

Multi-domain network slicing for vertical businesses

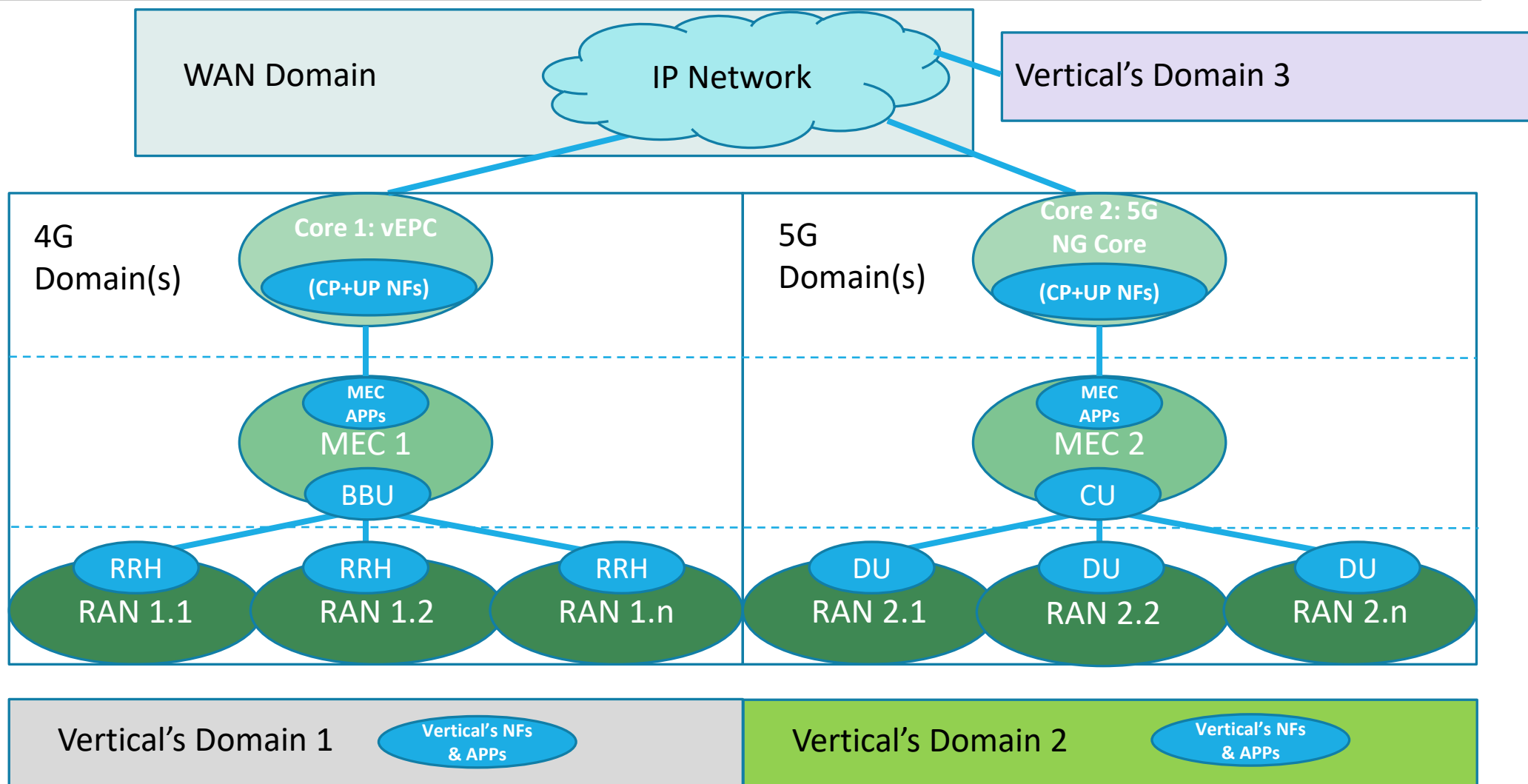
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Agenda

