IETF Network Slice Controller and its associated data models

draft-contreras-teas-slice-controller-models-05

Luis M. Contreras *(Telefonica)*, R. Rokui *(Ciena)*, J. Tantsura *(Microsoft)*, B. Wu *(Huawei)*, X. Liu *(IBM)*, D. Dhody *(Huawei)*, S. Belotti *(Nokia)*

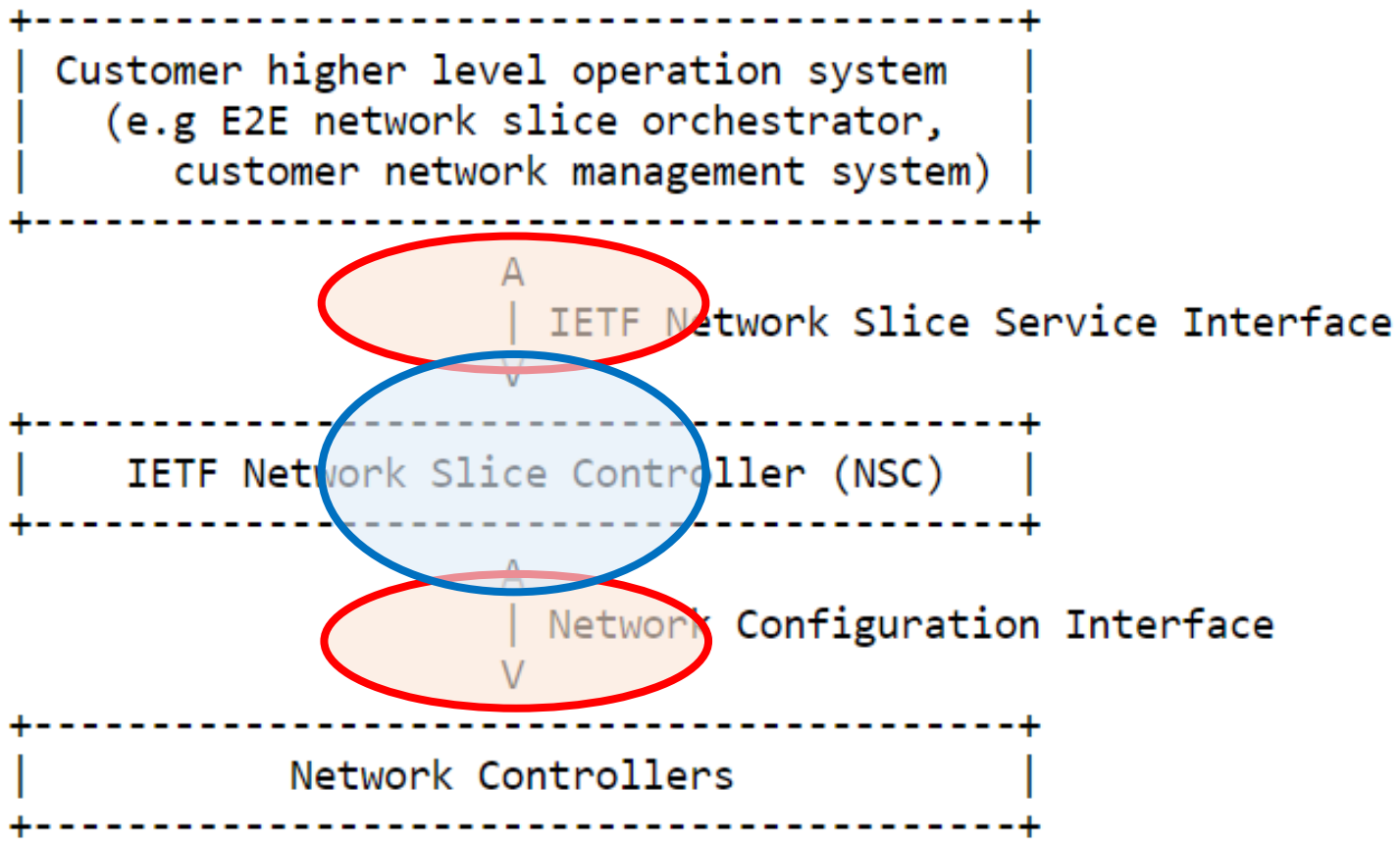
Context

[I-D. barguil-teas-network-slices-instantation]
Scope:

- How NBI Slice YANG model relates to LxSM and LxNM models

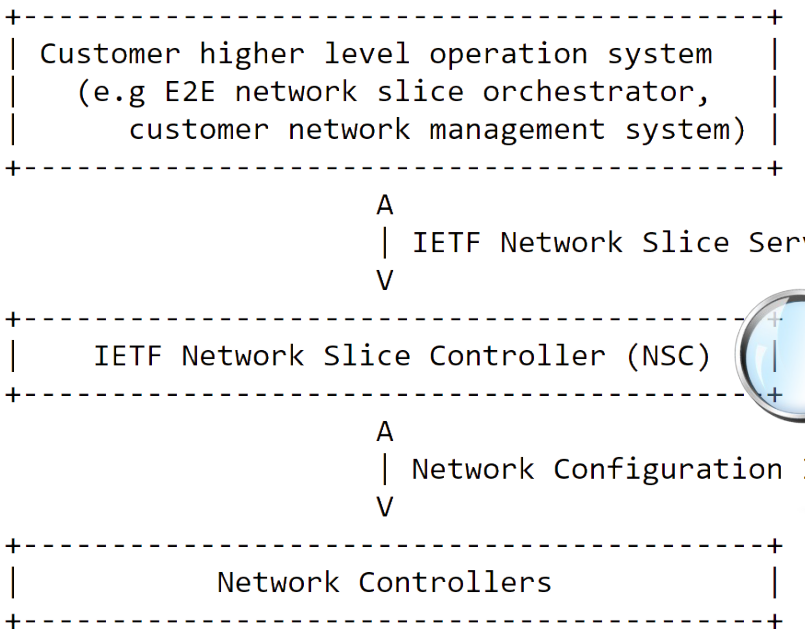
[I-D. contreras-teas-slice-controller-models]
Scope:

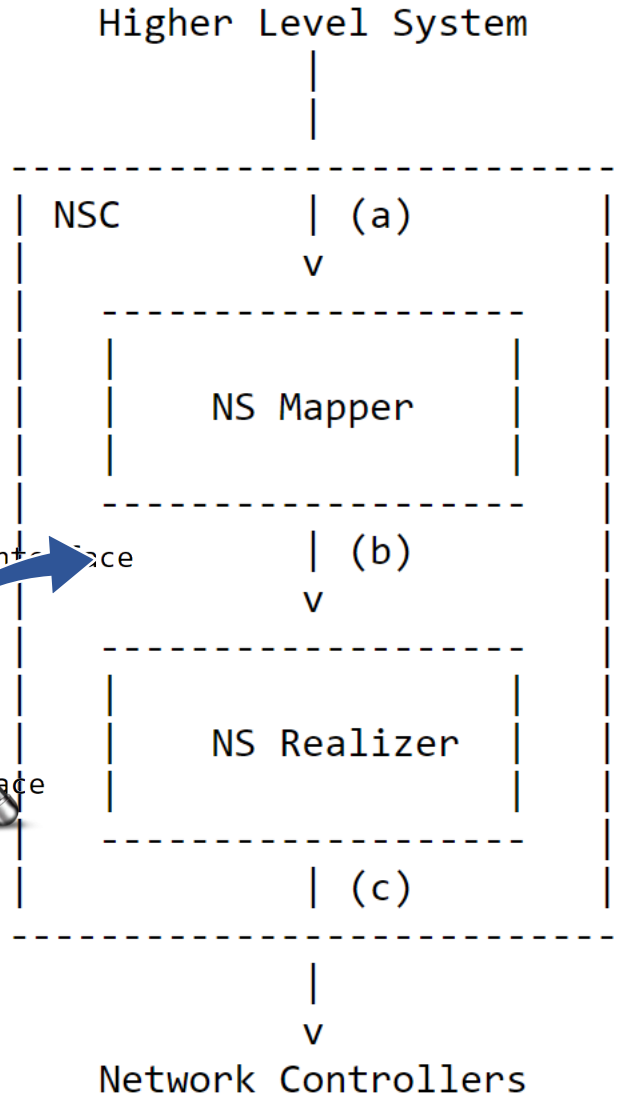
- How the different slicing models relate each other



Refresh on the draft proposal

From [I-D.ietf-teas-ietf-network-slice-definition]





Goal: identify major NSC components and how associated data models that apply

Structure

- **Mapper** - processes the customer request, putting it into the context of the overall IETF Network Slices in the network
- **Realizer** - processes the complete view of all the slices in the network, decides the proper technologies for realizing the IETF Network Slice and triggers its realization

Models

- **(a)** -> customer's view, e.g. [I-D.ietf-teas-ietf-network-slice-nbi-yang]
- **(b)** -> provider's view, including more detailed but yet technology-agnostic resource view as e.g. [I-D.liu-teas-transport-network-slice-yang], and/or alternative technology-specific augmentations as e.g. [I-D.ietf-ccamp-yang-otn-slicing], or for IP/MPLS NRP [I-D.wd-teas-nrp-yang]
- **(c)** -> models per network controller, out of scope. An example of applicability of existing models is in [I-D.barguil-teas-network-slices-instantation]

Updates from -04 (presented in IETF 115)

- Added text to address Joel's comment to remark that "it is not the purpose of this document to standardizing or constraining the implementation the IETF Network Slice Controller"
- Added reference to [I-D.wd-teas-nrp-yang] as technology-specific augmentation that could be used between Mapper and Realizer
- Added comment wrt to [I-D.liu-teas-transport-network-slice-yang] as enabler for supporting customization of service paths in an IETF network slice and more efficient way of expressing resource needs in some scenarios.

To Do

- Clarify the usage of topology in both [I-D.ietf-teas-ietf-network-slice-nbi-yang] and [I-D.liu-teas-transport-network-slice-yang] and how that impacts on the usage of the models in this document
  - [I-D.liu-teas-transport-network-slice-yang] in its latest version provides a topology view of slice request, that is, a topology-intent service from the customer (not related to realization)
  - [I-D.ietf-teas-ietf-network-slice-nbi-yang] considers functionality enabled by topological information
- Side meeting on Tuesday 28th
- Discussion on-going

Next steps

- Collect new feedback / comments from the WG

- Request call for adoption and prepare a new version for IETF#117
  - This draft put in context the usage of other drafts around IETF Network Slice service and the role of the IETF Network Slice Controller, being a useful guide