IETF Network Slice Intent

<draft-contreras-nmrg-transport-slice-intent-05>

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Target: to leverage on IBN technologies to request IETF Network Slices

Use case:
- Upper systems processing end-to-end network slices will elicit requirements for setting up IETF Network Slices
  - E.g., 3GPP Management System processing SLOs from slice templates to connect radio access and core slice parts for 5G services
- IETF Network Slices will be requested as intents to IETF Network Slice Controller

Benefits:
- Portability of the solution across implementations and networks
- Simple way of expressing transport slice needs by e.g. vertical customers
- Focus on what, not on how

This work complements TEAS work by offering an intent-based approach for slice request through transport slice controller NBI interface
IETF Network Slice Intent lifecycle
- Fulfillment phase

Slice Customer
- Customized Slice Templates
- Service SLOs as understood by slice customer

Slice Provider
- Identification of IETF network slice endpoints and connectivity pattern
- Derivation of network SLOs and SLEs from high-level Customer Service SLOs
- Slice request to IETF NSC by using slice NBI YANG model
Moving forward the draft ideas

• Define the structure of the IETF Network Slice intent template
  • Adaptation to IETF Network Slice NBI YANG model can be complemented with additional information that could be required for slicing
    • E.g., consider the initial slicing phases defined in 3GPP (preparation / instantiation, configuration and activation / run-time / decomisisioning)

• Elaborate on translation approaches and interaction with the upper systems

• Complete the lifecycle with the assurance part (need of identification of protocols / APIs)

• Feedback is more than welcomed!!