

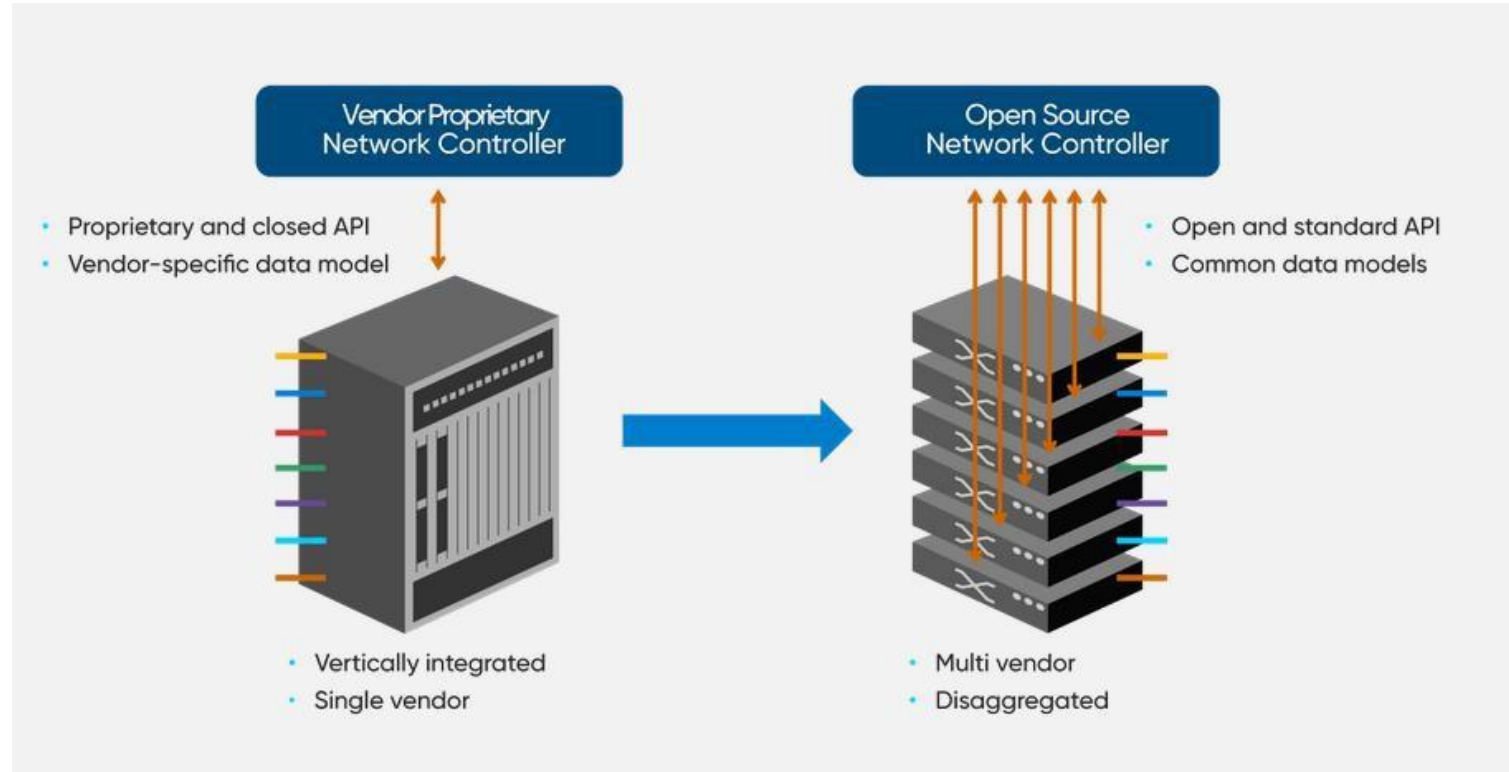


A Update on Open and Disaggregated Transport Network Project

NTT Communications
ONF Technical Leadership Team Member
Wenyu Shen

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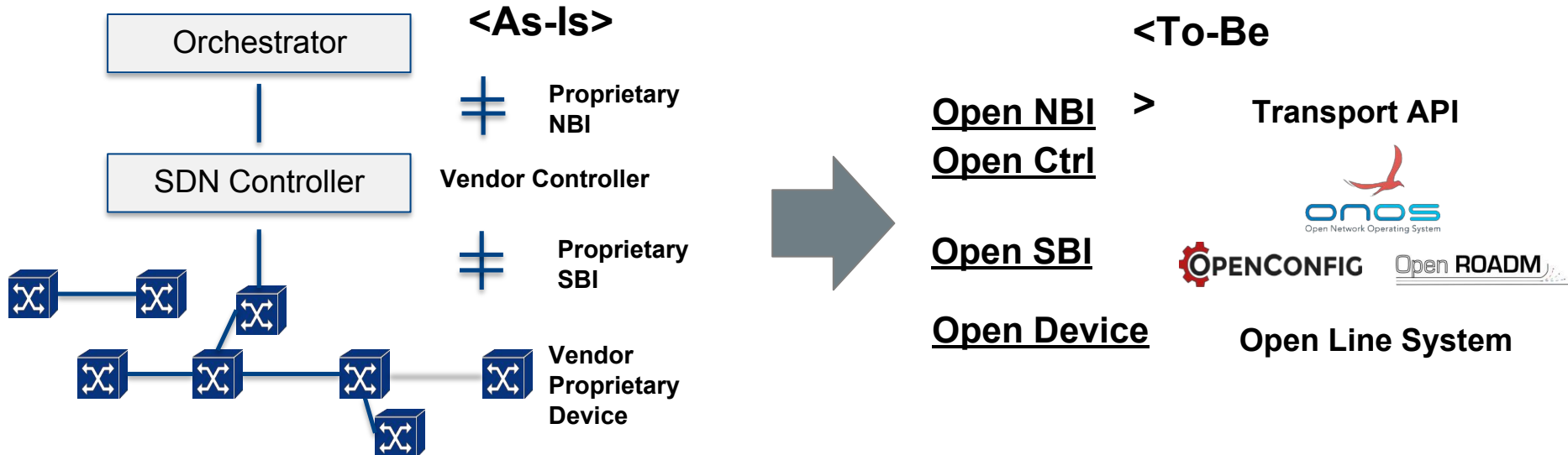
Disaggregated Transport Network



Towards Full Open Architecture

