



ONAP Orchestration for Multi-Access Edge Cloud

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Agenda

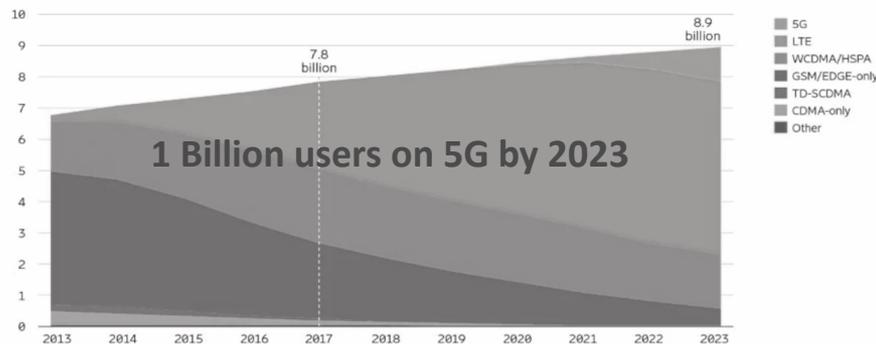
- Why Multi-Access Edge Cloud?
- Orchestration as a key control point
- ONAP orchestration for Multi-Access Edge Cloud
- Future Direction ...

Broadband - the infrastructure for the digital society

Globally, IP traffic (consumer & business, mobile & fixed) will reach 278.1 Exabytes per month in 2021, up from 96.1 Exabytes per month in 2016.
- Cisco VNI, Sep. 2018

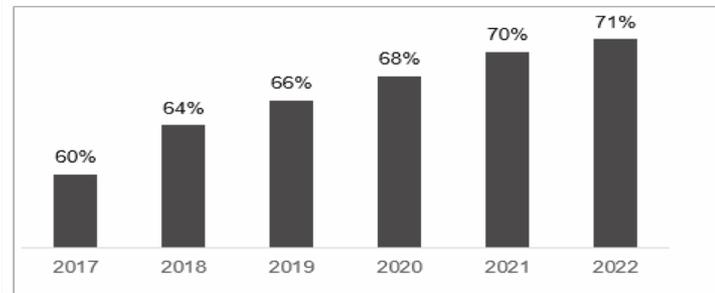


Mobile subscriptions by technology (billion)



Note: IoT connections and fixed wireless access (FWA) subscriptions are not included in this graph
Ericsson Mobility Report June 2018

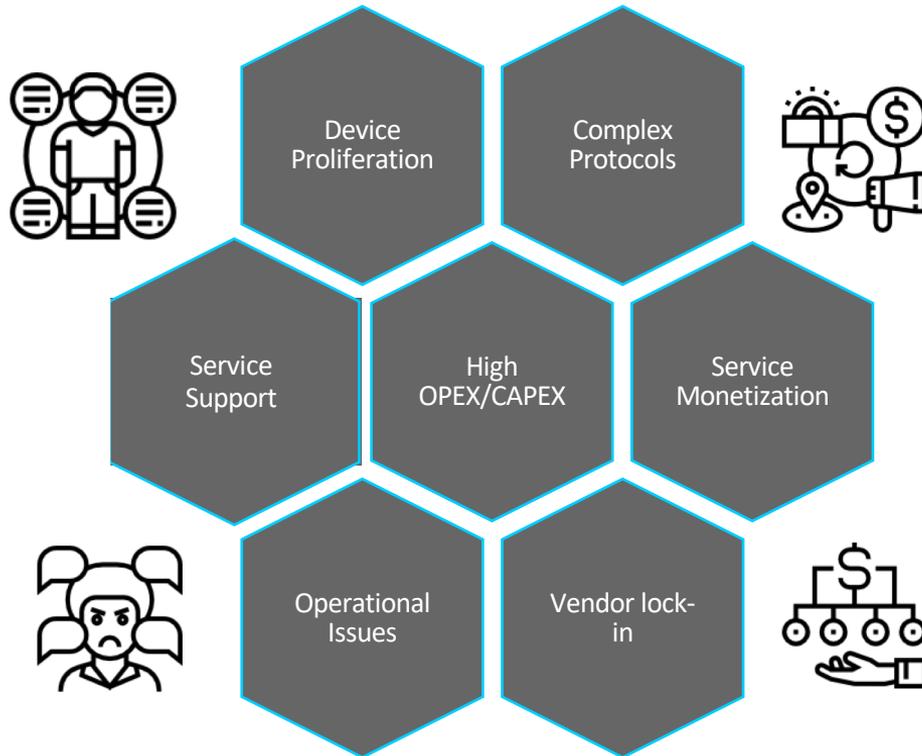
Worldwide FTTH/B take-up rate, 2017-2022



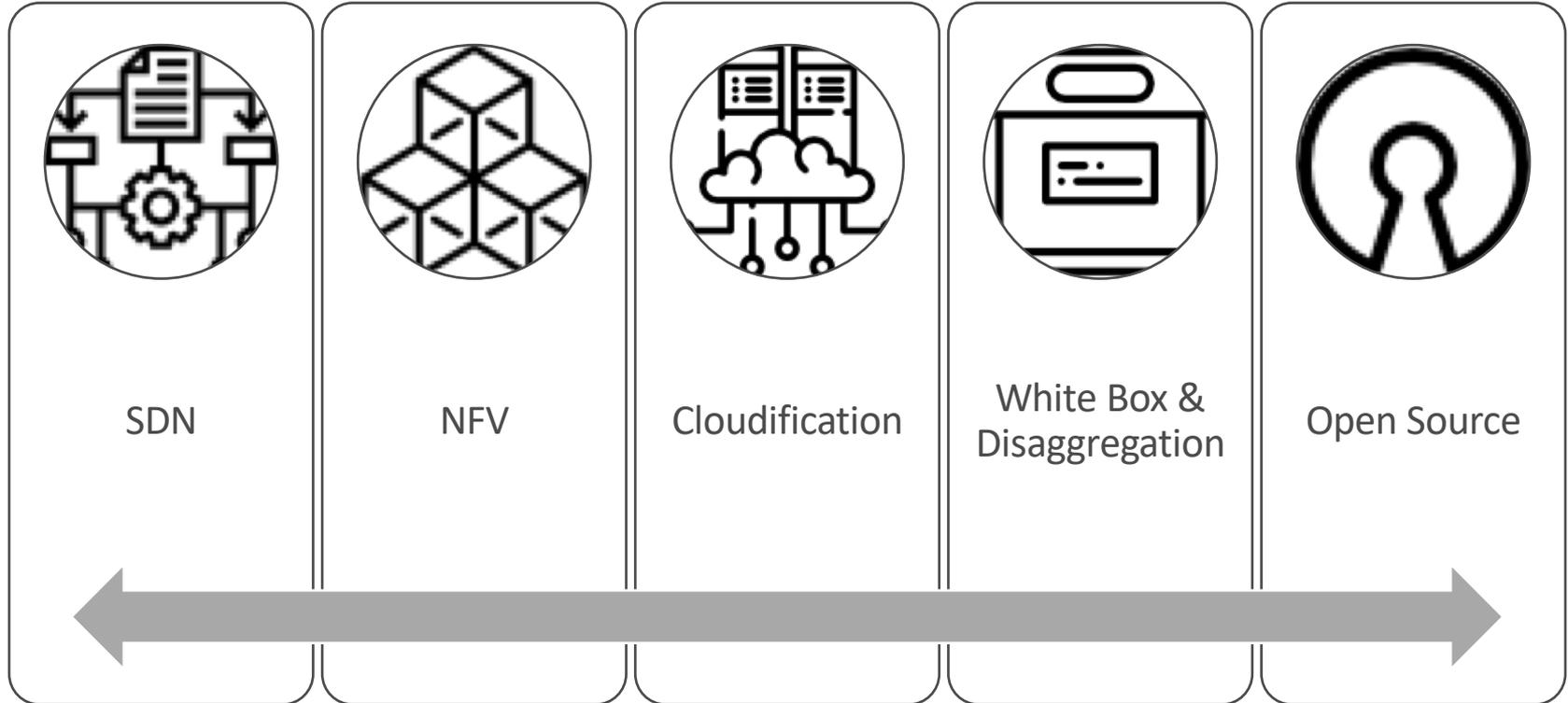
Source: IDATE DigiWorld, World FTTx market, July 2018

