



R-CORD & VOLTHA Introduction

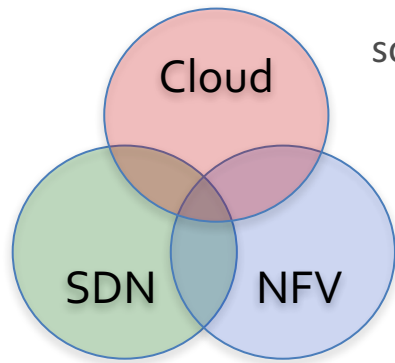
Saurav Das (ONF) & Shawn Ying (AT&T)

CORD Build 2017, San Jose
January 14, 2018

Central Office Re-Architected as a Datacenter (CORD) Overview

Economies of a datacenter

- Infrastructure built with a few commodity building blocks using open source software and white-box switches



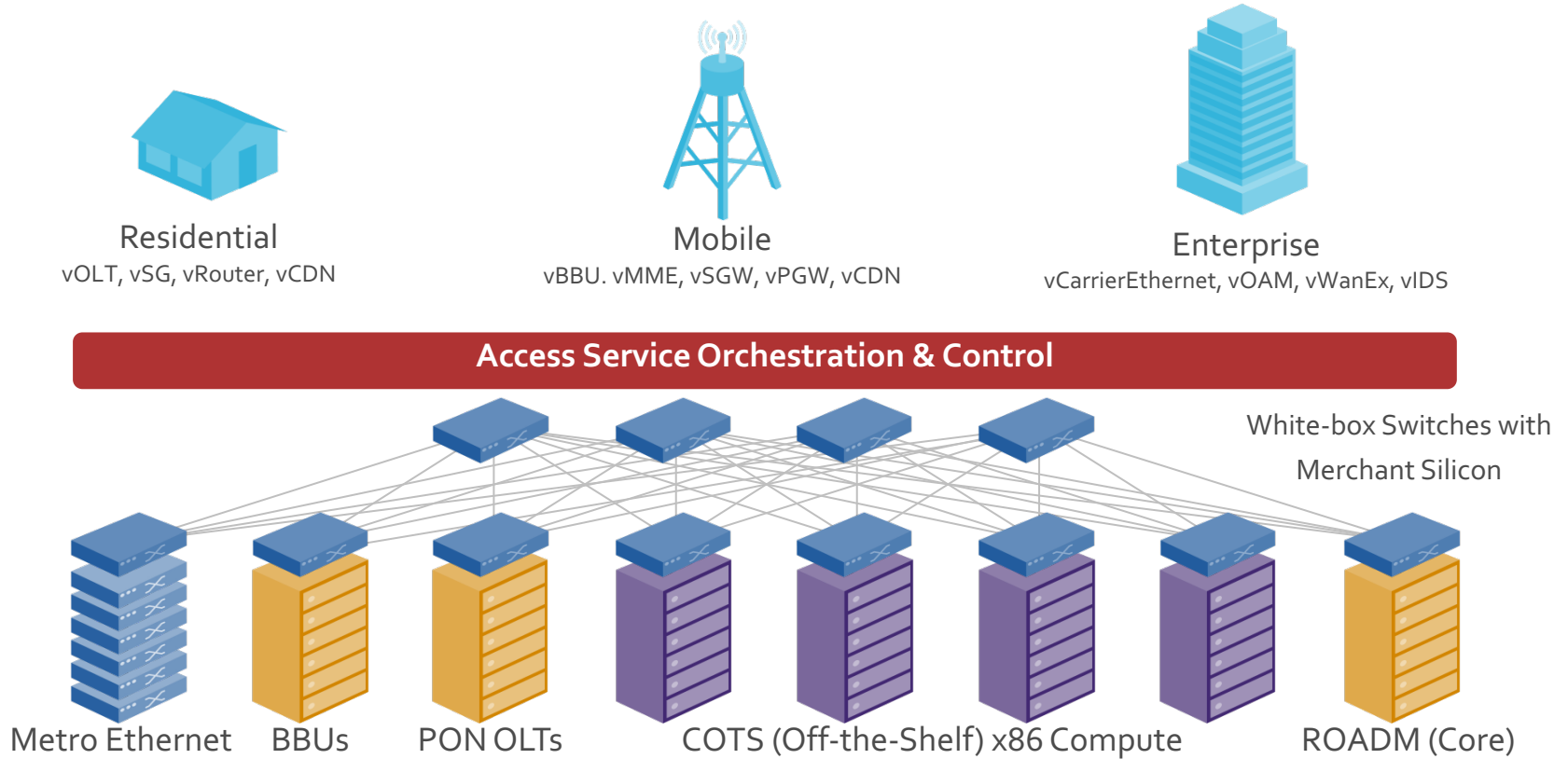
