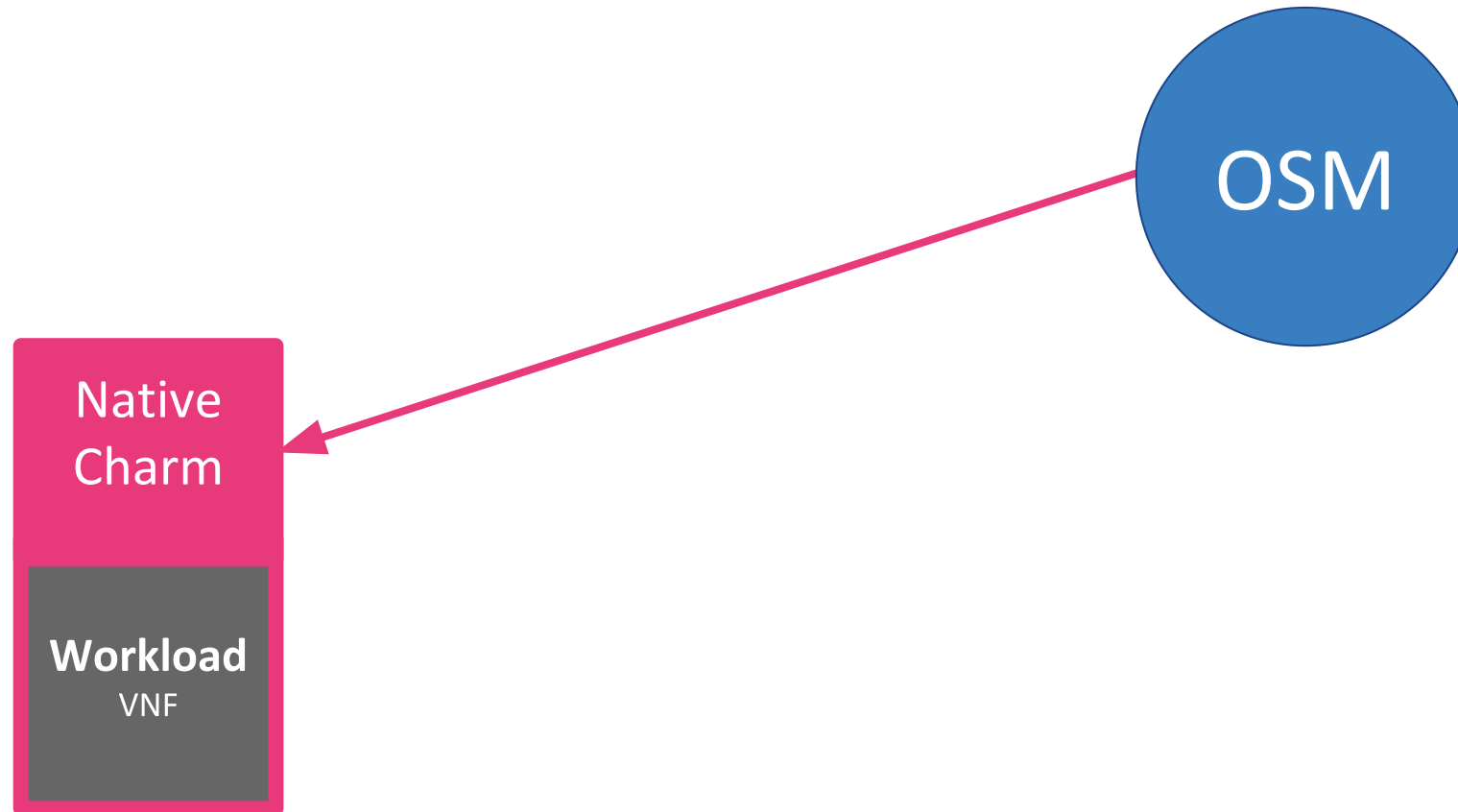


Open Source
MANO

Modeling VNF/PNFs with Charms

David García (Canonical)

