YANG data model for Flexi-Grid Optical Networks

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draft-ietf-ccamp-flexigrid-yang-07

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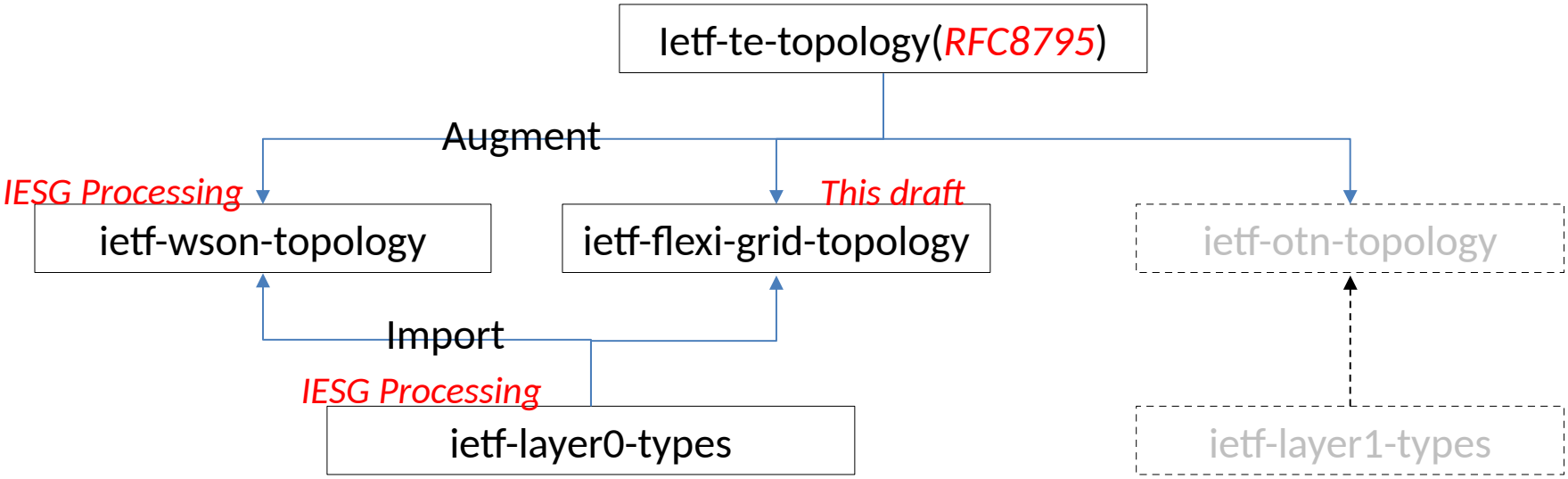
Model Relationship



- Background
  - The ietf-te-topology is published as RFC in August;
    - This model follows the approach that augmenting the ietf-te-topology;
  - The ietf-layer0-types and ietf-wson-topology are under IESG processing;
    - All the supporting models are now ready;

Summary of Changes (with -05);

- Draft Changes:
  - Addressed the following editorial comments on the list:
    - https://mailarchive.ietf.org/arch/msg/ccamp/4VqonlTD7eFVH60dtgrV0VxKZvQ/ from Haomian Zheng
    - https://mailarchive.ietf.org/arch/msg/ccamp/UVY4lcLZuVAvLCBBEOk5Gud-S8U/ from Adrian Farrel;
- YANG model Changes:
  - Harmonized with TE generic model:
    - Made the augmented path consistent with RFC8795;
  - Harmonized ietf-layer0-types:
    - Uses the groupings ‘flexi-grid-’ for label-hop, label-range-info and label-start-end;
  - Description text tweaked to be more explicit;

YANG Augmentations

Label Augmentation:

For label-restriction:

```
 +--rw grid-type?    identityref
 +--rw priority?     uint8
 +--rw flexi-grid
    +--rw slot-width-granularity?   identityref
    +--rw min-slot-width-factor?    uint16
    +--rw max-slot-width-factor?    uint16
```

For label-start/label-end:

```
+--:(flexi-grid)
   +--rw flexi-n?   l0-types:flexi-n
```

For label-hop:

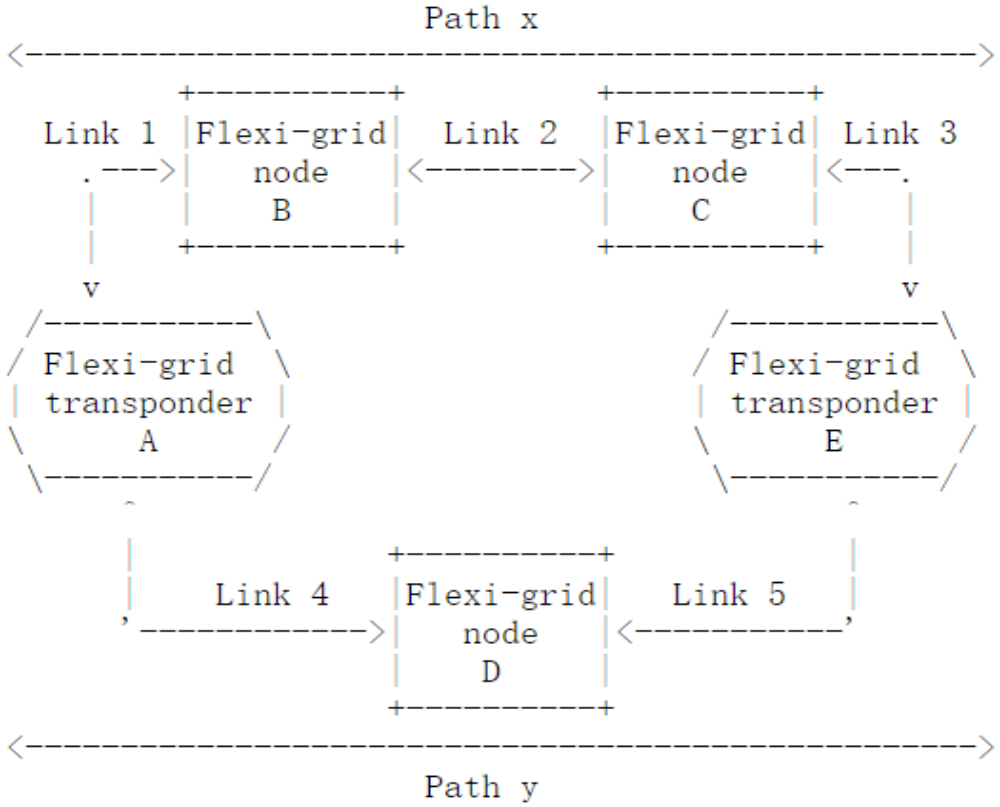
```
+--:(flexi-grid)
   +--rw (single-or-super-channel)?
      +--:(single)
      |  +--rw flexi-n?              l0-types:flexi-n
      |  +--rw flexi-m?              l0-types:flexi-m
      +--:(super)
         +--rw subcarrier-flexi-n* [flexi-n]
            +--rw flexi-n    l0-types:flexi-n
            +--rw flexi-m?   l0-types:flexi-m
```

For label-step:

```
+--:(flexi-grid)
   +--rw flexi-grid-channel-spacing?   identityref
   +--rw flexi-n-step?                 uint8
```

Open issues

- No open issues on the YANG model;
- Transponder is now separating with nodes:
  - Should be integrated as a part of node;
  - Already agreed to move this scenario to optical impairment.



Next Step

- This work should be in similar format with ietf-wson-topology;
- The module is stable, it is possible to join the cluster;
  - With ietf-layer0-types and ietf-wson-topology;
  - Propose to initiate the YANG doctor review;
- The draft text still needs more work;
  - Compliance with RFC8407;
  - Proposal to proceed without RBNF and impairment;

- WG Github at: https://github.com/ietf-ccamp-wg/draft-ietf-ccamp-flexigrid-yang

Next Step

- Need to re-activate the draft-ietf-ccamp-flexigrid-media-channel-yang;
  - After the generic TE tunnel is stable;

- WG Github: https://github.com/ietf-ccamp-wg/draft-ietf-ccamp-flexigrid-media-channel-yang

Thank you!