

The Second Global 5G Event Session 4: 5G network management & software networks



# Network Softwarization, NFV and 5G

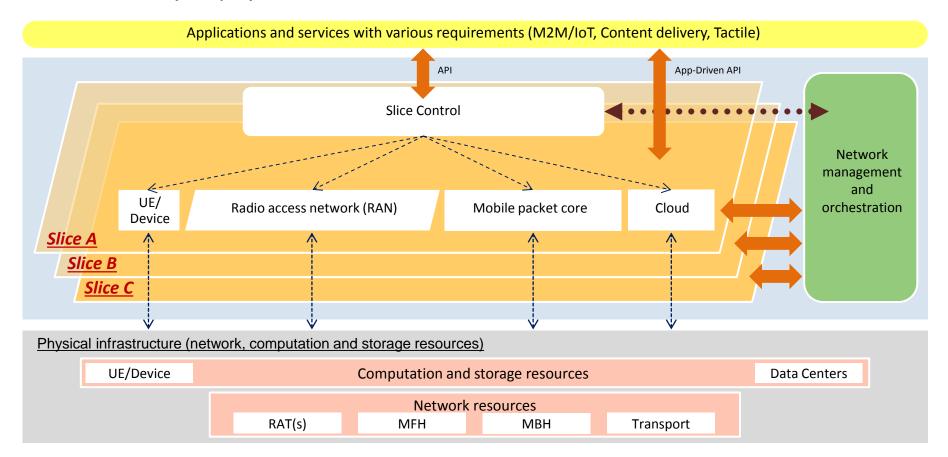
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### **Network Softwarization and Slicing**



Network softwarization will provide the basis for managing life-cycle of "slices" to support a variety of services in a extremely flexible manner, while maintaining the efficiency of physical infrastructure.



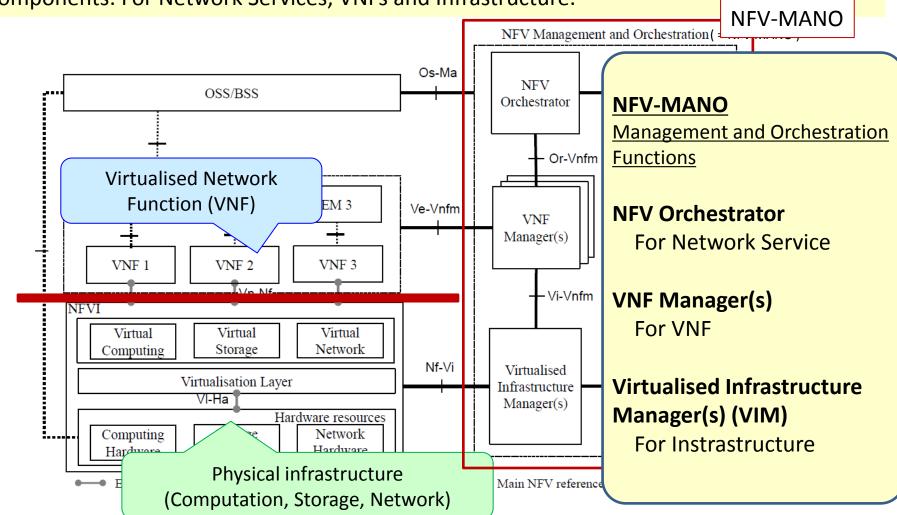


#### What is NFV-MANO?



Management and orchestration functions of NFV (NFV-MANO) consists of three components: For Network Services, VNFs and Infrastructure.

rigure 4: NFV reference architectural framework

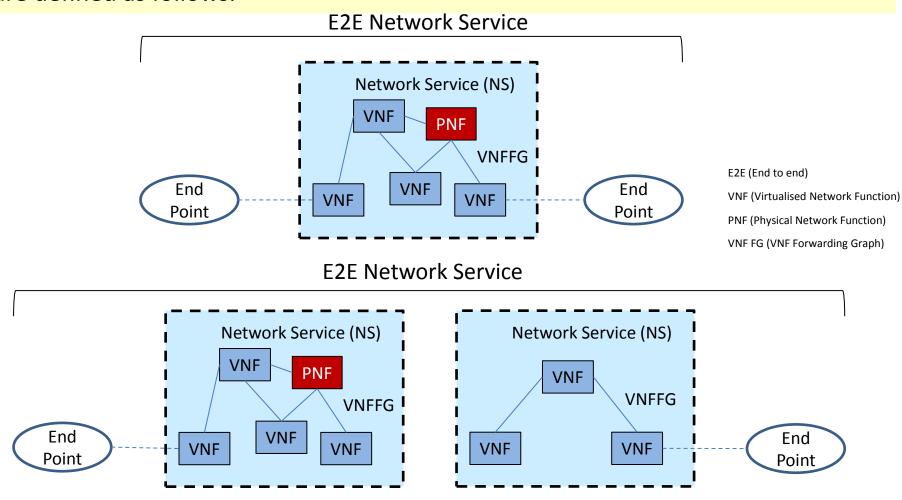




## VNF, NS and E2E Network Service



The model of "Network Service (NS)" and "Virtualised Network Function (VNF)" are defined as follows.





#### Multi-Site Services: A new WI in ISG NFV



Report on functional architecture necessary to manage and provide connectivity for multi-site NFV services (i.e. over WANs, access networks)

- How to define and describe "multi-site services"
- How to provide "infrastructure connectivity" via WANs and access networks

NS A

 How to the infrastructure connectivity to support the multi-site services and their associated functional entities

This new work items tries to cover those created on multiple sites.

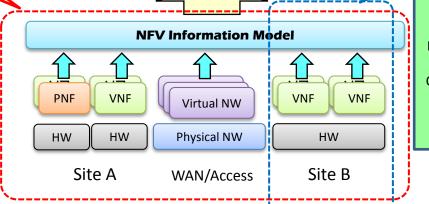
Network Services created on multiple sites (PoP)

NS B NS C NS C

The current NFV specification covers Network Services within a single site.

#### Supporting organizations

ORANGE, PT PORTUGAL SGPS SA, Nokia Networks, Hewlett-Packard Enterprise, Ericsson LM, NEC EUROPE LTD, TeliaSonera AB, Deutsche Telekom AG, NTT corporation, Hitachi Europe Ltd., ZTE Corporation, AT&T GNS Belgium SPRL, NetCracker



Management and Orchestration



# Summary



- Network Softwarization is an overall transformation trend in this industry
  - Including NFV and SDN
  - Harmonization
- NFV-MANO can be used for delivering "Slices".
  - Currently, it covers single site services.
  - The new work item on "multi-site services" will enable broader use cases.

