Yang model for requesting Path Computation

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

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Credits

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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
- The most update for version 2 addressed Yang model https://github.com/rvilalta/ietf-te-path-computation :
  - 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 able the domain controller to 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

- Alignement 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

- https://github.com/rvilalta/ietf-te-path-computation/issues/31
- 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