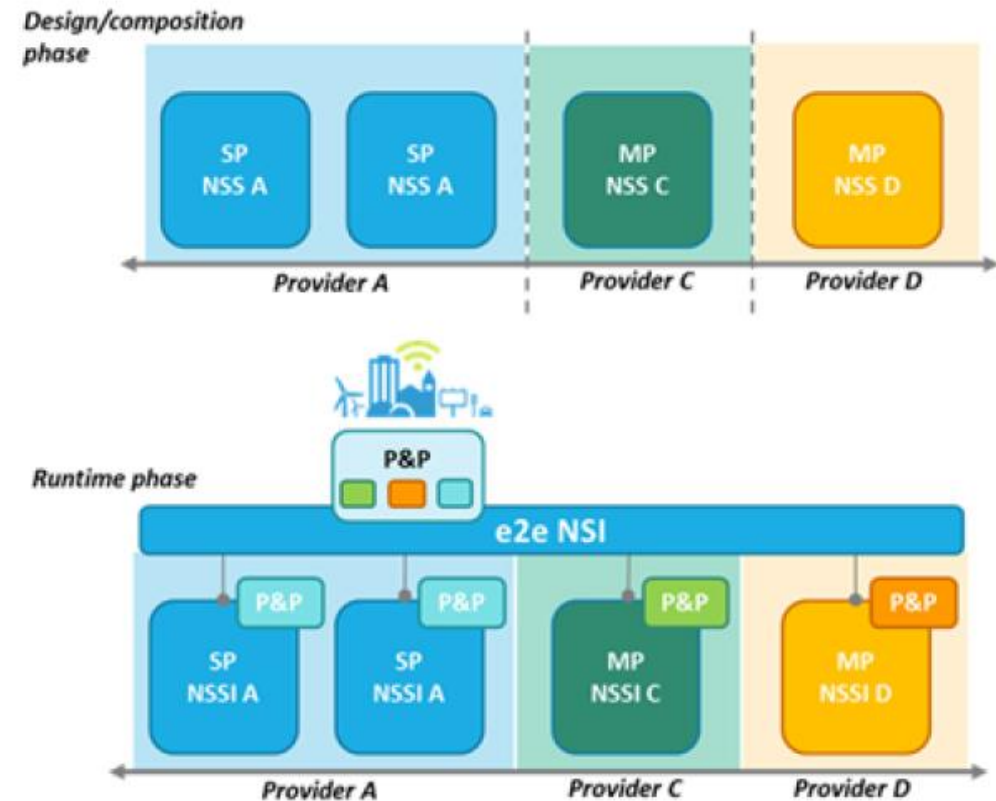
- ❑ General multi-domain view & SliceNet approach
- ❑ Use cases' requirements
- ❑ Multi-domain slicing for use cases
- ❑ End-to-end inter-domain slicing

General multi-domain view



SliceNet approach

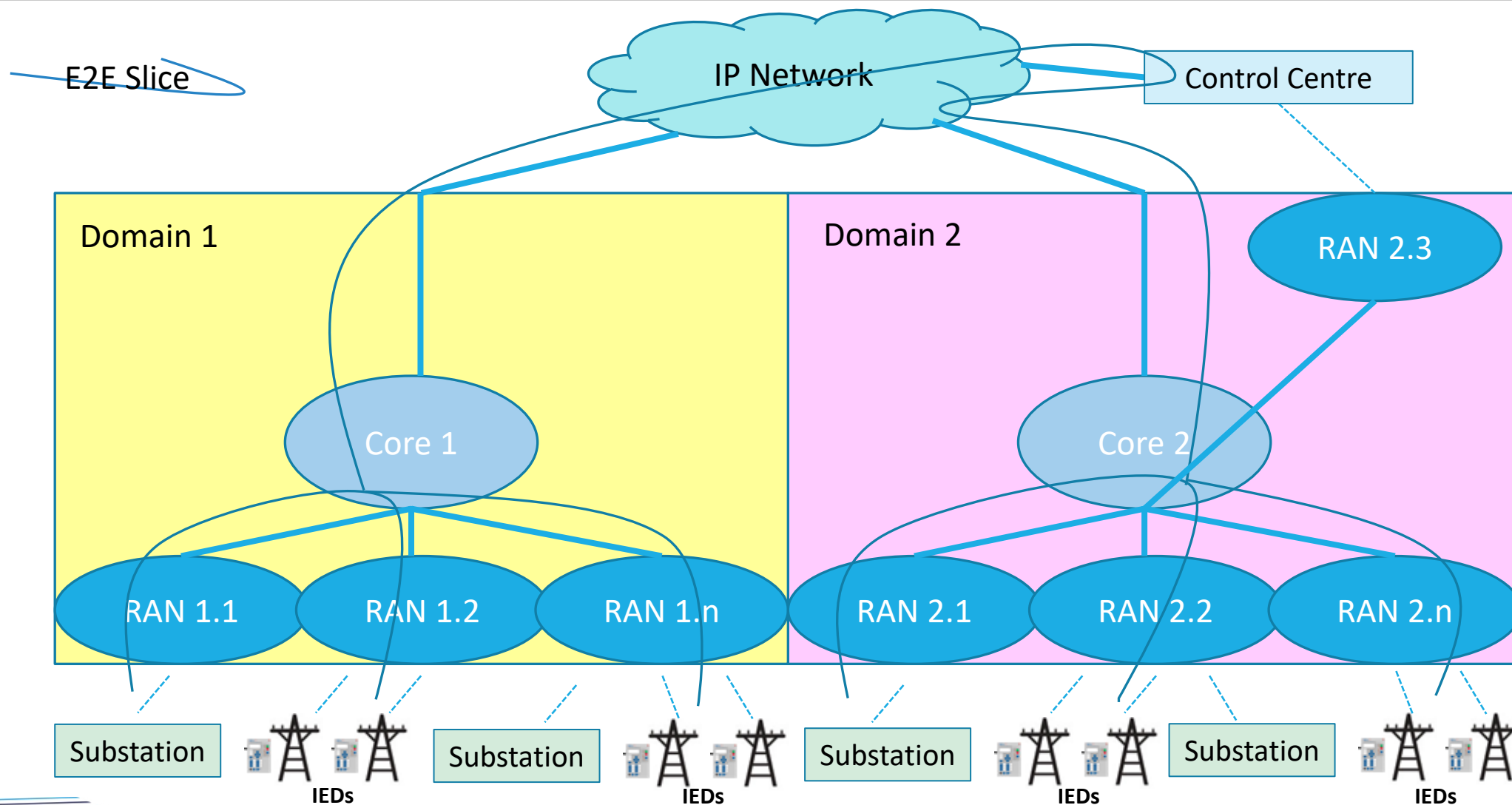
- ❑ Design & runtime phases
- ❑ Compliant with the 3GPP Network Slice Instance (NSI) and Network Slice Subnet Instance (NSSI) hierarchy
- ❑ Enable 3GPP stakeholder roles
- ❑ New Plug and Play control for verticals



