



I E T F[®]

Connecting 3GPP slices through IETF Network Slice services

draft-contreras-teas-3gpp-ietf-slice-mapping-00

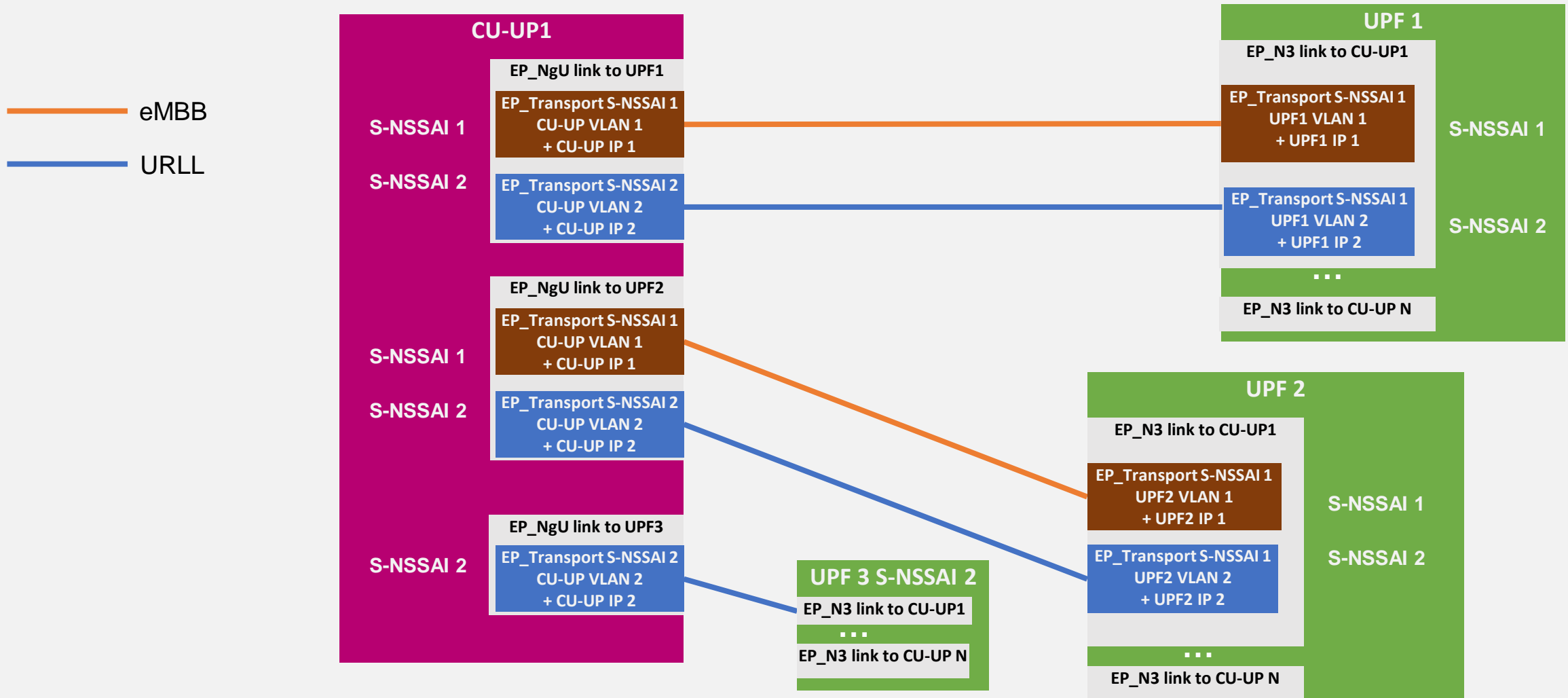
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Motivation

- 3GPP defines slicing for 5G through a number of logical constructs with the intent of being served with specific characteristics, determined by different QoS profiles
- IETF intends to serve different Network Slice services, including 5G services developing means for requesting and monitoring slices using IETF technologies
- There is however no document describing the details on how 3GPP and IETF can interwork for the purpose of honoring 5G slice requests
- This document aims to describe such way of interworking

3GPP Network Slicing in Rel.16



EP_Transport construct and combination of the parameters for IETF Network Slice definition

