

Routing Area Working Group WG

5G Transport Slice Connectivity Interface (TSCi)

draft-rokui-5g-transport-slice-00.txt

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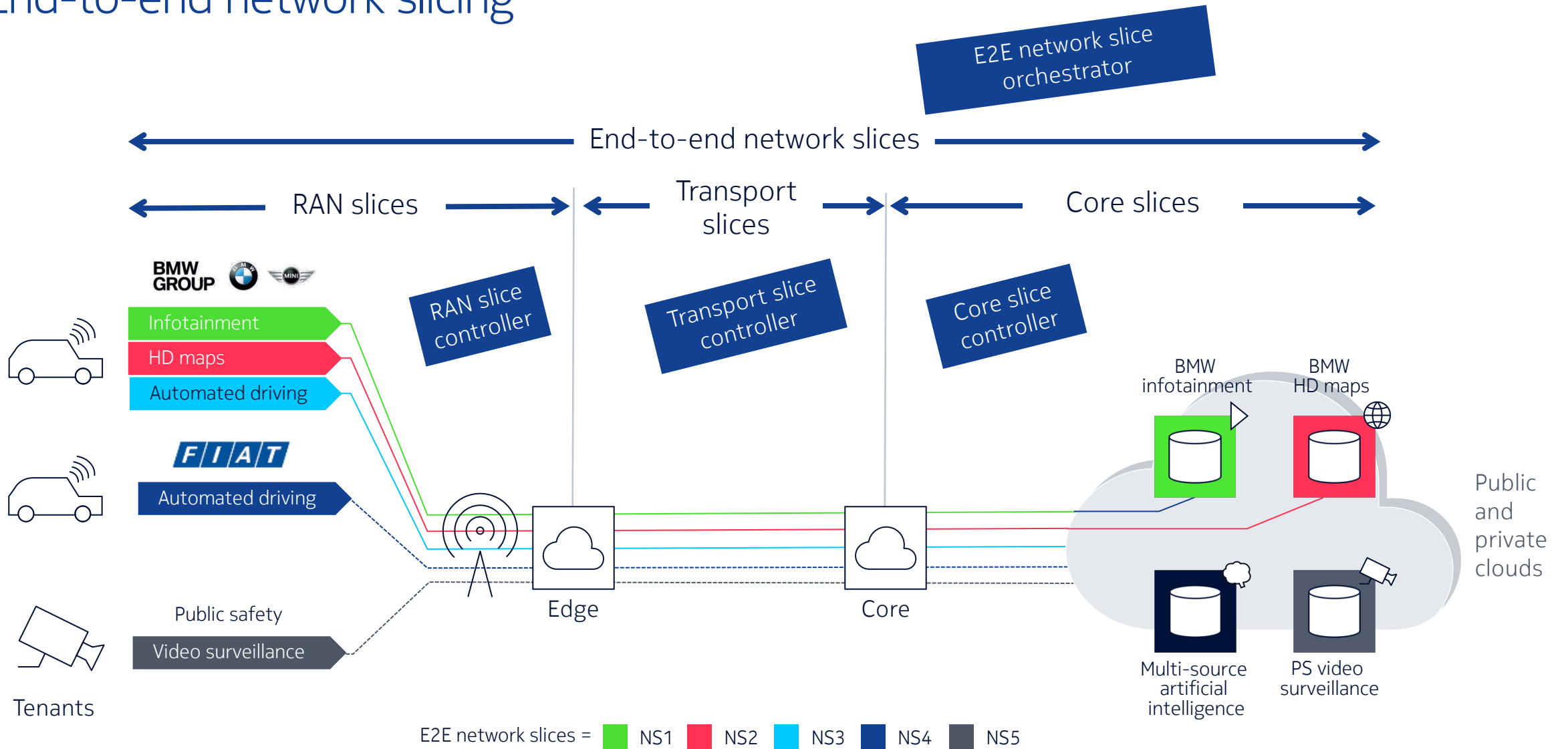
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End-to-end network slicing



