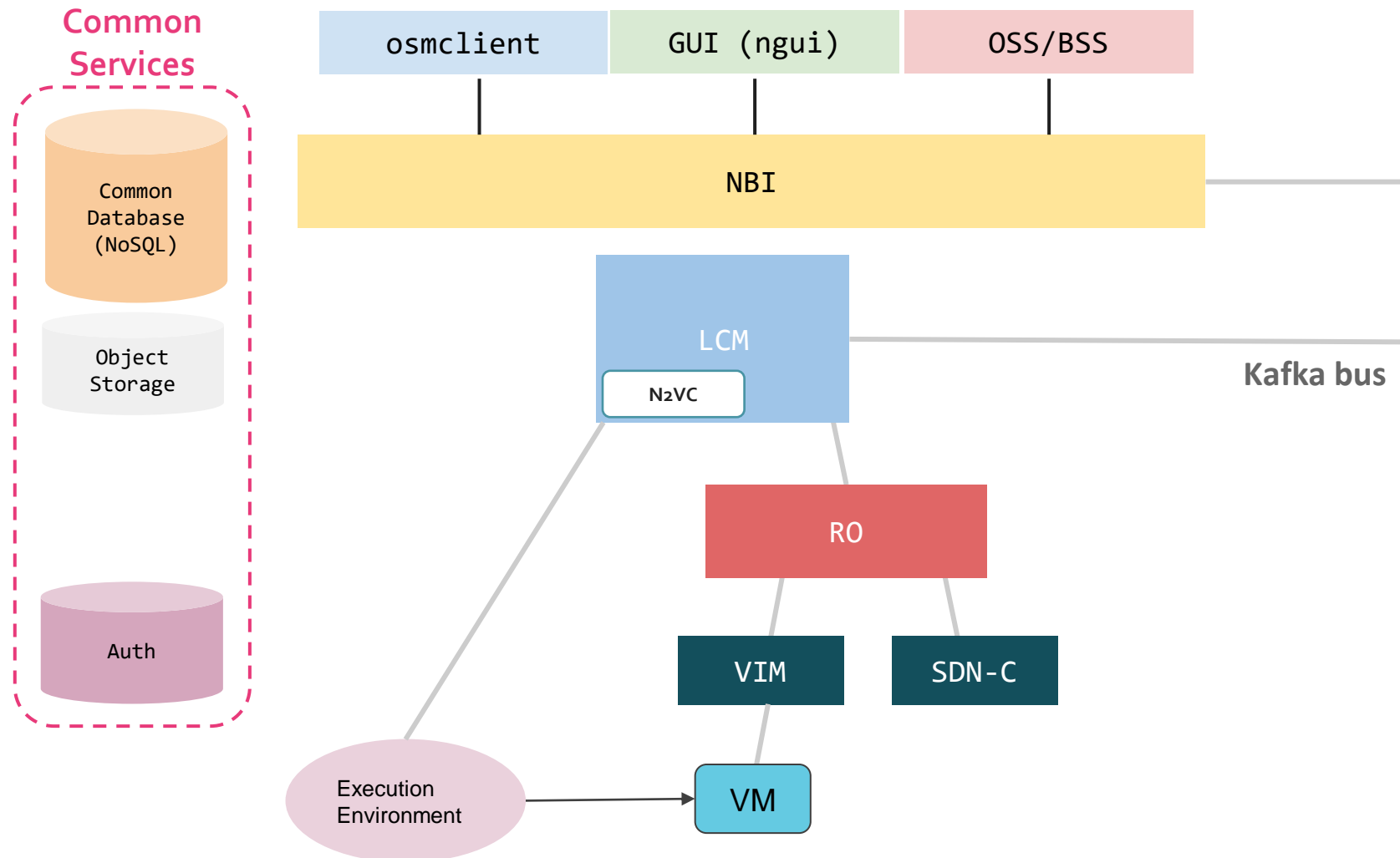
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