~ 1Billion FTTH users by 2022

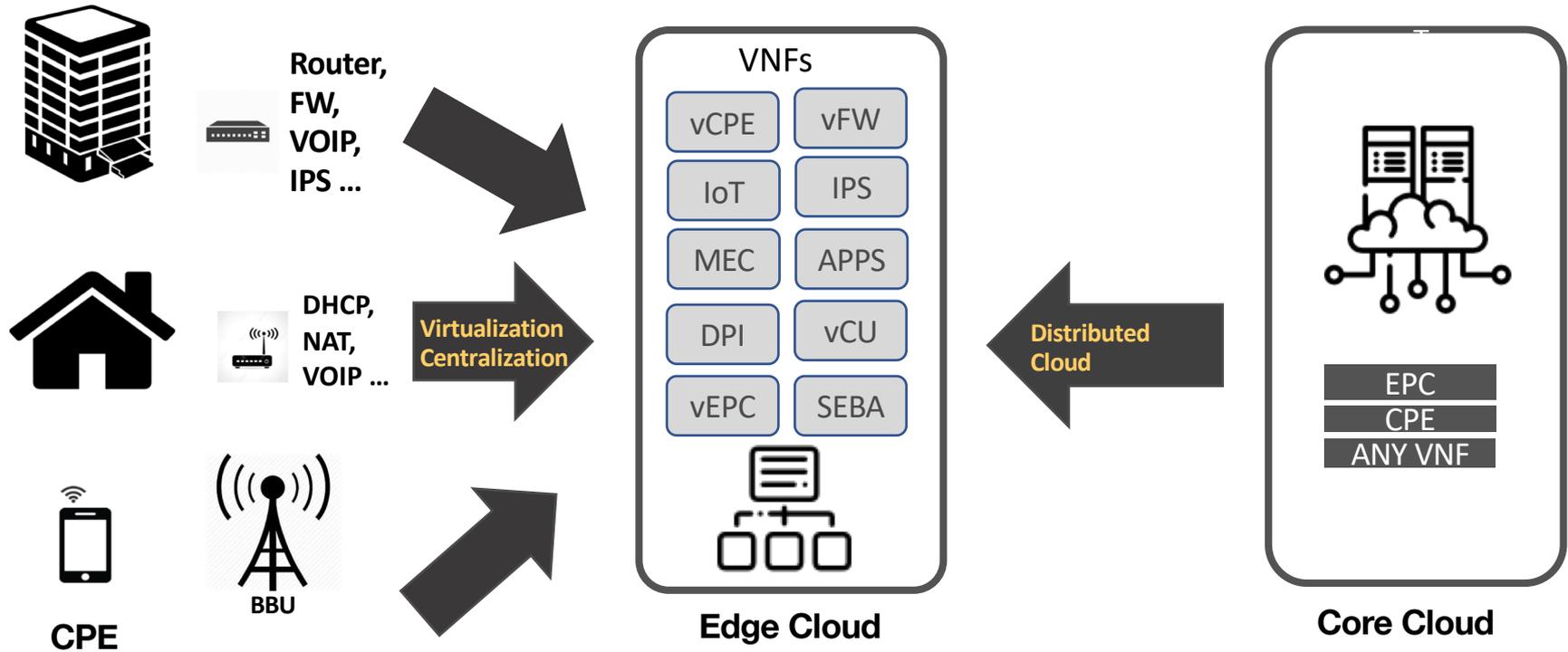
Operator Access Network challenges



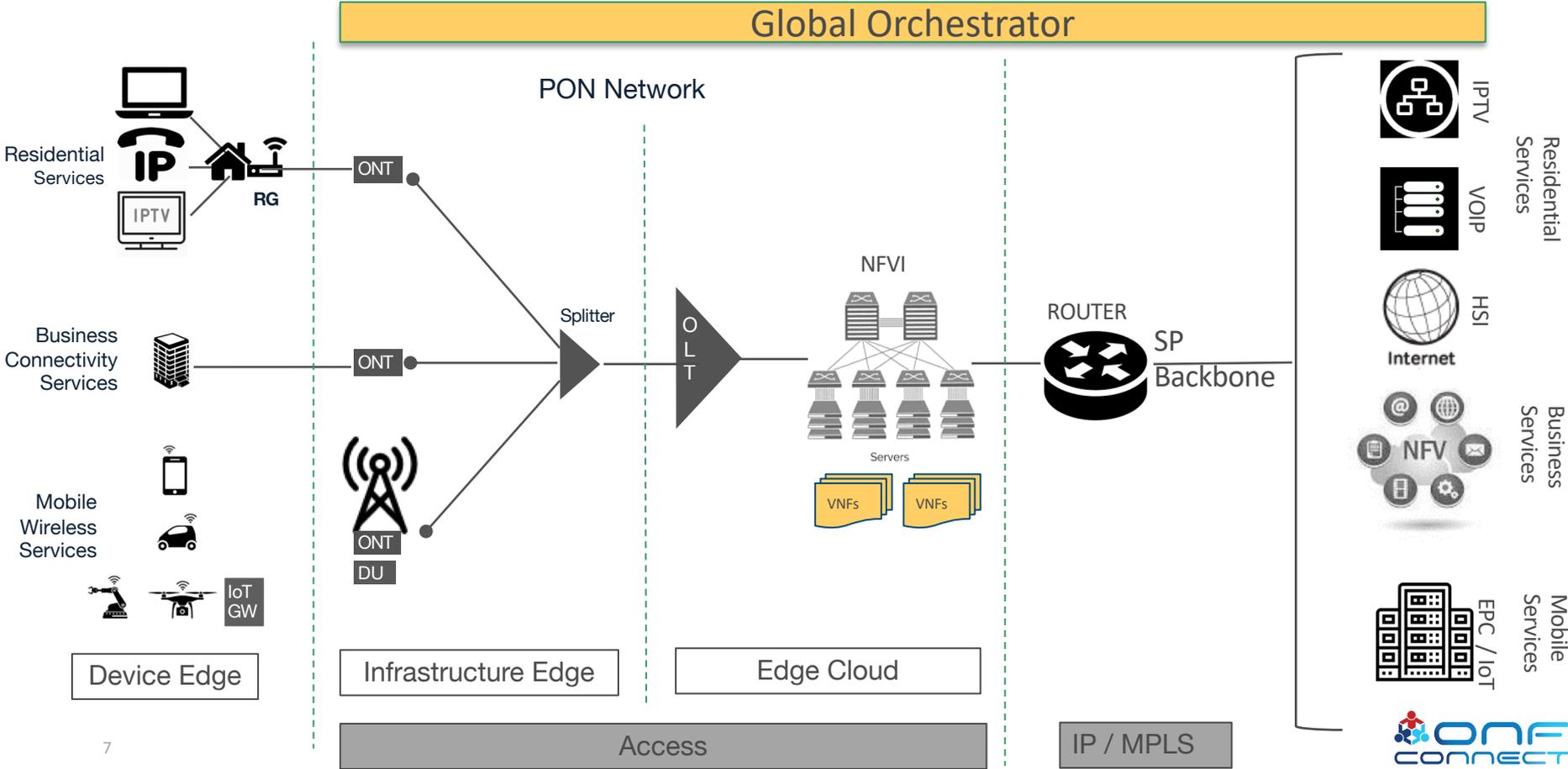
Operator – Next Gen Technology Adoption



Edge Cloud Evolution



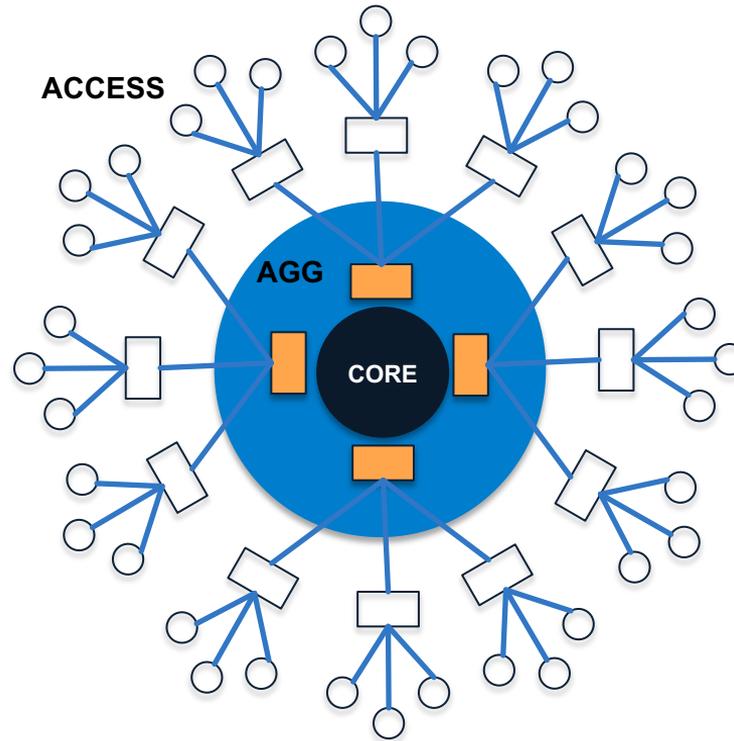
Multi-Access Cloud for the Edge



Value of Multi-access convergence

