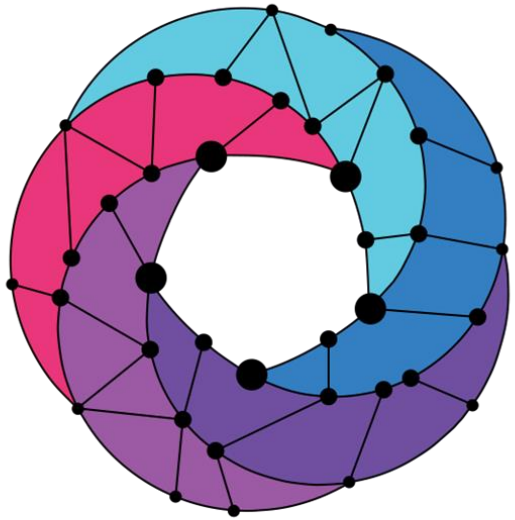

Open Source
MANO

OSM Hackfest – Session 1
Installation and first use

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ETSI

Installing OSM

- Official REL5 installation procedure:
  - https://osm.etsi.org/wikipub/index.php/OSM_Release_FIVE#Install_OSM_Release_FIVE
- Using Vagrant:
  - https://osm.etsi.org/wikipub/index.php/How_to_run_OSM_on_Vagrant
  - Instructions when using a downloaded image:
    - Create a folder and copy the image there
    - Open the windows console and move to the folder created:
      - cd Documents\Vagrant
    - Initialize the environment:
      - vagrant init osm/releasefive --box-version 0

Installing OSM

- Copy the image to the same folder (if not done yet) and add it as a ‘vagrant box’:
  - vagrant box add osm/releasefive virtualbox.box
- Modify the Vagrantfile your exposed ports preferences:
  - config.vm.network "forwarded_port", guest: 80, host: 8080
  - config.vm.network "forwarded_port", guest: 3000, host: 3000
- vagrant up
- vagrant ssh

After installing OSM

- Test OSM client
  - Try ‘osm’
- Test UI:
  - Access UI:

    http://localhost:8080
    Credentials are admin/admin

Local OSM instances

- osm-plugtest1: http://172.21.1.4
- osm-plugtest2: http://172.21.1.5
- osm-hackfest1: http://172.21.1.9

For people using ETSI OSM servers Install OSM client

- Instructions could be found here:
  - https://osm.etsi.org/wikipub/index.php/How_to_install_OSM_client

Steps:

- curl https://osm-download.etsi.org/repository/osm/debian/ReleaseFIVE/OSM%20ETSI%20Release%20Key.gpg | sudo apt-key add -
- sudo add-apt-repository -y "deb [arch=amd64] https://osm-download.etsi.org/repository/osm/debian/ReleaseFIVE stable osmclient"
- sudo apt-get update
- sudo apt-get install -y python-osmclient

- After the installation completes, you might want to add the following environment variables to your .bashrc file:
  - export OSM_HOSTNAME=<OSM_host> # IP of the OSM server (default: 127.0.0.1)

Adding VIM accounts

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- VIMs:

Name	Type	AUTH URL	tenant	user	Password
openstack1	openstack	http://172.21.247.1:5000/v3	xxx	xxx	xxx
openstack2	openstack	https://172.21.7.5:5000/v3	xxx	xxx	xxx
openstack3	openstack	https://172.21.5.4:5000/v3	xxx	xxx	xxx

- Test VIMs:
  - ping <IP>
  - curl -k http://<IP>:5000/v3
  - Install python-openstackclient
    - sudo apt-get install python-openstackclient

Adding VIM accounts

- Load Openstack credentials and run some commands for testing:
  - export OS_AUTH_URL=xxx
  - export OS_USERNAME=xxx
  - export OS_TENANT_NAME=xxx
  - export OS_PASSWORD=xxx
  - export OS_IDENTITY_API_VERSION=3
  - openstack image list
  - openstack network list
  - openstack flavor list
  - openstack server list

OpenStack1 VIM Details

URL:

- http://172.21.247.1:5000/v3

Credentials

- Tenant: osm_hackfest_X
- Tenant user: osm_hackfest_X
- Tenant password: osm_hackfest_X

Where X goes from 1 to 40

Images:

- ubuntu1604
- US1604
- hackfest3-mgmt
- cirros034

Networks:

- Public & Management: osm-ext

Adding OpenStack1 using “osm” cli:

osm vim-create --name openstack1 --account_type openstack --auth_url http://172.21.247.1:5000/v3 --user osm_hackfest_X --password osm_hackfest_X --tenant osm_hackfest_X --description "Hackfest Openstack ETSI"

OpenStack2 VIM Details

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URL:

- http://172.21.7.5:5000/v3

Credentials

- Tenant: osm_hackfest_X
- Tenant user: osm_hackfest_X
- Tenant password: osm_hackfest_X

Where X goes from 1 to 40

Images:

- ubuntu1604
- US1604
- hackfest3-mgmt
- cirros034

Networks:

- Provider/Management: PUBLIC

Adding Openstack2 VIM using “osm” cli:

osm vim-create --name openstack2 --account_type openstack --auth_url http://172.21.7.5:5000/v3 --user osm_hackfest_X --password osm_hackfest_X --tenant osm_hackfest_X --description "Hackfest OpenStack WhiteStack"

OpenStack3 VIM Details

URL:

- http://172.21.5.4:5000/v3

Credentials

- Tenant: osm
- Tenant user: osm
- Tenant password: osm@W1nd

Images:

- ubuntu1604
- US1604
- hackfest3-mgmt
- cirros034

Networks:

- Provider/Management: external

Adding Openstack2 VIM using “osm” cli:

osm vim-create --name openstack3 --account_type openstack --auth_url http://172.21.5.4:5000/v3 --user osm --password osm@W1nd --tenant osm --description "ETSI openstack3 Windriver Openstack, with tenant osm"

Adding images to the VIM

- Image management is not implemented in OSM today. It has to be done independently on each VIM.