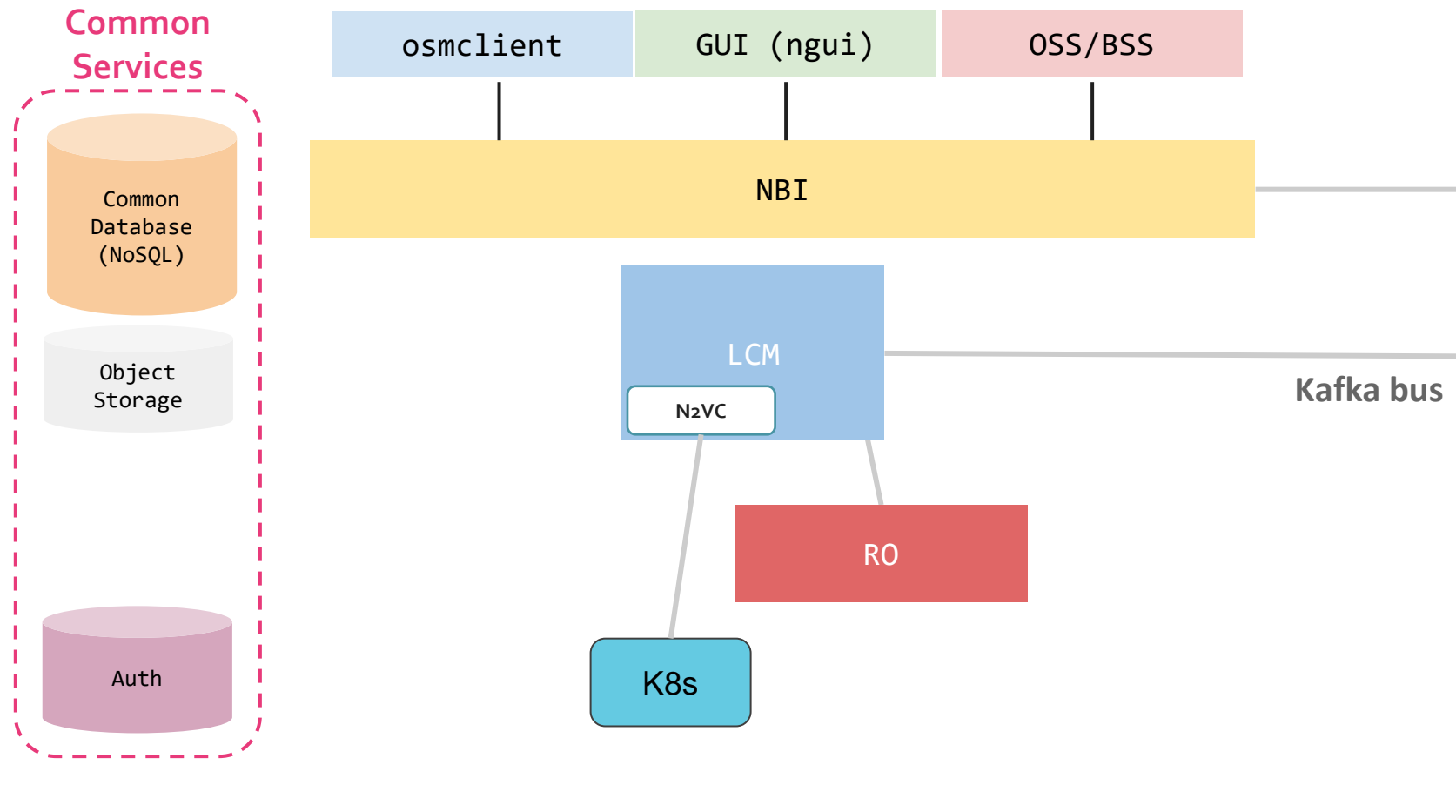
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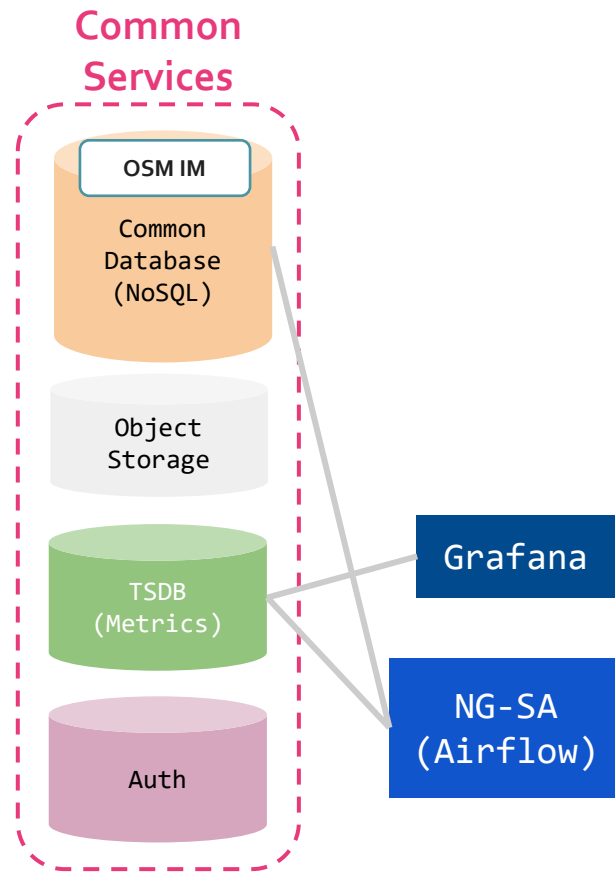