Agility of a cloud provider

Software platforms that enable rapid creation of new services

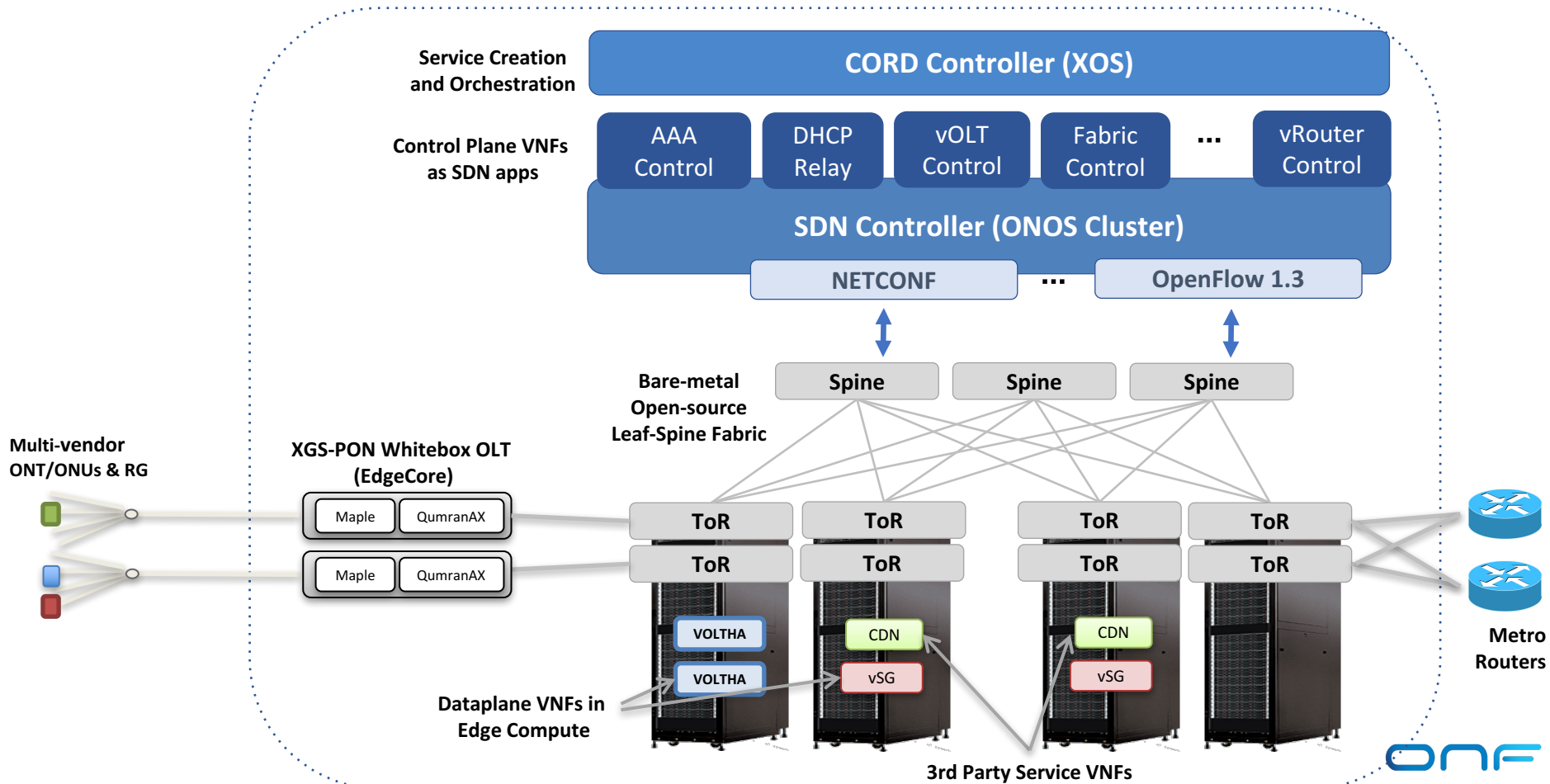


or... Bringing Access-as-a-Service to the Cloud

