YANG data model for Flexi-Grid media-channels

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

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Updates Since the last version

- Created Github to manage all L0 models across WSON & Flexi-grid: [https://github.com/younglee-ietf/actn-wson-flexi-grid](https://github.com/younglee-ietf/actn-wson-flexi-grid)
- Introduced a new ietf-layer0-types module ([https://github.com/younglee-ietf/actn-wson-flexi-grid/blob/master/ietf-layer0-types%402018-10-22.yang](https://github.com/younglee-ietf/actn-wson-flexi-grid/blob/master/ietf-layer0-types%402018-10-22.yang)) to define groupings that are used to both WSON and Flex-grid modules, e.g.,
  - Node types,
  - Application code based on ITU-T G.698.2
  - Wavelength Assignment Policy.
  - Client types, etc.
- Complete augmentation of TE-tunnel model is now available; in particular, on all modules that require Flexi-grid specific labels and bandwidth.
IETF-FLEXI-GRID-MEDIA-CHANNEL-YANG Model


module: ietf-flex-grid-media-channel
augment /te:te/te:tunnels/te:tunnel:
  +--rw src-client-signal? identityref
  +--rw dst-client-signal? identityref
  +--rw fec-type? identityref
  +--rw termination-type? identityref
  +--rw bit-stuffing? boolean
augment /te:te/te:globals/te:named-path-constraints/
  te:named-path-constraint/te:te-bandwidth/te:technology:
    +--:(flex-grid)
    +--rw bandwidth-type? identityref
augment /te:te/te:tunnels/te:tunnel/te:te-bandwidth/te:technology:
  +--:(flex-grid)
  +--rw bandwidth-type? identityref
augment /te:te/te:tunnels/te:tunnel/te:p2p-primary-paths/
  te:p2p-primary-path/te:te-bandwidth/te:technology:
    +--:(flex-grid)
    +--rw bandwidth-type? identityref
augment /te:te/te:tunnels/te:tunnel/te:p2p-secondary-paths/
  te:p2p-secondary-path/te:te-bandwidth/te:technology:
    +--:(flex-grid)
    +--rw bandwidth-type? identityref
        +--rw (single-or-super-channel)?
          +--:(single)
            | +--rw central-frequency? frequency-thz
            | +--rw slot-width? frequency-ghz
          +--:(super)
            +--rw subcarrier-channels* [central-frequency]
              +--rw central-frequency frequency-thz
              +--rw slot-width? frequency-ghz
Current Status & Next Steps

- The draft depends on te-tunnel model stability, which should be soon attained.
- Other than the dependency of te-tunnel model, the model is ready for YANG doctor’s review and WG LC.
YANG data model for Flexi-Grid Optical Networks

draft-ietf-ccamp-flexigrid-yang-02

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  - Node types,
  - Application code based on ITU-T G.698.2,
  - Wavelength Assignment Policy.
  - Client types, etc.
- Complete augmentation of TE-topology model is now available; in particular, on all modules that require Flex-grid specific labels and bandwidth types and supported b/w list.
IETF-FLEX-GRID-TOPOLOGY Model

module: ietf-flex-grid-topology
  augment /nw:networks/nw:network/nw:network-types/tet:te-topology:
    +--rw flex-grid-topology!
  augment /nw:networks/nw:network/nt:link/tet:te/tet:te-link-attributes:
  augment /nw:networks/nw:network/nw:node/nt:termination-point/tet:te:
    +--rw supported-payload-types* [index]
      |  +--rw index    uint16
      |  +--rw payload-type? string
    +--rw client-facing? boolean
  augment /nw:networks/nw:network/nw:node/tet:te/tet:te-node-attributes:
    +--rw flex-grid-node
      +--rw node-type? identityref
  augment /nw:networks/nw:network/nw:node/tet:te/tet:tunnel-termination-point:
    +--rw supported-operational-modes* layer0-types:operational-mode
    +--rw configured-operational-modes? layer0-types:operational-mode
    +--rw supported-fec-types* identityref
    +--rw supported-termination-types* identityref
    +--rw supports-bit-stuffing? boolean
    +--rw is-tunable? boolean
    +--rw max-subcarrier-channel-num? uint8
    +--rw supports-flex-grid? boolean
    +--:(flex-grid)
      +--rw bandwidth-type? identityref
    +--:(flex-grid)
      +--rw supported-bandwidth-list* identityref
Current Status & Next Steps

- The draft is stable and ready for YANG doctor’s review and WG LC.
Thank You!