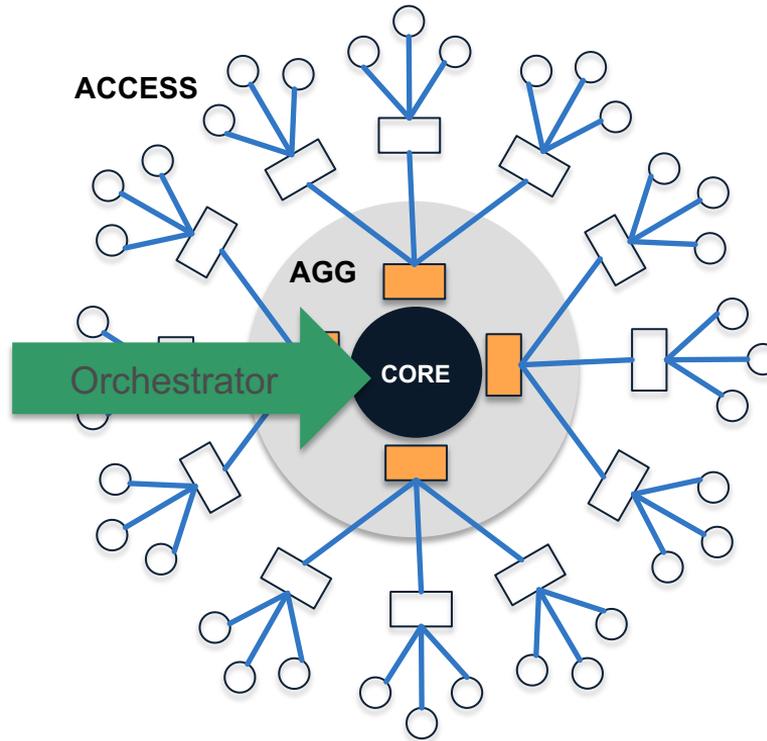
- Cost savings by creating a single MANO domain for wired and wireless in the access network
- Increased velocity of new service roll-outs
- Example: ONF COMAC
 - Disaggregate all mobile and broadband components
 - Common data plane and control plane
 - UPF & BNG

