

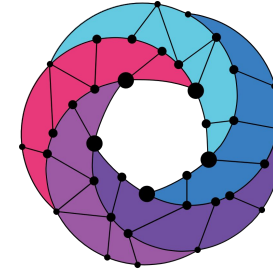
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OSM Usage

Instantiation and Operation

Mark Beierl
(Canonical)

12/06/2023



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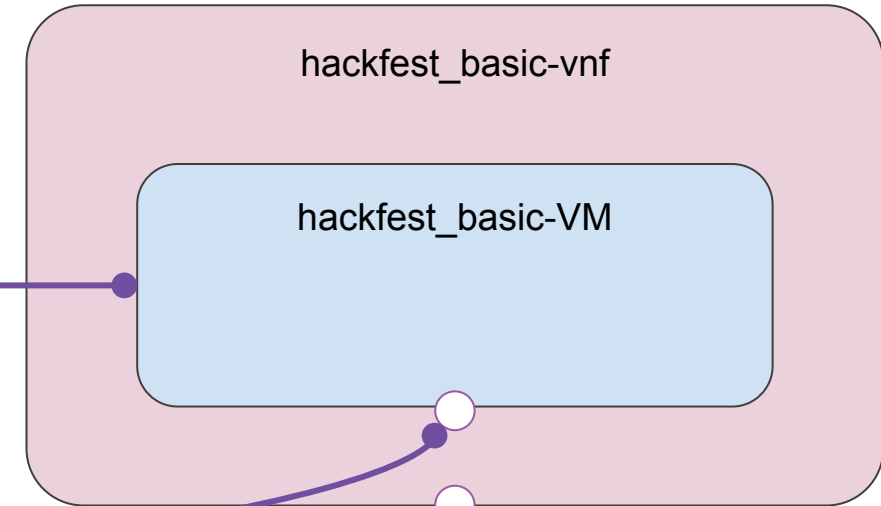
Network Service Instantiation

12/06/2023

Hackfest Basic Virtual Network Function - Part 1

```
vnfd:
  description: A basic VNF descriptor w/ one VDU
  df:
    - id: default-df
      instantiation-level:
        - id: default-instantiation-level
          vdu-level:
            - number-of-instances: 1
              vdu-id: hackfest_basic-VM
          vdu-profile:
            - id: hackfest_basic-VM
              min-number-of-instances: 1
  ext-cpd:
    - id: vnf-cp0-ext
      int-cpd:
        cpd: vdu-eth0-int
        vdu-id: hackfest_basic-VM

  id: hackfest_basic-vnf
  mgmt-cp: vnf-cp0-ext
  product-name: hackfest_basic-vnf
```

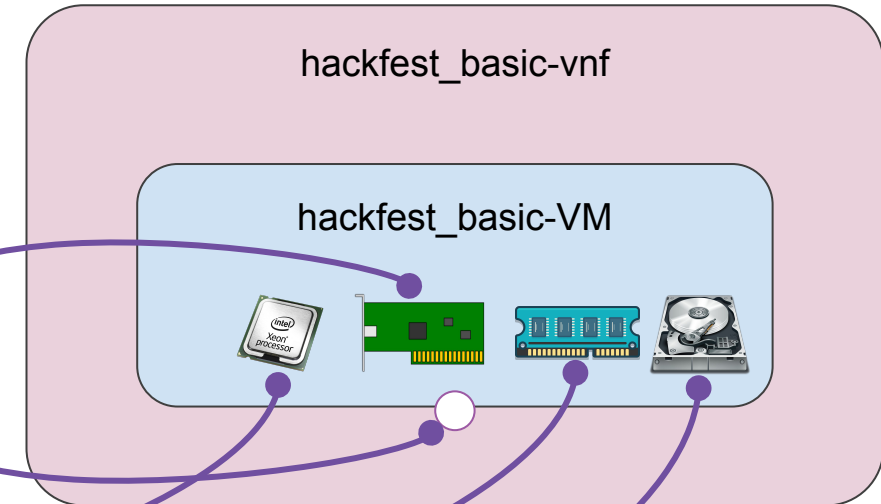


https://osm.etsi.org/gitlab/vnf-onboarding/osm-packages/-/blob/master/hackfest_basic_vnf/hackfest_basic_vnfd.yaml