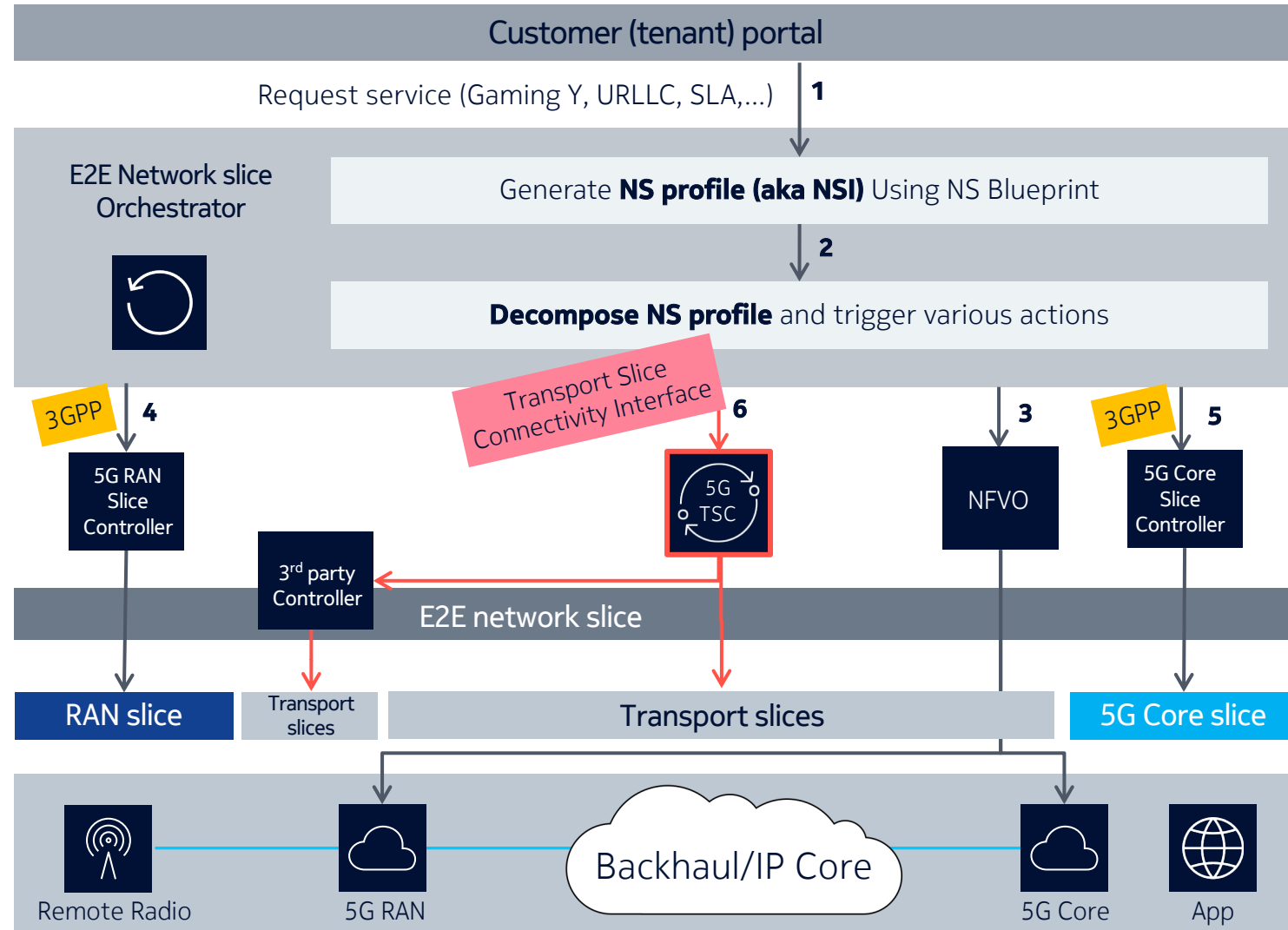
Automation of end-to-end network slices – putting it all together

Customer (tenant) requests MNO for creation of a new 5G network slice:

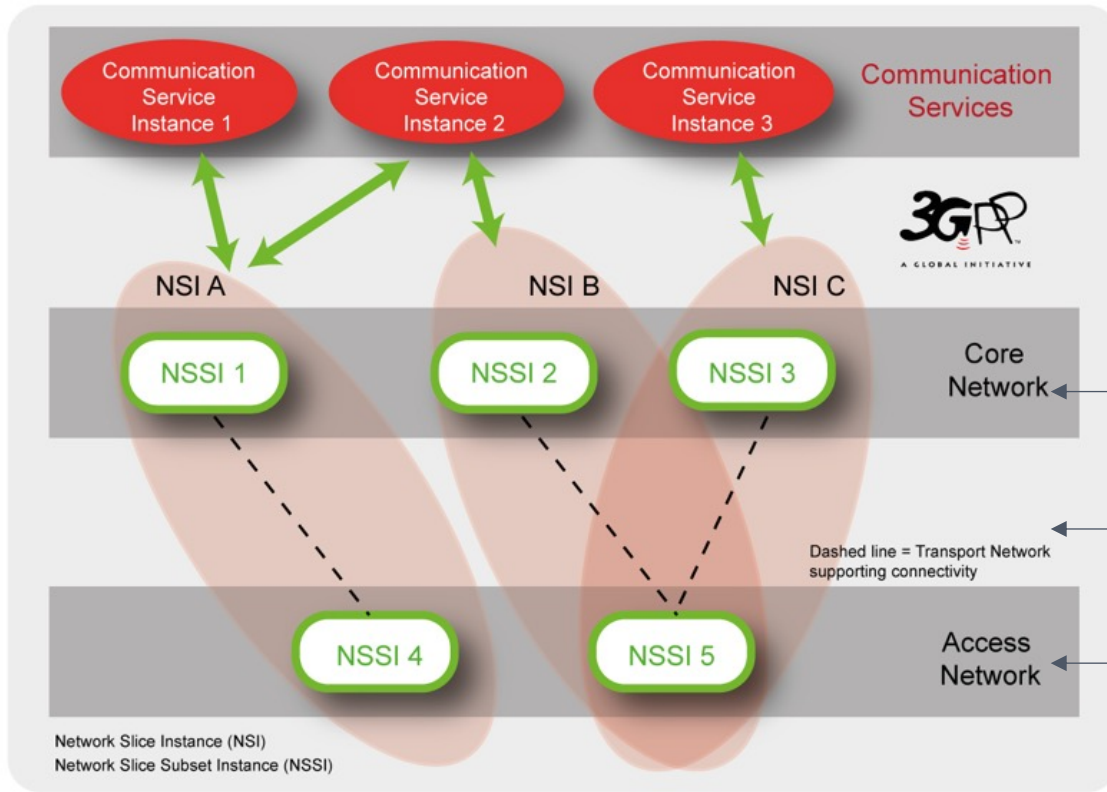
- MNO: “X operator”
- Customer: “Gaming company Y”
- Service: URLLC
- SLA: latency < 5 ms

Note:

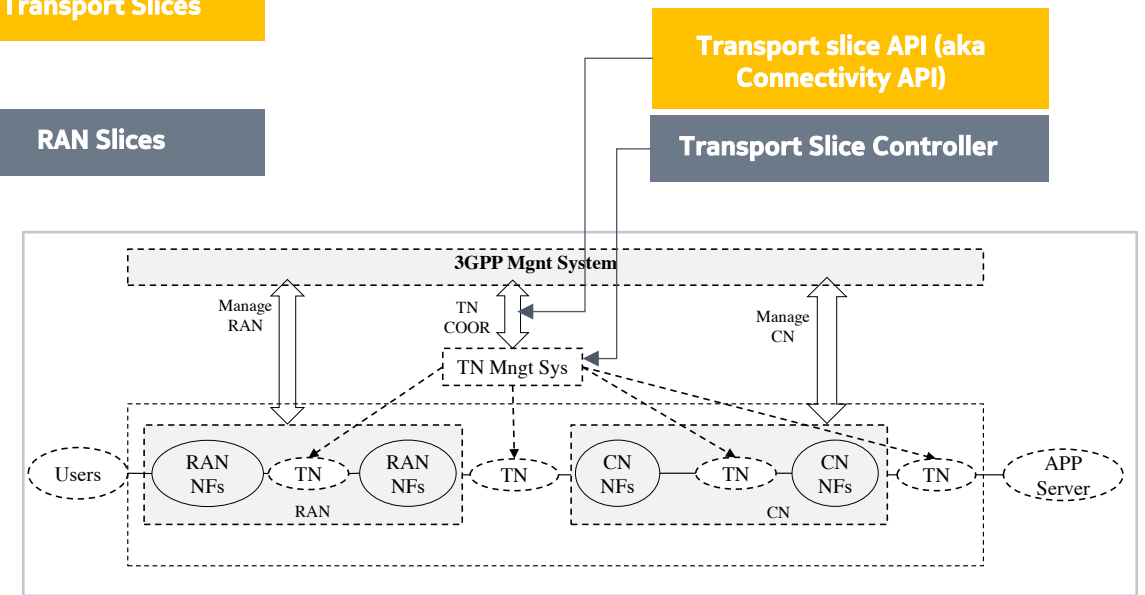
Steps shown are logical and they can be combined. For example, step 3 can be combined with steps 4 or 5.