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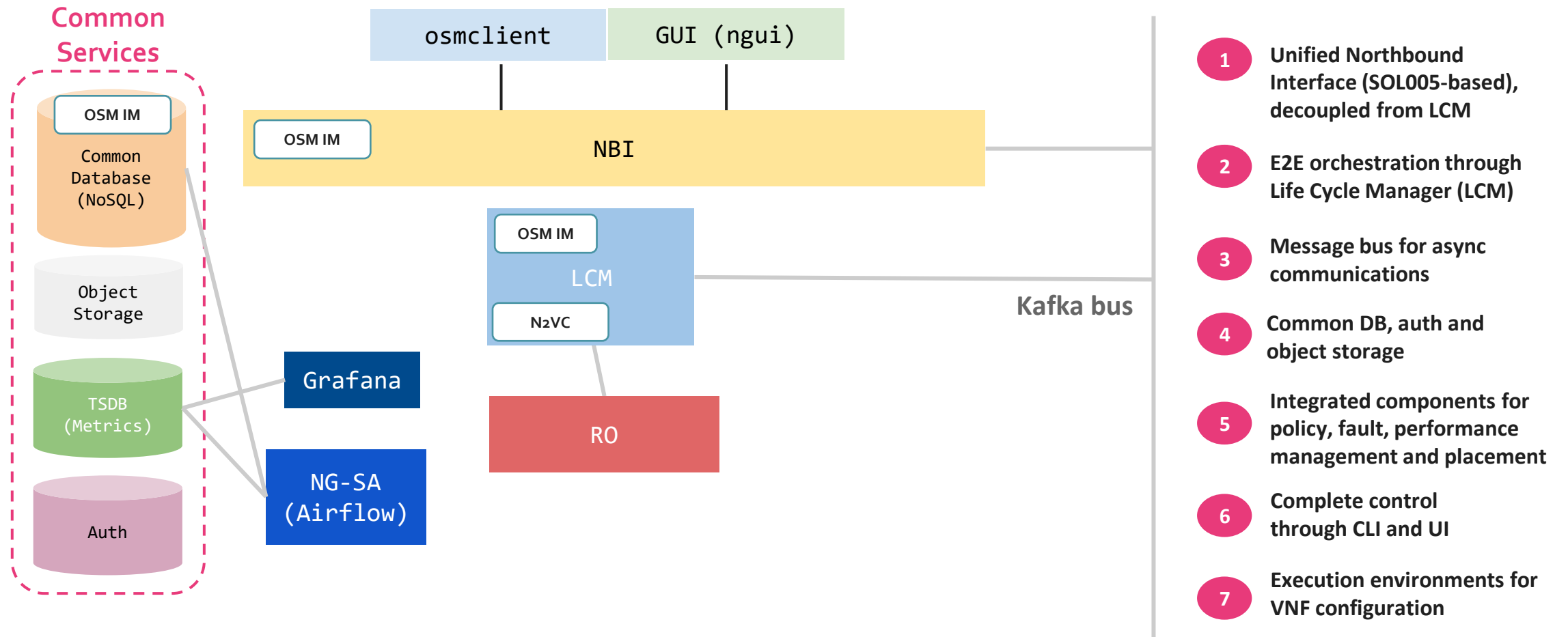
