Yang model for requesting Path Computation

draft-ietf-teas-yang-path-computation-02
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Credits

Thanks to Carlo Perocchio and Francesco Lazzeri for their continuous feedback, review comments and model enhancement proposal

Thanks to Tarek Saad, Igor Bryskin, Xufeng Liu, Pavan Beeran at al for updating the TE tunnel model resolving some of the common open issues
Summary of changes from v01

- We made just few modifications in the text after the restructuring triggered by Michael’s comments
- We consider now the main body of the draft as stable
  - Bugs
  - Enhancement
Summary of changes from v01

Yang enhancement and alignment with tunnel model

- path-access-segment-info to provide access-label in case of multi-domain path computation.
  - The client has to provide a label set to access and exit a domain, to make the domain controller calculate path considering the provided label related to the previous and followed domain (in case e.g. of 3 domains) open issue #46

- Updated the model to re-use the bidirectional Boolean added to the TE tunnel mode to indicate whether the path to be computed is unidirectional or bidirectional open issue #43

- Introduced two new grouping (grouping encoding-and-switching-type and grouping end-points) since Path Computation RPC needs some but not all the attributes in the tunnel-p2p-params_config grouping. Pull request #45

- Alignment with te-tunnel model for path computation segment tunnel: modified explicit-route-hop with num-unum-hop to identify an unnumbered TE link with the combination of TE link id and TE node ID. open issue #42
Summary of changes from v01

Yang bugs correction

• Use of te-topology-identifier grouping from te-types
  – Aligned with the latest changes where the topology-id attribute has been removed from the generic-path-constraints and a new te-topology-identifier grouping has been defined to reference to the specific topology a tunnel is requested open issue #47

• Use of generic-path-disjointness grouping from te-types.
  – Delete previous redundant Booleans link-diverse, node-diverse and srlg-diverse to indicate the disjointness of synchronized requests open issue #48

• Remove paths container (state)
Open Issue: TE-Tunnel attributes

- Not all the te-tunnel attributes are needed for path computation
  - name, identifier, description, provisioning-state ...
- Proposal is not to use them in path computation RPC
  - Comment: those attributes could be used by “policy based” path computation
  - Policy not specified yet.
Open Issues status

- GitHub Repository
  - https://github.com/rvilalta/ietf-te-path-computation

- Tracking Open Issues, discussions and resolutions linked to YANG model
  - 10 closed
  - 8 open
    - 4 specific for path computation RPC (2 new)
    - 3 are being discussed jointly with TE Tunnel
    - 1 related to a new appendix of the draft (example of path computation request)
Next Steps

• Resolve current open issues
  – Continue cooperation with TE Tunnel and TE Topology model authors

• Provide guidance for technology specific augmentations
  – Synch up with OTN tunnel model authors