A YANG Data Model for Layer 0 Types

draft-ietf-ccamp-rfc9093-bis-03

Co-authors (frontpage):

- Sergio Belotti (Nokia)
- Italo Busi (Huawei)
- Dieter Beller (Nokia)
- Haomian Zheng (Huawei)
- Esther Le Rouzic (Orange)
- A. Guo (Futurewei)
- D. King (University of Lancaster)

Contributors

- Y.Lee (Samsung)
- Gabriele Galimberti (Cisco)
- D. Dhody (Huawei)
- B.Y. Yoon (ETRI)
- R. Vilalta (CTTC)
- Enrico Griseri (Nokia)
- V. Lopez (Nokia)

Updates Since IETF 114

- Change the authors of the I-D and YANG model: fixed issue #57
- Draft text update (I-D changes)
  - We received, from IANA Operation Manager, a suggested update of the section 5 “IANA Consideration” . We have updated accordingly section 5: fixed issue #58
- YANG model update:
  - Added 400G attributes for alignment with 400G-ZR: fixed issue #51
  - Changed frequency fraction digits with frequency THz and GHz definition: fixed ussue #59
  - Added units for max-diff-group-delay : fixed issue #39
  - Shortened the length of the attribute max-polarization-dependent-loss-penalty

alignment with 400G-ZR: added in common-explicit-mode grouping

```
leaf in-band-osnr {
    type snr;
    config false;
    description
      "The OSNR defined within the bandwidth of the transmit
      spectral excursion (i.e.,  between the nominal central
      frequency of the channel and the -3.0dB points of the
      transmitter spectrum furthest from the nominal central
      frequency) measured at reference point Ss.

      The in-band OSNR is referenced to an optical bandwidth of
      0.1nm @ 193.7 THz or 12.5 GHz.";
    reference
      "OIF-400ZR-01.0: Implementation Agreement 400ZR";
  }
  leaf out-of-band-osnr {
    type snr;
    config false;
    description
      "The ratio of the peak transmitter power to the integrated
      power outside the transmitter spectral excursion.

      The spectral resolution of the measurement shall be better
      than the maximum spectral width of the peak.

      The out-of-band OSNR is referenced to an optical bandwidth
      of 0.1nm @ 193.7 THz or 12.5 GHz";
    reference
      "OIF-400ZR-01.0: Implementation Agreement 400ZR";
  }
```

```
leaf tx-polarization-power-difference {
    type power-in-db;
    config false;
    description
      "The transmitter polarization dependent power difference
      defined as the power difference between X and Y
      polarizations";
    reference
      "OIF-400ZR-01.0: Implementation Agreement 400ZR";
  }
  leaf polarization-skew {
    type decimal64 {
      fraction-digits 2;
    }
    units "ps";
    config false;
    description
      "The X-Y skew, included as a fixed value in the receiver
      polarization mode dispersion (PMD) tolerance limits.";
    reference
      "OIF-400ZR-01.0: Implementation Agreement 400ZR";
  }
```

Changed frequency fraction digit, Added units for max-diff-group-delay, shortened max-polarization-dependent-loss-penalty list name

```
typedef frequency-thz {
   type decimal64 {
    fraction-digits 9; -> from 6 to 9 to have a granularity finer than 3.125
   }
   units THz;
   description
    "The DWDM frequency in THz, e.g., 193.112500000";
 }
 typedef frequency-ghz {
   type decimal64 {
    fraction-digits 6; -> from 3 to 6
   }
   units GHz;
   description
    "The DWDM frequency in GHz, e.g., 193112.500000";
 }
```

```
leaf max-diff-group-delay  {
    type uint32;
    units "ps";
    config false;
    description "Maximum Differential group delay of this mode
            for this lane";
  }
```

```
  +--ro max-pol-dependent-loss-penalty* []
     |     |           |  +--ro max-polarization-dependent-loss
     |     |           |  |      power-in-db-or-null
     |     |           |  +--ro penalty-value
     |     |           |         union
```

Open issues

- Tracking Open Issues, discussions and resolutions linked to YANG model https://github.com/ietf-ccamp-wg/ietf-ccamp-layer0-types-ext-RFC9093-bis/issues
- 5 issues closed since IETF-114
- Still 21 open issues
- https://github.com/ietf-ccamp-wg

