Updated IETF TE Types

TEAS WG, IETF 117, San Francisco

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Authors:
Italo Busi  (Huawei)
Aihua Guo (Futurewei)
Xufeng Liu (IBM)
Tarek Saad (Juniper)
Rakesh Gandhi (Cisco)
Vishnu Pavan Beeram (Juniper)
Igor Bryskin
Changes from -02

• Rev 06 published [Jul 10\textsuperscript{th}, 2023]
  – Allow using RFC8345 or RFC8796 identifiers (address Chaode WG LC comments on te-tunnel)
  – Clean up on path-computation-error-reason derived identities
  – Aligned bandwidth and burst size definitions with other IETF RFCs
    • Removed bandwidth-scientific-notation
  – Updated authors list to comply with RFC 7322
WG LC Comment from Chaode

- Different identifiers for networks, nodes, links and termination points in network topology and TE topology models
  - For example:
    - node-id is an URI
    - te-node-id is a dotted-quad

- Resolution: allows using RFC8345 or RFC8795 identifiers
  - Added MUST statements when needed to mandate the presence of one of the two identifiers

```plaintext
+--rw network-id?      nw:network-id
+--rw te-topology-identifier
  +--rw provider-id?   te-global-id
  +--rw client-id?     te-global-id
  +--rw topology-id?   te-topology-id
+--rw node-id-uri?    nw:node-id
+--rw node-id?         te-node-id
+--rw link-tp-id-uri?  nt:tp-id
+--rw link-tp-id?      te-tp-id
```
Path Computation Error Reasons

• Aligned with the error reasons defined in IANA
  – Added a reference to the IANA assignment when applicable
  – Removed path-computation-error-no-server identity (duplicated)

• Additional error reasons not defined in IANA but applicable to YANG added
  – A ‘no-dependent-server’ can be used to represent either a ‘child PCE unresponsive’ or ‘BRPC chain unavailable’ error without being specific
    • Identity hierarchy used to represent the relationship
Bandwidth and Burst Size

- Defined as uint64 (not as bandwidth-scientific-notation)
- Units are “bits/second” (bandwidth/rates) or “bytes” (burst size)

```plaintext
grouping te-packet-path-bandwidth:
  +- bandwidth-profile-name? string
  +- bandwidth-profile-type? identityref
  |  +- cir uint64
  |  +- cbs uint64
  |  +- eir? uint64
  |  +- ebs? uint64
  |  +- pir? uint64
  |  +- pbs? uint64

grouping te-packet-link-bandwidth:
  +- packet-bandwidth? uint64
```
Next Step

• No pending open issues are left
• We think the draft is now ready for WG LC
  – Suggested to be joint with te-tunnel and path-computation to keep alignment