2020 Transport SDN API Interop Demo

Private Read-out

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Our Presenters

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Nokia

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TIP Co-Chair OO&PT

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Agenda

- Introduction and overview (15 mins)
  - Dave Brown, OIF Director of Communications, Nokia
- 2020 interop demo review (45 mins)
  - Juan Pedro Fernández-Palacios Giménez, Telefonica
  - Victor Lopez Alvarez, Telefonica
- Network operator open discussion: Reflection on Open Optical Networking future goals and lessons learned (45 mins)
  - Network operator attendees, moderated by Dave Brown

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Where optical networking interoperability work gets done

100+ member companies, entire ecosystem

Develop interoperable electrical, optical and control solutions

Member-driven, transparent, fast-paced process

Identify need → Develop IA → Test & validate → Publish & educate

Accelerate market adoption of advanced optical networking technologies

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OIF Transport SDN API Interop Testing

Multiple Stages

- Test and validate concepts and identify solutions
- Test early API implementations
- Test product-grade implementations for different use cases

Operator Role

- Identify key use cases to drive implementation and testing
- Drive vendor participation under an OIF interoperability umbrella
- Participate in testing plans and documentation of results

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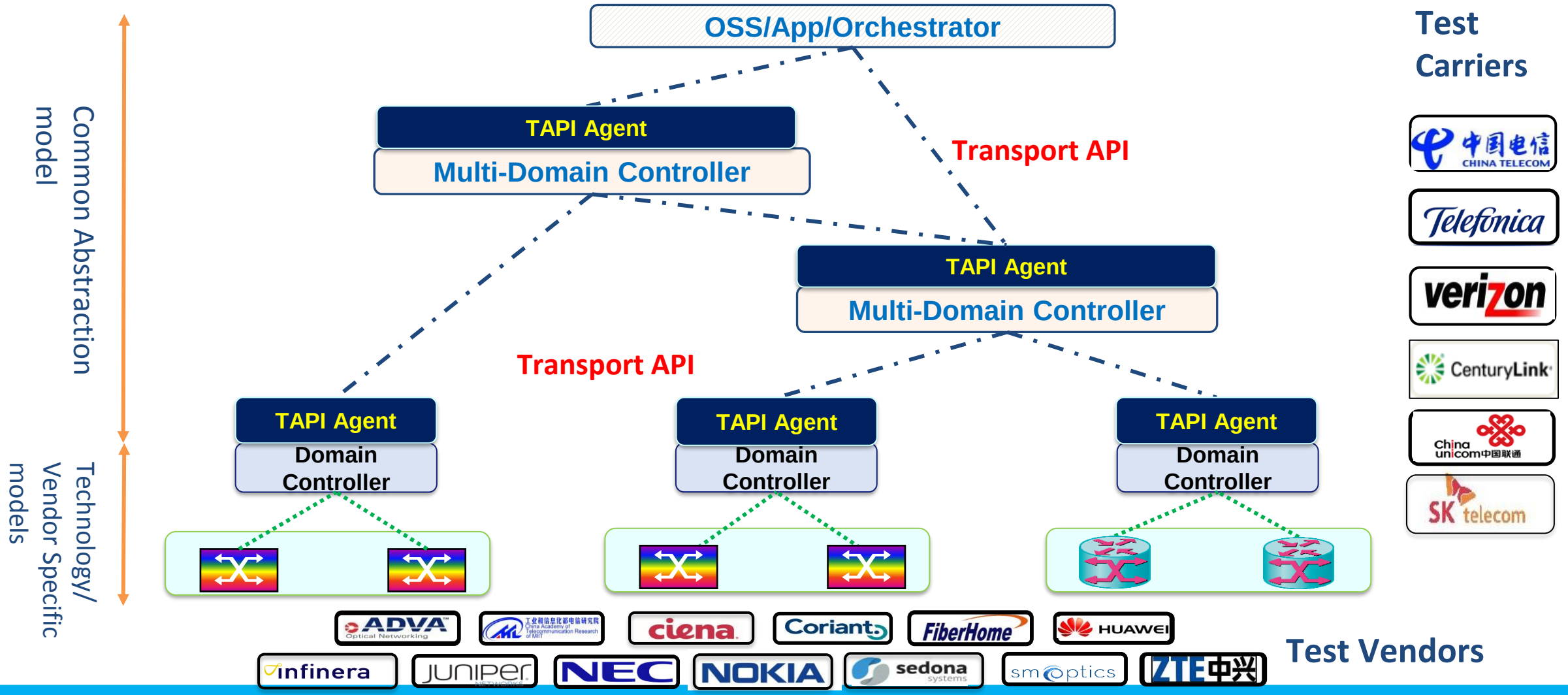
OIF Transport API Interop Demos (2014, 2016, 2018)



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OIF Transport SDN API Interop Demo

