

Open Source  
**MANO**

# OSM#10 Hackfest

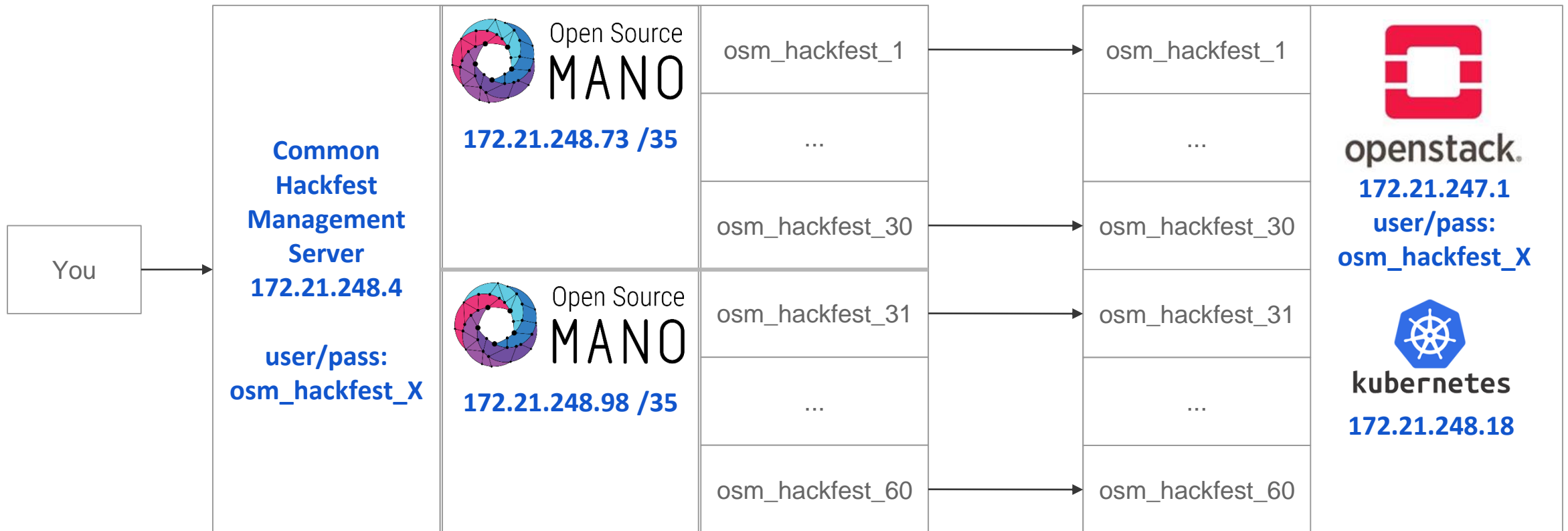
## Preparing our OSM environment

Mark Beierl (Canonical)