There will be thousands of Edges

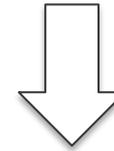


**Thousands of Edge
Clouds**

Need for a Global Orchestrator



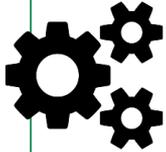
**Thousands of
Edge Clouds**



**Need for a Global
Orchestrator**

ONAP for Multi-Access Edge Orchestration

ONAP strategy for Core and Edge



Use ONAP as End2End Orchestrator



Centralized Monitoring of Access-Edge

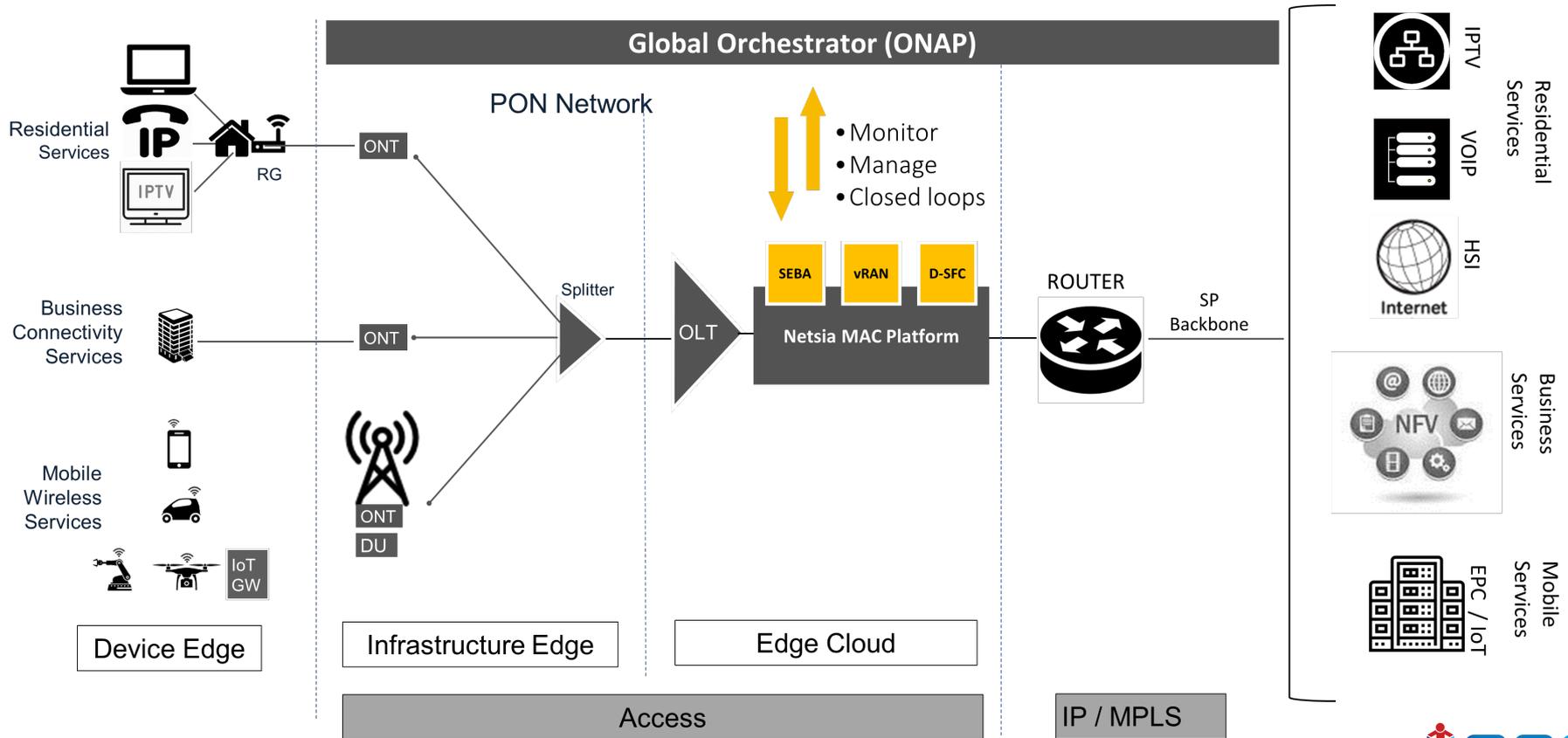


Configure, Manage, Monitor and Closed Loop Automation

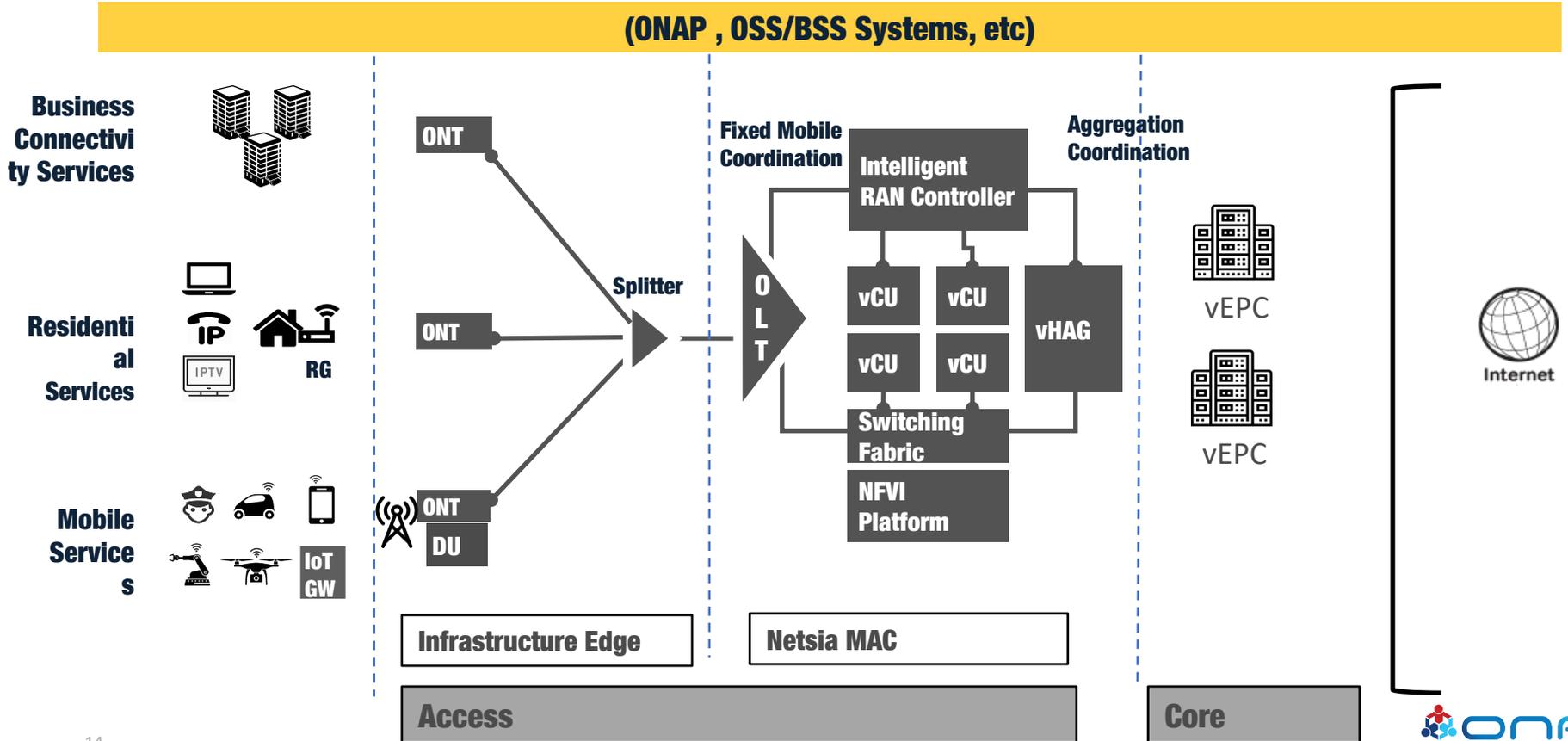


Integration with the OSS/BSS Systems

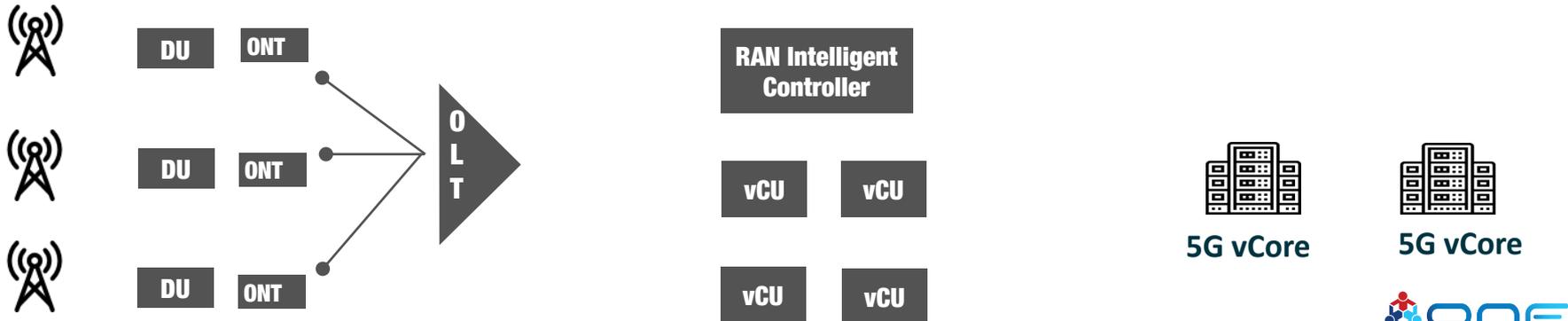
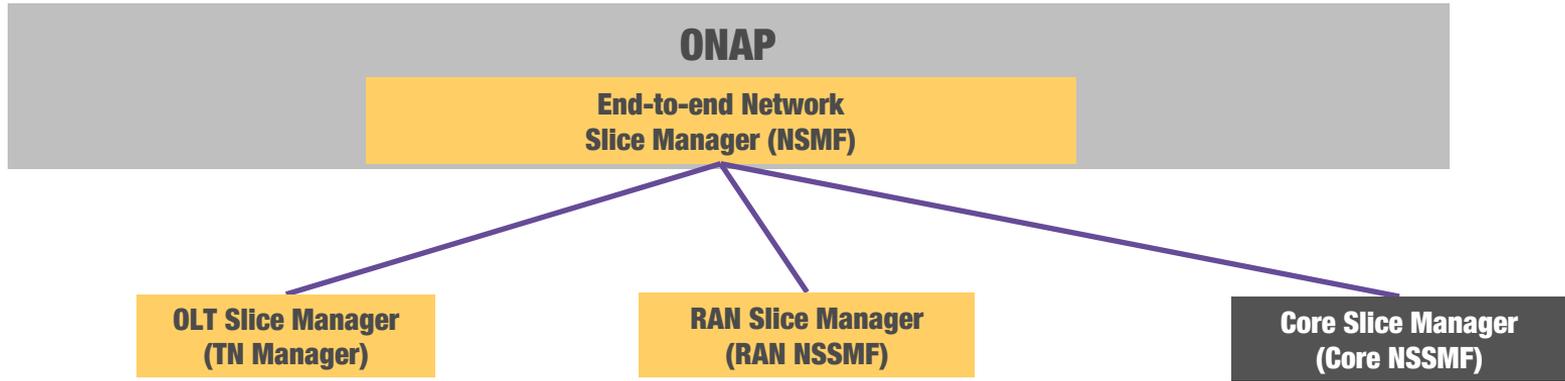
Multi-Access Telco Cloud for the Edge



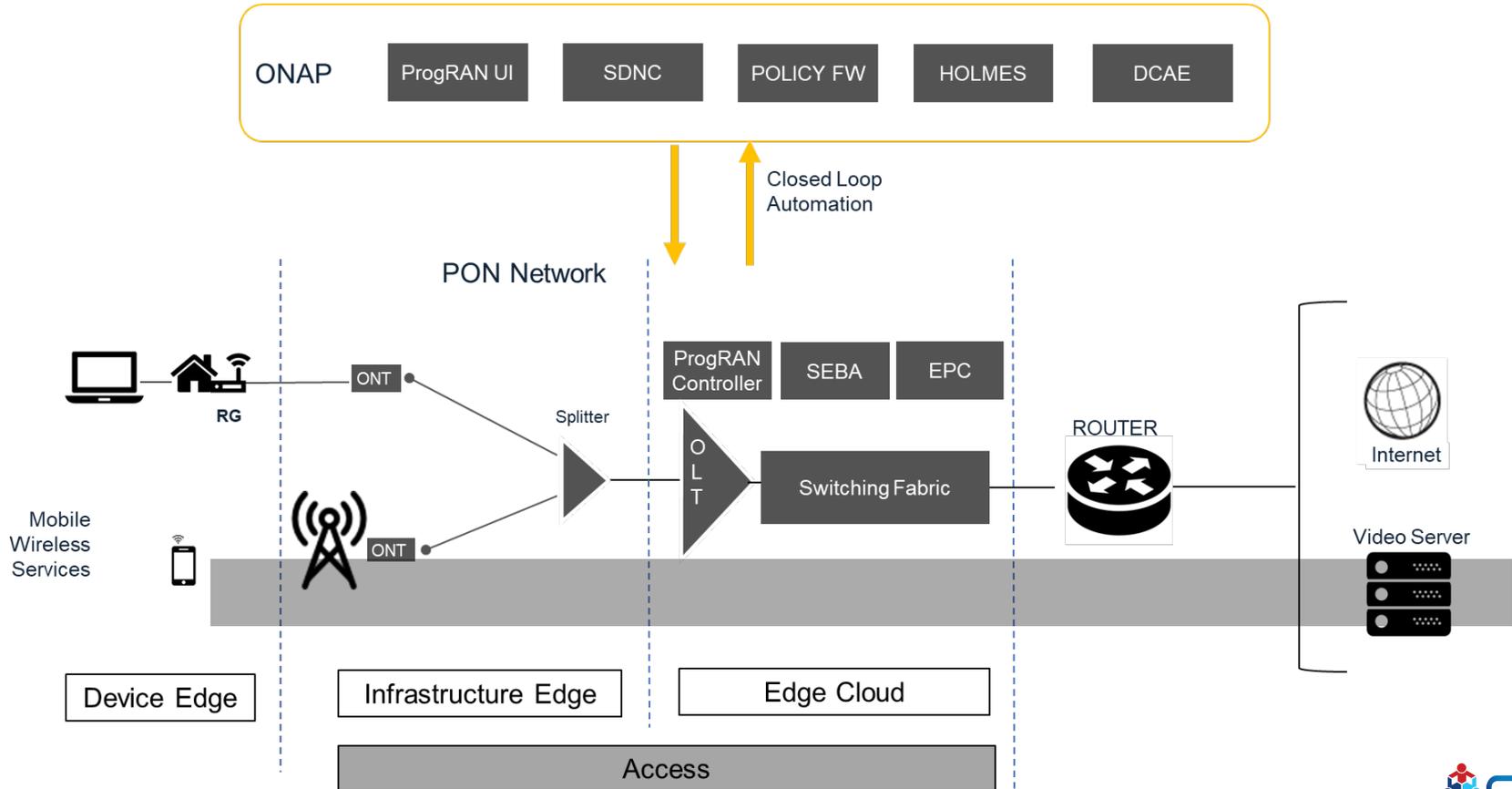
Multi Access Edge Cloud Orchestration - RAN