Overview

What

- Operator-hosted
- Multi-vendor, multi-domain
- 4th generation API test event

When

- One-year program
- 10-week testing period, Sept - November 2020

Where

- Telefonica Madrid lab
- Remote, virtual lab
- Remote global support

Why

- Accelerate transport SDN adoption
- Enable network automation

How

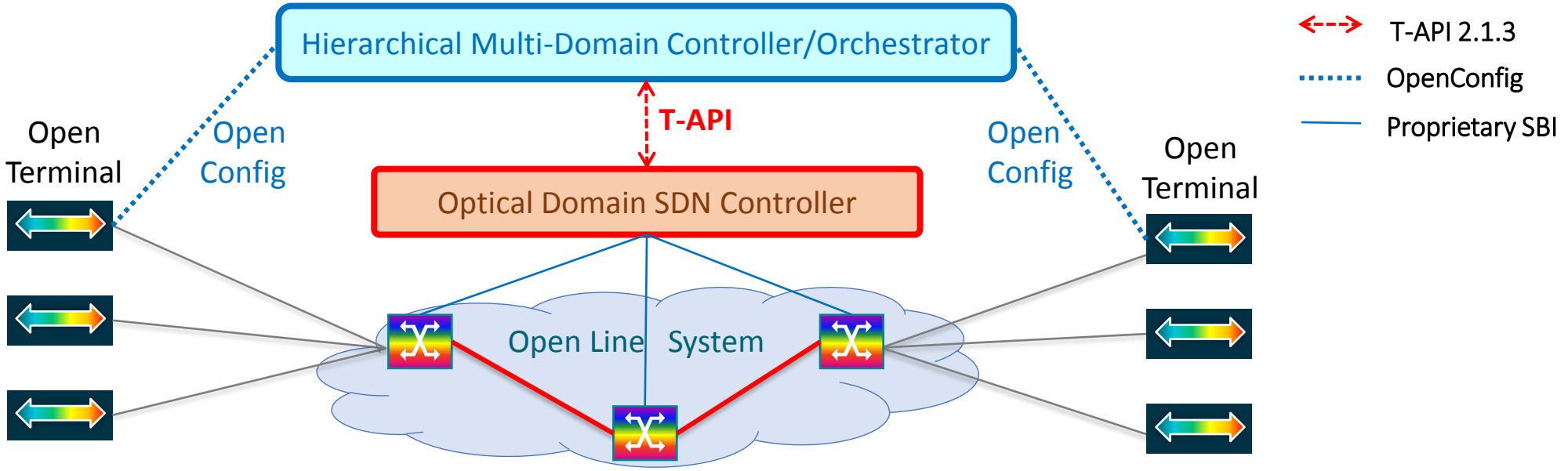
- Operator-defined use cases and operations
- ONF T-API 2.1.3
- OpenConfig

Who

- Host operator: Telefonica
- Consulting operators: China Telecom, Telia, TELUS
- System vendors: ADVA, Ciena, Cisco, Infinera, Nokia

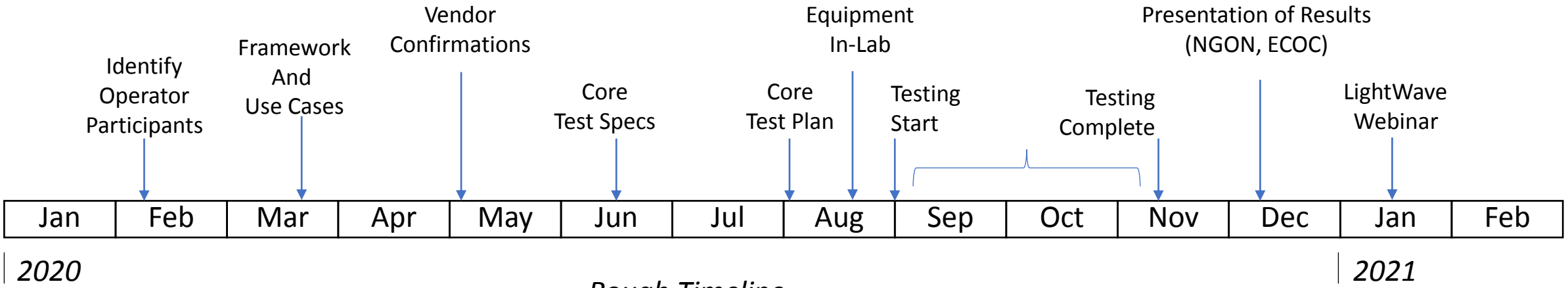
2020 OIF Interop Testing Framework

- Operator-driven focus on Optical Partial Disaggregation
  - Separation of the Open Terminal and Open Line System
  - Hierarchical Optical Domain and Multi-Domain Controllers
  - Ties to ONF and TIP activities



OIF Interop Demo Process

- Initial planning process
  - Evaluate operator/vendor interest and test locations
  - Refine test framework and use cases
  - Confirm vendor participation
  - Develop key test specs
- Extensive testing process
  - Vendor equipment installed and network access ready
  - Testing over 10-week period
  - Compile results
  - Presentations and white paper



Rough Timeline

OIF Interop Demo Program Benefits

- **Realize operator targets for network control/management**
- **Provide a venue for Operator/Vendor cooperation**
- **Identify and solve interoperability issues using standard APIs**
- **Accelerate maturity of Transport SDN standards and deployment**