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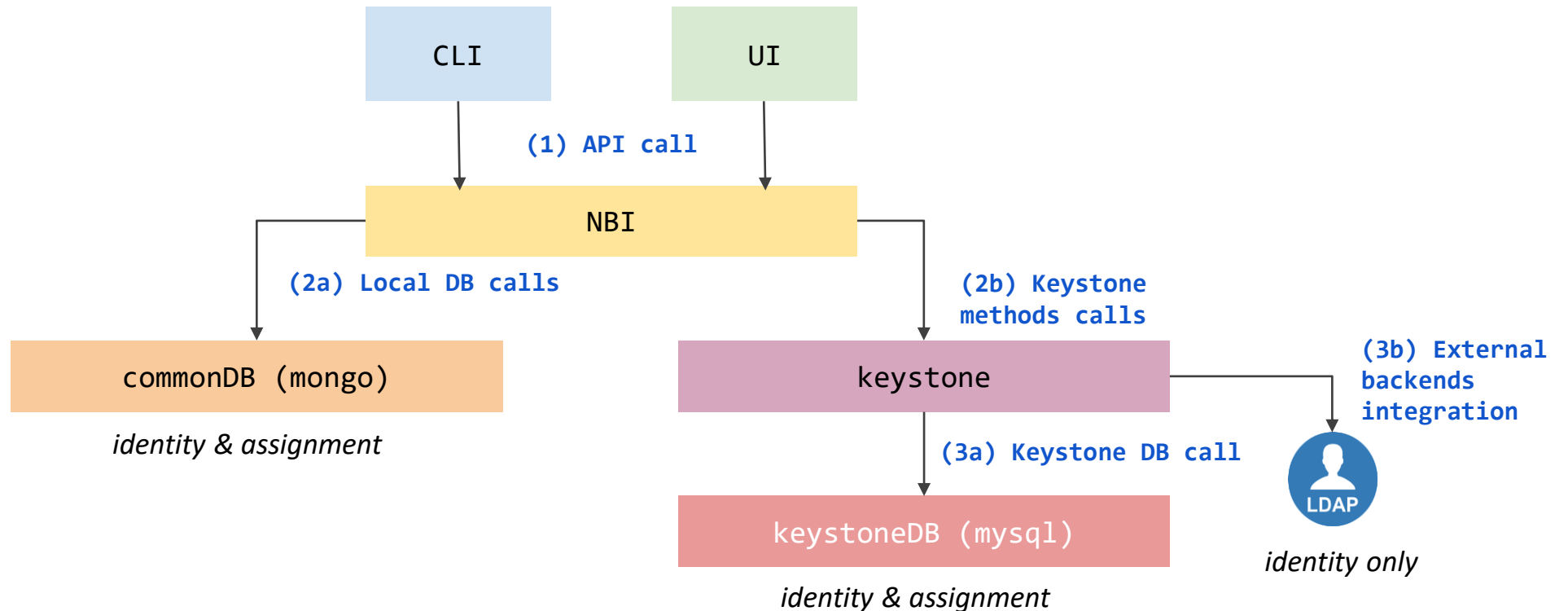


