A NRP YANG Module

draft-wd-teas-nrp-yang

TEAS WG

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NRP modelling requirements

- **NRP components:**
  - Topology: nodes and links
  - Resource reservation: e.g. bandwidth
  - NRP aware routing and forwarding
    - Control plane:
      - **NRP aware routing** (e.g. for A2A connectivity-construct)
      - NRP aware TE path computation (e.g. for P2P connectivity-construct)
    - Data plane
      - NRP identifier encapsulation
  - This model focuses on supporting A2A mapping.
NRP Model Updates Summary

- NRP Instantiation
  - **NRP control plane** - NRP aware routing
    - Flexalgo, MT
    - A new flag to mark topology cannot be modified because the NRP routing need to be consistent with the NRP topology

- NRP monitoring
  - NRP aware topology
    - In addition to the per-NRP abstract topology status, the **NRP link resources status on the underlay topology** is also shown
NRP Merge Discussion Status

• First Step: NRP Instantiation
  • Two NRP Topology options
    • NRP YANG: In instantiation, selecting nodes and links from the underlay topology
    • NRP policy: Referencing an existing topology filter
  • Bandwidth Resource Reservation
  • Resource partition type: FlexE, QoS profile (name as PHB in NRP policy), etc.
• Control Plane
  • NRP YANG: NRP aware routing (for scalable A2A connectivity)
  • NRP policy: TE path computation: RSVP-TE, SR (for P2P connectivity-construct)
• Data Plane
  • NRP YANG: resource-identifier
  • NRP policy: flow-agg-selector

• NRP monitoring
• NRP device model
Next Step

- To merge by next IETF
- Solicit comments and reviews from WG