YANG data model for Flexi-Grid Optical Networks

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

Jorge E. López de Vergara (jorge.lopez_vergara@uam.es)
Daniel Perdigés (daniel.perdices@naudit.es)
Víctor López (victor.lopezalvarez@telefonica.com)
Óscar González de Dios (oscar.gonzalezdedios@telefonica.com)
Daniel King (d.king@lancaster.ac.uk)
Young Lee (leeyoung@huawei.com)
Gabriele Galimberti (ggalimbe@cisco.com)
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?