Framework and Data Model for OTN Network Slicing

draft-ietf-ccamp-yang-otn-slicing-04

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Major Updates Since IETF 115

- Separated the data model for network slice topology from the OTN slicing model
  - To reflect the WG consensus from IETF-115 that the topology construct is technology-agnostic and applies to any network slice
  - The technology-agnostic network slice topology model was proposed in draft-liu-teas-transport-network-slice-yang

- OTN slicing augments the network slice topology model with additional OTN technology-specific SLO/SLE arguments

- Attributes adjustment
  - Removed some SLO/SLE attributes, e.g. periodicity, that are inherited from 5G and are not applicable to OTN slicing
  - Moved explicit path references under the steering-constraints in the Network Slice Service model

- Text description was updated accordingly
Updated Model Relationships

OLD

ietf-otn-slice
  \(\text{augments}\)
  \text{ietf-transport-network-slice (w/ topology)}
  \(\text{augments}\)
  \text{ietf-network-slice-service}

NEW

ietf-otn-slice
  \(\text{augments}\)
  \text{ietf-transport-network-slice (w/o topology)}
  \(\text{augments}\)
  \text{ietf-network-slice-service}

\text{draft-ietf-teas-network-slice-nbi}

This draft

\text{This draft}

\text{draft-ietf-teas-network-slice-nbi}
Open Issue - Model Dependencies between WG & non-WG drafts

- ietf-otn-slice (WG adopted) depends on ietf-network-slice-topology which is still in I.D. state
  - Option 1: TEAS WG to adopt ietf-network-slice-topology
  - Option 2: create new I.D. for OTN augments for ietf-network-slice-topology
  - Option 3: progress ietf-otn-slice in phases: phase 1 for connectivity only and phase 2 for connectivity + topology
Open Issue – Can we merge ietf-transport-network-slice with ietf-network-slice-service?

- ietf-transport-network-slice contains generic SLO/SLEs that may be applicable to generic network slicing as well. The ietf-transport-network-slice can be eliminated entirely if it is agreed to merge
  
  
  .../ietf-nss:steering-constraints:
  +--rw disjointness? te-types:te-path-disjointness

  .../ietf-nss:custom/ietf-nss:service-slo-sle-policy:
  +--rw optimization-criterion? Identityref
  +--rw resize-requirement? identityref
  +--rw service-info? string

  .../ietf-nss:steering-constraints/ietf-nss:path-constraints:
  +--rw explicit-path* [tp-id]
    +--rw tp-id -> /nw:networks/network/node/nt:termination-point/tp-id
Next Steps

- Address open issues
- Continue working with draft-ietf-teas-ietf-network-slice-nbi-yang to align the two models
- Add a few examples for various types of OTN slices which combines the use of network-slice-nbi and otn-slice

* GitHub Repo

* CCAMP Weekly Call: Thu 10-11am EST
  https://mailarchive.ietf.org/arch/msg/ccamp/Dr3HWPlmP9LyA6NmabWJvx7hW1c/
Thank You!