YANG data model for Flexi-Grid Optical Networks

draft-vergara-ccamp-flexigrid-media-channel-yang-01

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Motivation

- This YANG model is a tunnel model to Flexi-grid topology model that has been CCAMP WG document: https://tools.ietf.org/html/draft-ietf-ccamp-flexigrid-yang-00
- Based on the ideas RFC 7698: “Framework and Requirements for GMPLS-Based Control of Flexi-Grid Dense Wavelength Division Multiplexing (DWDM) Networks”.
- Augments TE-tunnel model.

Main changes from prior version

- Flexi-grid media-channels are now augmenting TE-Tunnel. Therefore, some attributes are not longer necessary, since TE-Tunnel model already contained them.
- Link-channel (list of the concatenated elements of the media-channel) is now re-using LSP from TE-Tunnel.
- NMDA Compliant!

Flexi-grid Tunnel Model

```
module: ietf-flexi-grid-media-channel
  augment /te:te/te:tunnels/te:tunnel:
    +--rw source-port?           fg-ted:flexi-grid-node-port-ref
    +--rw destination-port?      fg-ted:flexi-grid-node-port-ref
    +--rw effective-freq-slot
       +--rw N?   int32
       +--rw M?   int32
  augment /te:te/te:tunnels/te:tunnel/te:state:
    +--ro source-port?           fg-ted:flexi-grid-node-port-ref
    +--ro destination-port?      fg-ted:flexi-grid-node-port-ref
    +--ro effective-freq-slot
       +--ro N?   int32
       +--ro M?   int32
  augment /te:te/te:lsps-state/te:lsp:
    +--ro N?                  int32
    +--ro M?                  int32
    +--ro source-port?        fg-ted:flexi-grid-node-port-ref
    +--ro destination-port?   fg-ted:flexi-grid-node-port-ref
    +--ro link?               fg-ted:flexi-grid-link-ref
    +--ro bidirectional?      boolean
```

Future work

- Is this a good base to be adopted as WG document?

Thanks!
Any comments?