

OTCC

OTCC Project Charter (Aug. 22, 2017)

Project Name: *Open Transport Configuration & Control*

Mission Statement

Promote common configuration and control interfaces for transport networks in SDN, defining these interfaces with open source software and software defined standards.

Impact

This project will develop open source software and accompanying software-based standards for control of L0-L2+ transport technologies, including optical and microwave. This project will also develop open source software and accompanying software-based standards simplifying control of service provider multi-domain multi-technology transport networks.

Coordination with ONOS and with the ONF Packet-Optical Project will promote development and publication of standard interfaces. This coordination will be driven bi-directionally by 1) promoting adoption of OTCC work by ONOS, and 2) using OTCC techniques and tools to model ONOS interfaces and thus produce models and APIs that can be published as software defined standards.

Leverage of this work by transport equipment vendors and by partner SDOs (such as OIF, MEF) into their information model, API development and PoC /Interop implementation efforts will facilitate industry convergence and avoid needless fragmentation in Transport API space.

Targeted efforts between the OTS Project and CORD Project are proposed to develop software and specifications in the following areas:

- PoC of multi-domain Transport SDN
 - E-CORD interconnection across multiple WAN domains where, for example, the E-CORD controller acts as a client and WAN domains are coordinated through a common TAPI interface
- PoC of wireless transport device control
 - Distributed M-CORD implementation where RAN and Core components of an M-CORD are connected via wireless transport, controlled by a common SDN controller

Artifacts

Information and Data Models (github):

- Transport API UML model, Yang Data Schema and Swagger/Open API definitions
- Optical (OTSi, ODU), ETH, MPLS-TP technology specification models
- 5G-xHaul (former Wireless Transport) models and schema

Source code (github):

- Transport API stub reference implementation
- 5G-xHaul (former Wireless Transport) stub reference implementation

Other documentation (wiki or other site tbd):

- Functional Requirements
- Developer's Guide
- White Papers
- Solution Briefs – e.g., CORD interconnection

All materials to be made available under Apache 2.0 licensing terms.

Stewardship

Technical leadership will initially be provided by a team of people currently in leadership or critical technical roles, or providing carrier input:

Lyndon Ong, Ciena, TST Chair; Karthik Sethuraman, NEC, TST Vice Chair; Victor Lopez, Telefonica; Ricard Vilalta, CTTC; Kam Lam, Fiberhome, TST Vice Chair; Italo Busi, Huawei; Andrea Mazzini, Nokia; Giorgio Cazzaniga, SMOptics, TST Vice Chair; Martin Skorupski, Highstreet; Thorsten Heinze, Telefonica/Germany

Community

The OTS Community will make use of mailing lists derived from current list (opentransport@login.opennetworking.com) as well as topic-specific lists (transport-api@login.opennetworking.com). Github sites derived from current Snowmass and Centennial sites will be used for models, source code and other artifacts. Document repository will continue to be needed for archiving of meeting notes, proposals, and other working documents. There will be regular biweekly and weekly webexes as well as interim face-to-face meetings as needed to progress work on specific topics.