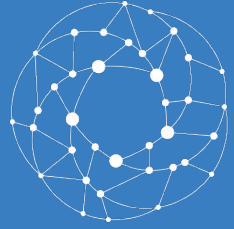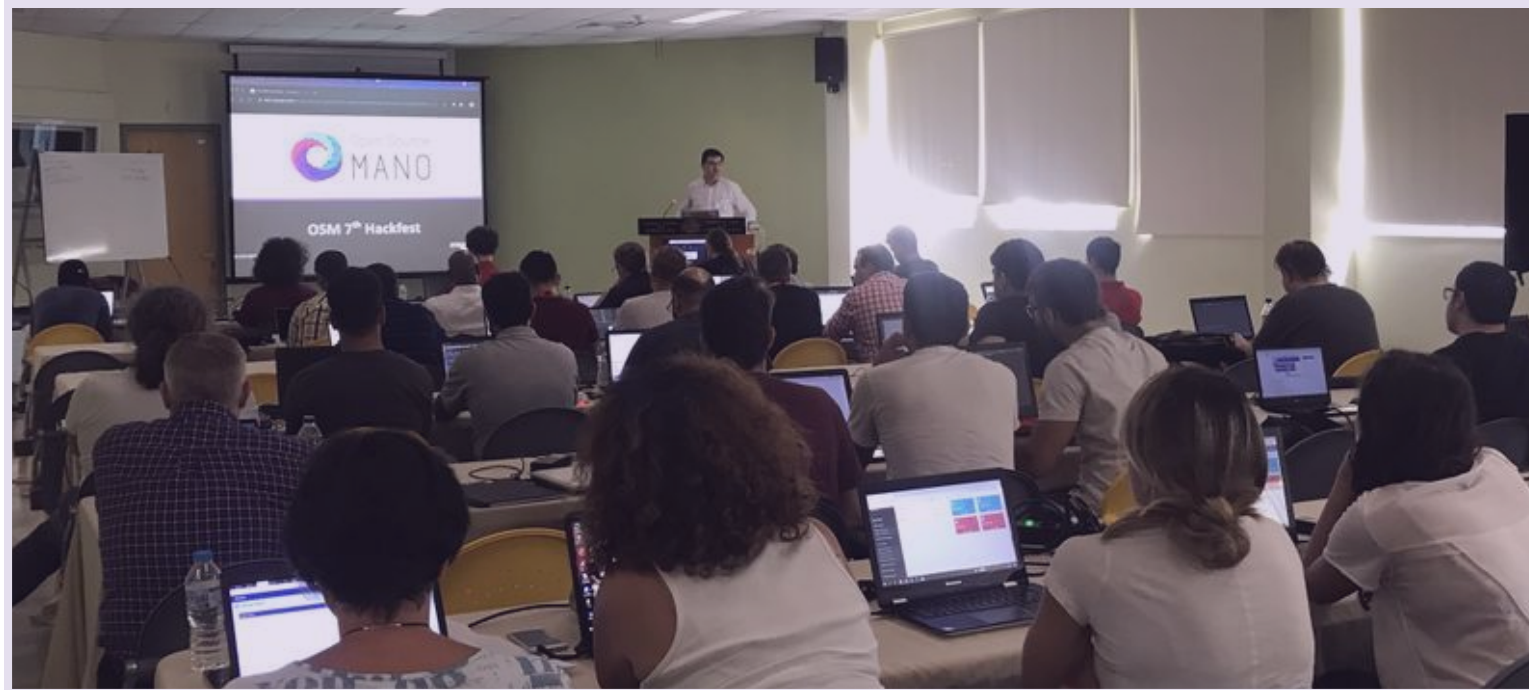# OSM MR Hackfest – Hack 5b
End-to-end KNF Package Onboarding in OSM

Gianpietro Lavado (Whitestack)
Felipe Vicens (Atos)

Open Source MANO

Hands-on: Building an Evolved Packet Core KNF package from scratch

Hands-on: Building an EPC KNF package

We will follow [this guide](#), in which we use Facebook's Magma EPC (the Orchestrator component) as an example.