Hackfest Basic Virtual Network Function - Part 2

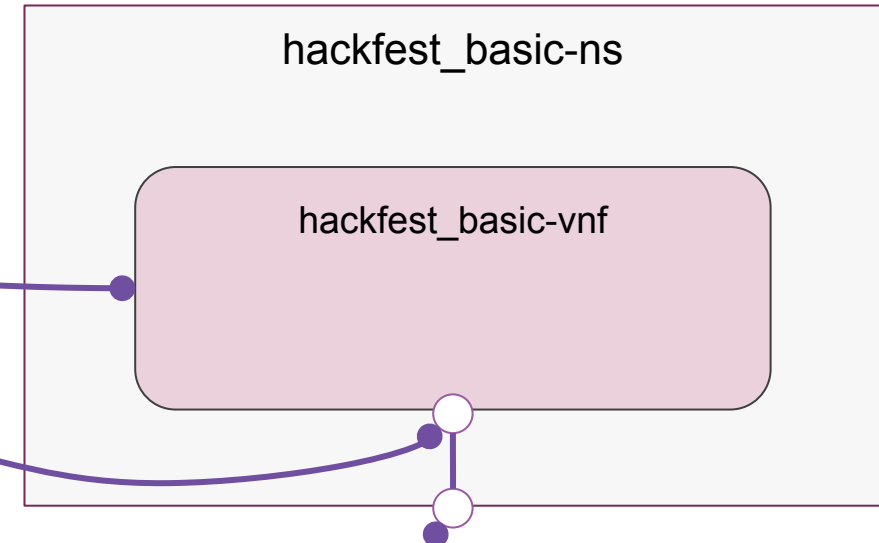
```
vdu:
- id: hackfest_basic-VM
  name: hackfest_basic-VM
  sw-image-desc: ubuntu18.04
  virtual-compute-desc: hackfest_basic-VM-compute
  virtual-storage-desc:
  - hackfest_basic-VM-storage
int-cpd:
- id: vdu-eth0-int
  virtual-network-interface-requirement:
  - name: vdu-eth0
    virtual-interface:
      type: PARAVIRT

virtual-compute-desc:
- id: hackfest_basic-VM-compute
  virtual-cpu:
    num-virtual-cpu: 1
  virtual-memory:
    size: 1.0
virtual-storage-desc:
- id: hackfest_basic-VM-storage
  size-of-storage: 10
```