CORD: Multi-Access Architecture

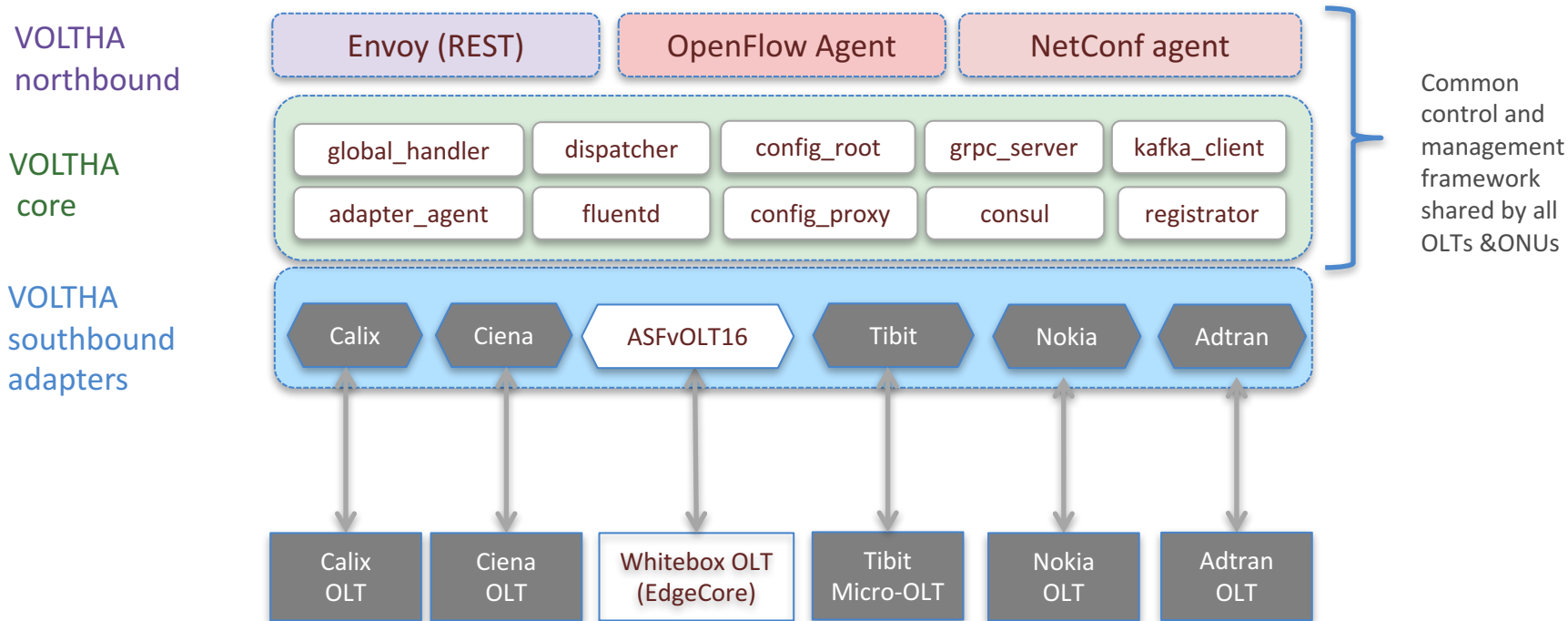


Residential CORD

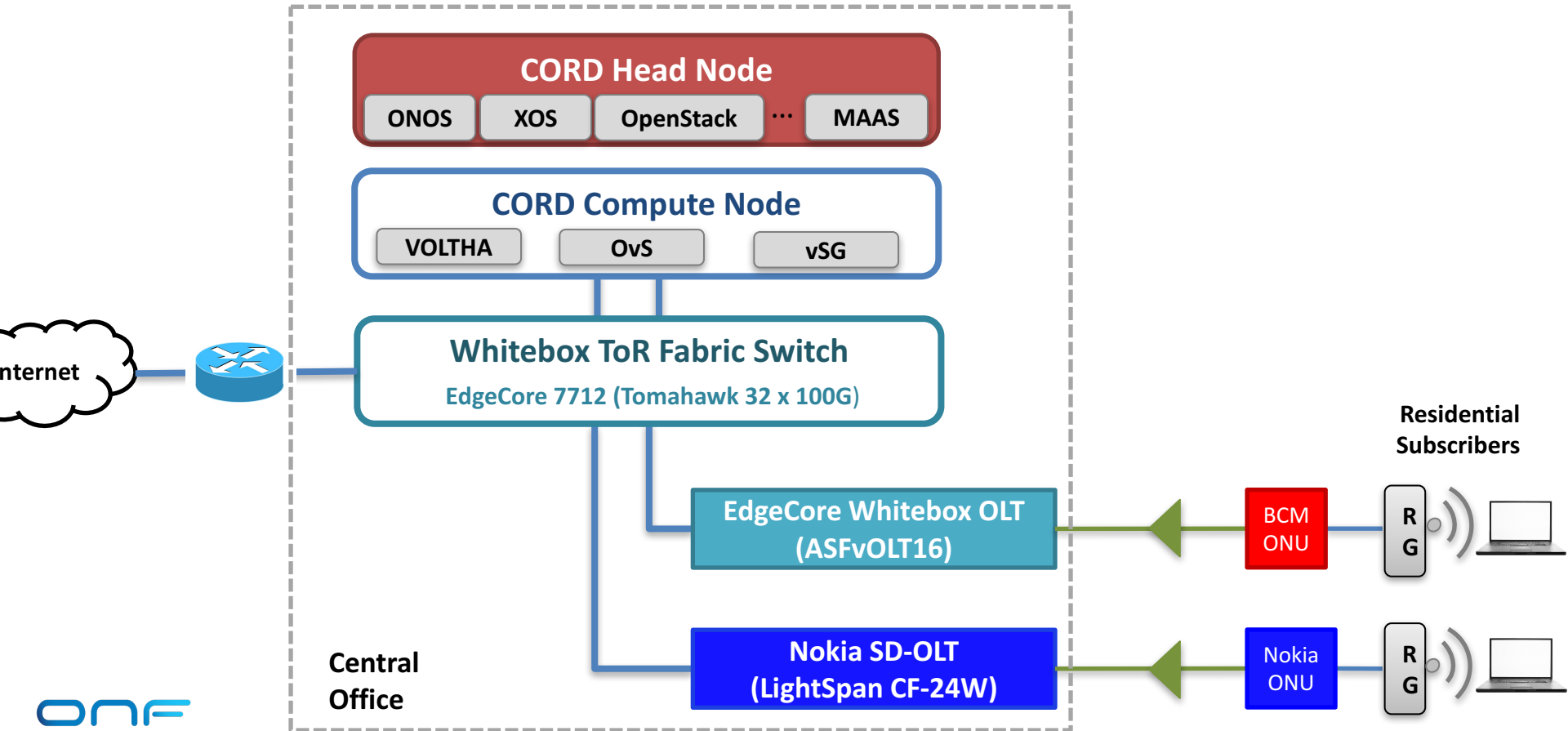


Virtual OLT Hardware Abstraction (VOLTHA)