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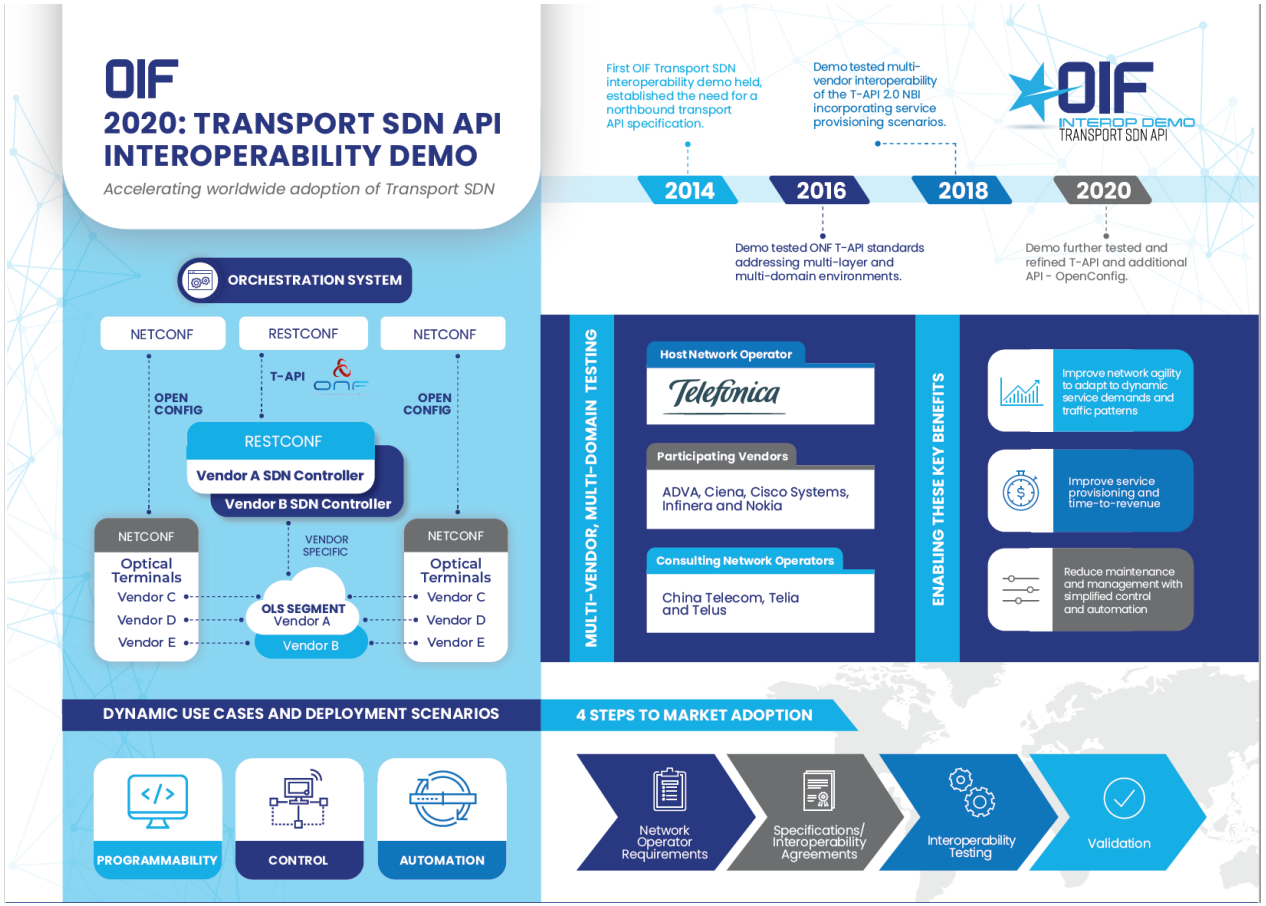
Resources

More info and infographic:
https://www.oiforum.com/technical-work/2020-oif-transport-sdn-api-interoperability-demo/

Press releases:
[OIF Announces Participants in 2020 Joint Network Operator, Multi-Vendor Transport SDN API Interoperability Demonstration]

[OIF Completes Successful 2020 Joint Network Operator, Multi-Vendor Transport SDN API Interoperability Demonstration]

[Join OIF]



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OIF INTEROP DEMO TRANSPORT SDN API

Thank you!

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Open Discussion Open to all Network Operators

Reflection on Open Optical Networking future goals and lessons learned

- Strategic perspectives
  - End game, strategic drivers
  - Objectives, benefits
- How open is open? Are we there yet?
  - Phases, gaps, and challenges toward broad adoption
- Technical perspectives
  - Disaggregation – stages, challenges
  - Standard APIs – why, challenges
  - APIs and models – maturity, adoption status, gaps
  - Hierarchical networks – challenges, approaches
- TIP MUST – objectives, use cases, interop validation
- The role of SDOs – report card, opportunities
- OIF 2020 Transport SDN API Interop Demo
  - Benefits, next steps

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