#### LF Broadband and VOLTHA Project Update

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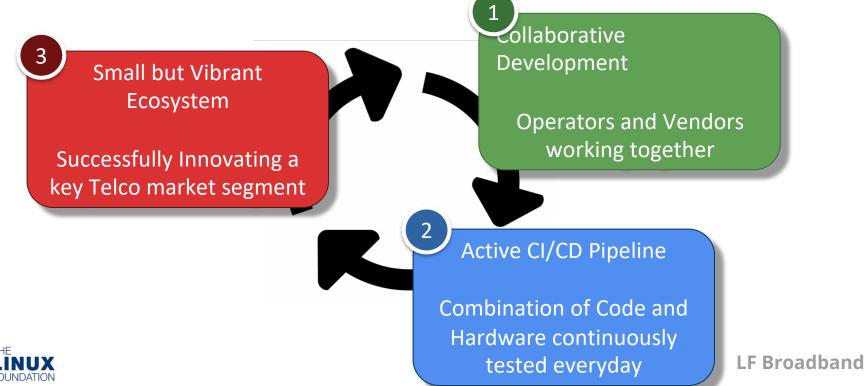
# Outline

- > VOLTHA
  - Architecture and Key Components
  - Current Release 2.12
  - > Deployments
- Transition to Linux Foundation Broadband

- Collaboration with BBF
- How to get involved

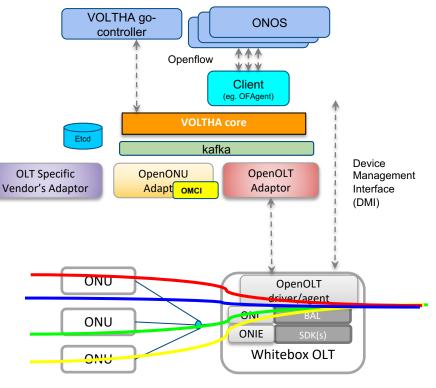






#### VOLTHA Architecture & Key Components

- Common Control & Management for PON networks (OLTs and ONUs)
- Supports open-hardware based as well as traditional (chassis-based) OLTs with different OLT adapters
- Supports multi-vendor PON system with Open OMCI, highly scalable OpenONU adapter working proven to work with many ONU and DPU models
- Support for multiple services and operator workflows (ATT, TT, DT, TIM) - FTTH and FTTB
- DMI for management operations (e.g OLT software upgrades)
- Highly scalable microservice architecture, using voltha stacks, tested for tens of thousands of ONUs
- Golang-based implementation of a more performant controller (VGC) added recently



VOLTHA 2.11 Techinar Video



#### VOLTHA v2.12

Robustness, device management enhancements and support for additional subscriber profiles driven by Operator Requirements

- Support for Voice service profile
- > Enhanced error handling and recovery
- Management interface improvements for logging, alarms and attributes received from OLTs

- > Observability infrastructure enhancements related to OLT metrics
- > Test infrastructure stabilization



## VOLTHA is deployed in Production

#### Voltha is in production with live customers, including:

- Deutsche Telekom (DT) >

  - DT's first live deployment Production deployment based on current VOLTHA releases
- Turk Telekom (TT) >
  - TT initial deployment
  - TT scale to million of subscribers >
- Reliance lio >
  - I ab trials >







### Move to Linux Foundation Broadband

#### The ONF Broadband Area including the ONF VOLTHA project moved into Linux Foundation Broadband by February 2024

- > ONF Projects have already been under their own area leadership at ONF
  - now they have graduated into a fully community-led framework with greater independence
- Linux Foundation was determined as the right host for ONF projects, given its' great experience hosting mature open source projects and community governance
- Opportunity for VOLTHA to prosper in the larger Linux Foundation Open Source ecosystem with broader collaboration and synergies for member companies

#### VOLTHA continuous smoothly under its new umbrella LF Broadband

- > The VOLTHA Technical Steering Team (TST) continues to oversee the technical work of the project
- > A new Governing Board for LF Broadband has been formed to guide SEBA and VOLTHA PR: https://opennetworking.org/news-and-events/press-releases/onf-merges-market-leading-portfolio-of-open-source-networking-projects-into-the-linux-foundation

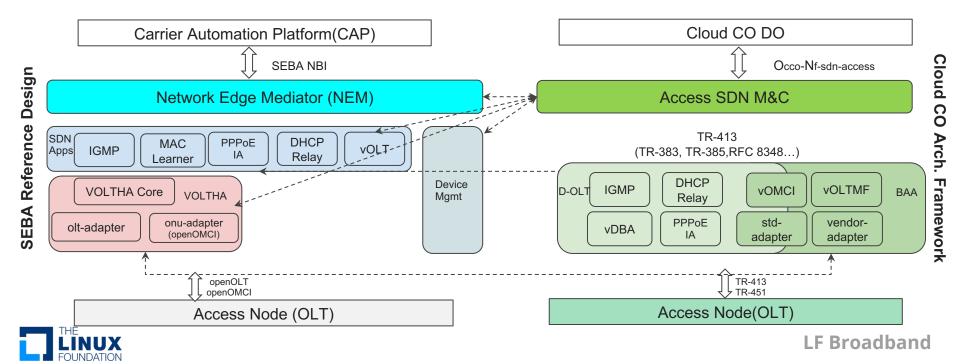


## Collaboration with BBF - Motivations

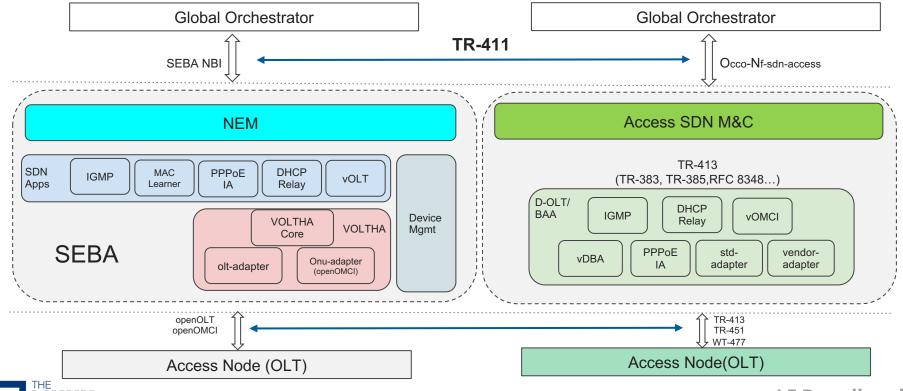
- Service Providers require underwriting of their solution requirements against standards definitions in order to safeguard their investment, ensuring a wide community of suppliers and avoiding vendor-lock
  - Ability to source different solutions enhance competitiveness and the convergence of requirements and standards protect investment
  - > Disaggregated SDN solutions, open-source or otherwise, are no different
  - > The VOLTHA community embraces this requirement
- > LF Broadband/VOLTHA intends to continue and deepen the fruitful collaboration with BBF, supported by mutual members, based on market demand
  - There is a synergy in aligning standards and working open source
  - Request all interested parties to participate in this joint effort



### Mapping: ONF Reference Design and Cloud-CO Technical Report(s)



### Integration Points



### More Information

How to join as a Member

https://enrollment.lfx.linuxfoundation.org/?project=broadband-fund >

References

- https://opennetworking.org/voltha/ https://docs.voltha.org/ >
- >

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