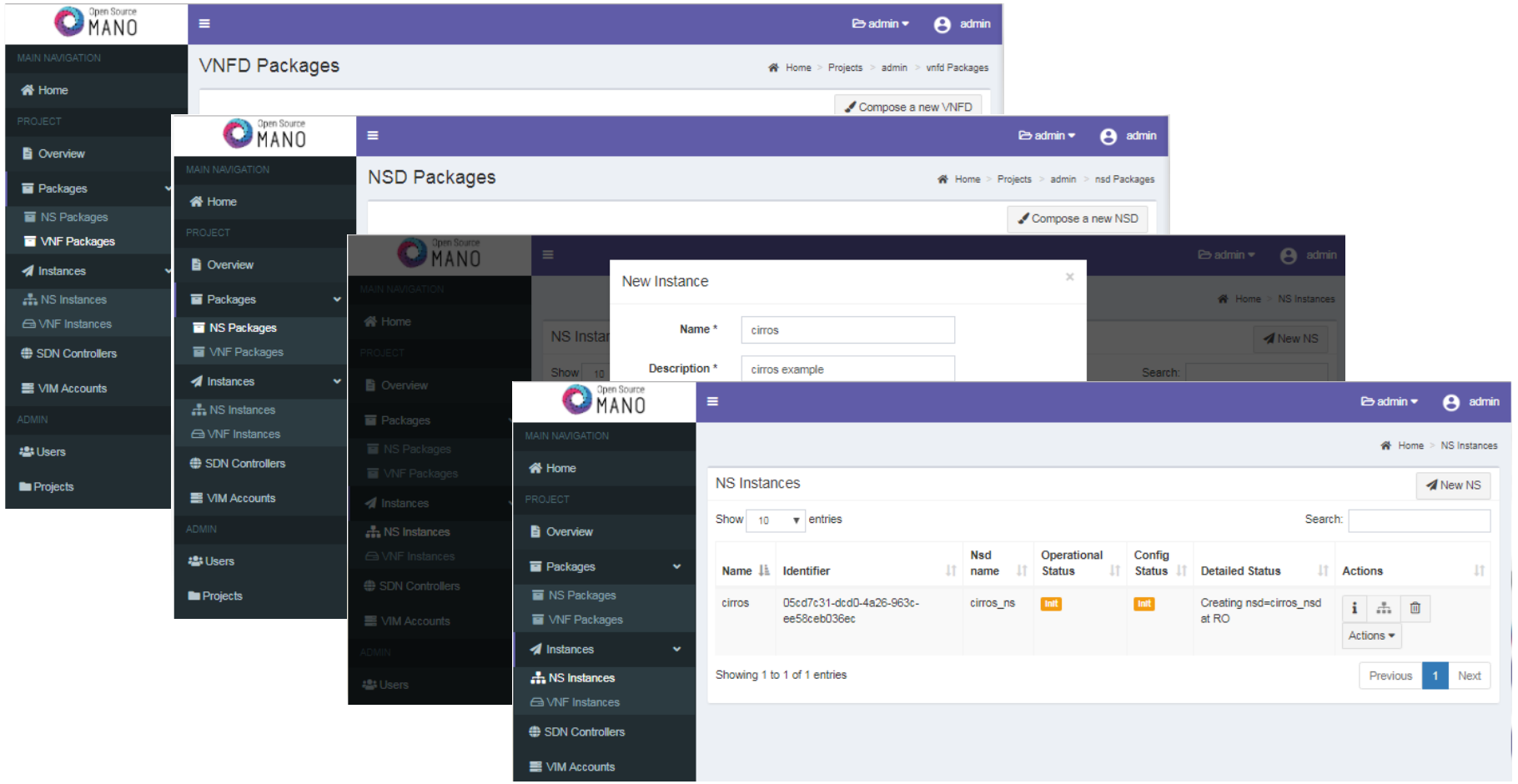
- **IMAGES HAVE BEEN ALREADY ADDED TO THE REMOTE VIMS IN THE HACKFEST**

- Example for Openstack:
  - openstack image create --file="./cirros-0.3.4-x86_64-disk.img" --container-format=bare --disk-format=qcow2 --public cirros034

Adding images to the VIM

Image name in descriptors	Filename
ubuntu1604	xenial-server-cloudimg-amd64-disk1.img (you can get it from https://cloud-images.ubuntu.com/xenial/current/)
US1604	US1604.qcow2
hackfest3-mgmt	hackfest3-mgmt-qcow2
hackfest-pktgen	hackfest-pktgen-qcow2
cirros034	cirros-0.3.4-x86_64-disk.img
apache_ubuntu	apache_ubuntu.qcow2
haproxy_ubuntu	haproxy_Ubuntu.qcow2
client_ubuntu	client_ubuntu.qcow2
vyos-1.1.7-cloudinit	vyos-1.1.7-cloudinit

Deploying our first NS with OSM UI



Deploying our first NS with the UI

Open Source MANO

- Add VNF package (drag&drop)
- Add NS package (drag&drop)
- Instantiate
- Get VNF record and obtain mgmt IP address
- Access to the VNF via SSH (user: “cirros”, pass: “cubswin:)” or “gocubsgo” depending on the VIM)
- Delete NS instance
- Delete NS
- Delete VNF

Deploying our first NS with OSM client

- **Add VNF and NS packages**
  - osm vnfd-create cirros_vnf.tar.gz
  - osm vnfd-list
  - osm nsd-create cirros_2vnf_ns.tar.gz
  - osm nsd-list
- **Instantiate**
  - osm ns-create --nsd_name cirros_2vnf_ns --ns_name <ns-instance-name> --vim_account <data-center-name>
  - osm ns-list
- **Delete NS instance**
  - osm ns-delete <ns-instance-name>
  - osm ns-list
- **Delete VNF and NS package**
  - osm nsd-delete cirros_2vnf_ns
  - osm nsd-list
  - osm vnfd-delete cirros_vnfd
  - osm vnfd-list