SDN architecture for Open Optical Networks

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EPIC Online Technology Meeting on Datacenter Interconnects

4th November 2020

Open Optical Networks

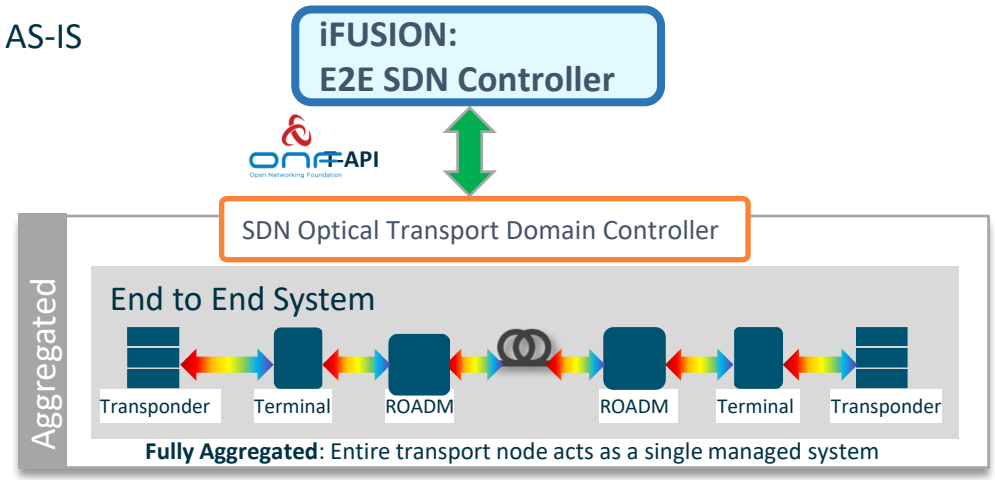
Optical disaggregation will bring a flexible and modular network element architecture

Two key aspects to make **Open Optical Networks** a reality

Interoperability *through standard interfaces*

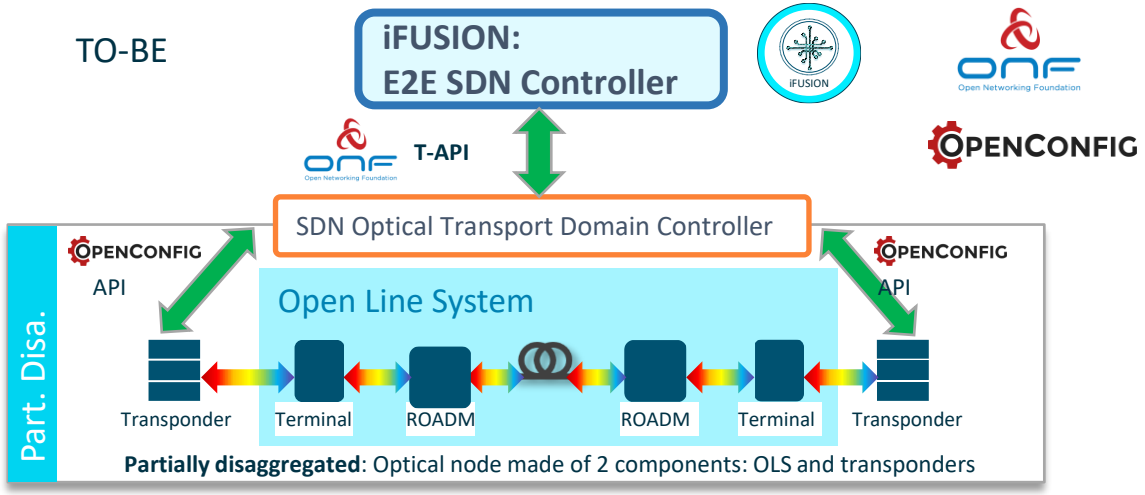
SDN Control Plane *capabilities, based on* ***standard*** *models, to glue multivendor solutions*