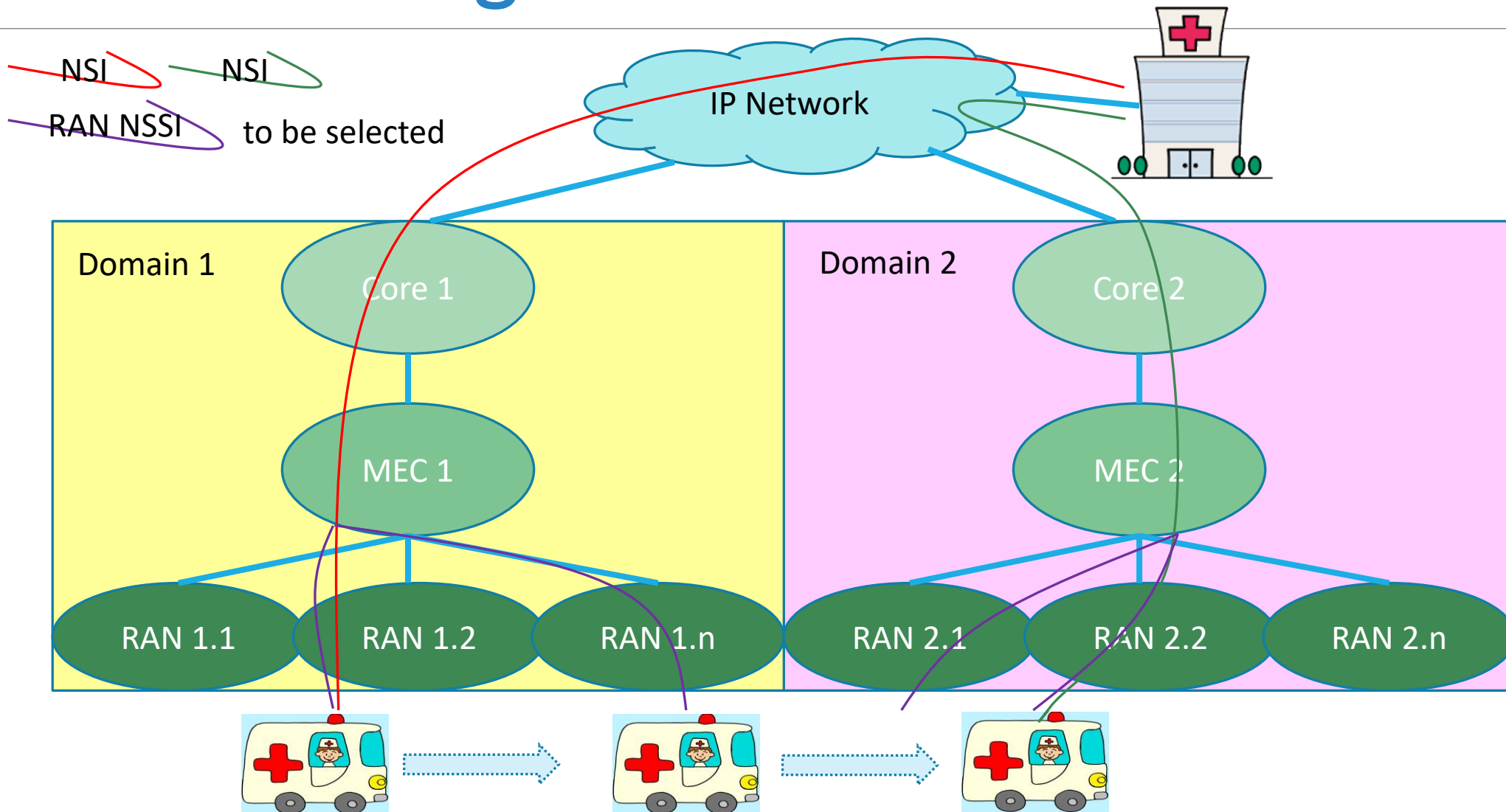
SliceNet use cases' requirements

	Smart Grid	eHealth	Smart City
Alignment to 3GPP UCs	URLLC (Ultra-Reliable and Low Latency Communications)	eMBB (enhanced Mobile Broadband)	mMTC (massive Machine Type Communications)