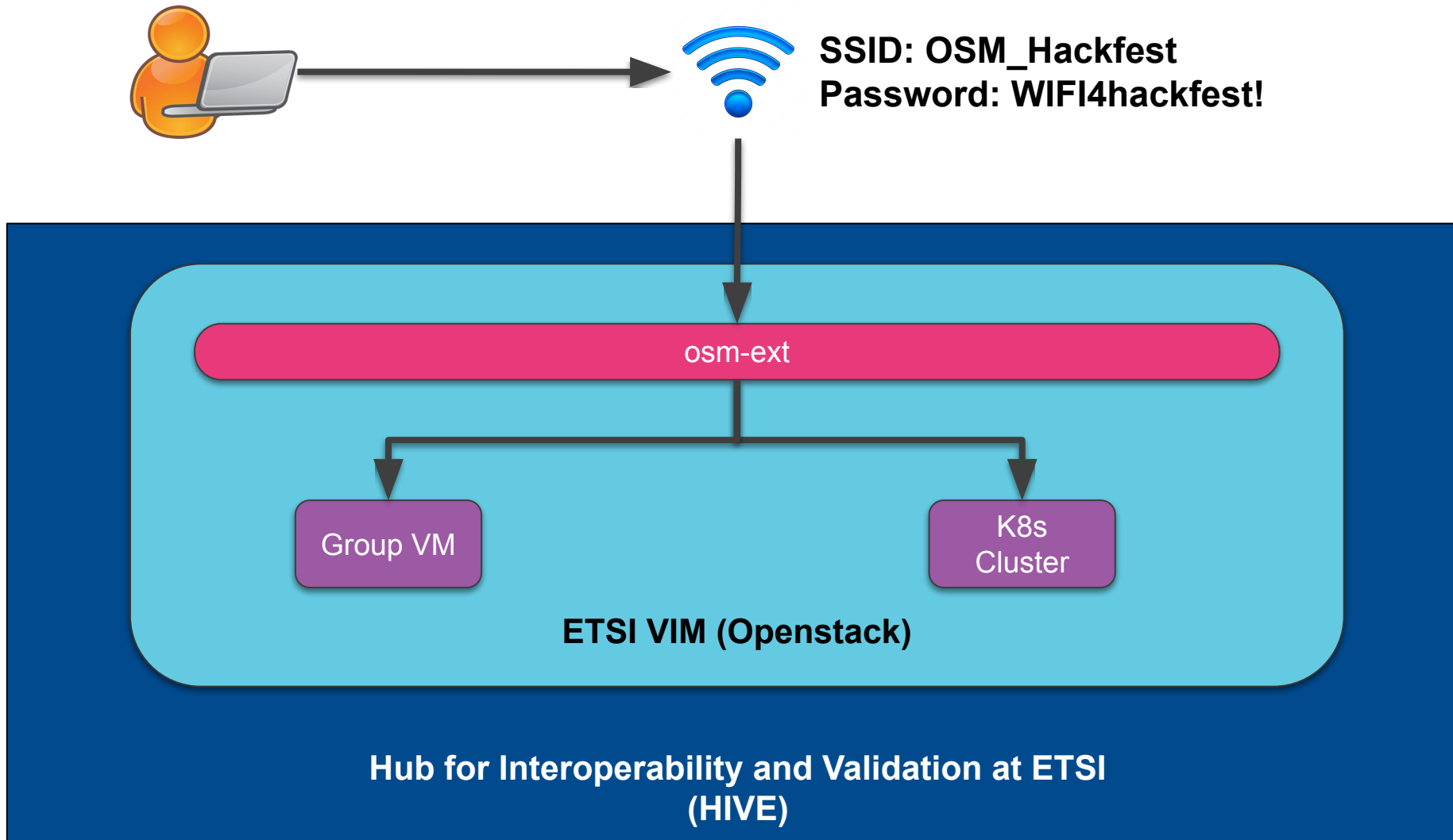
Hackfest Basic Network Service

```
nsd:
  nsd:
    - description: Simple NS with a single VNF and a single VL
  df:
    - id: default-df
    vnf-profile:
      - id: vnf
        vnfd-id: hackfest_basic-vnf
        virtual-link-connectivity:
          - constituent-cpd-id:
              - constituent-base-element-id: vnf
                constituent-cpd-id: vnf-cp0-ext
            virtual-link-profile-id: mgmtnet
    id: hackfest_basic-ns
    name: hackfest_basic-ns
    version: 1.0
    virtual-link-desc:
      - id: mgmtnet
        mgmt-network: true
    vnfd-id:
      - hackfest_basic-vnf
```