AS-IS



Open Optical Networks

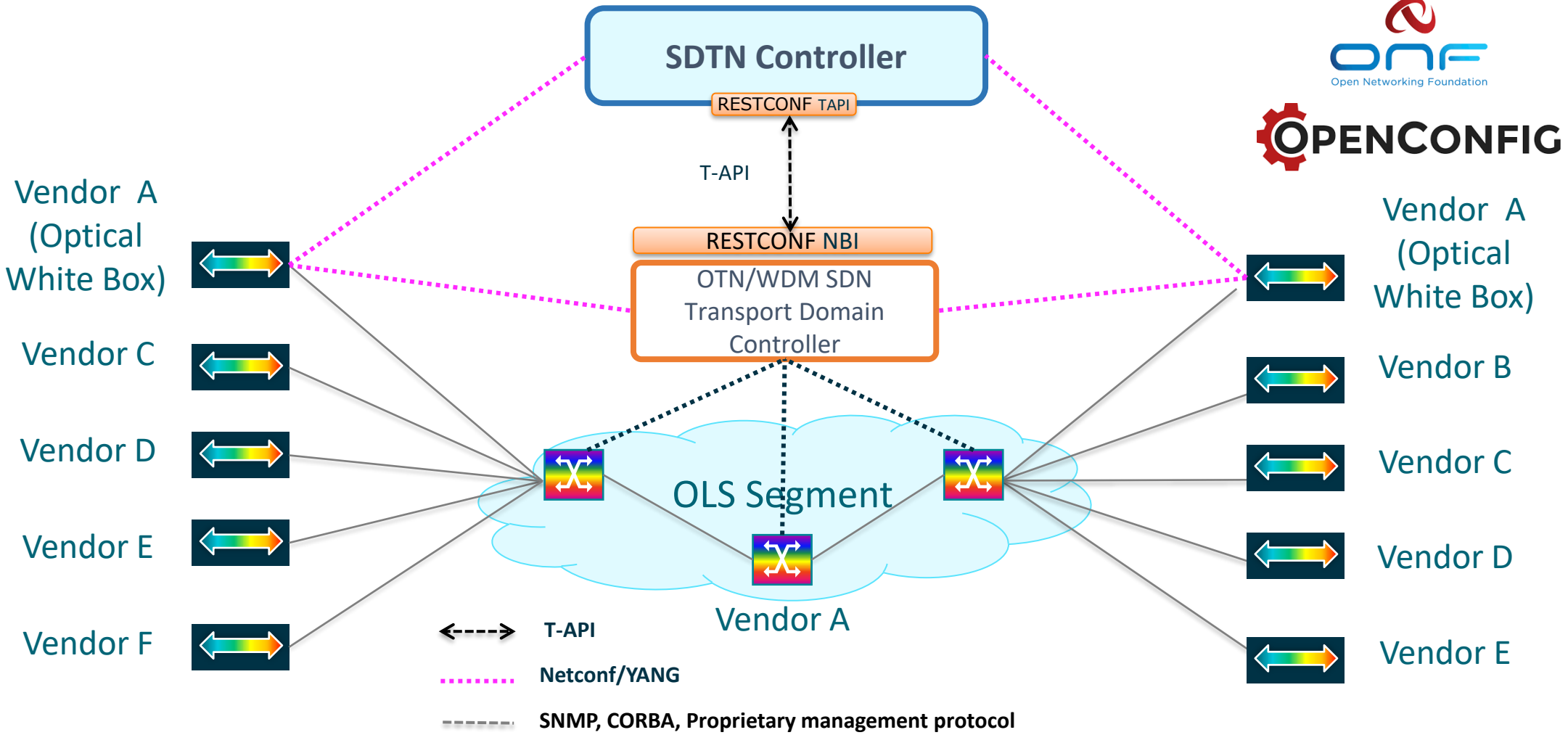
TO-BE



- Nowadays, network operators deploy optical nodes provided as an **end-to-end closed solution**
- DCI solutions are only applicable in mono vendor scenarios

- Open Terminals (OTs) and OLS can be supplied by **different vendors.**
- New Optical DCI solutions could be deployed over existing OLS while keeping carrier class functionalities in terms of restoration, performance, fault management, discovery, etc