- 1 Unified Northbound Interface (SOL005-based), decoupled from LCM
- 2 E2E orchestration through Life Cycle Manager (LCM)
- 3 Message bus for async communications
- 4 Common DB, auth and object storage
- 5 Integrated components for policy, fault, performance management and placement
- 6 Complete control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

Examples

Identity & Assignment Operations

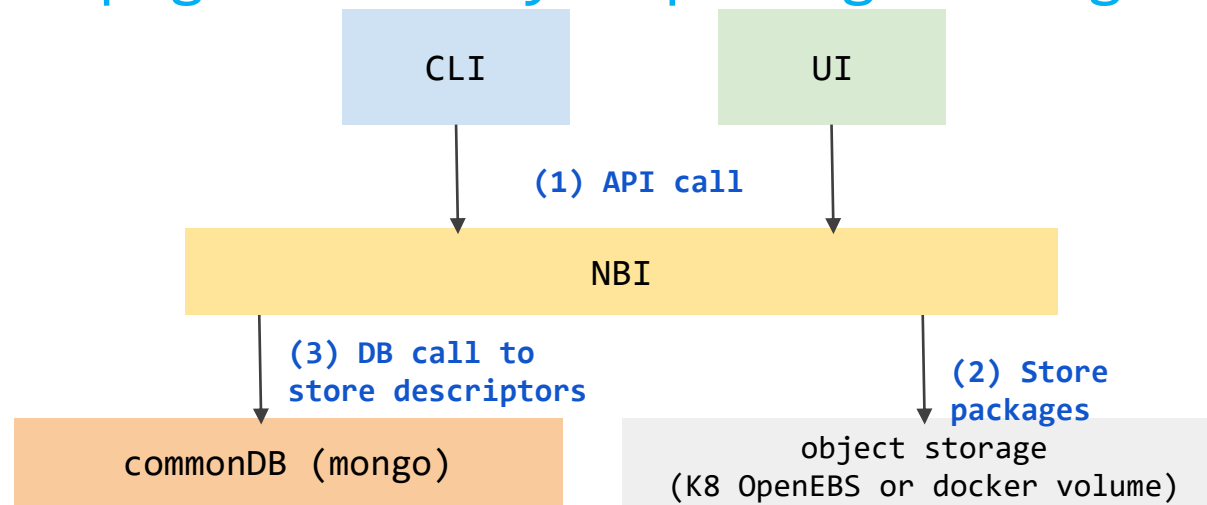
When dealing with the creation, modification or deletion of users, projects and roles, the interacting components vary according to the selected backend.



Uploading packages

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

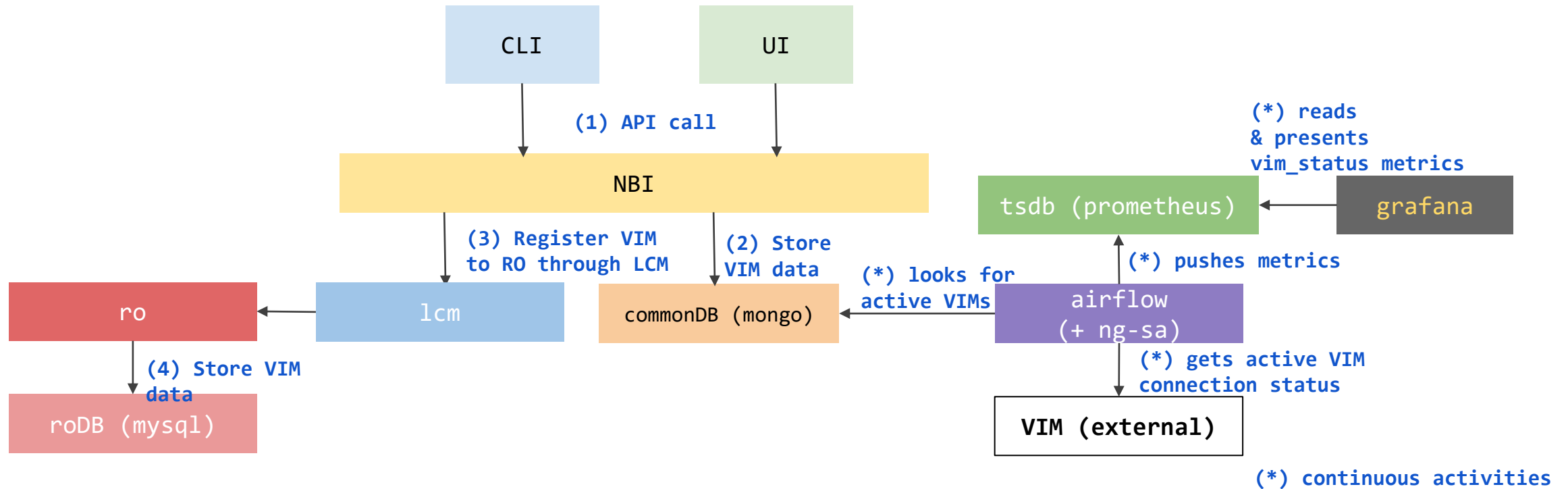
CLI Example: `osm nfpkg-create myvnfpkg.tar.gz`