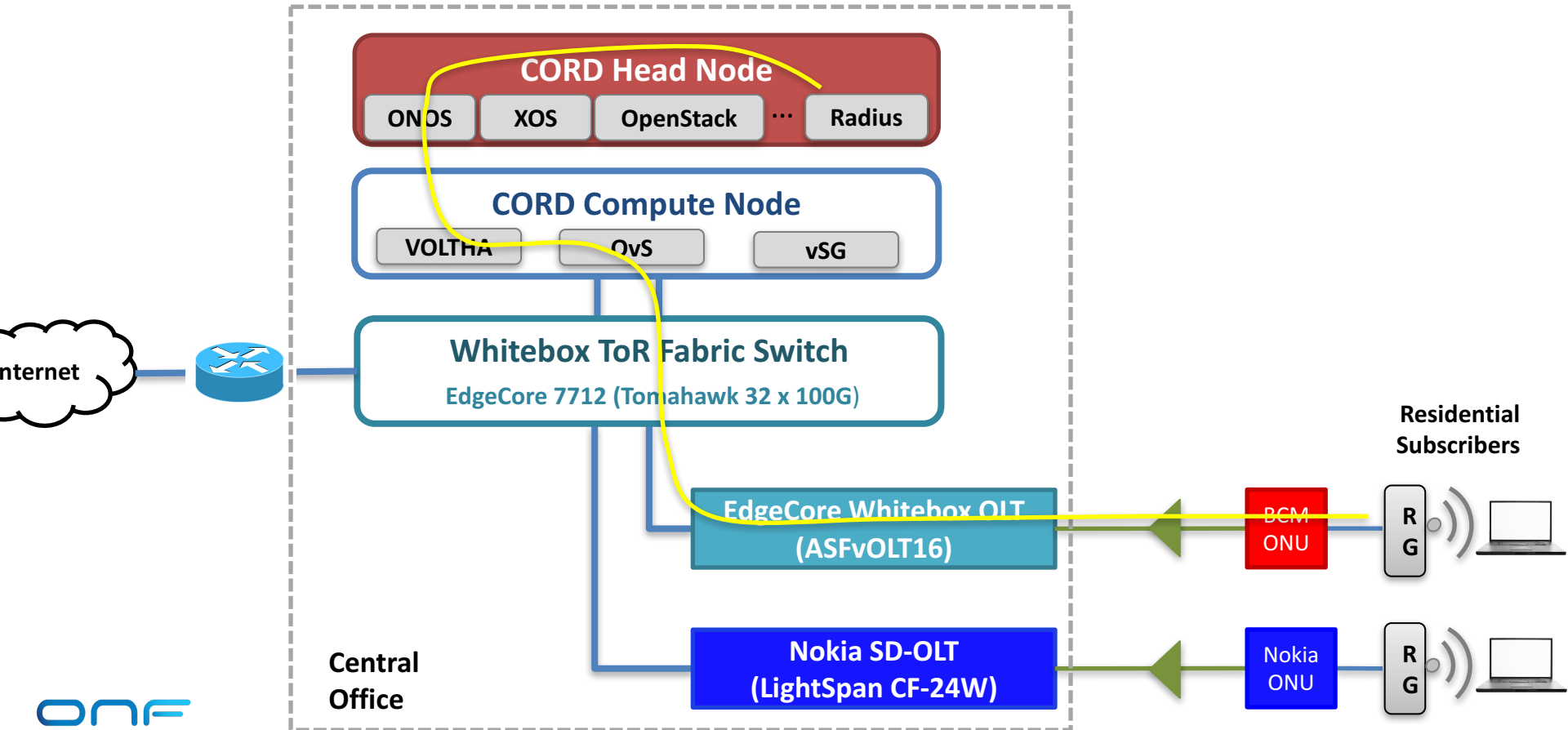
VOLTHA hides PON-level details (T-CONT, GEM ports, OMCI etc.) from the SDN controller, and abstracts each PON as a pseudo-Ethernet switch easily programmed by the SDN controller