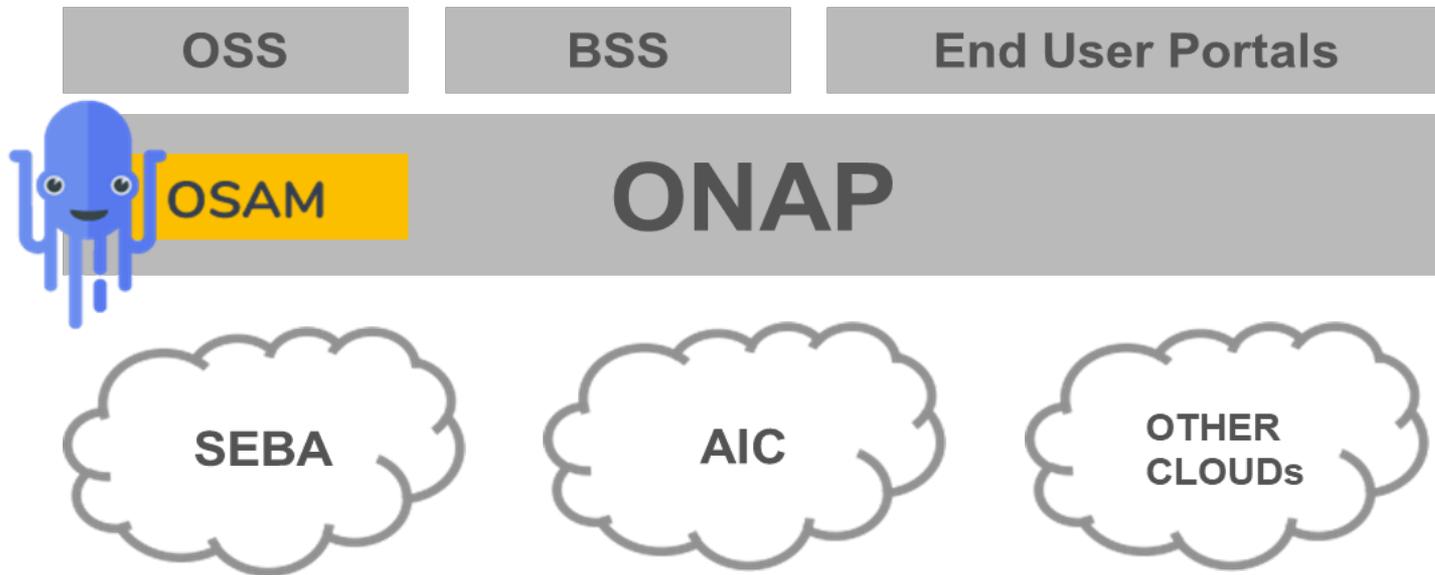
ONAP with E2E slicing



POC : Multi-Access Cloud for Next Gen CO

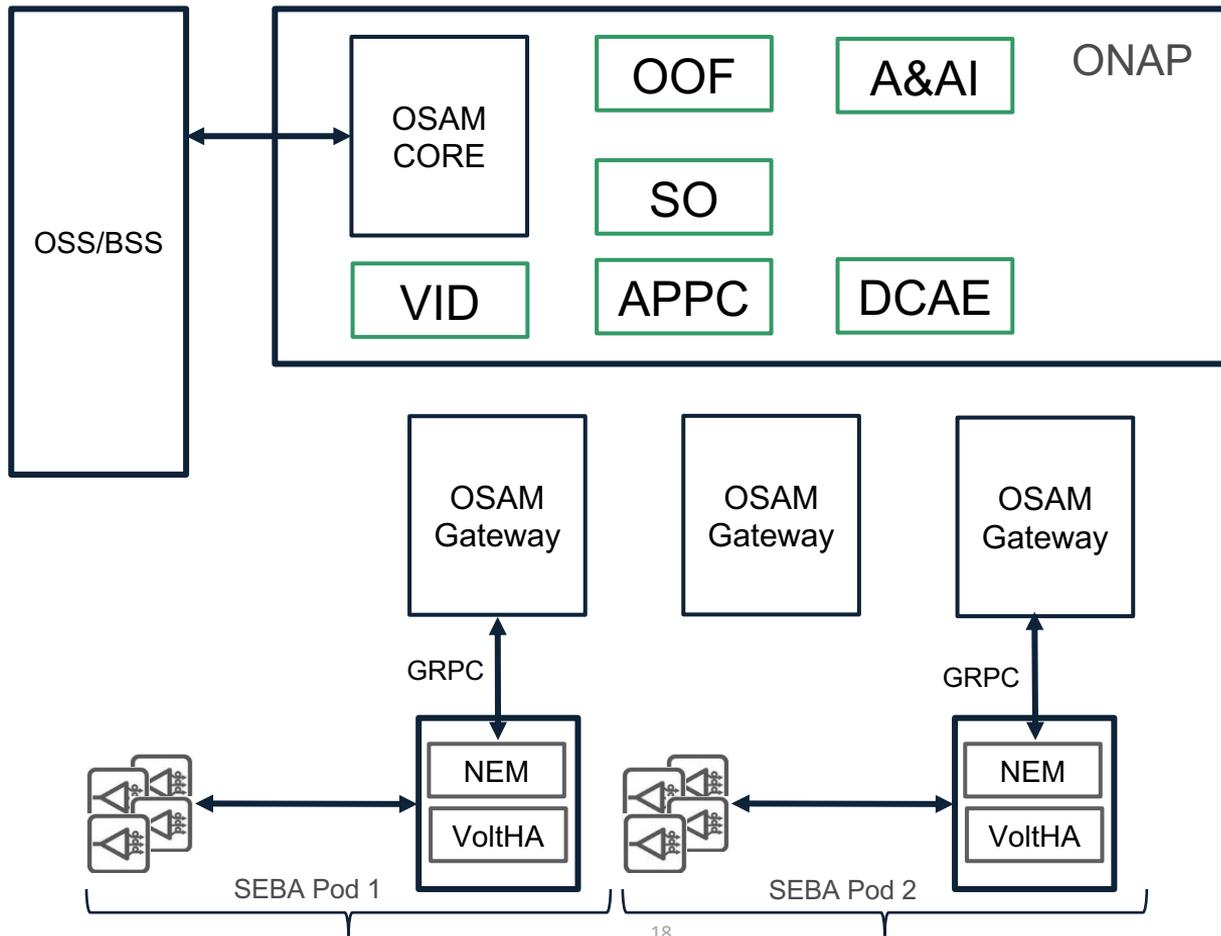


Initial PoC with OSAM



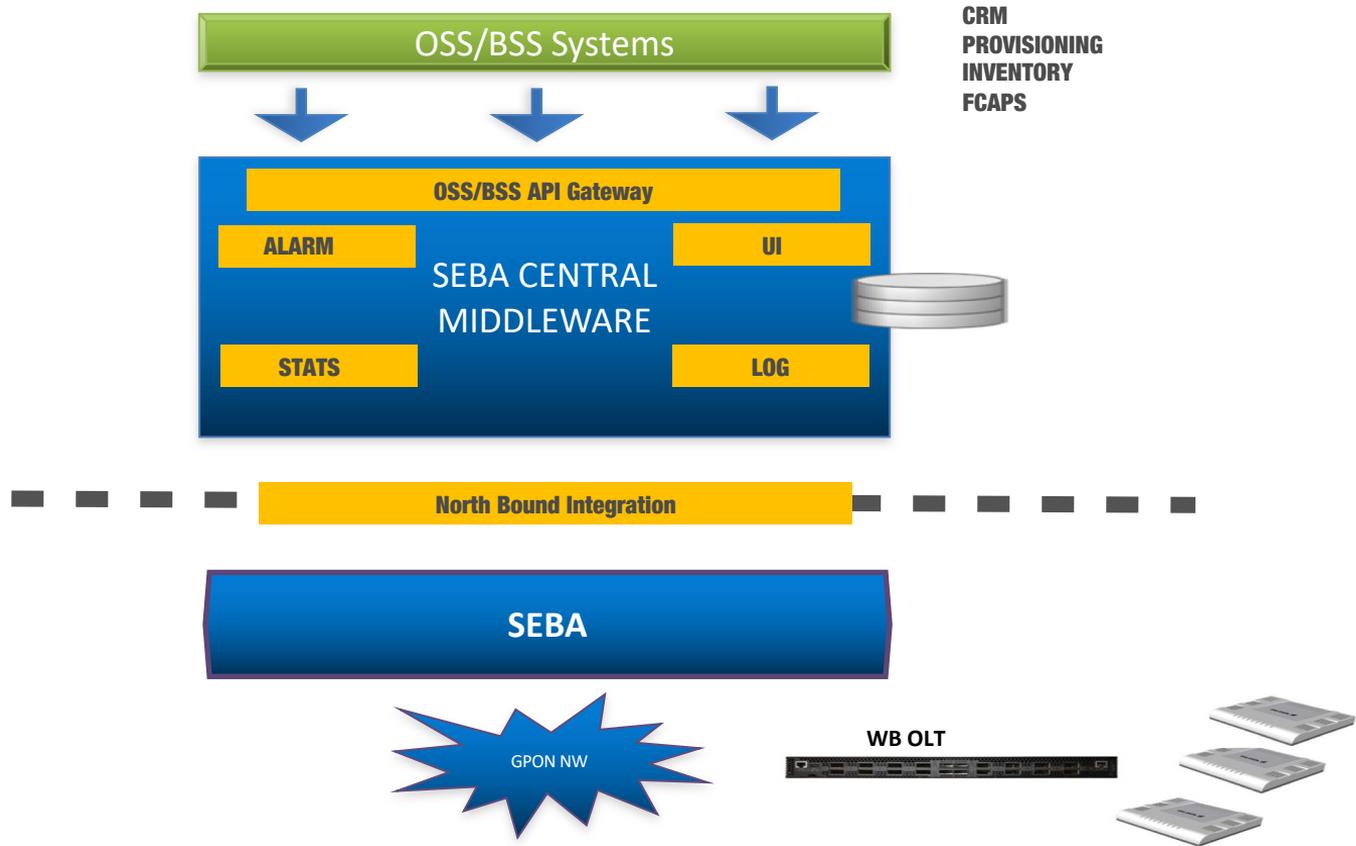
- Seba is fully container based – ONAP cannot onboard
- The decision is made to have SEBA represented as a simple PNF to ONAP
- 5G was the only use case that was using PNF approach
- We based OSAM architecture on 5G