Important considerations:

- Use **Visual Studio** or similar tool to quickly modify text files.

- This is basic example and work in progress, as K8s support is new in OSM and it's constantly evolving.

- Day-1/2 primitives will be added soon, as support for API interaction with K8s services is developed.

Hands-on: Building an EPC KNF package

Now, let's add a VNF that can be tested against the Magma Orchestrator: the Access Gateway, the distributed mobile packet core component.

1. Download the packages and upload them to OSM catalogue

```
wget http://osm-download.etsi.org/ftp/Packages/vnf-onboarding-tf/magma-agw_vnfd.tar.gz

wget http://osm-download.etsi.org/ftp/Packages/vnf-onboarding-tf/magma-agw_nsd.tar.gz

osm nfpkg-create magma-agw_vnfd.tar.gz

osm nspkg-create magma-agw_nsd.tar.gz
```

2. Prepare a 'params.yaml' file with info to self register the AGW to your Orchestrator

```
additionalParamsForVnf:
-  member-vnf-index: '1'
   additionalParams:
     agw_id: 'agw_01'
     agw_name: 'AGW01'
     orch_ip: '172.21.250.10'  ## change this to the MetalLB IP address of your orc8r_proxy service.
     orch_net: 'osmnet'
```

Hands-on: Building an EPC KNF package
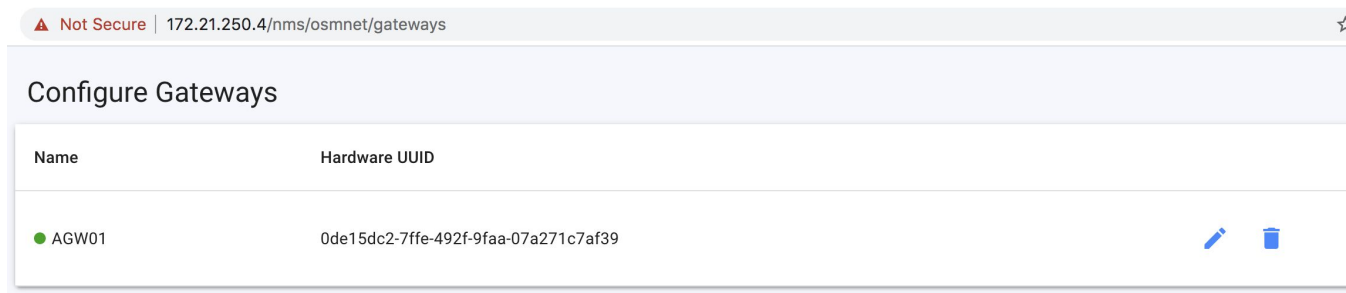
3. Launch the AGW.

```
osm ns-create --ns_name agw01 --nsd_name magma-agw_nsd --vim_account <vim_account> --config_file params.yaml
```
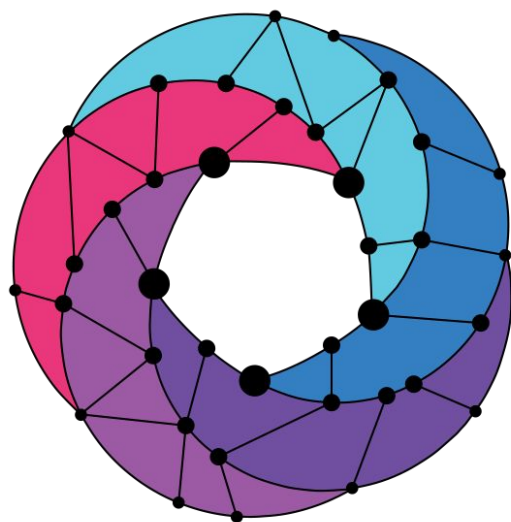
4. Monitor the charms, they take care of auto-registering the AGW with the Orchestrator.

```
juju switch <ns_id>

juju status
```

5. When finished, the Magma Orchestrator dashboard will show the registered AGW01.

Find us at:

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