

Extension of Transport Network Aware Mobility in the Data Network

draft-mcd-rtgwg-extension-tn-aware-mobility-06

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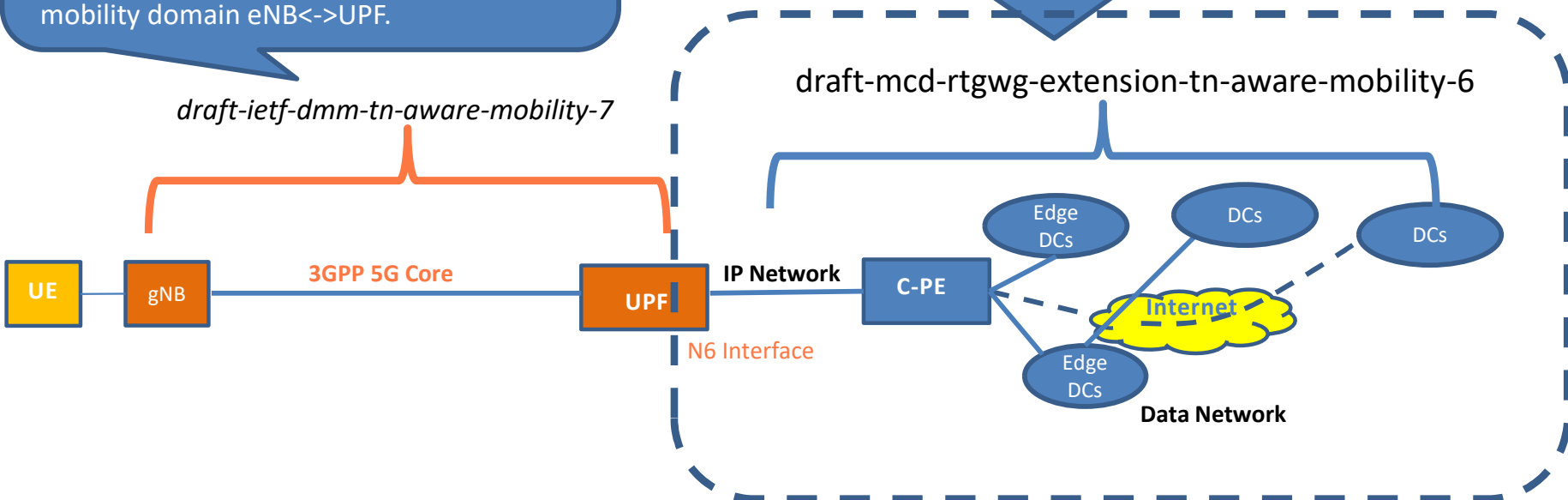
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Background

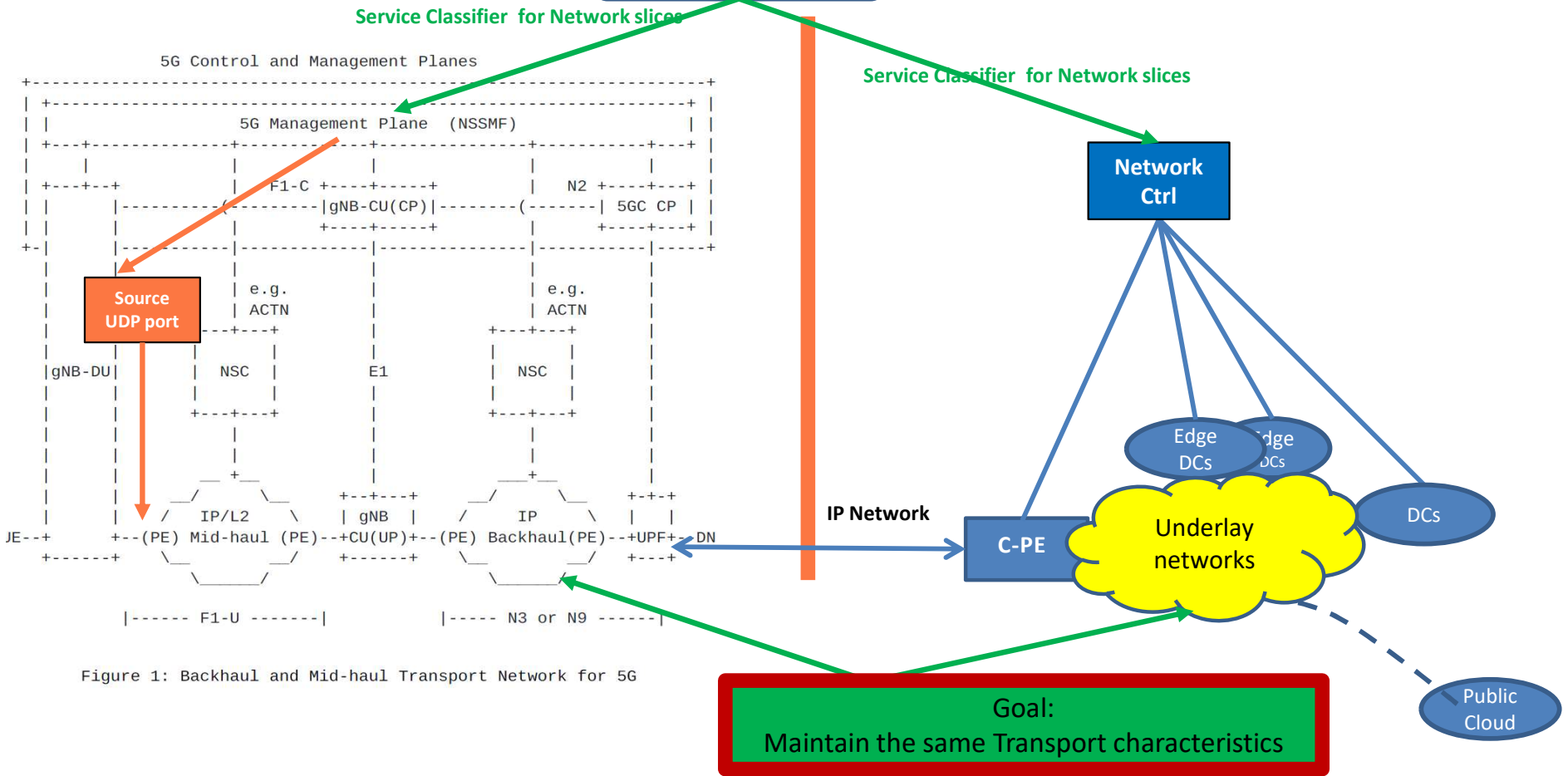
The existing Transport Network Aware Mobility for 5G defines a framework for mapping the 5G mobile systems Slice and Service Types (SSTs) to corresponding underlying network paths. The focus of that work is limited to the mobility domain eNB<->UPF.