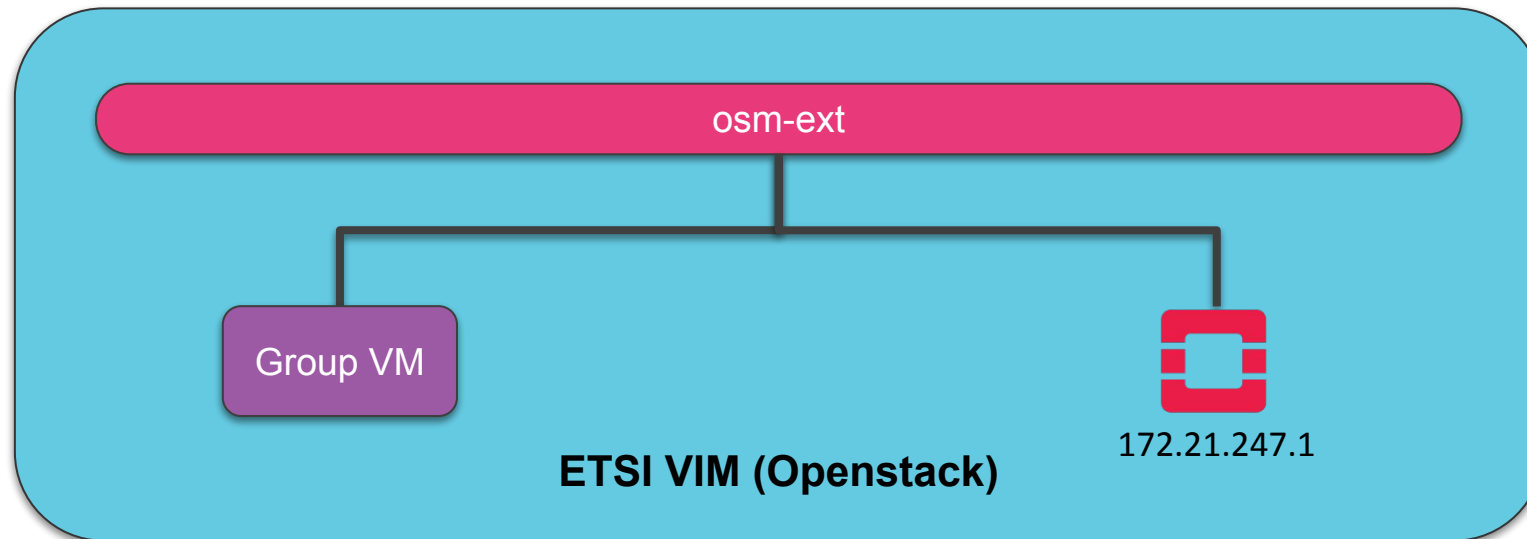


https://osm.etsi.org/gitlab/vnf-onboarding/osm-packages/-/blob/master/hackfest_basic_ns/hackfest_basic_nsd.yaml

Hackfest environment

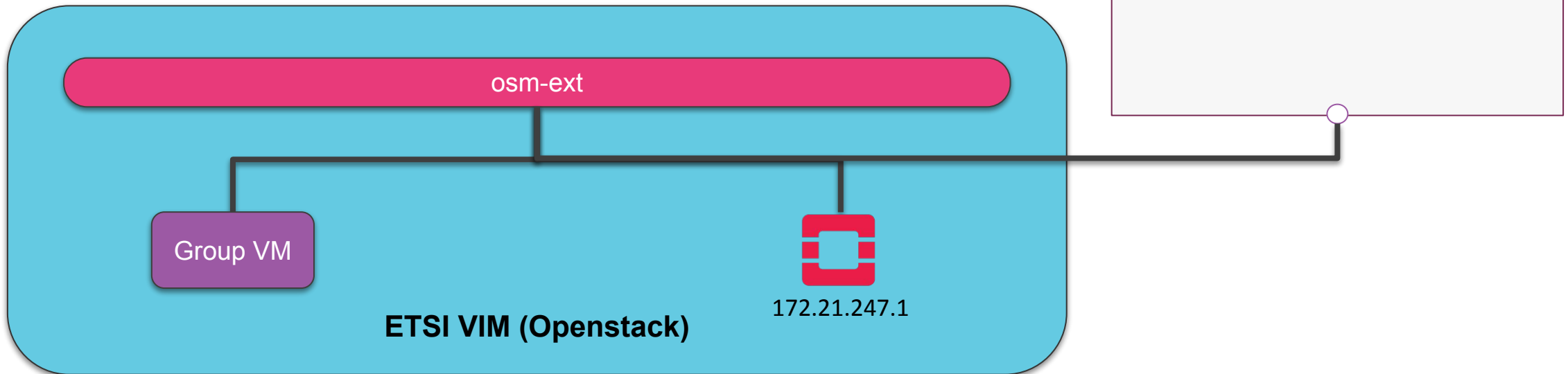


Hackfest Environment



Network Service Creation

```
osm ns-create \  
  --ns_name vertical_scale_ns \  
  --nsd_name hackfest_basic_ns \  
  --vim_account $VIM_NAME \  
  --config '{vld:  
    [ {name: mgmtnet, vim-network-name: osm-ext} ]  
  }' \  
  --ssh_keys /home/ubuntu/.ssh/id_rsa.pub
```



