

# YANG Models for MPLS-TE Topology

MPLS WG, IETF118, Prague

**draft-busizheng-teas-yang-te-mpls-topology-06**

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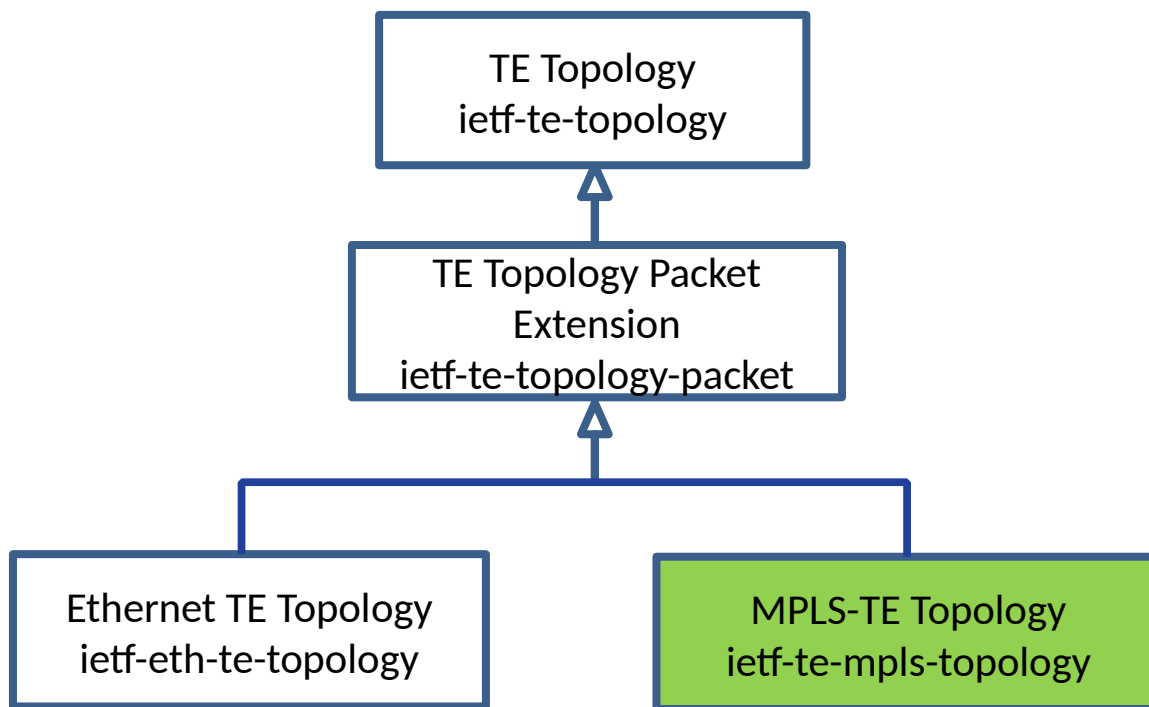
Adrian Farrel (ODC)

# History

- IETF 104: initial proposal
  - Presented as draft-busizheng-teas-mpls-tp-yang
  - Feedback from TEAS WG: TP is a profile of TE, not its own thing. It would be the best to integrate with TE models
  - Progress the draft in TEAS WG (together draft-teas-yang-te-mpls) keeping MPLS WG informed
- IETF 108 and IETF 111: updated after discussions with TE YANG
  - MPLS-TE Topology (this draft)
  - Update MPLS-TE Tunnel (draft -ietf-teas-yang-te-mpls)
  - Output of the discussion shared on TEAS and MPLS WG mailing lists on July 13, 2020

# Approach

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



# Changes from IETF 111

- Rev 06 published [Oct 22<sup>nd</sup>, 2023]
  - Aligned with RFC8776-bis I-D
  - Updated authors/contributors lists
    - In compliance with RFC7322
  - Improved abstract (thanks to Tom Petch)
  - Editorial updates (thanks to Adrian Farrel)
  - Added Security and IANA Considerations (thanks to Adrian Farrel)