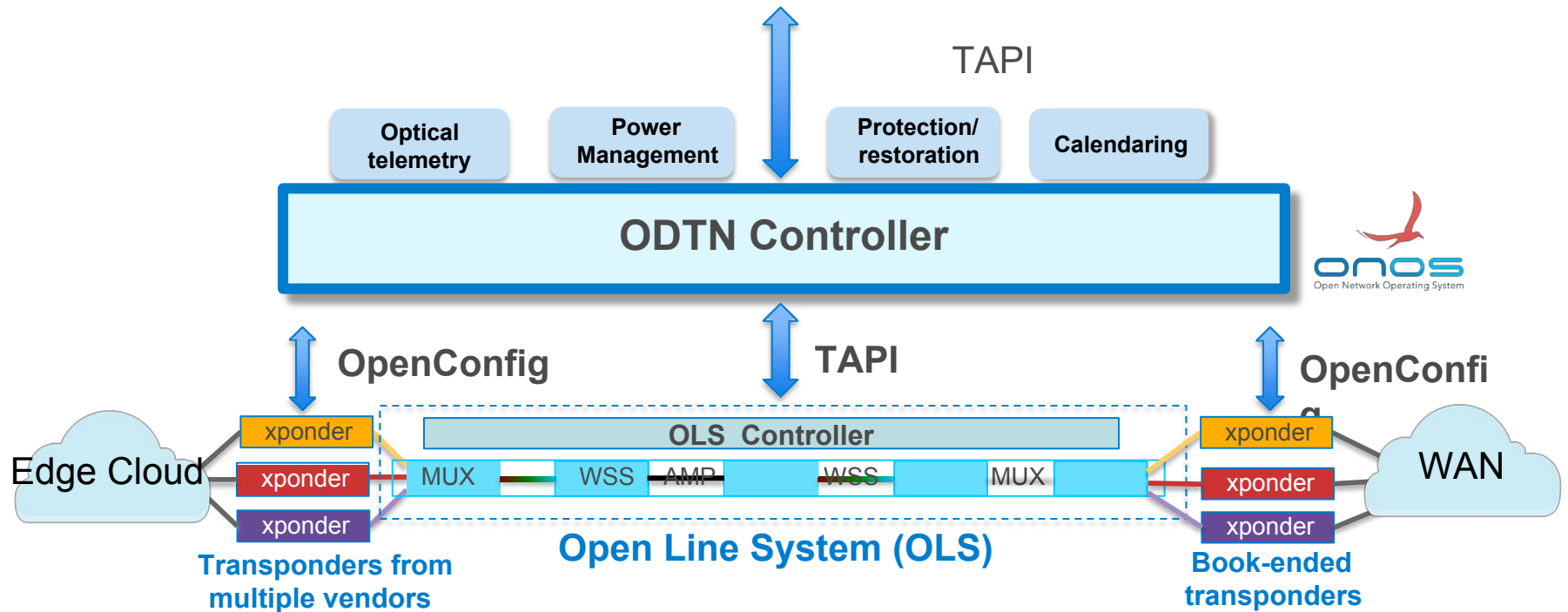
- Existing communities are focused on each specific target
- No “Integrated Solution” in open source community

→ Build a reference implementation by using those communities outputs



ODTN (Open Disaggregated Transport Network)

- NTT Com established and has been leading ODTN project.