To maintain E2E transport network characteristics the framework needs to be extended:
UPF<->Service instances.



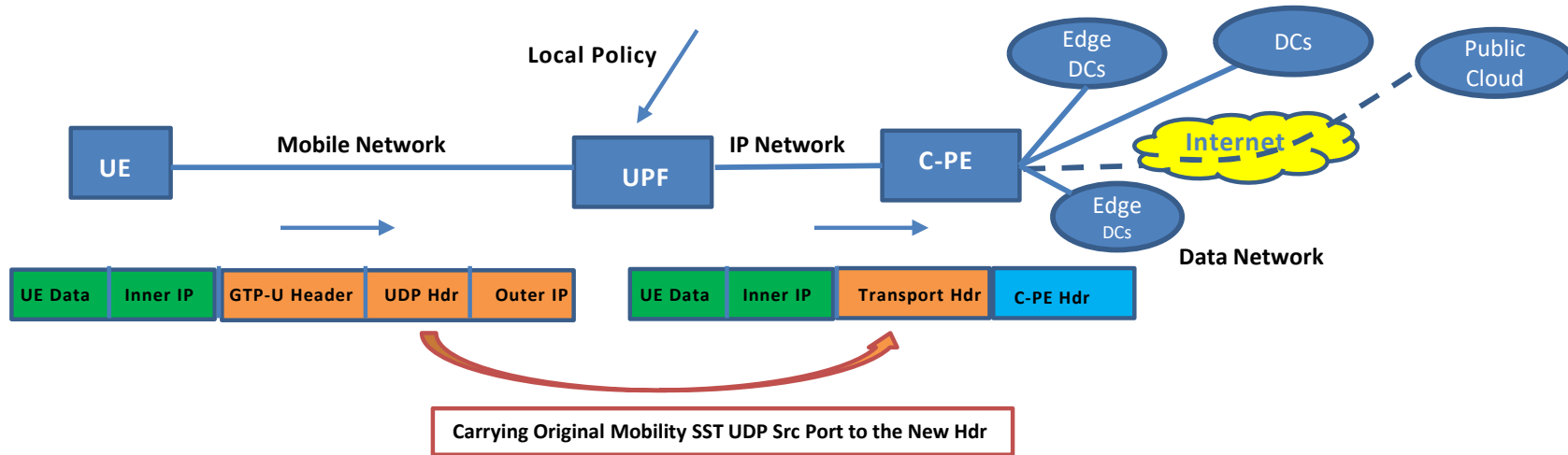
Extending from the Transport Aware Mobility in 5G Core

