Transport NBI Design Team Update

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IETF 100
Transport NBI DT

• Design Team’s Goals and Deliverables:
  – Develop use cases and gap analysis
    • Identify a set of technologies use cases and providing a gap analysis against existing models
  – Identify missing models or capability
  – Coordinate requirements with appropriate WGs
    • Including TEAS, RTGWG and CCAMP itself
  – Providing guidelines in terms of how all the related models can be used in a step-wise manner
    • Using a couple of well identified transport network use cases

• Working methods
  – Mailing lists
  – Weekly conference calls on Wednesday at 3:00pm CET
  – GitHub: https://github.com/danielkinguk/transport-nbi
Structure of the DT work on Use Cases

- Applicability Statement and Use Cases
  - Describes the key use cases and requirements

- Use applicability statements for two specific deployments
  - Analyzing how existing IETF data models can be used for the specific deployments
    1) Single-domain with a Single-layer
    2) Multi-domain with a Single-layer
Applicability Statement and Use Cases I-D

• Transport Northbound Interface Applicability Statement and Use Cases

• Changes since last version draft-ietf v00
  – Minor clarification of document intention

• Open Issues
  – No major issues, but we do need to clean up the language for the intention of the analysis I-Ds. These will be applicability statements (implementation guidelines)

• Next Steps
  – Need to polish text and continue to work on specific applicability statements I-Ds
  – Seek for comments from beyond the T-NBI DT, specifically the CCAMP WG!
Analysis I-D of Use Case 1

• Analysis I-D for Use Case 1 (Single-domain with a Single-layer) published:

• Changes since last version
  – Initial analysis for EPL, EVPL and other OTN client services setup

• Open Issues
  – Model for EPL, EVPL and other OTN client services
  – Usage of I2RS Topology attributes
  – Integration of updated JSON code examples within the draft

• Next Steps
  – Resolve open issues
  – Complete the document (e.g., analysis of other services and protection scenarios)
Analysis I-D of Use Case 3

• Analysis I-D for Use Case 3 (Multi-domain with a Single-layer) published:

• Initial Version

• Open Issues
  – Completing the analysis of the different options for inter-domain link stitching

• Next Steps
  – Resolve open issues
  – Complete the document (e.g., analysis of different services and protection scenarios)
Inter-domain link stitching

• Different options being analyzed
  – Use of plug-id (analyzed in the UC1 analysis I-D)
    • Can be assigned by a central authority or by automatic discovery mechanisms (e.g., LMP based)
    • Allows co-existence of central authority assignment and automatic discovery
    • Allows co-existence of different automatic discovery mechanisms
    • The plug-id definition has been updated in TE Topology, based on DT feedbacks
  – Configure the association between the inter-domain link identifiers (still to be analyzed)
    • Can be configured in the MDSC or, as described in the TE Topology I-D, in the adjacent PNCs

• Pending questions
  – Are there any concerns with using the plug-id?
  – Do we need to evaluate other options?
  – How can we achieve interoperability when different options are implemented?
EPL, EVPL and other client services

• Pending questions
  – Where (which topology) the Ethernet and OTN client (e.g., STM-N, FC, ...) access links are reported?
  – How to configure the relationship between the access link and the ODU TE Tunnel?
  – How to configure VLAN classification for EVPL?

• Possible solutions under analysis by the DT
  – OpenConfig
  – New drafts submitted to CCAMP WG (work triggered by DT discussions):