OSM Hackfest – Session 2
Modeling multi-VDU VNF

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VNF diagram

External Connection point: vnf-mgmt

VNF: hackfest2-vnf

VL: internal

VDU: 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

VDU: 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
• 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

VNF: hackfest2-vnf
CP: vnf-mgmt

VNF: hackfest2-vnf
CP: vnf-mgmt

CP: vnf-data

VL: mgmtnet
VL: datanet
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 $\rightarrow$ VL:mgmtnet
  • vnf-data $\rightarrow$ 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
  • Depending on the VIM, specify a VIM network name to map MGMTNET
  • 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)