

YANG Models for MPLS-TE Topology

TEAS WG, IETF118, Prague

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

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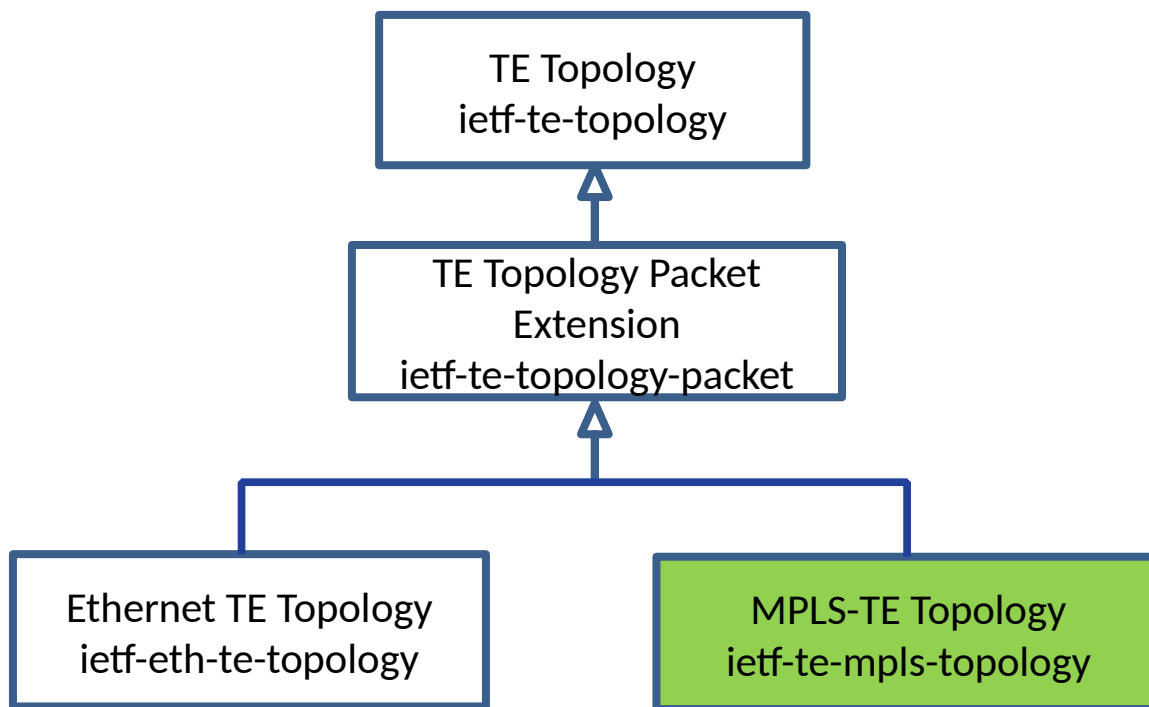
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History

- 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 22nd, 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)

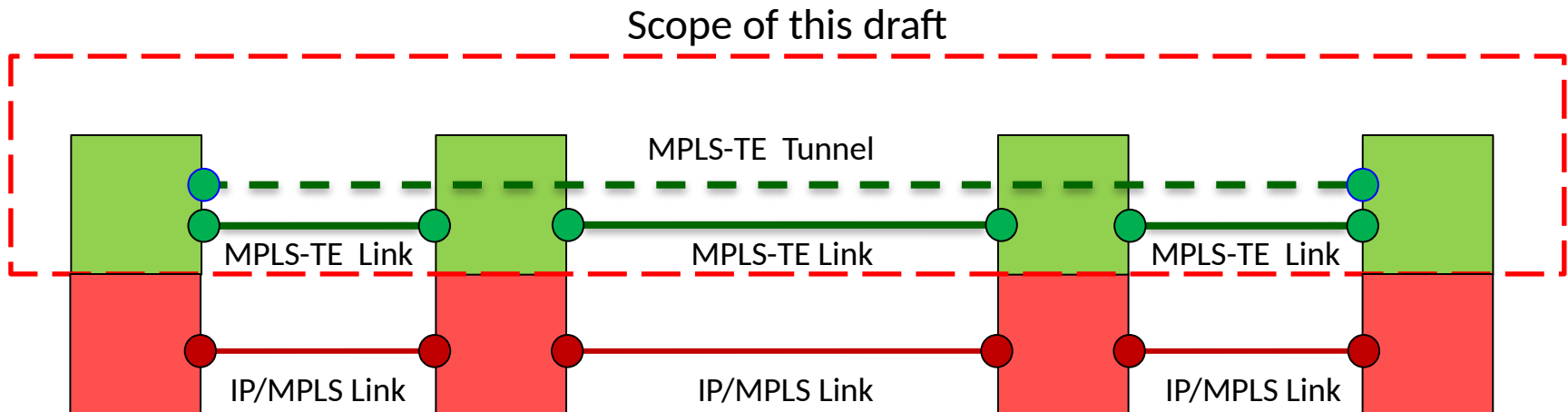
Open Issues & Next Step

- 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

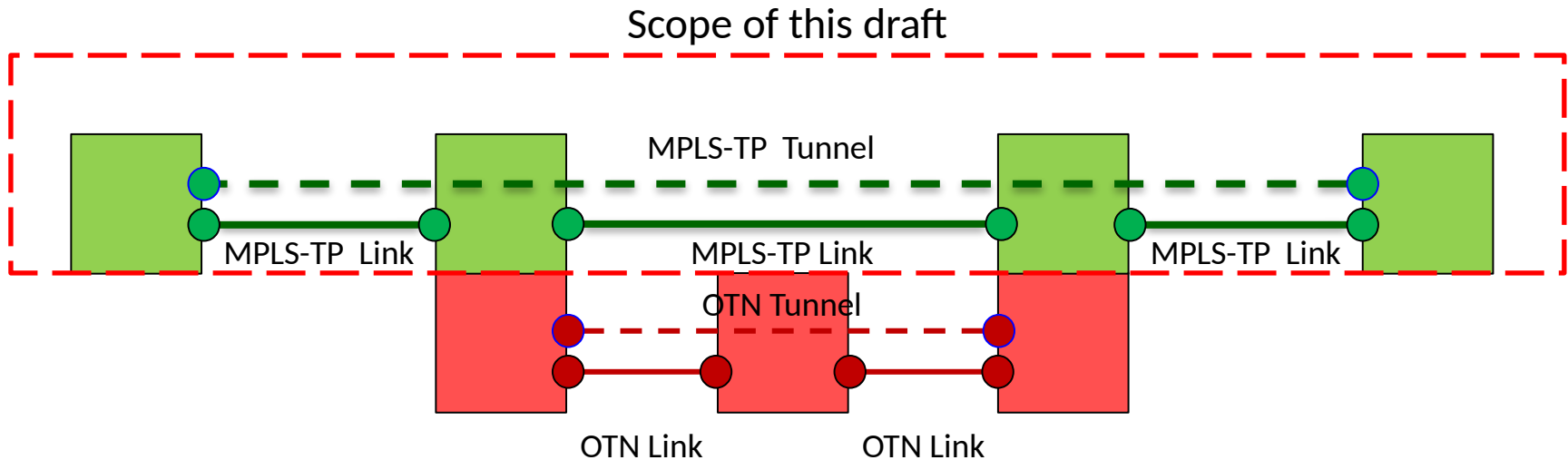
Use Cases (1/2)

- 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