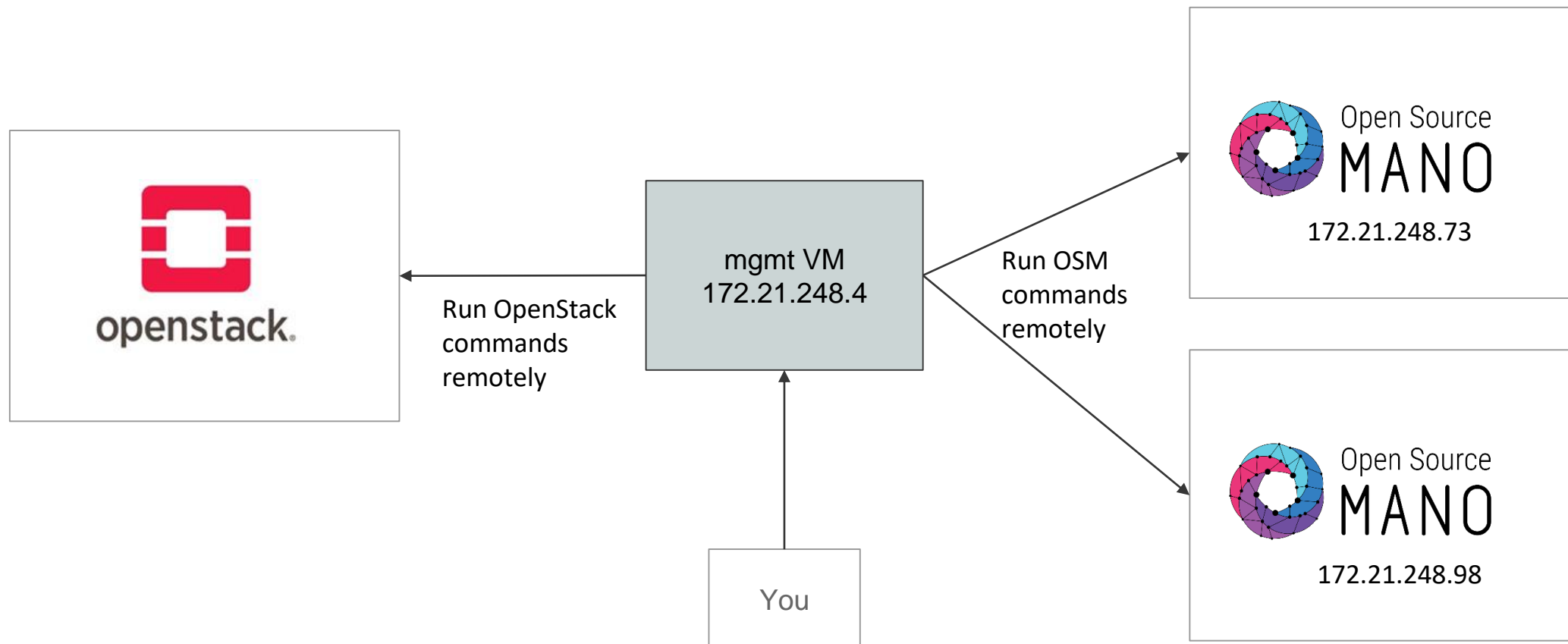
# We will use shared OSM Instances

Two shared OSM instances, leveraging the OSM RBAC capabilities.



# We will use shared OSM Instances

We will use a shared OSM instance, leveraging the OSM RBAC capabilities.



- We are using a Google Spreadsheet to track all resources

[https://docs.google.com/spreadsheets/d/1vWAXzAhjZonRu0YrA0\\_cMCPDQbpHI-7EQNcjXO3Xzbl/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1vWAXzAhjZonRu0YrA0_cMCPDQbpHI-7EQNcjXO3Xzbl/edit?usp=sharing)

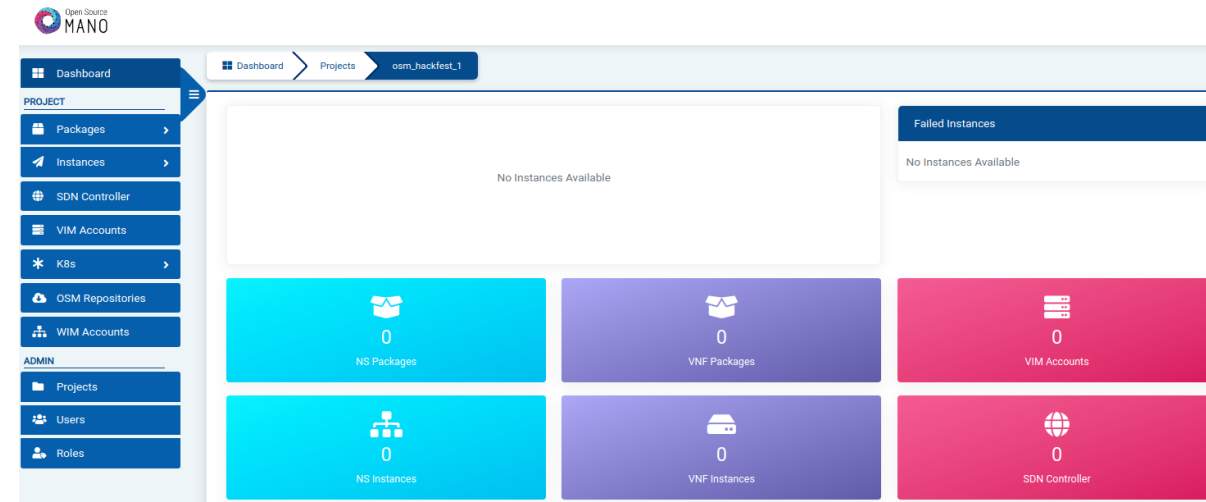
- Please pick a row, add:
  - Your name and email
  - Confirm you have VPN access

