

IETF Network Slice Service YANG Model

[draft-ietf-teas-ietf-network-slice-nbi-yang](#)

TEAS WG

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Summary of issues addressed since IETF119

Rev-10 summary

1. **Med's comments:** Thanks for the thorough review of the entire document, Some major issues:
 - Referring to published **RFC 9543 Network Slice framework**;
 - YANG improvements
 - Add "ac-svc-name" and improve the description to avoid "attachment-circuits" confusion when both definition are available (ac-svc-name takes precedence)
 - Per COS is added to all qos-policies (i.e., incoming and outgoing)
 - Use Gauge64 in definition of "connectivity-construct-monitoring" and "incoming/outgoing-bw-value"
 - Using the grouping of RFC 9179 Geo-Location
 - Added new example for monitoring of an IETF Network Slice Service between multiple SDPs.
2. **YANG SLE "path-constraints" definition improvement:** Based on comments from draft-liu-teas-transport-network-slice-yang authors
 - Define additional "path-constraints" attributes, "diversity" and underlay path.

<https://github.com/lana-wu/ietf-ns-nbi/issues>

Issue#1 NS monitoring attributes (changed to Gauge64)

- **Issue:** Current NBI YANG model reuses `te-packet-types:one-way-performance-metrics-packet` / `two-way-performance-metrics-packet`. The grouping is for TE protocol configuration purpose.
- **Proposal:** Define NSS specific monitoring metrics, with **read only** capability and gauge value.

Gauge
value




		+++ro connectivity-construct-monitoring	
		+++ro one-way-min-delay?	yang:gauge64
		+++ro one-way-max-delay?	yang:gauge64
		+++ro one-way-delay-variation?	yang:gauge64
		+++ro one-way-packet-loss?	percentage
		+++ro two-way-min-delay?	yang:gauge64
		+++ro two-way-max-delay?	yang:gauge64
		+++ro two-way-delay-variation?	yang:gauge64
		+++ro two-way-packet-loss?	percentage
		+++ro connection-group-monitoring	
		+++ro one-way-min-delay?	yang:gauge64
		+++ro one-way-max-delay?	yang:gauge64
		+++ro one-way-delay-variation?	yang:gauge64
		+++ro one-way-packet-loss?	percentage
		+++ro two-way-min-delay?	yang:gauge64
		+++ro two-way-max-delay?	yang:gauge64
		+++ro two-way-delay-variation?	yang:gauge64
		+++ro two-way-packet-loss?	percentage

Issue#2 Custom topology definition - topology

- **Current model:** Current YANG NBI has reference to “custom-topology”
 - Allows operator to define the “Connectivity-construct” with more details
- **Issue:** Referring to multiple “topology” is desirable. YANG NBI should support various topology type
- **Proposal:** Change the topology to container to
 - Support multiple “customer-topology”
 - Any topology can be referenced

```
|         +--ro two-way-delay-variation?    uint32
|         +--ro two-way-packet-loss?       decimal64
+--rw custom-topology
    +--rw network-ref?
        -> /nw:networks/network/network-id
```



Issue#3 Addressing “diversity” attribute

- **Issue:** How to address “diversity” attribute mentioned in RF 9543:
- **Solution:** Current YANG NBI has a SLE container “path-constraints”
 - The “diversity” is added to this attribute

```
+--rw sle-policy
  +--rw security*           identityref
  +--rw isolation*         identityref
  +--rw max-occupancy-level? uint8
  +--rw path-constraints
    +--rw service-functions
    +--rw diversity
      +--rw diversity-type? ←
        te-types:te-path-disjointness
```

Next Step

- Asking for WGLC

Thank You !