Adding VIM/SDNC

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

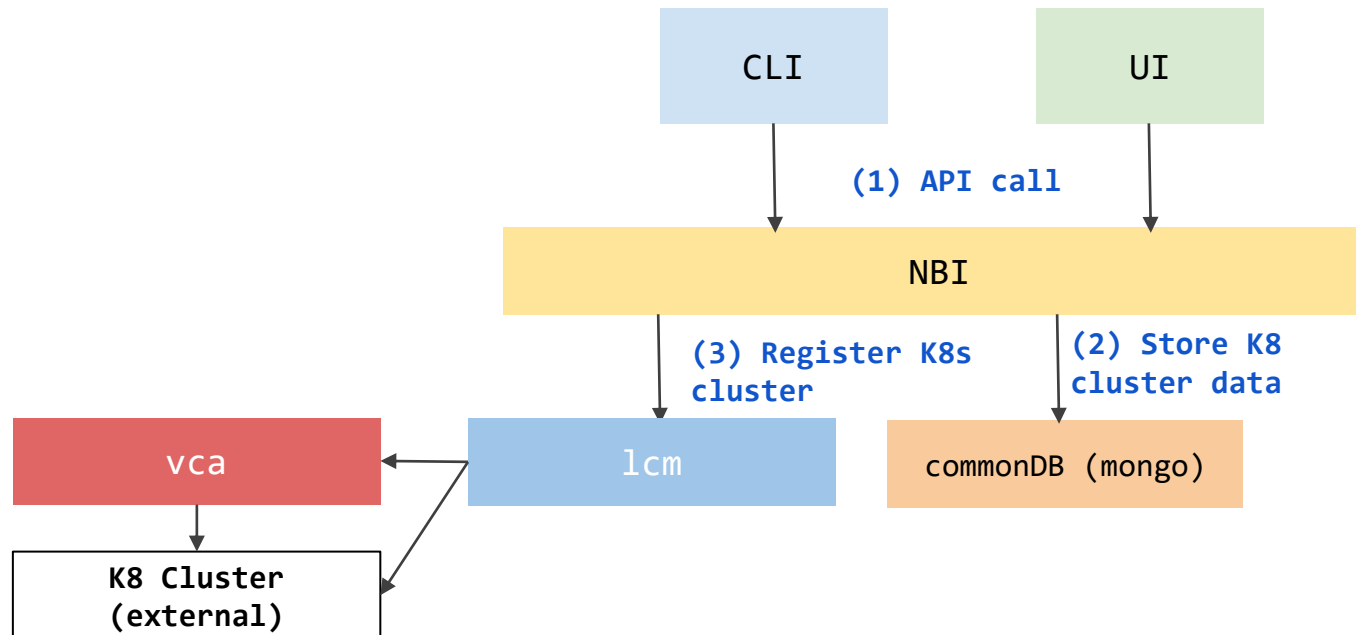
CLI Example: `osm vim-create --name myVIM --user myuser --password myprecious --auth_url http://172.21.7.5:5000/v3 --tenant mytenant --account_type openstack`



Adding a K8s Cluster

When registering new Kubernetes clusters, the following components interact.