# Accessing your OSM tenant

There are two ways to access OSM:

- Dashboard
  - <http://172.21.248.73>  
(osm\_hackfest\_1 .. 30)
  - <http://172.21.248.98>  
(osm\_hackfest\_31 .. 60)
- CLI, via SSH to the mgmt VM

`ssh osm_hackfest_x@172.21.248.x`  
(user / pass: osm\_hackfest\_x)



```
$ ssh osm_hackfest_1@172.21.248.4
Warning: Permanently added '172.21.248.4' (ECDSA) to the list of known hosts.
osm_hackfest_1@172.21.248.4's password:
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-118-generic x86_64)
```

```
* Documentation: https://help.ubuntu.com
* Management:   https://landscape.canonical.com
* Support:      https://ubuntu.com/advantage
```

```
System information as of Wed Nov 18 12:27:38 UTC 2020
```

```
System load: 0.0          Processes:           127
Usage of /:  14.0% of 38.60GB Users logged in:    1
Memory usage: 5%         IP address for ens3: 172.21.248.4
Swap usage:  0%
```

# Accessing your OpenStack tenant

There are two ways to interact with OpenStack:

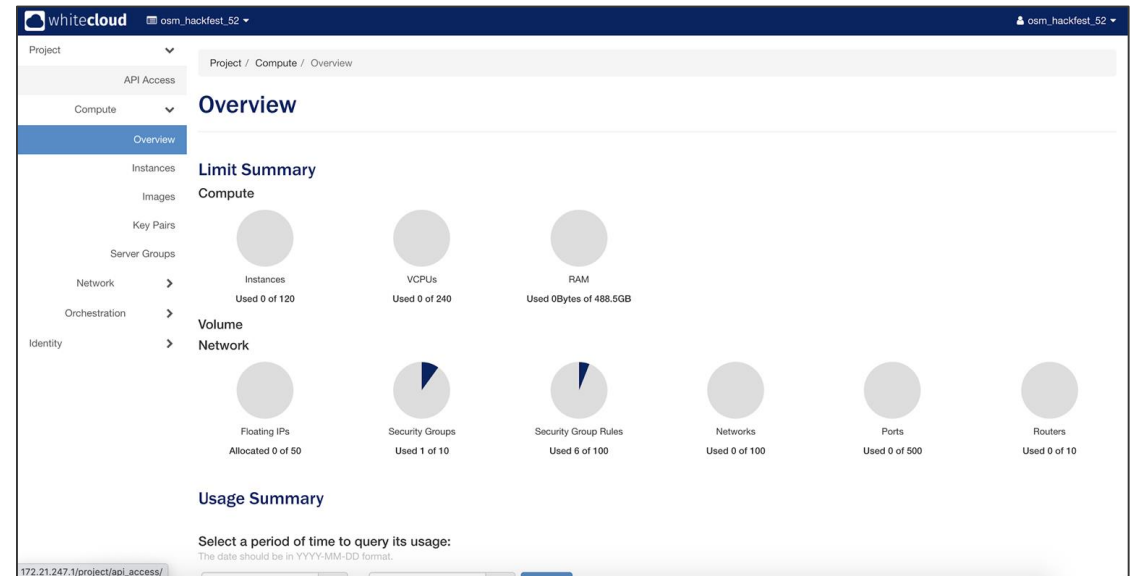
- Dashboard

<http://172.21.247.1>  
(user / pass: osm\_hackfest\_x)

- CLI, via SSH to the mgmt VM

`ssh osm_hackfest_x@172.21.248.4`  
(user / pass: osm\_hackfest\_x)