OSM NBI and osmclient

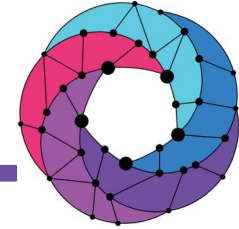
```
$ osm vim-list
```

HTTP POST /osm/admin/v1/tokens + authentication payload

HTTP GET /osm//admin/v1/vim_accounts -H token

vim name	uuid	operational state
k8s	e2749bbe-0023-4dcd-bb3e-d739bb043952	ENABLED

NBI

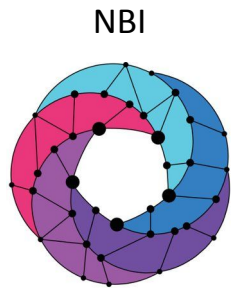


200 OK + Token

200 OK + JSON payload

```
{
  "_id": "e2749bbe-0023-4dcd-bb3e-d739bb043952",
  "name": "k8s",
  "vim_type": "dummy",
  "description": null,
  "vim_url": "null",
  "vim_user": "osm",
  "vim_password": "N1/gT4fTc850xjGos96VZg==",
  "vim_tenant_name": "null",
  "_admin": {
    "created": 1686255397.3132448,
    "modified": 1686255397.3132448,
    "projects_read": [
      "3a0ec7ef-5a40-441b-a903-0915b28c1d41"
    ],
    "projects_write": [
      "3a0ec7ef-5a40-441b-a903-0915b28c1d41"
    ],
    "operationalState": "ENABLED",
    "operations": [
      {
        "lcmOperationType": "create",
        "operationState": "COMPLETED"
```

