Transport NBI Design Team Update

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IETF 104 (Prague)
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 & Conference calls
  – GitHub: https://github.com/danielkinguk/transport-nbi
Applicability Statement Updates

• Major updates since IETF 103
  – Agreed definition of “Domain”
  – Further describes the control of access links which support different technology configuration (e.g., STM-64, 10GE or OTU2) depending on the type of service
  – Completed Ethernet service and topology description
  – Updated “Protection and Restoration Configuration” section
  – Improved overall readability
  – draft-ietf-ccamp-transport-nbi-app-statement-05
Control Hierarchy

CMI

MDSC

MPI1

MPI2

MPI3

PNC1

Network Domain 1

PNC2

Network Domain 2

PNC3

Network domain 3

Scope of the draft
TE Tunnel Setup

MDSC Internal Topology (OTN&ETH)

PNC 1 black topology (OTN&ETH)

PNC 2 black topology (OTN&ETH)

PNC 3 white topology (OTN&ETH)

PNC 3 white topology (OTN)

AN1

AN2

S31

S32

S33

S34

AN1

AN2

PNC 1 black topology (OTN)

PNC 3 white topology (OTN)

PNC 2 black topology (OTN)
Transparent Client Setup (STM-64 PL)

MDSC Internal Topology (OTN&ETH)

PNC1 black topology (OTN&ETH)

PNC 2 black topology (OTN&ETH)

PNC 3 white topology (OTN&ETH)

STM-64

AN1

AN2

S31

S32

S33

S34
ETH Client Setup (EPL/EVPL)

MDSC Internal Topology (OTN&ETH)

PNC1 black topology (OTN&ETH)

PNC2 black topology (OTN&ETH)

PNC3 white topology (OTN&ETH)

ETH Client Setup (EPL/EVPL)

MDSC Internal Topology (OTN&ETH)

PNC1 black topology (OTN)

PNC2 black topology (OTN)

PNC3 white topology (OTN)

EPL: port-classification
EVPL: vlan-classification

ETH
Applicability Statement Updates

• JSON code folded using the method described in: https://tools.ietf.org/html/draft-ietf-netmod-artwork-folding
  – Appendix A. Validating a JSON fragment against a YANG Model
    • A.1 Manipulation of JSON fragments
    • A.2 Comments in JSON fragments
    • A.3 Validation of JSON fragments: DSDL-based approach
    • A.4 Validation of JSON fragments: why not using a XSD-based approach
  – Appendix B. Detailed JSON Examples
    • B.1 JSON Examples for Topology Abstraction
      • B.1.1 JSON Code: mpi1-otn-topology.json
    • B.2 JSON Examples for Service Configuration
      • B.2.1 JSON Code: mpi1-odu2-service-config.json
      • B.2.2 JSON Code: mpi1-odu2-tunnel-config.json
      • B.2.3 JSON Code: mpi1-epl-service-config.json
Next Steps

• Document has a number of enhancements queued
  – https://github.com/danielkinguk/transport-nbi/issues
  – Editors, authors and contributors need to agree which are useful, nice to have, unnecessary

• Face-to-face DT meeting planned during IETF 104
  – Review open issues and enhancements
  – Wednesday 13:30-15:00 (Karlin 1/2)

• Submit for Last Call in June