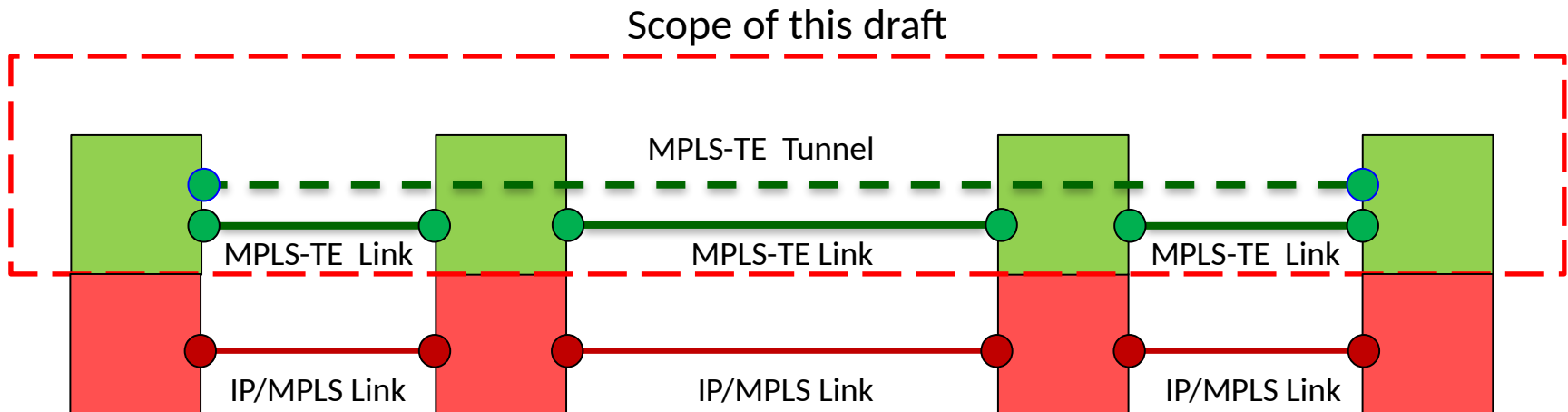
# Open Issues & Next Step

- Github: <https://github.com/tsaad-dev/te>
  - Introduction and relationship with MPLS
  - Support multi-domain MPLS-TE tunnels
  - MPLS-TE tunnel record route object
- Additional comments are welcome
- Ready for TEAS WG adoption

**BACKUP**

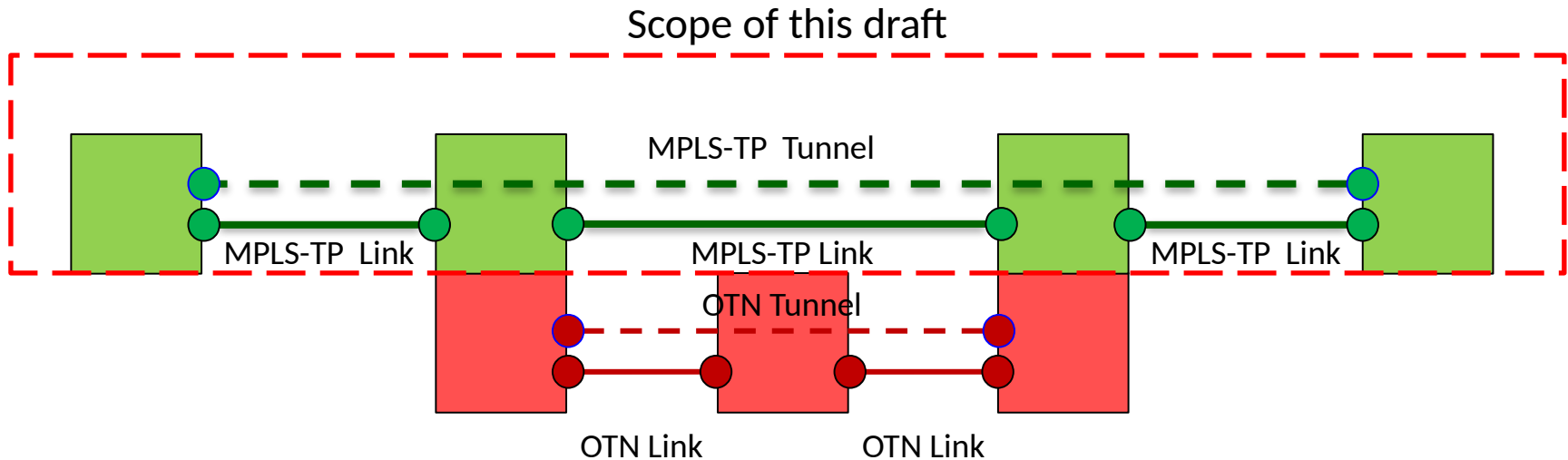
# Use Cases (1/2)

- MPLS-TE Topology Discovery
  - IP/MPLS network with TE enabled



# Use Cases (2/2)

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





# Applicability for MPLS-TP

- 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