OSAM Architecture

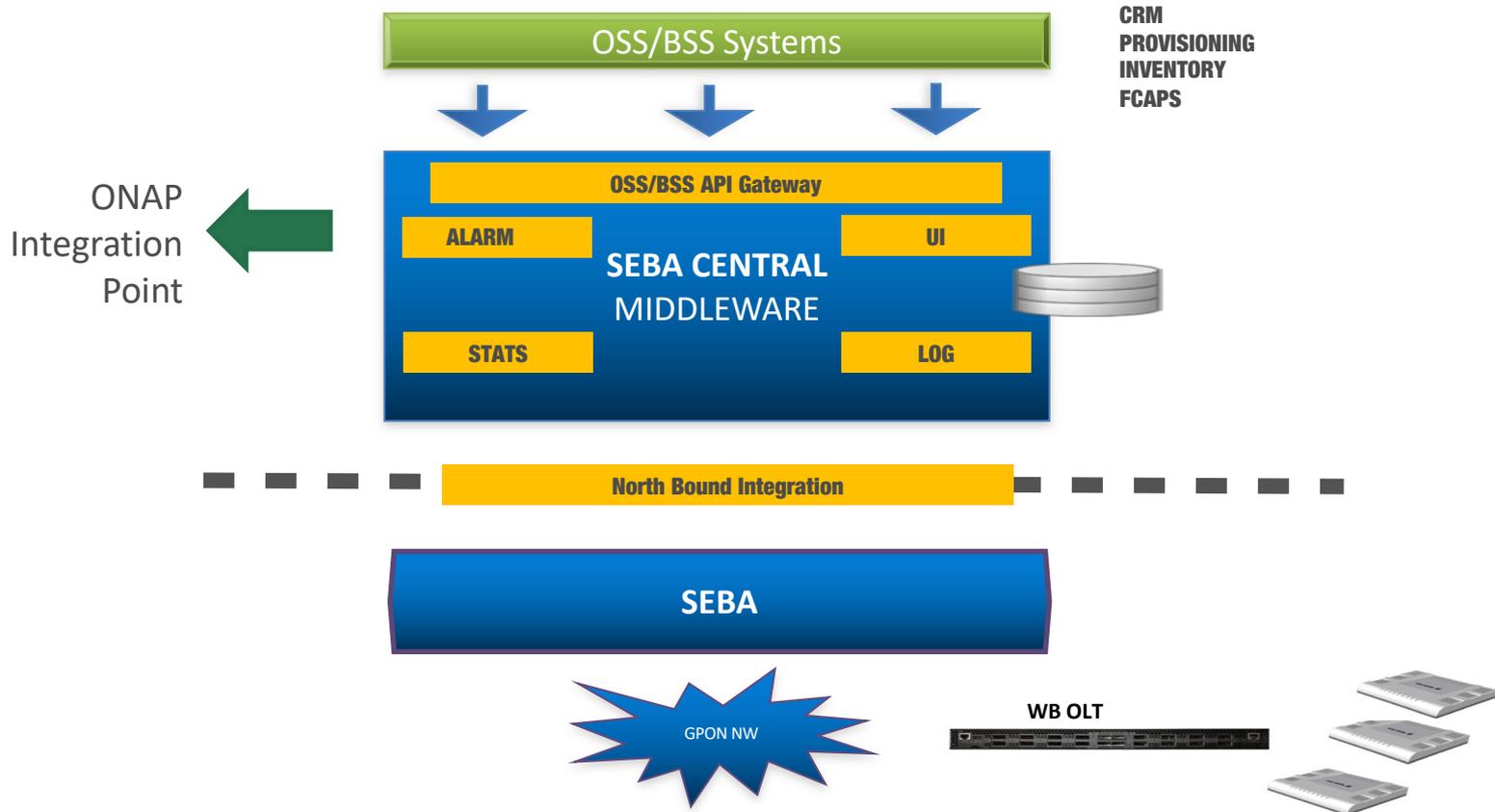


Future Direction

SEBA Central



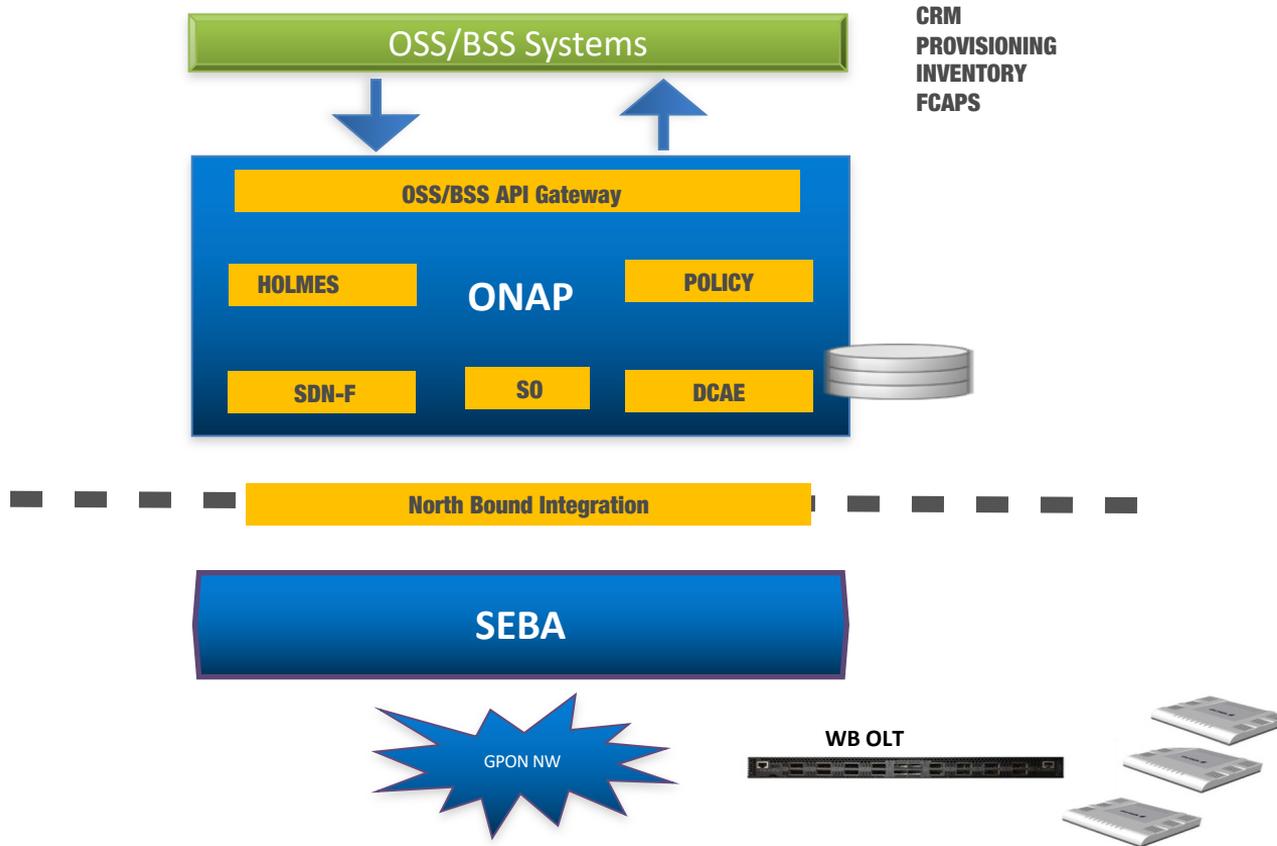
SEBA Central



Similar approach to SDN-R

- SDN-R is an approved ONAP project as subproject to [ONAP SDNC](#). The SDN-R project enhances SDNC by adding functions for wireless technologies.
- Exploring SDN-F (Fixed Broadband) for PON (Passive Optical Network)

ONAP Integration with SEBA Central





Thank You