Virtualised and Containerised Network Functions in OSM

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NFV Architecture
NFV Transition
Advanced service deployment PoC #4

- Deployment of complex NS Open5GCore
  - optionally with emulated eNB & UEs
- Advanced VNF configuration using full charms
- Enabling further Open5GCore use cases (e.g., AR/VR)
VNF onboarding in practice

- Requirements for Network Service and VNF descriptors
- Configuration and lifecycle management operations
- End-to-end Network Service testing
- Repeatable, automated onboarding process
## NFV Evolution

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Where can containers fit in the network

**Data Center**
- Large DC housing 1000's of servers
- OpenStack and K8s is the key component
- Primarily used for large scale-out application and storage intense application

**POP/Edge**
- Medium DC housing 100's of servers
- OpenStack is the key component
- Places the content near to the customer
- Lower latency applications that serve geographic regions

**Far Edge/Hub**
- Small implementation housing a handful of servers
- K8s or MAAS/LXD providers are more efficient solution
- Base Station sites could also use the same architecture

**Base Station**

**UE/IoT**

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What can you run in containers

- Containerized NF’s in the Core Data Centers → in development
- Containerized apps in the Data Center → available
- AI/ML → available
- 5G Base Station Software → in development
- Edge compute infrastructure → available
- Containerized easily portable multi-cloud → available
- Container development and testing on a laptop → available
How to get started

1. VNFs on OpenStack
2. Test Kubernetes Cluster
3. Kubernetes training and CI/CD pipeline development
4. Containerized workloads
Questions ?
Thank you!