

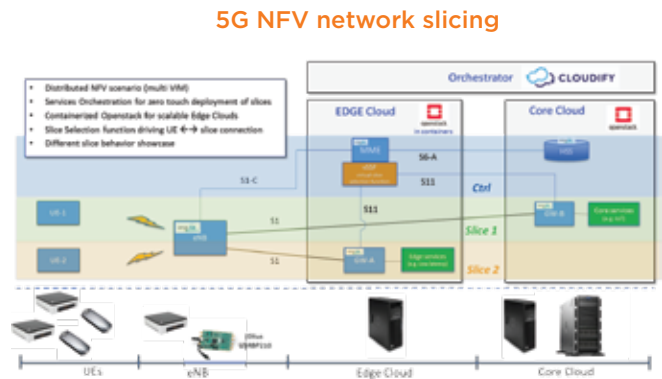


HIGH-END SERVICES FOR WIRELESS INDUSTRY

HCL helps you manage scale and Time-To-Market in all critical phases of your product development or service deployment in wireless technologies. HCL is a trusted partner for 2G and 3G industry and has extended its capabilities to remain the leading, innovative engineering service provider for LTE, LTE-A Pro and 5G.

5G NFV ORCHESTRATED NETWORK SLICING

- 5G Networks shall provide highly differentiated services to mobile users and industry verticals (manufacturing, automotive, energy utilities, healthcare, multi-media, public safety, public transport, financial)
- Network Slicing (ref 3gpp TR22.891, TS23.501) will allow network operators to dynamically provision dedicated virtual networks with functionality and performance tailored for heterogeneous user and industry verticals
- Distributed clouds , NFV and SDN with E2E orchestration will be key technology enablers for the deployment and successful operation of a common network infrastructure able to provide 5G dynamic and differentiated services by means of Network Slicing
- HCL experience and IP/accelerators for NFV, SDN and E2E orchestration are ready to meet the challenging requirements set by 5G and Network Slicing
- The PoC demo will show orchestrated deployment of multi slice core network on a distributed NFV Telco Cloud scenario. The Mobile terminal (UE) will be able to connect to different network slices based on assigned service capabilities



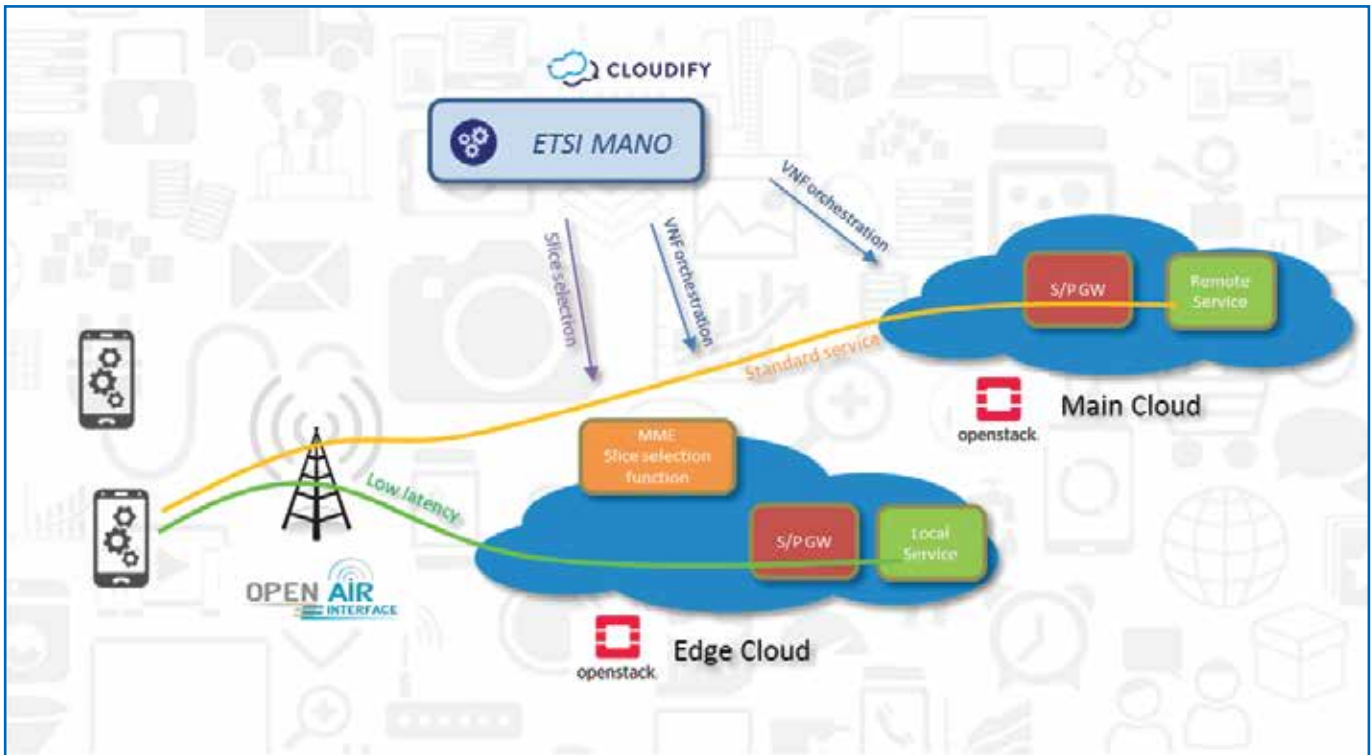
Operators/OEMs Business Challenges

E2E dynamic service provisioning	Readiness with NFV/SDN and orchestration
Minimize CAPEX & OPEX	Transition from 4G to 5G and legacy OSS/BSS
Edge Computing resources and distribution	Support for heterogeneous services and networks

HCL Solutions & Frameworks

4G/5G protocols experience	Cloudify orchestration for one touch service deployment
Service/VNF on boarding on distributed NFV environment	Cloud enabled VNF development
End to end solution development integration and validation	Containerized/tailored OpenStack solutions for distributed NFV

5G NETWORK SLICING POC SETUP



PROOF POINTS

DEMO OBJECTIVE

- Show a concept of multi cloud deployment of 5G network slices
- Show HCL capabilities to handle distributed NFV with containerized/tailored cloud installations
- Demonstrate the zero touch creation of network slices and services with NFV Orchestration
- Show the possibility to connect the UE to selected services/network slices
- Show the different services offered to different UE connecting to different slices

IMPLEMENTED SOLUTIONS

- Containerized/tailored Openstack solution fitting the different alternatives for distributed NFV deployment
- Cloudify Orchestration for OpenAirInterface vEPC services deployment over distributed NFV
- Cloud enabled vEPC components for fully automated deployment and orchestration
- 4G slice selection capabilities extensions in preparation for 5G core network availability

HIGH LEVEL FEATURES

- PoC implementation of Network Slice Selection function in real mobile network deployed over NFV
- Standard UE (LTE dongle) connection to multiservice based on Network Slice Selection
- Zero touch orchestrated deployment of different Network Slices over distributed NFV environment
- Optimized Edge Cloud with containerized/tailored Openstack solution



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