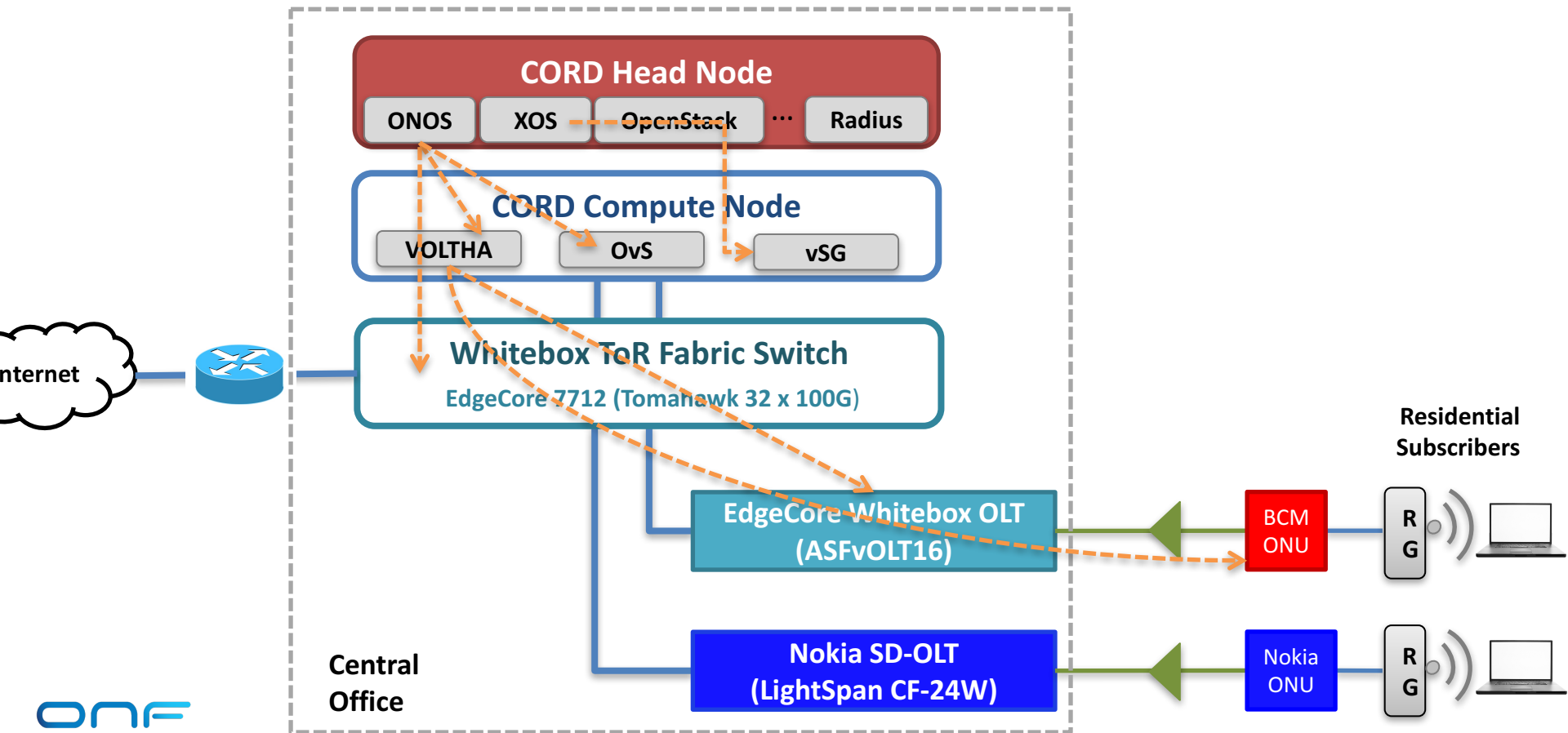
BBWF R-CORD & VOLTHA Demo



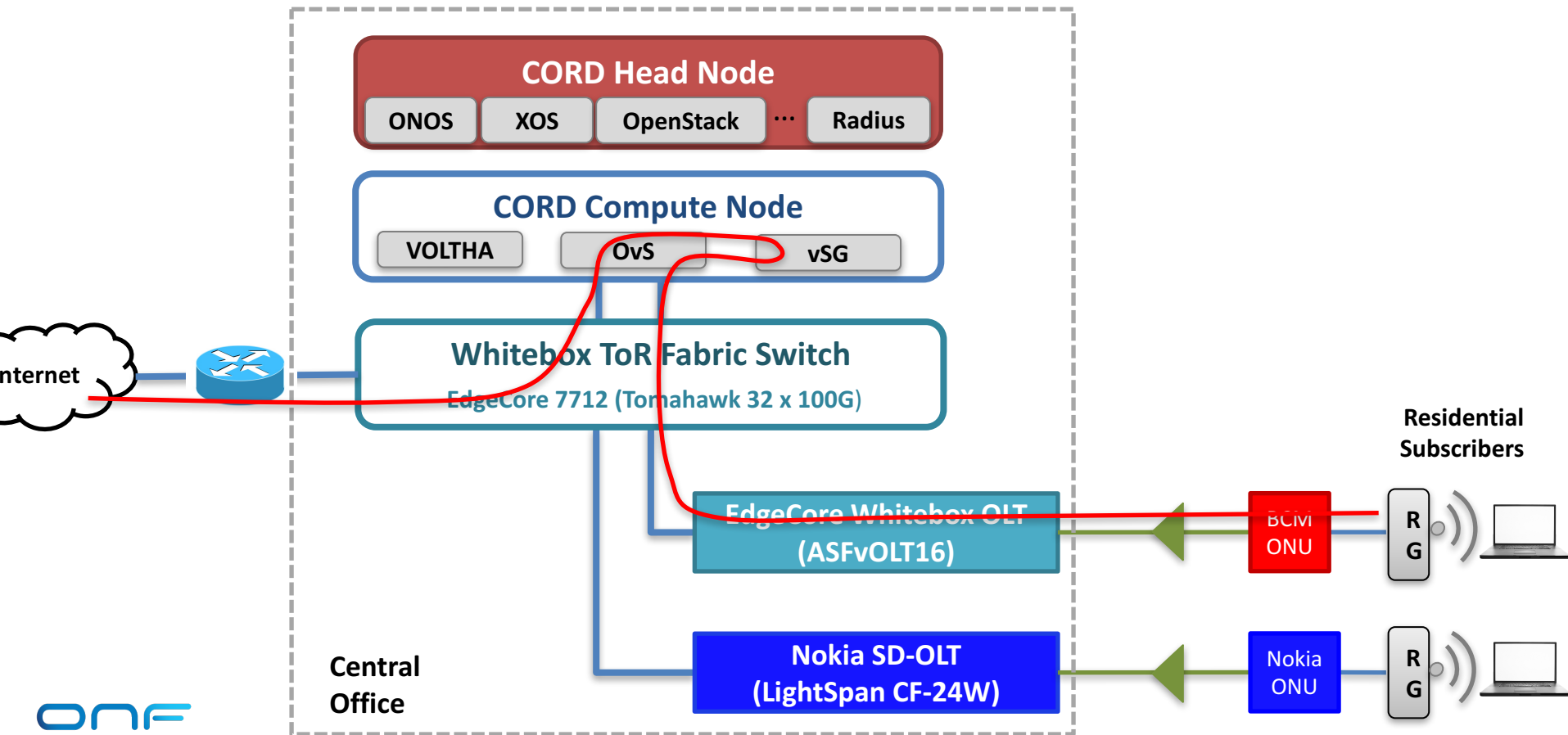