5G Service Mgmt

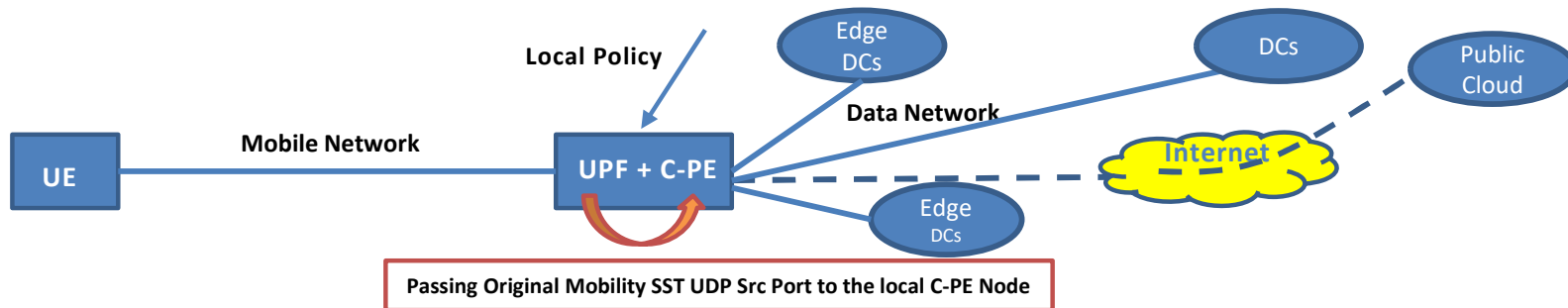


Packet Transition from the Mobile to the Data Network

Scenario A: The UPF and Edge C-PE Node are connected through IP Network



Scenario B: The UPF embedded with C-PE function

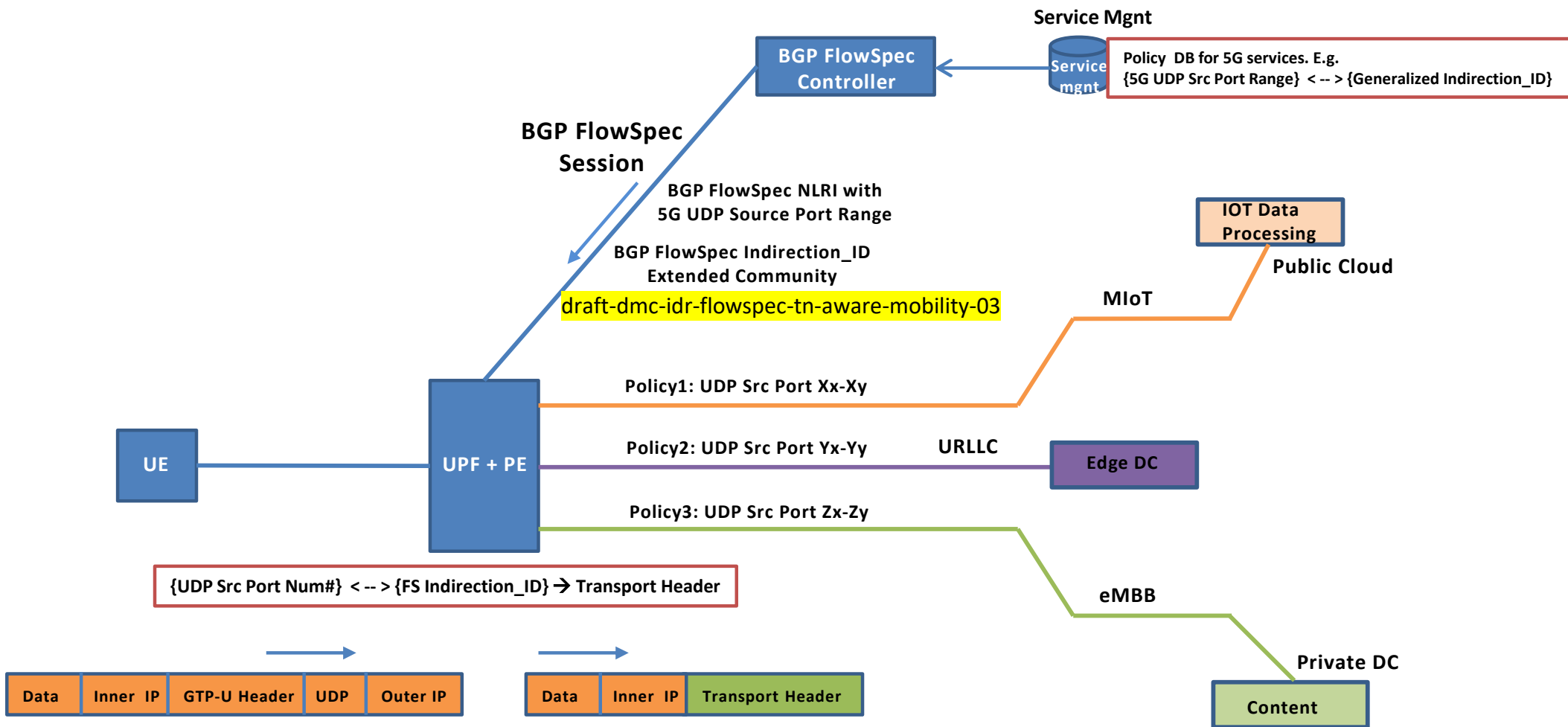


TN Characteristics Mapping to SR-TE Data Underlay

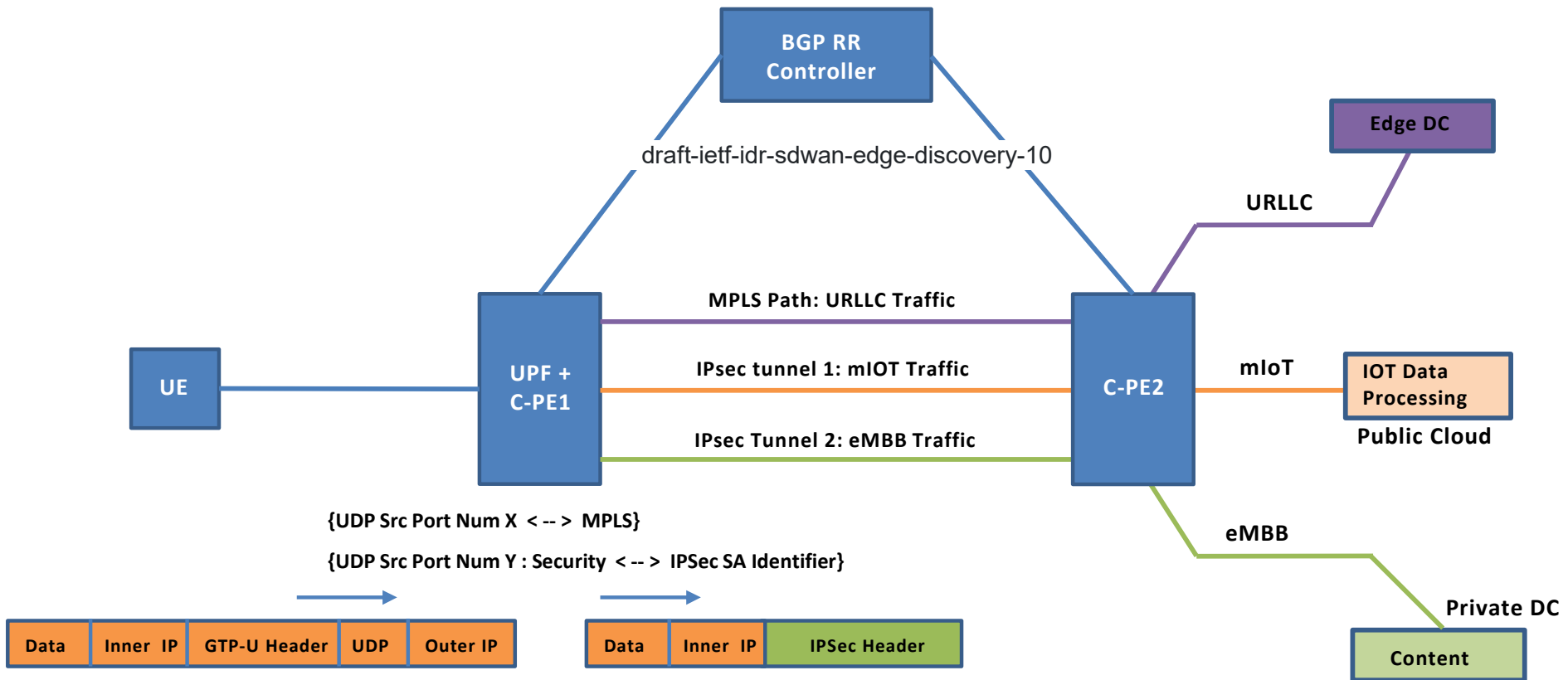
Mobility packets mapped to proper SR-TE path segments by the SR-TE Controller

- ❑ **Option 1:** The Ingress PE node is connected to the BGP SR-TE Controller through the BGP SR-TE Policy SAFI Session.
- ❑ **Option 2:** The Ingress PE node is connected to the SR-PCE (Path Compute Element) Controller through the PCEP Session.
- ❑ **Option 3:** The Ingress PE node is connected to the SR-TE Controller over Restconf/Netconf or gRPC Session.
- **Option 4:** The Ingress PE is connected to the FlowSpec Controller over BGP FlowSpec Session.

Extend BGP FlowSpec Traffic Redirect for TN Aware Mobility



Extend Transport Network Aware Mobility for SD-WAN Traffic



Next Steps

- Request for the WG adoption (will continue to update based on the feedback).