OSM and Helm Charts

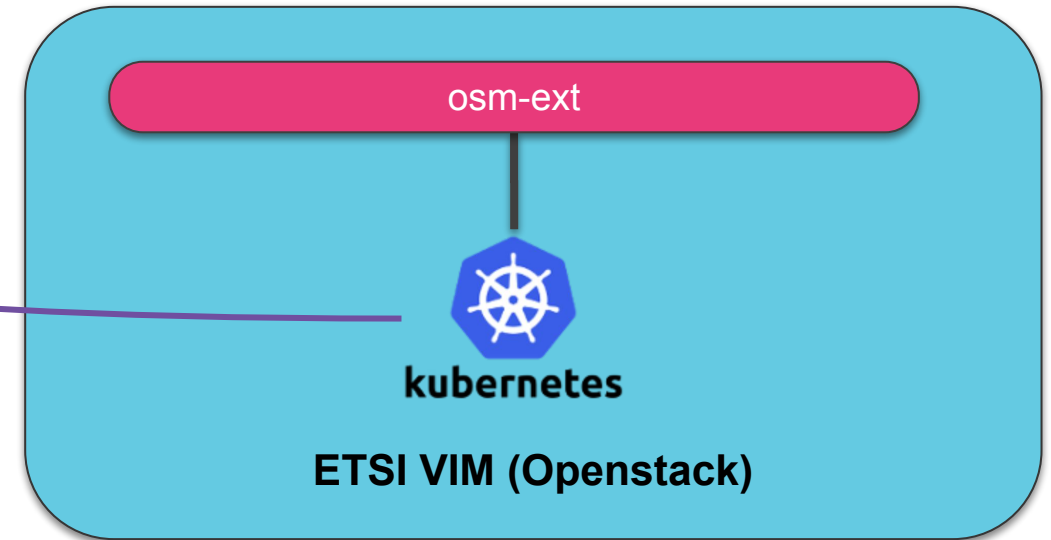


NBI

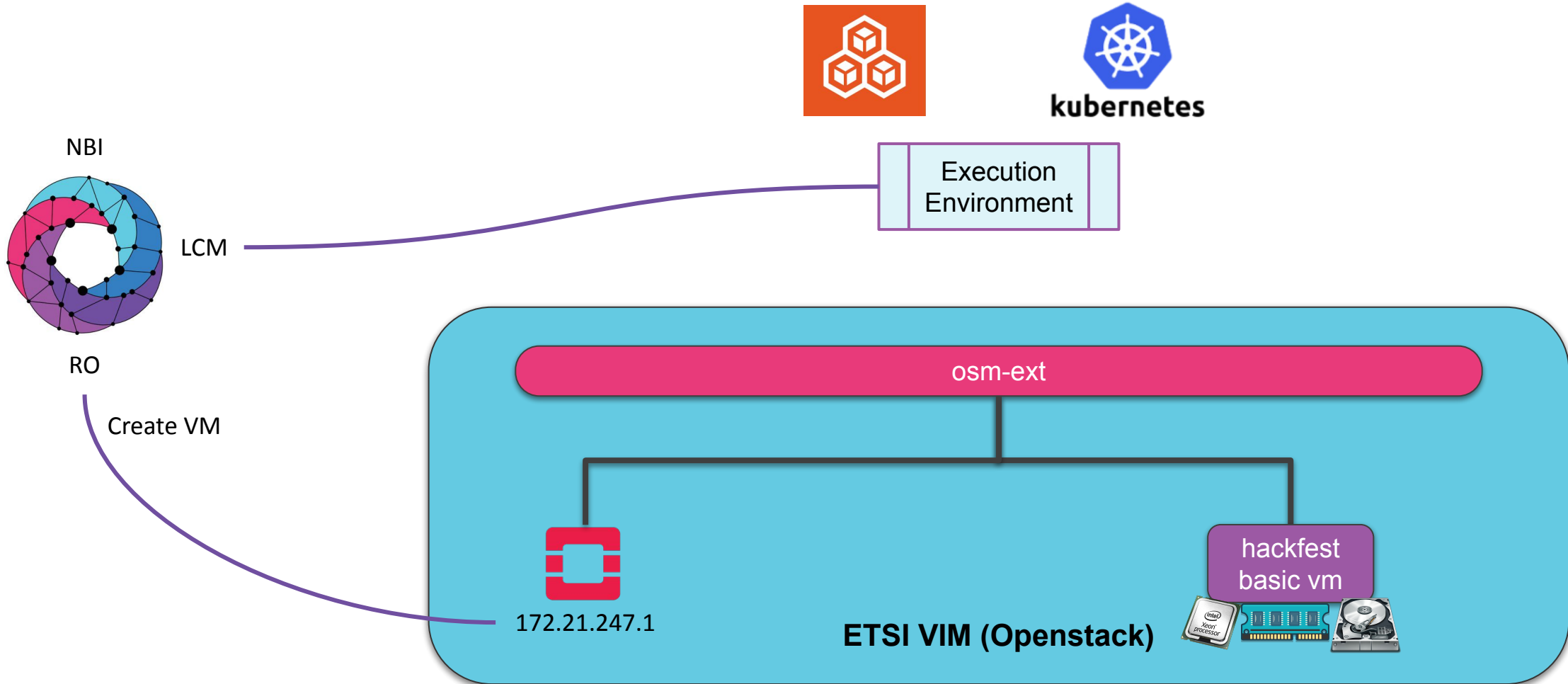
LCM

```
kdu:
- name: ldap
  helm-chart: stable/openldap

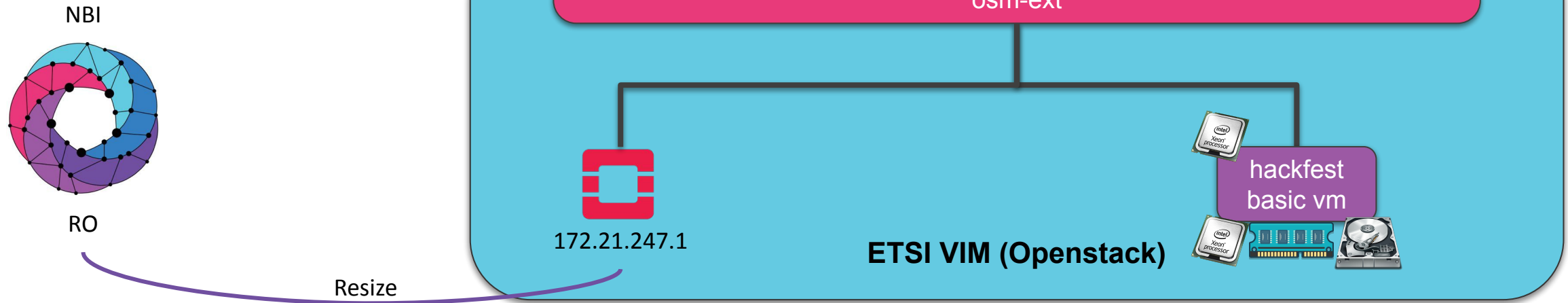
/usr/local/bin/helm3 install \
  stable-openldap-0008942772 \
  --atomic \
  stable/openldap
```

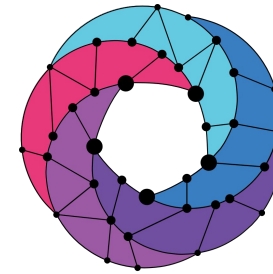


Day 1 Actions



Day 2 Operation: Vertical Scaling





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Thank You!