OSM Hackfest – Session 2
Modeling multi-VDU VNF
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VNF diagram

External Connection point: vnf-mgmt

VNF: hackfest2-vnf

VL: internal

ICP: mgmtVM-internal

mgmtVM-eth0

mgmtVM

Image name: US1604
- VM Flavor: 1 CPU, 1GB RAM, 10 GB disk
- Interfaces:
  - mgmtVM-eth0: VIRTIO
  - mgmtVM-eth1: VIRTIO

External Connection point: vnf-data

VNF: hackfest2-vnf

ICP: dataVM-internal

dataVM-eth0
dataVM

Image name: US1604
- VM Flavor: 1 CPU, 1GB RAM, 10 GB disk
- Interfaces:
  - dataVM-eth0: VIRTIO
  - dataVM-xe0: VIRTIO
Creating the VNF in the UI (1/4)

• Go to the catalog

• Add VNFD
  • Name: hackfest2-vnf
  • Add 2 Connection Points (external):
    • CONNECTION POINT 1:
      • name: vnf-mgmt
    • CONNECTION POINT 2:
      • name: vnf-data

• Add new VLD ‘internal’ to the VNF:
  • Name: internal
  • TYPE: ELAN
Creating the VNF in the UI (2/4)

• Add VDU1 in the VNF
  • Name: mgmtVM
  • Image: US1604
  • VM Flavor:
    • VCPU COUNT: 1
    • MEMORY MB: 1024
    • STORAGE GB: 10
  • Add 1 internal connection point:
    • ID: mgmtVM-internal
    • Name: mgmtVM-internal
    • Type: VPORT
  • Add 2 interfaces to the VDU:
    • Interface 1:
      • Name: mgmtVM-eth0
      • Position: 1
      • Connection-point-type: EXTERNAL
      • EXTERNAL-CONNECTION-POINT-REF: vnf-mgmt
      • Virtual-interface:
        • Type: VIRTIO
    • Interface 2:
      • Name: mgmtVM-eth1
      • Position: 2
      • Connection-point-type: INTERNAL
      • INTERNAL-CONNECTION-POINT-REF: mgmtVM-internal
      • Virtual-interface:
        • Type: VIRTIO
Creating the VNF in the UI (3/4)

• Add VDU2 in the VNF
  • Name: dataVM
  • Image: US1604
  • VM Flavor:
    • VCPU COUNT: 1
    • MEMORY MB: 1024
    • STORAGE GB: 10
  • Add 1 internal connection point:
    • ID: dataVM-internal
    • Name: dataVM-internal
    • Type: VPORT
  • Add 2 interfaces to the VDU:
    • Interface 1:
      • Name: dataVM-eth0
      • Position: 1
      • Connection-point-type: INTERNAL
      • INTERNAL-CONNECTION-POINT-REF: dataVM-internal
      • Virtual-interface:
        • Type: VIRTIO
    • Interface 2:
      • Name: dataVM-xe0
      • Position: 2
      • Connection-point-type: EXTERNAL
      • EXTERNAL-CONNECTION-POINT-REF: vnf-data
      • Virtual-interface:
        • Type: VIRTIO
Creating the VNF in the UI (4/4)

• Connect the internal connection points of the VNF to the VL:
  • mgmtVM-eth1 → internal
  • dataVM-eth0 → internal

• Click on UPDATE
NS diagram

NS: hackfest2-ns

VL: mgmtnet
CP: vnf-mgmt
VNF: hackfest2-vnf
CP: vnf-data

VL: datanet
CP: vnf-data
VNF: hackfest2-vnf
CP: vnf-mgmt
Creating the NS in the UI (1/2)

- Go to the catalog
- Add NSD
  - Name: hackfest2-ns
- Add 2 VNFs (hackfest2-vnf) to the NS by drag and drop
- Add first VLD:
  - VLD1:
    - name (optional): mgmtnet
    - TYPE: ELAN
    - MGMT NETWORK: True
    - INIT PARAMS
      - vim-network-ref
        - VIM NETWORK NAME: mgmt
          <- This is to have a default mapped VIM network
Creating the NS in the UI (2/2)

- Add second VLD:
  - VLD2:
    - name (optional): datanet
    - TYPE: ELAN
    - MGMT NETWORK: False (default)

- Connect VNF Connection Points to the VLs:
  - vnf-mgmt → VL:mgmtnet
  - vnf-data → VL:datanet

- Click on UPDATE
Deploying NS in the UI

- Go to Launchpad > Instantiate
- Select hackfest2-ns and click Next
- Complete the form
  - Add a name to the NS
  - Select the Datacenter where the NS will be deployed
  - No SSH key should be added (the image doesn’t have cloud-init enabled)
- Go to the dashboard to see the instance and get the mgmt IP address of each VNF
- Connect to each VNF:
  - ssh osm@<IP> (pwd: osm4u)