

# YANG Models for MPLS-TE Topology

TEAS WG, IETF108, Virtual Meeting

**draft-busizheng-teas-yang-te-mpls-topology-00**

## **Authors:**

[Italo Busi](#) (Huawei)

Haomian Zheng (Huawei)

Aihua Guo (Futurewei)

Xufeng Liu (Volta Networks)

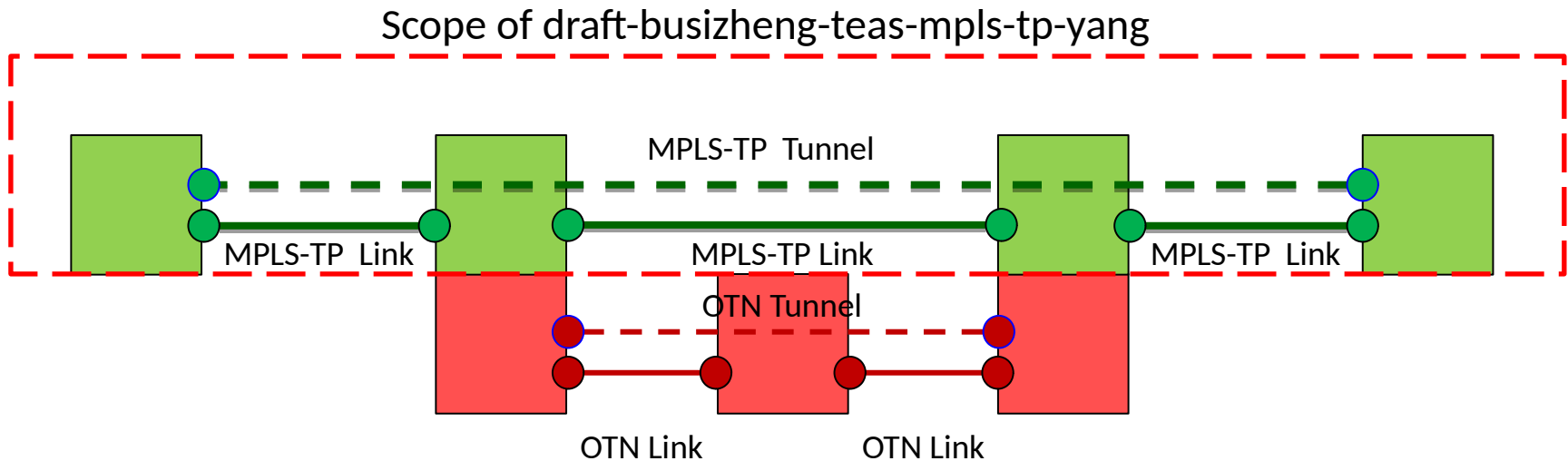
# History

- Replaces draft-busizheng-teas-mpls-tp-yang
- Presented at IETF 104
  - Feedback from TEAS WG: TP is a profile of TE, not its own thing. It would be the best to integrate with TE models
- Follow-up discussions with TE YANG
  - MPLS-TE Topology (this draft)
  - Update MPLS-TE Tunnel (draft -ietf-teas-yang-te-mpls)
  - GH: <https://github.com/tsaad-dev/te/pull/104>
- Output of the discussion shared on TEAS and MPLS WG mailing lists on July 13

# Problem Statement

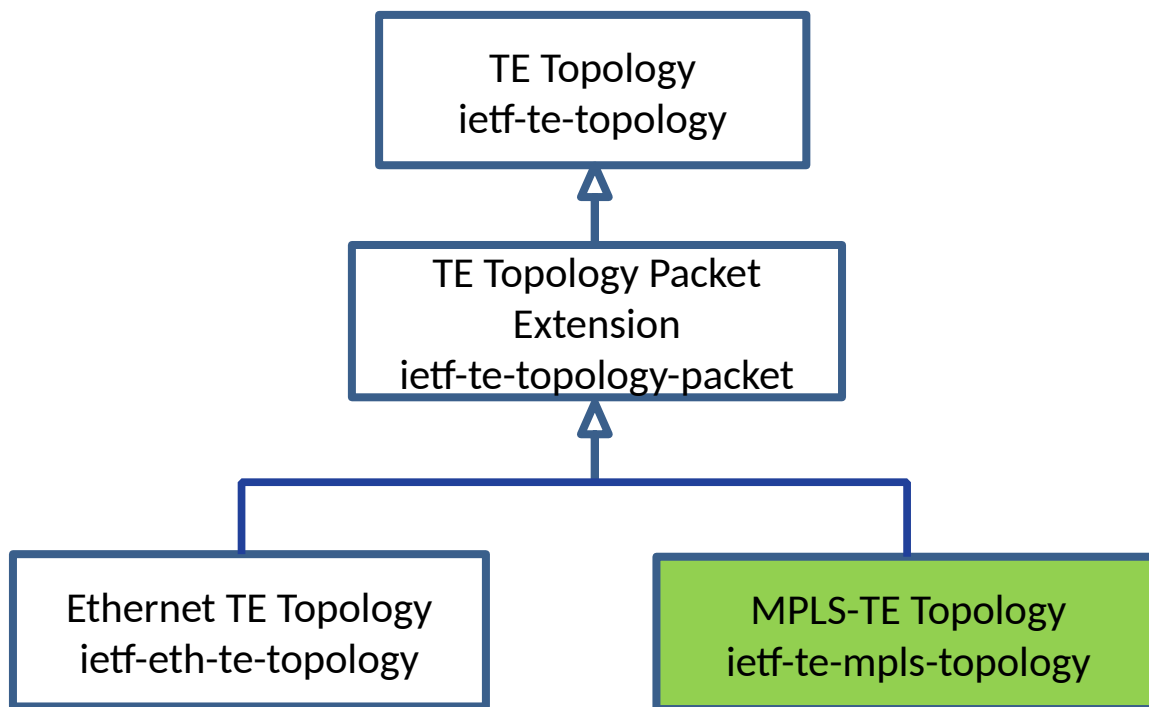
## (draft-busizheng-teas-mpls-tp-yang)

- MPLS-TP Topology Discovery and Tunnel Setup
  - OTN and MPLS-TP multi-layer network



# Approach

- MPLS-TE Topology augments Packet TE Topology (as discussed at IETF 106)



# Applicability for MPLS-TP

- Thanks to Tarek Saad, Vishnu Pavan Beeram, Rakesh Gandhi, Xufeng Liu, Igor Bryskin for the valuable discussion
- Described in section 3.2 of the draft
  - Bidirectional LSPs: inherited from TE Topology
    - All bidirectional TE links can support bidirectional LSPs and all the links can support unidirectional LSPs
  - Equal Cost Multi-Path (ECMP)
    - Report whether a LAG or TE bundled Link performs load-balancing on a per-flow or per-top-label
  - Penultimate Hop Popping (PHP)
    - Report whether an LTP is not capable to support UHP
  - Generic Alert Label (GAL)
    - OAM related: outside the scope of this draft

# Open Issues & Next Step

- MPLS TE-label augmentation for label availability?
  - Assumption #1: label allocation done by NE
  - Assumption #2: MPLS-TE tunnels single-domain
- MPLS TE-bandwidth augmentations common with other packet TE
  - Move them to Packet TE Topology?
- Ready for WG adoption?