Partially disaggregated SDN architecture



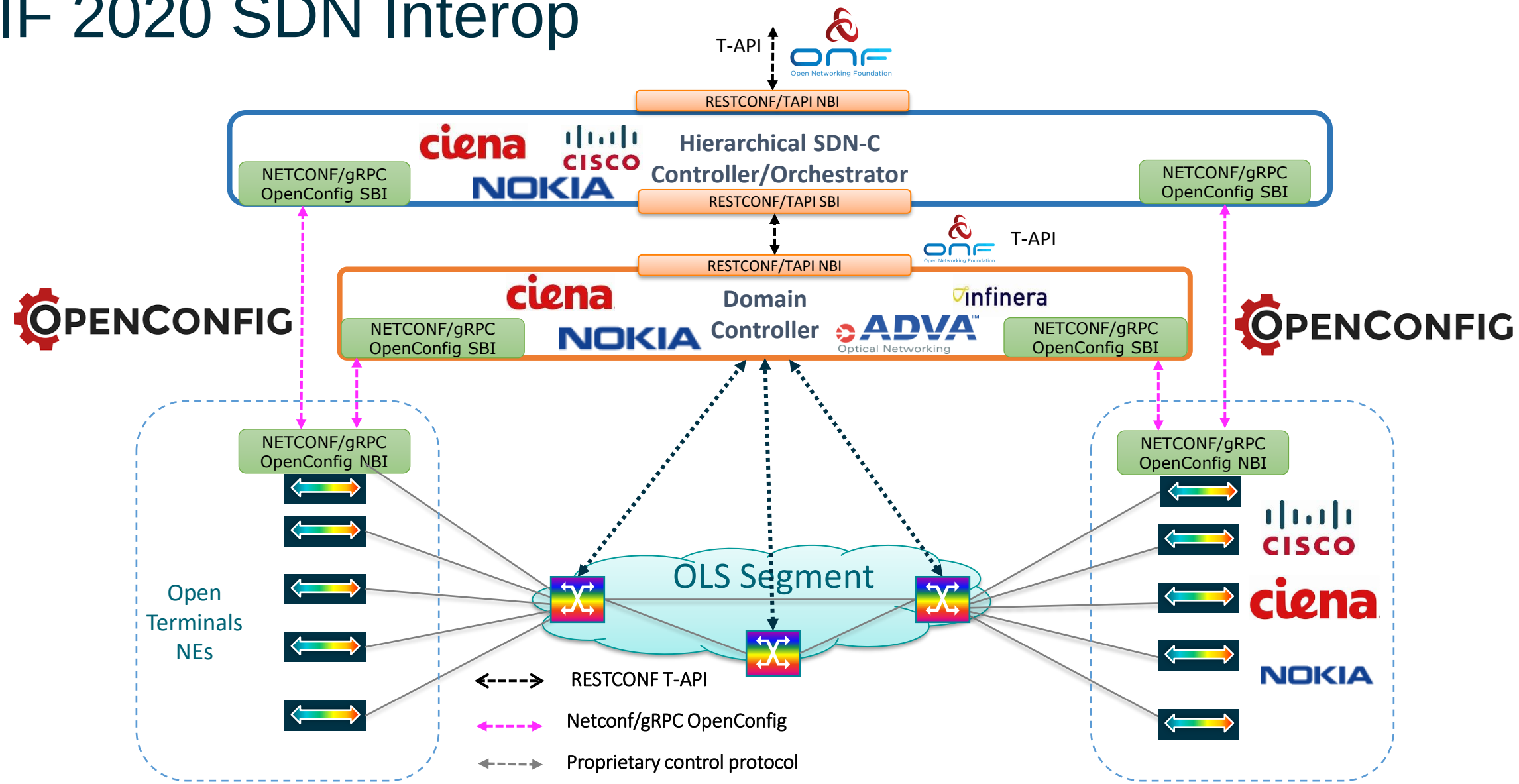
Open Transport SDN- Whitepaper

- **Main agreements**
  - **Reference architecture**
  - Use case driven **methodology**
  - Identification of **standards**
  - **Use cases** Taxonomy
  - The whitepaper is the foundation of a New working group in TIP named **MUST**

- The list of use cases will be reported in the periodic incoming deliverable within TIP MUST.

https://telecominfraproject.com/6-major-operators-to-drive-sdn-for-transport-adoption-and-acceleration-through-telecom-infra-project/

OIF 2020 SDN Interop



Conclusions

- Current Optical DCI solutions are only applicable in monovendor networks
- Third-party DCI channels are manually configured and are only applicable in point to point links
- Open SDN Architecture enables multivendor interoperability and automated operation