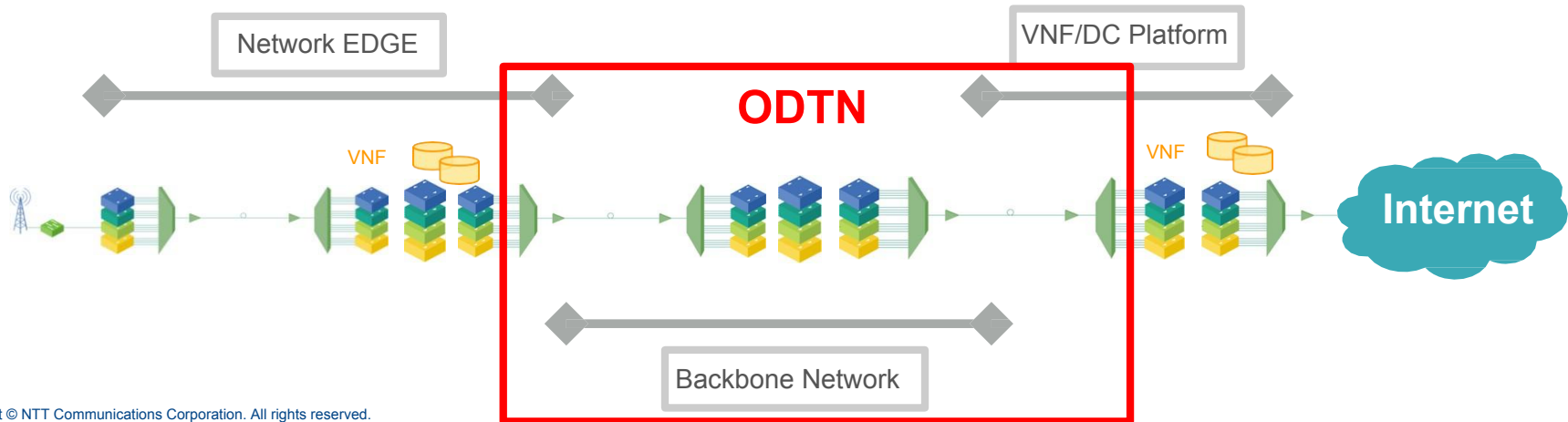
TIP OOPT/CANDI Project (Collaboration with ODTN)

CONVERGED ARCHITECTURES FOR NETWORK DISAGGREGATION & INTEGRATION NTT & Telefonica

PURPOSE

- Define **operator use cases** in open converged packet and optical networks.
- Prove that use cases can be met with **architectures based on open technologies**
- Leverage the opportunity provided by TIP to involve different players to **accelerate technical developments** and help operators in real-world scenarios.

The target areas expand from the edge of the network up to the VNF or Datacenter platform going through the backbone network



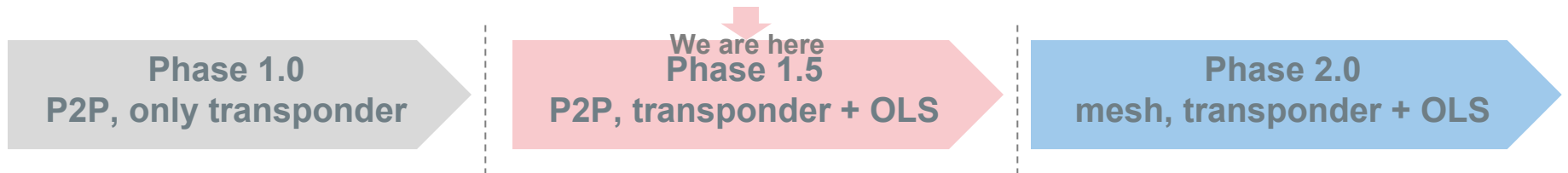
Current progress and next step

- Current progress

- Implementation and testing for Transponder provisioning with OpenConfig: Done
- End to end orchestration with wavelength control: Done
- Design OLS and optical media layer provisioning with latest TAPI and OpenConfig: On going

- Next step

- Implement more path and config computation feature leveraging onos optical-intent for power, FEC and OSNR
- Design mesh solution towards Phase 2.0



Challenges

- **The journey to Software Integration of multi-vendor dis-aggregated devices is long and difficult**
 - **Lots of features to be realized among multi-vendor devices**
 - **Discovery, path computation, power control, protection, monitoring, etc..**
- **Common Open API is needed**
 - **TAPI is the most possible candidate, but there are some missing parts from the software integration perspective**
 - **ODTN is collaborating with OTCC/TAPI and growing into each other**
- **Multi-device transaction and config state management features are needed**
 - **But there are no candidates in current Open SDN controllers**
 - **Now considering to implement these features in ONOS**