802.1x Subscriber Authentication



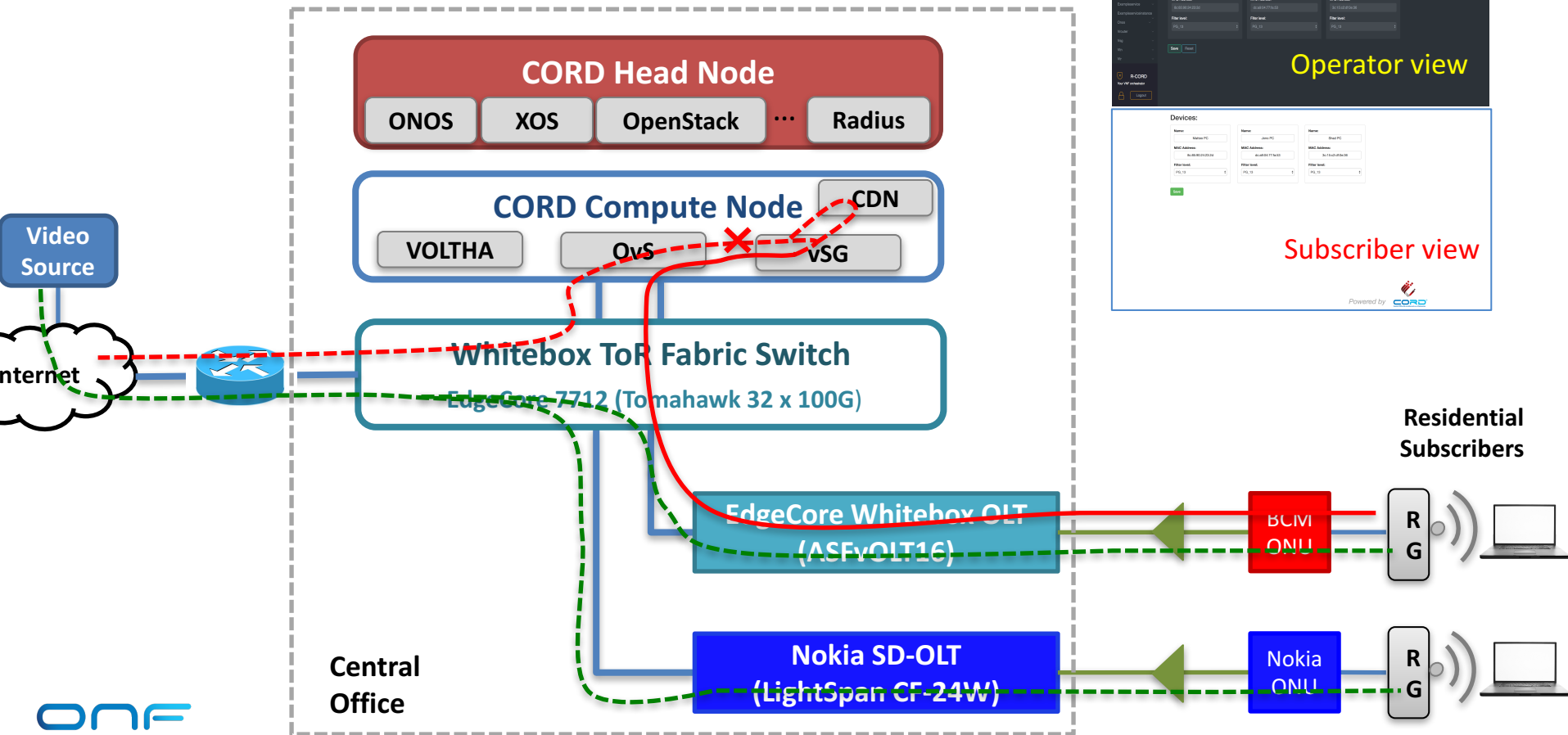
Subscriber VLAN Provisioning



Subscriber Data-plane Traffic



Subscriber Services



**BBWF
Booth
E107B**