EnodeB + UE Emulator



VNFD: EnodeB + UE Emulator

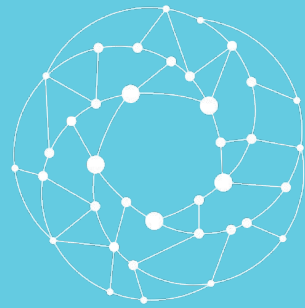
- VDU Configuration: When the charm is not a proxy charm, it needs to be inside the vdu-configuration because it will be deployed inside the VM (=VDU)
 - Juju:charm:proxy = False: If proxy is False, it means we are working with a native charm
 - Initial config primitive:
 - Remove default gateway

```
vdu-configuration:  
  juju:  
    charm: enodeb  
    proxy: False  
  config-access:  
    ssh-access:  
      required: True  
      default-user: ubuntu  
  initial-config-primitive:  
    - seq: '1'  
      name: remove-default-gw  
  config-primitive:  
    [...]
```

VNFD: EnodeB + UE Emulator

- VDU Configuration:
 - Config primitive:
 - Attach UE
 - Detach UE

```
vdu-configuration:  
  [...]  
  config-primitive:  
    - name: attach-ue  
      parameter:  
        - name: usim-imsi  
          data-type: STRING  
        - name: usim-k  
          data-type: STRING  
        - name: usim-opc  
          data-type: STRING  
    - name: detach-ue
```



Open Source
MANO

Hands on

Deploying a Machine Operator

1. Login to the AWS instance

2. Add a model in LXD

```
$ juju add-model srs lxd-cloud
```

3. Deploy srs-enb-ue charm

```
$ juju deploy cs:~charmed-osm/srs-enb-ue
```

4. Run attach-ue action

```
$ juju run-action srs-enb-ue/0 attach-ue --string-args  
usim-imsi=1 usim-k=2 usim-opc=3
```

Creating our first Machine operator

1. Install charmcraft

```
$ sudo snap install charmcraft --channel beta
```

2. Create basic project

```
$ charmcraft init --name basic --project-dir basic-operator
```

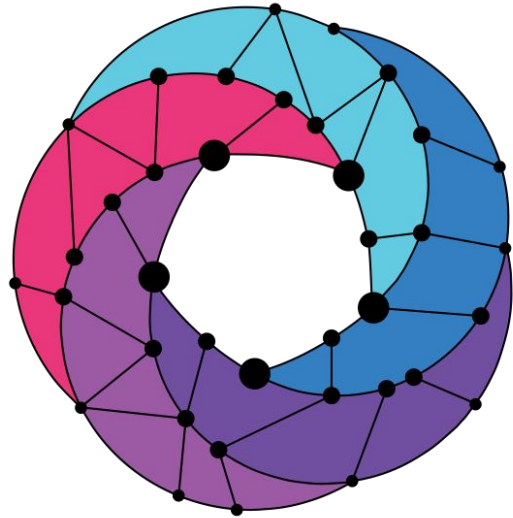
3. Edit the charm (follow the instructor)

4. Build the charm

```
$ charmcraft build
```

5. Deploy the charm

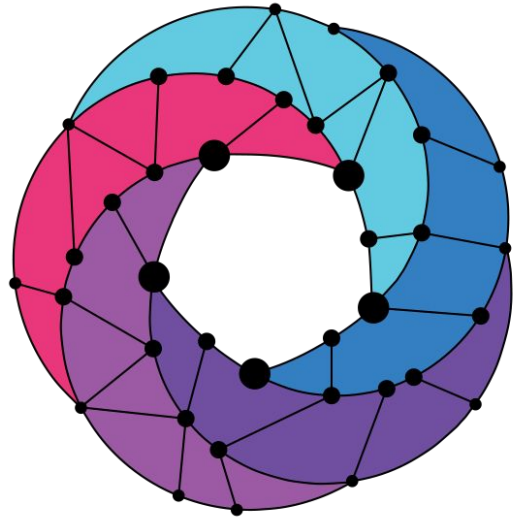
```
$ juju deploy ./basic.charm
```



Open Source MANO

Find us at:

osm.etsi.org
osm.etsi.org/wikipub



Open Source MANO

Find us at:

osm.etsi.org
osm.etsi.org/wikipub