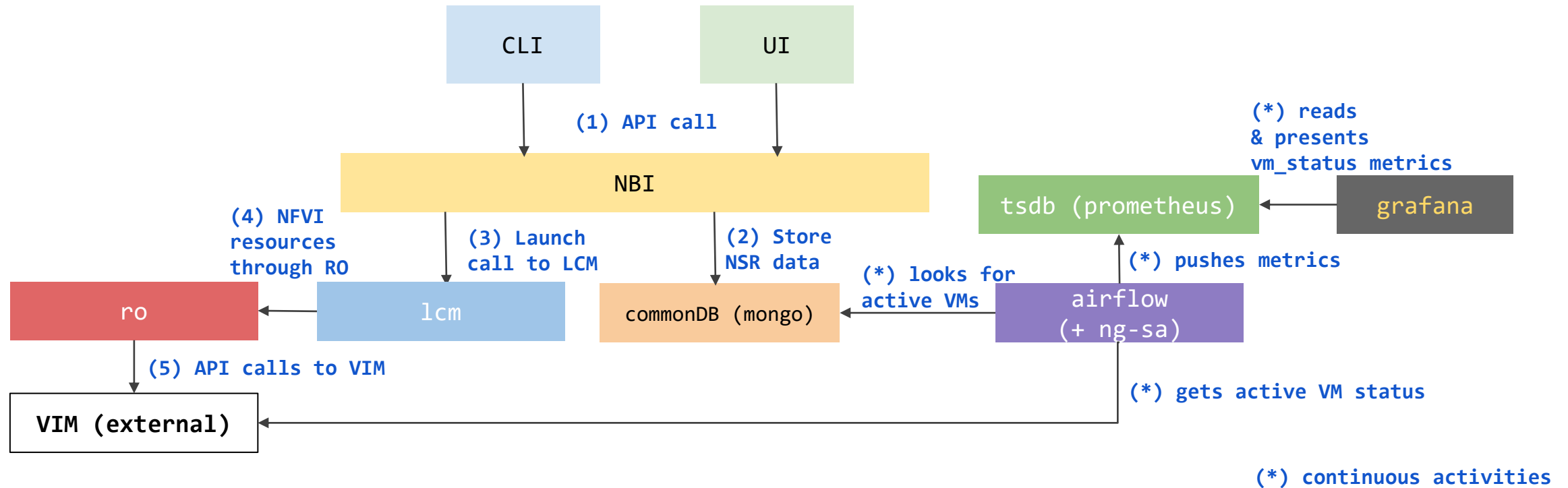
CLI Example: `osm k8scluster-add --creds myCredentials.yaml --version '1.26' --vim myVIM --description "My K8s cluster" --k8s-nets '{"net1": "myVIMnet"}' myK8Cluster`



NS instantiation

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

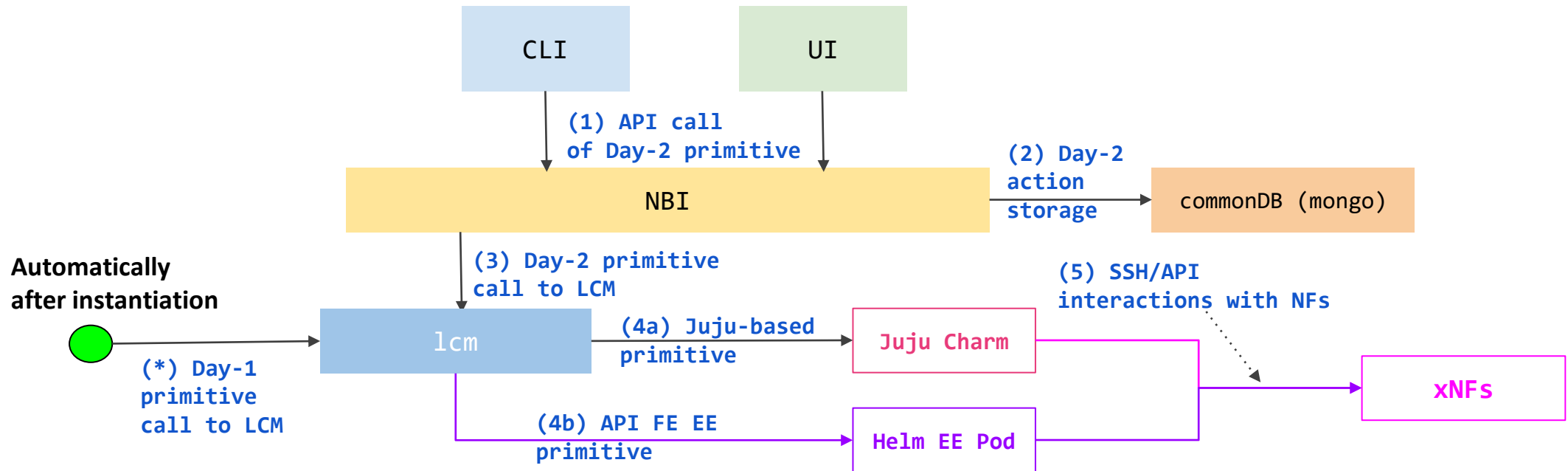
CLI Example: `osm ns-create --ns_name myNS --nsd_name myNSD --vim_account myVIM`

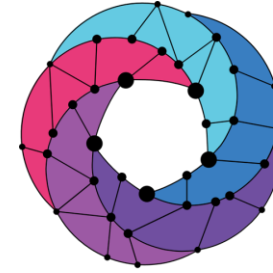


NS primitives

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`





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Thank You!