YANG Data Models for TE
<draft-ietf-teas-yang-te-16>

Latest YANG code @ https://github.com/ietf-mpls-yang/te

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Summary of Changes

• Added RFC references to modelled objects

• Updates to the TE tunnel model
Update # 1
LSP Association Types

- Added Identities for known LSP ASSOCIATION types in ietf-te-types.yang module
- Additional types can be added if/when needed
Update # 2
Association Objects

- Added association objects under tunnel:
  - 2 Lists of ASSOCIATION and Extended ASSOCIATION objects, keyed by
    - Type
    - ID
    - Source
    - Global-source
    - Extended ID (for Extended AO only)

- For example:
  - can use it to associate 2 unidirectional LSPs to make a bidirectional tunnel
  - can use as path computation constraint:
    - Associate LSP resources
    - Diverse LSP paths for tunnels (possibly originating at different ingresses)
Update # 3
Combined numbered/unnumbered hop in Explicit Route

Unnumbered Link:
- identified by TE node ID + TE Link ID

Numbered Link:
- Identified by TE Link ID

Numbered node:
- TE node ID

```yaml
---
explicit-route-including-objects
  +---rw route-object-including-object [index]
  +--- index uint32
  +--- (type)?
      +--:(num-unnum-hop)
          +--- num-unnum-hop
e            +--- node-id? te-types:te-node-id
e            +--- link-tp-id? te-types:te-tp-id
e            +--- hop-type? te-hop-type
e            +--- direction? te-link-direction
```
Update # 4

SRLG in Exclude Route List

- Added SRLG as entry in the exclude route object
Dependency of other drafts on TE types module

• TE types are defined ietf-te-types.yang module and included in I-D <draft-ietf-teas-yang-te>
• Other drafts, e.g. I-D <draft-ietf-teas-yang-te-topo> have progressed in IESG review but have dependency on TE types
• Most YANG types modules at IETF are in their own drafts, e.g.
  – RFC8294: Common YANG Data Types for the Routing Area
• Propose to carry TE types in a separate document
  – New I-D: <draft-ietf-teas-yang-te-types> for TE types
  – Next slide for proposed split
Next Steps

• The following I-Ds will be ready for WGLC after the draft split
  – draft-ietf-teas-yang-te-types
  – draft-ietf-teas-yang-te

• The following I-Ds will undergo a round of review and update before asking for LC
  – draft-ietf-teas-yang-te-mpls
Thank You