# just try a command!  
`openstack image list`



# Accessing your K8 Cluster


There are just one way to interact with K8:

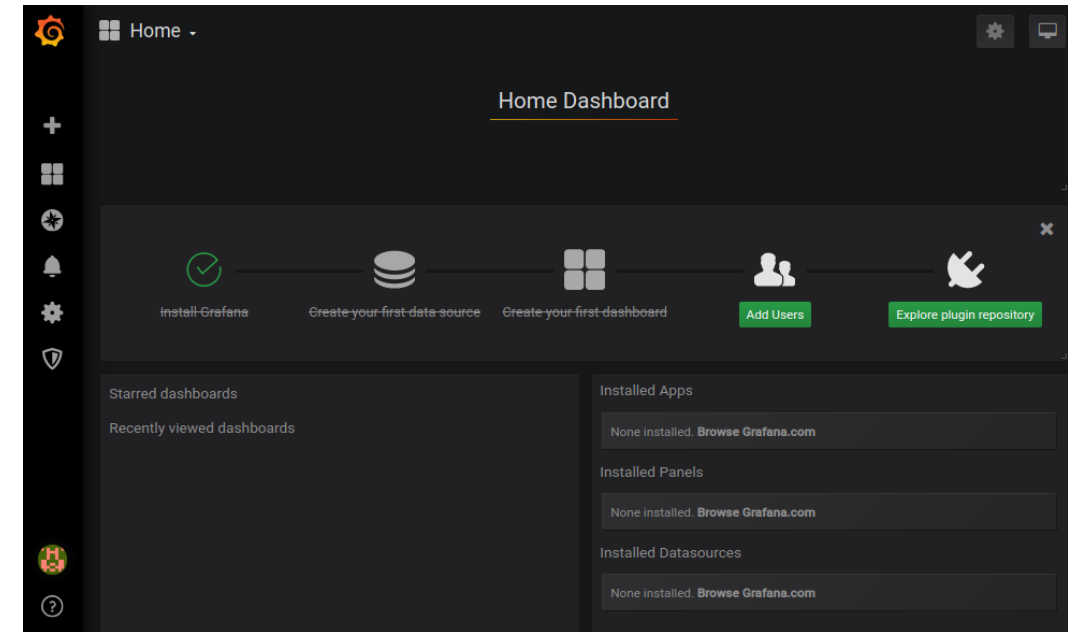
- CLI, via SSH to the mgmt VM

```
ssh osm_hackfest_x@172.21.248.4  
(user / pass: osm_hackfest_x)
```

```
# try a command using the credentials at your home dir  
kubectl --kubeconfig ~/kube.yaml get pods -A
```

# Accessing OSM Monitoring

- OSM collects the metrics
- Log into:
  - <http://172.21.248.73:3000>  
(osm\_hackfest\_1 .. 30)
  - <http://172.21.248.98:3000>  
(osm\_hackfest\_31 .. 60)
- Credentials are:
  - admin / admin (do not change the password)
- Click on  Home ▾
- Find your dashboard name and click on that





# What will OSM Orchestrate?

- VIM: Virtual Infrastructure Manager
  - For this hackfest, it will be WhiteStack (OpenStack Rocky)
  - <http://172.21.247.1>
- K8s: Kubernetes Cluster
  - For this hackfest, it is WhiteMist (K8s v1.18)
  - <https://172.21.248.18:6443>

We need to tell OSM how to find these, and what credentials to use

- From the management VM, execute this command

```
osm vim-create --name osm_hackfest_1 --user ${OSM_USER} --password  
${OSM_USER} --auth_url ${OS_AUTH_URL} --tenant ${OSM_USER} --account_type  
openstack --config '{management_network_name: osm-ext}'
```