Transport Slice is aligned with 3GPP definitions



http://www.3gpp.org/NEWS-EVENTS/3GPP-NEWS/1951-SA5_5G



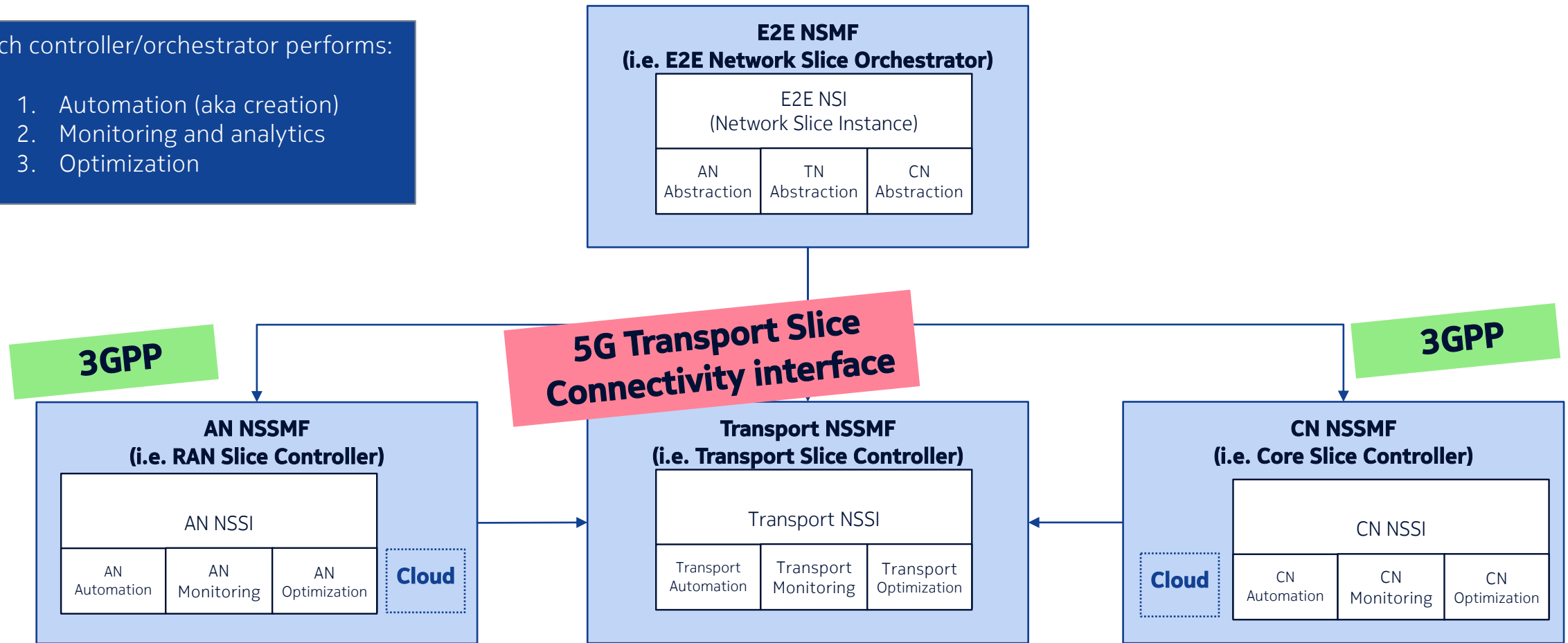
Ref: 3GPP TS 28.530

5G Network Slice management-3GPP view

NSMF: Network slice management function
NSSMF: Network sub-slice management function
NSI: Network Slice Instance
NSSI: Network Sub-Slice Instance

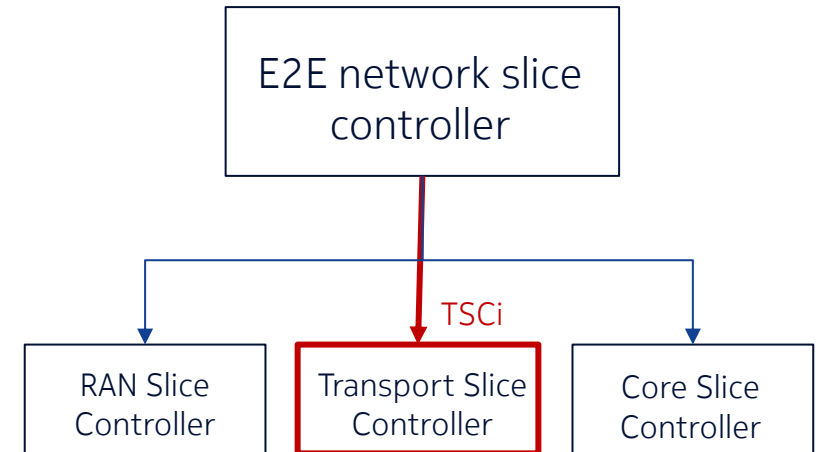
Each controller/orchestrator performs:

1. Automation (aka creation)
2. Monitoring and analytics
3. Optimization



What is this work about..?

