

# OIF Hot Topic Fact Sheet – SDN Transport API



## **About OIF's SDN Transport API project:**

Network operators are deploying Software Defined Networks (SDN) to enable programmability of their networks for efficiency, speed of deployment and new revenue-generating network services. Widespread adoption of the programmability paradigm depends on the availability of common or standardized APIs that allow access to domain specific attributes and mechanisms without requiring the API itself to be specific to the vendor or technology. The Transport API (T-API) is designed to allow network operators to deploy SDN across a multi-domain, multi-vendor transport infrastructure, extending programmability across their networks end-to-end.

By working through the specifications, rigorous interoperability testing and validation, OIF has substantiated T-API as the Northbound Interface (NBI) of choice. OIF, in collaboration with industry leaders, has helped establish a foundation for open, programmable networks that allow operators to efficiently deliver dynamic multi-domain connectivity services to the market.

**Why is the SDN Transport API project important for the market?** OIF has been a catalyst for the development of interoperable Transport SDN implementations. Starting with defining a carrier-oriented architecture and set of requirements, then working cooperatively with the Open Networking Foundation (ONF) to help them define a standard T-API specification. Next, conducting critical interop testing to validate the functionality of the Transport API and identifying where the specification needed clarification and extension to support interoperability and the feature set that operators require.

**Relevance to (or in association with) other industry organization activities:** Interrelated organizations include ONF, which has defined the Transport API standard; ITU Telecommunication Standardization Sector (ITU-T), which provides architecture guidance and technology specific material such as photonic modeling concepts; and MEF, which has endorsed Transport API as part of their Lifecycle Services Orchestration architecture and also added extensions to support MEF Ethernet services and OAM requirements.

**Status of project:** The project is ongoing as T-API is extended to additional transport technologies and becomes more widely adopted.

**Demo/read-outs:** Regional demonstration read-out events took place in Summer 2018 and a public read-out was held at NGON 2018 <https://www.oiforum.com/technical-work/2018-sdn-transport-api-interoperability-demo/>

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**More information:** <https://www.oiforum.com/technical-work/hot-topics/sdn-transport-api-2/>,  
<https://www.oiforum.com/technical-work/current-work/#APIs%20for%20transport>

**Recent project update PPT presentations:** [NGON 2019](#) – May 21, 2019

**Infographic:**



**Webinar:** <https://www.lightwaveonline.com/home/webinar/16677182/assuring-open-optical-networking-interoperability>

**Recent articles about OIF's SDN Transport API: \***

*GazettaByte:* <http://www.gazettabyte.com/home/2018/8/20/t-api-taps-into-the-transport-layer.html>

*\* articles do not represent OIF's views other than where OIF spokespersons are specifically quoted*

**About OIF:** OIF is where the optical networking industry's interoperability work gets done. Building on 20 years of effecting forward change in the industry, OIF represents the dynamic ecosystem of 100+ industry leading network operators, system vendors, component vendors and test equipment vendors collaborating to develop interoperable electrical, optical and control solutions that directly impact the industry's ecosystem and facilitate global connectivity in the open network world. Connect with OIF at [@OIForum](#), on [LinkedIn](#) and at <http://www.oiforum.com>.