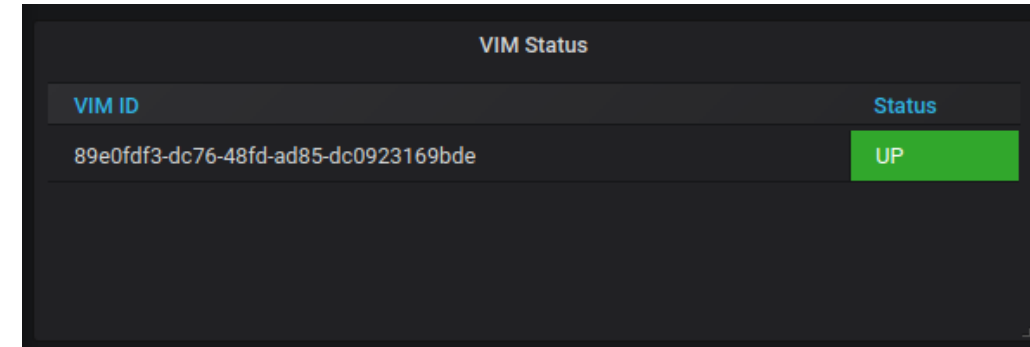
**Note: management\_network\_name:** in the --config gives a common name for all of us and is used by later examples

# Review Update

- Go back to Grafana dashboard
  - You should see a VM ID and status
- Go to OSM Dashboard / VIM Accounts
  - You should see the Hackfest entry
- From the CLI

```
osm vim-list
```

```
+-----+-----+
| vim name      | uuid                                     |
+-----+-----+
| osm_hackfest_1 | 89e0fdf3-dc76-48fd-ad85-dc0923169bde |
+-----+-----+
```






VIM ID	Status
89e0fdf3-dc76-48fd-ad85-dc0923169bde	UP

## VIM Accounts

🕒 PROCESSING 🟢 ENABLED 🛑 ERROR

Entries 10

Name	Identifier	Type	Operational Status	Description	Actions
hackfest	89e0fdf3-dc76-48fd-ad85-dc0923169bde	openstack	🟢		  

# Add Kubernetes Cluster to OSM

- From the management VM, execute this command

```
osm k8scluster-add --creds ~/kube.yaml --vim osm_hackfest_1 --k8s-nets  
"{\"net1\": \"osm-ext\"}" --version 1.18 --namespace test --description "k8s  
cluster" hackfest
```

**Note:** this command will return quickly, but the processing of the cluster in OSM can take several minutes to complete

# Review Update

## From the management VM

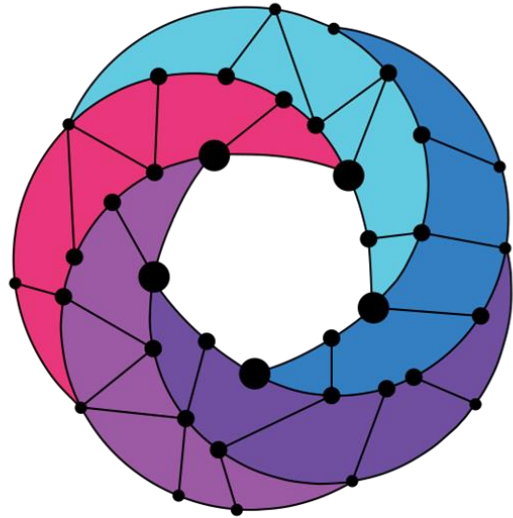
```
osm k8scluster-list
```

Name	Id	Version	VIM	K8s-nets	Operational State	Description
hackfest	f3258ab5-0064-4e6e-b5bb-cc5cc2fedc07	1.18	89e0fdf3-dc76-48fd-ad85-dc0923169bde	{"net1": "osm-ext"}	PROCESSING	k8s cluster

## Will eventually show:

```
osm k8scluster-list
```

Name	Id	Version	VIM	K8s-nets	Operational State	Description
hackfest	f3258ab5-0064-4e6e-b5bb-cc5cc2fedc07	1.18	89e0fdf3-dc76-48fd-ad85-dc0923169bde	{"net1": "osm-ext"}	ENABLED	k8s cluster



# Open Source MANO

Find us at:

[osm.etsi.org](https://osm.etsi.org)  
[osm.etsi.org/wikipub](https://osm.etsi.org/wikipub)