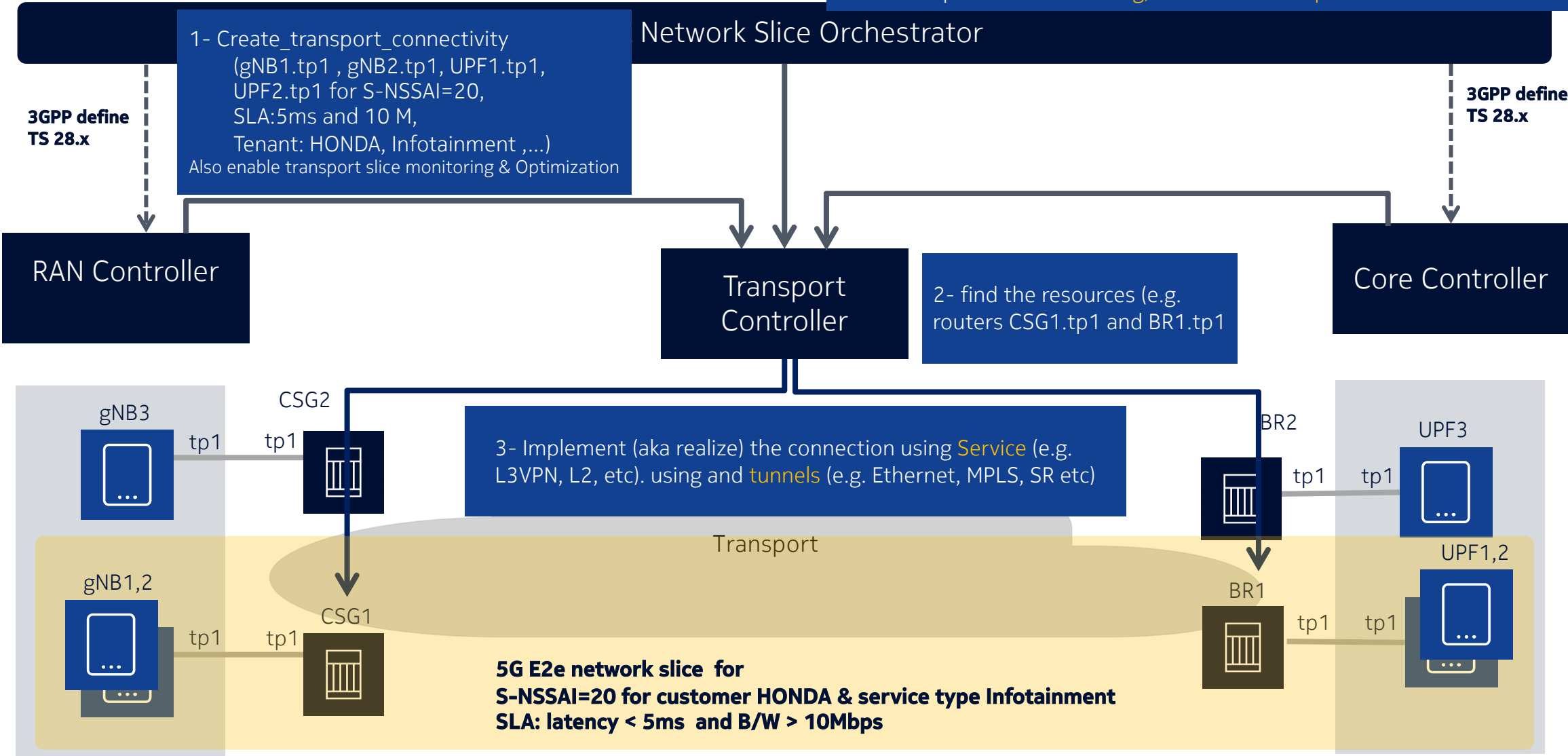
- 3GPP defines the RESTful interface from e2e network slice controller to 5G RAN and Core slice controllers
- This work defines the same interface to “Transport Slice controller”
- This new interface called **Transport Slice Connectivity interface (TSCi)**
- Addresses automation (creation), monitoring and optimization of transport slices



“Transport Slice Connectivity Interface” in action

Transport Connectivity API provides:

- Abstraction
- Assist the Transport Controller to map **Connection** request to **Service/Tunnel** implementation
- Transport slice **monitoring, assurance** and **Optimization**



Next

- More reviews needed
- Addresses more details on three main functions:
 - Automation (aka creation) of transport slices
 - Monitoring and analytics on transport slices
 - Optimization on transport slices
- Define the requirements for TSCi informational model
- Target for IETF 106 with new version to continue addressing the above-mentioned functions

Thank you