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 IETF116

Resolved comments from Mohamed Boucadair, Ryan Hoffman, Italo Busi, Sergio Belotti, and Ladislav Lhotkas's (**YANG doctor early review)**

Issues status

- Open issues, 1 open issues, 31 closed:
  - https://github.com/lana-wu/ietf-ns-nbi/issues

Summary of issues addressed since IETF116

Rev-04 summary:

1. Perform **IETF Network Slice feasibility checks** before instantiation it
   - Using the NS is configured in 'compute-only' mode to distinguish it from the default behavior (see Section 5.2.6)
2. Add **operational Status** to **AC** and connectivity construct (**CC**)
3. Add SLO **percentile-value**
4. IETF Network Slice Service Custom Topology
   - INS customer might ask for some level of control to customize the service paths in a network slice
   - The reference to **network topology** (RFC 8345) is added
   - Therefore, both TE topology constraints and **routing constraints** can also be applied
5. Remove "**opaque**" attributes from "protocol-tag" and "service-tags" for better **YANG validation**
6. Editorial and YANG improvements per the comments
7. Move the **YANG tree** to the appendix

SDP Attachment Circuit (AC)

(Raised by Med (Mohamed Boucadair))

Issues:

- How attachment circuit (AC) used in NBI YANG can be generalized and be aligned with AC IETF Yang models?
- Proposal-1: Suggested to use the **AC Service model ("ac-svc-name")** mentioned above
- Proposal-2: Suggested to reuse by augmenting L2/L3 connection from LxNM "vpn-network-access" or draft-boro-opsawg-teas-common-ac
- See YANG service data model for Attachment Circuits (ACs) draft
  - draft-boro-opsawg-teas-attachment-circuit ← Attachment Circuits (ACs) **Service** YANG module
  - draft-boro-opsawg-ntw-attachment-circuit ← Attachment Circuits (ACs) **Network** YANG module
  - draft-boro-opsawg-teas-common-ac ← Attachment Circuits (ACs) **common type** YANG module

Proposal:

All suggestions are acceptable which allows flexibility in NSI NBI Yang model (note that AC is technology specific and there are many different deployment methods)

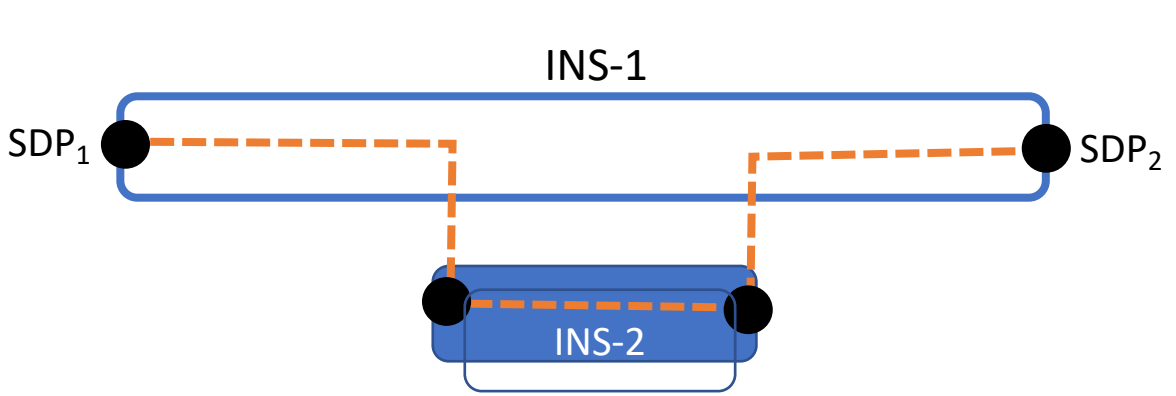
a. Use the AC defined in IETF NBI Yang

b. OR for pre-existing ACs, a new node, "ac-svc-name" (Proposal-1) is added to NBI YANG to reference them (to both SDP and attachment-circuit)

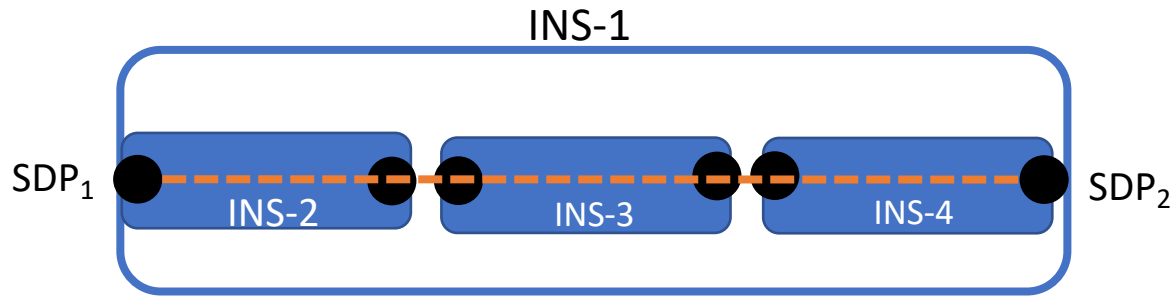
c. OR for augmentation example, in Appendix A. Attachment Circuit Augmentation Considerations, reuses grouping structures defined in the Proposal-2

NBI Yang Model for Hierarchical & Horizontal Realization of Network Slices

- IETF Network Slice Service INS-1 between SDP1 & SDP2
- NSC can realize the INS-1 using Hierarchical & Horizontal (See INS Framework draft)
- **NBI Yang model supports both**
- For example, for Hierarchical
  - Use NBI Yang to create INS-2
  - Then use NBI Yang to create INS-1
  - During the realization of INS-2, NSC might use INS-2.
  - i.e., It is up to NSC to use INS-2 or not



Hierarchical Realization of Network Slices



Horizontal Realization of Network Slices

Next step

- Request further review and address comments
- Asking for WGLC

Thank You!