Transport NBI Design Team Update

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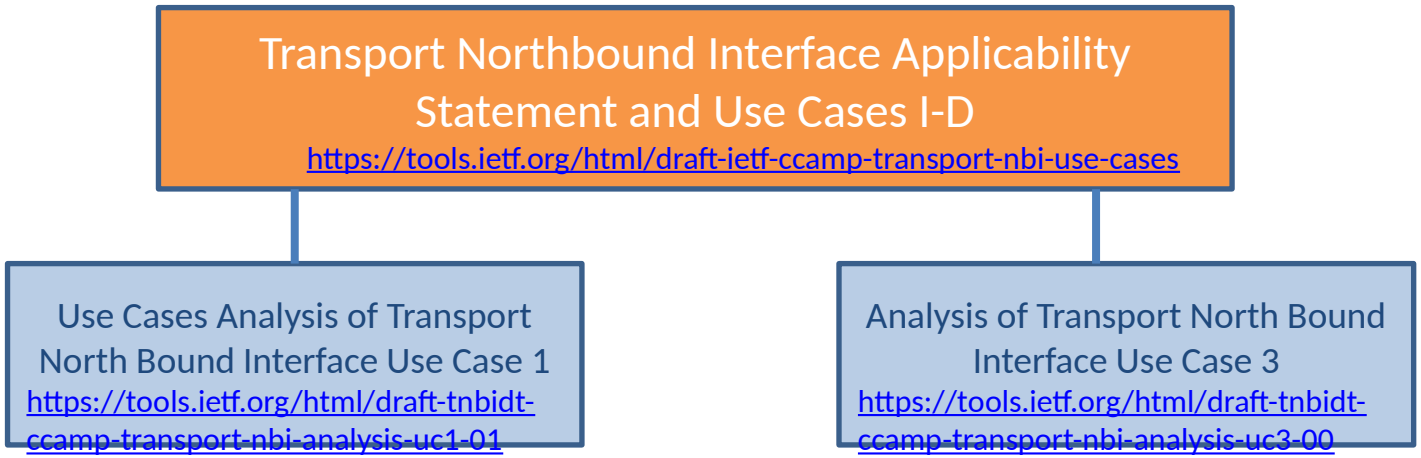
IETF 100

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
  - https://tools.ietf.org/html/draft-ietf-ccamp-transport-nbi-use-cases-01
- 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:
  - https://tools.ietf.org/html/draft-tnbidt-ccamp-transport-nbi-analysis-uc1-01
- 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:
  - https://tools.ietf.org/html/draft-tnbidt-ccamp-transport-nbi-analysis-uc3-00
- 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):
    - https://tools.ietf.org/html/draft-zheng-ccamp-otn-client-signal-yang-01
    - https://tools.ietf.org/html/draft-zheng-ccamp-client-topo-yang-01
    - https://tools.ietf.org/html/draft-zheng-ccamp-client-tunnel-yang-01