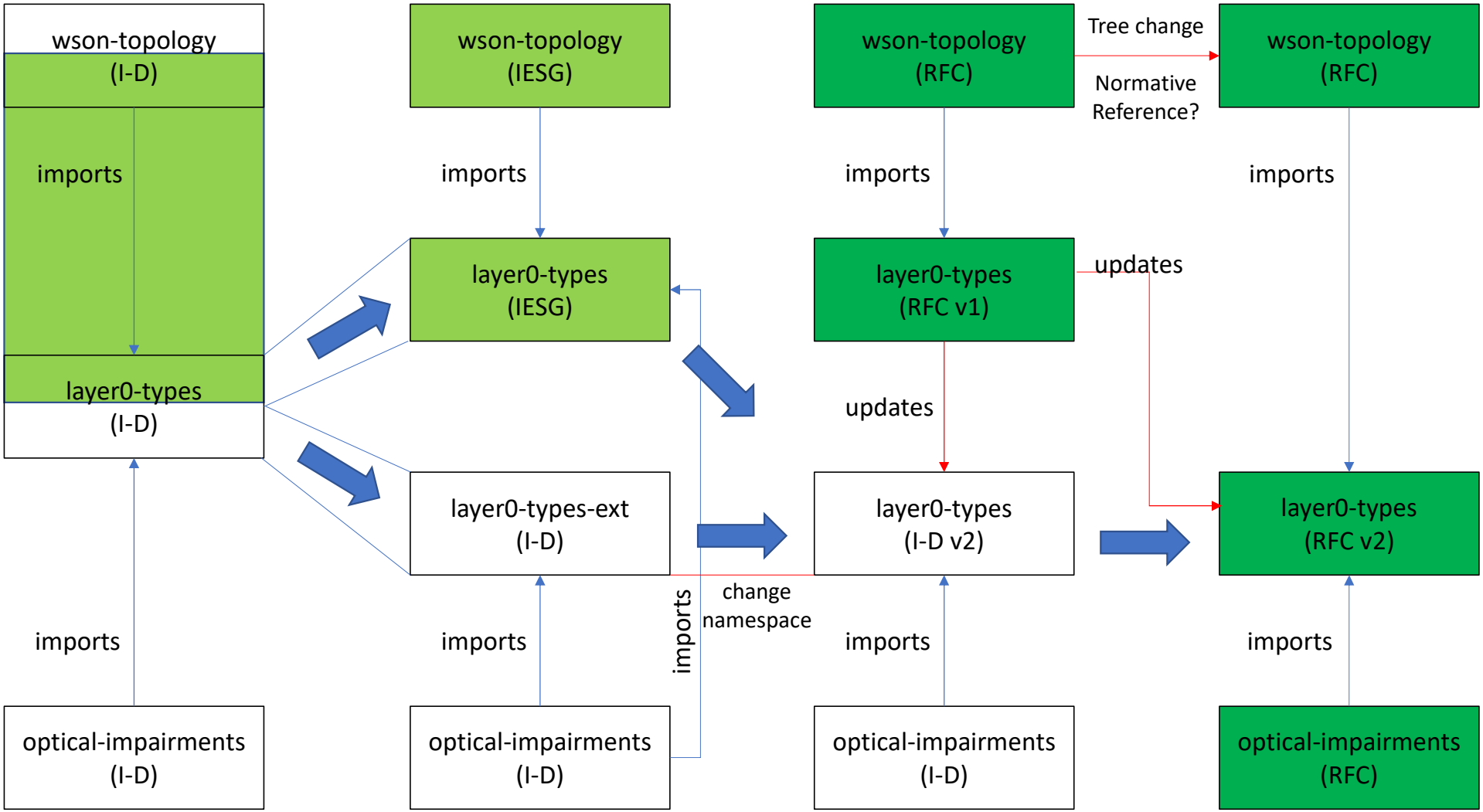
Administrative:

- We have weekly call associated with Optical Impairments aware Topology model on Tuesday 2pm CET

Next Steps

- Complete the Appendix A with the changes from RFC 9093 (issue #40)
- Fixing the remaining issues https://github.com/ietf-ccamp-wg/ietf-ccamp-layer0-types-ext/issues

backup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