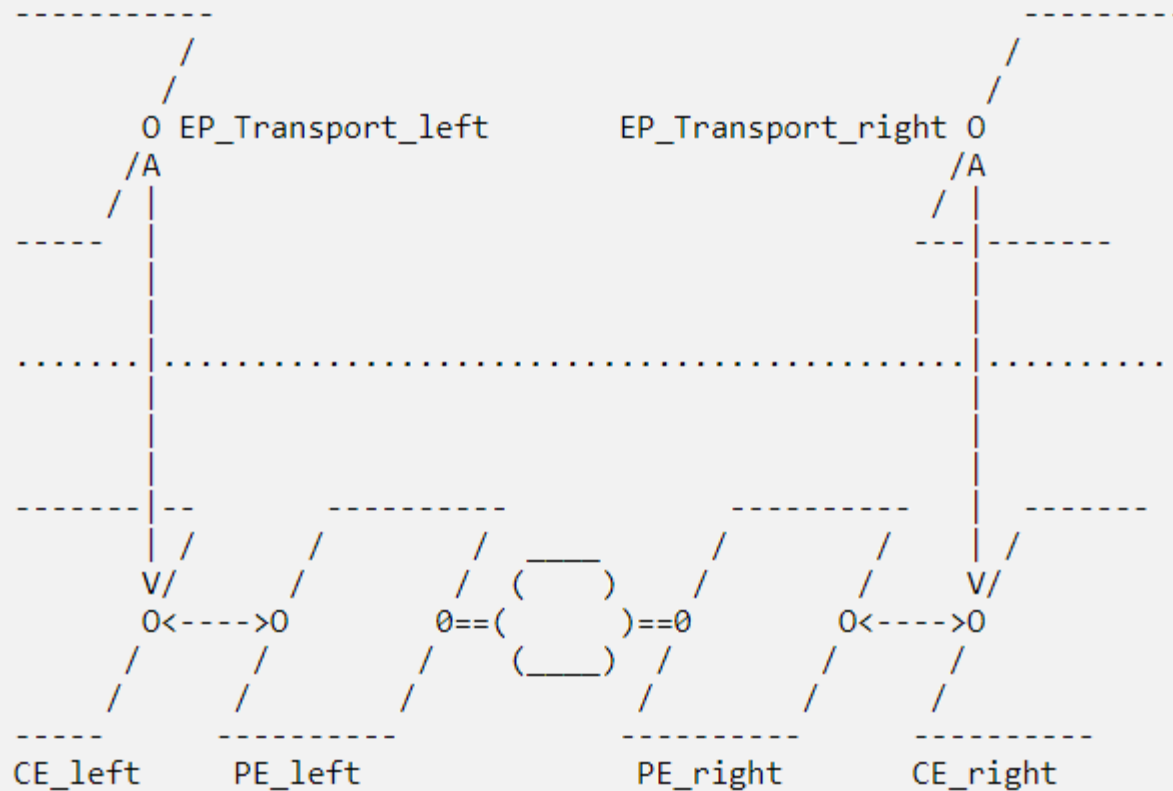
EP Transport

- `ipAddress` (mandatory), i.e. IPv4 or IPv6
- `logicInterfaceInfo` (mandatory), incl. `logicInterfaceType` and `logicInterfaceId`
- `nextHopInfo` (optional), referring to the ingress transport node
- `qosProfile` (optional), provisioned on logical transport interface
- `epApplicationRef` (mandatory), as list of application endpoints associated with the logical transport interface. e.g. NgU (N3), F1_U interfaces

EP_Transport attribute name			
<code>ipAddress</code>	<code>logicInterfaceId</code>	<code>nextHopInfo</code>	<code>qosProfile</code>
	Different per slice		Same for all slices
Same for all slices		Different per slice	Same for all slices
Different per slice	Same for all slices	Different per slice	Same for all slices
	Same for all slices	Different per slice	Same for all slices
		Different per slice	
Same for all slices		Different per slice	

Mapping of 3GPP slice and IETF network slice endpoints

3GPP concern



IETF concern

It is necessary to solve two kind of mappings

- Mapping of EP_Transport (3GPP concern) to the endpoint at the CE side of the IETF network slice (IETF concern)
 - Not clear if EP_Transport information could be sufficient for doing that in the case of virtualized component in 3GPP
- Mapping between CE and PE endpoints (i.e. IETF NS service customer and provider views)
 - Should be aligned with progress in framework /NBI documents

Discussion

- 3GPP is characterizes slice endpoints (i.e., EP_Transport) based on Layer 3 information (e.g., the IP Address)
 - Some other information could be needed (e.g. mask, MTU, connectivity type, etc)
- For purpose-specific network elements running the 3GPP entity, IP address could be sufficient, but probably not in case of virtualization of such entity
- Other information on additional objects as defined in 3GPP can complement the information necessary for triggering the slice request in TN

Next steps

- Fix editorial typos
- Collect feedback / comments from the WG to enhance the document
- Collect feedback / comments to improve 3GPP IM/DM to better align with IETF IM/DM
- Prepare a new (more detailed version) for IETF 114
 - Work on some example to complement the discussion