QoS requirements	High reliability; low delay	High bandwidth; high mobility; low delay	High density
UE mobility/handover control	No	Yes (ambulance)	No
Multi-domain	Yes (static)	Yes (mobile)	Optional

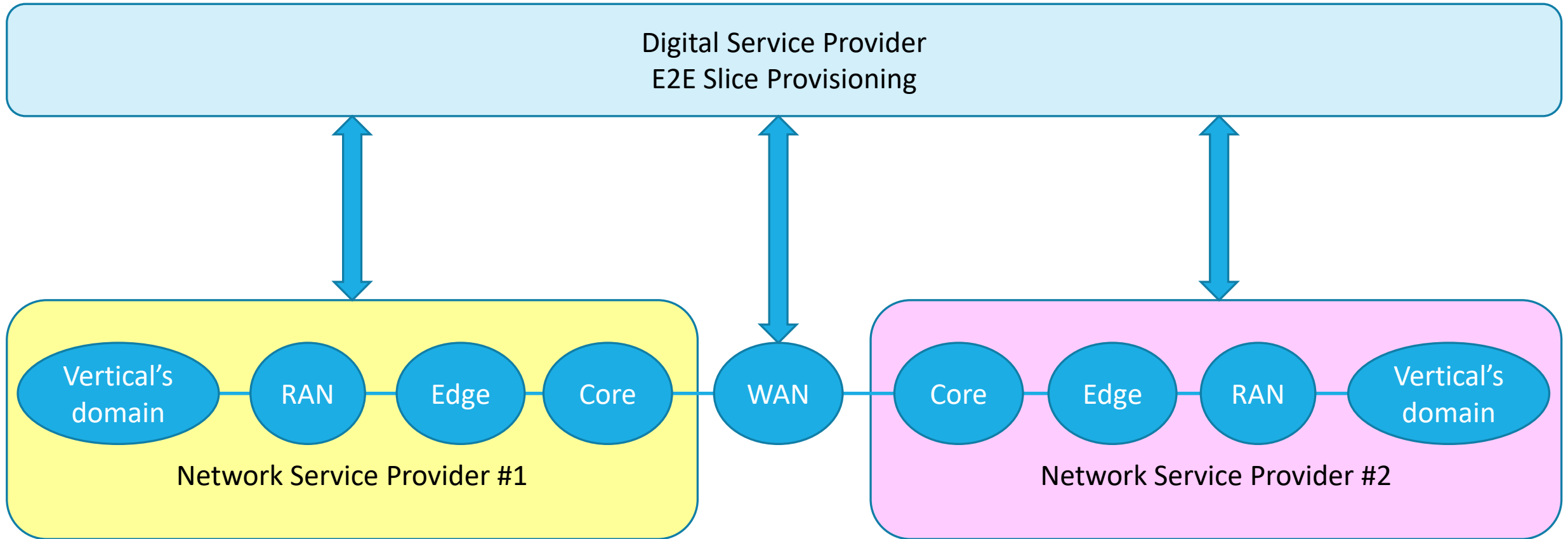
Smart grid slicing



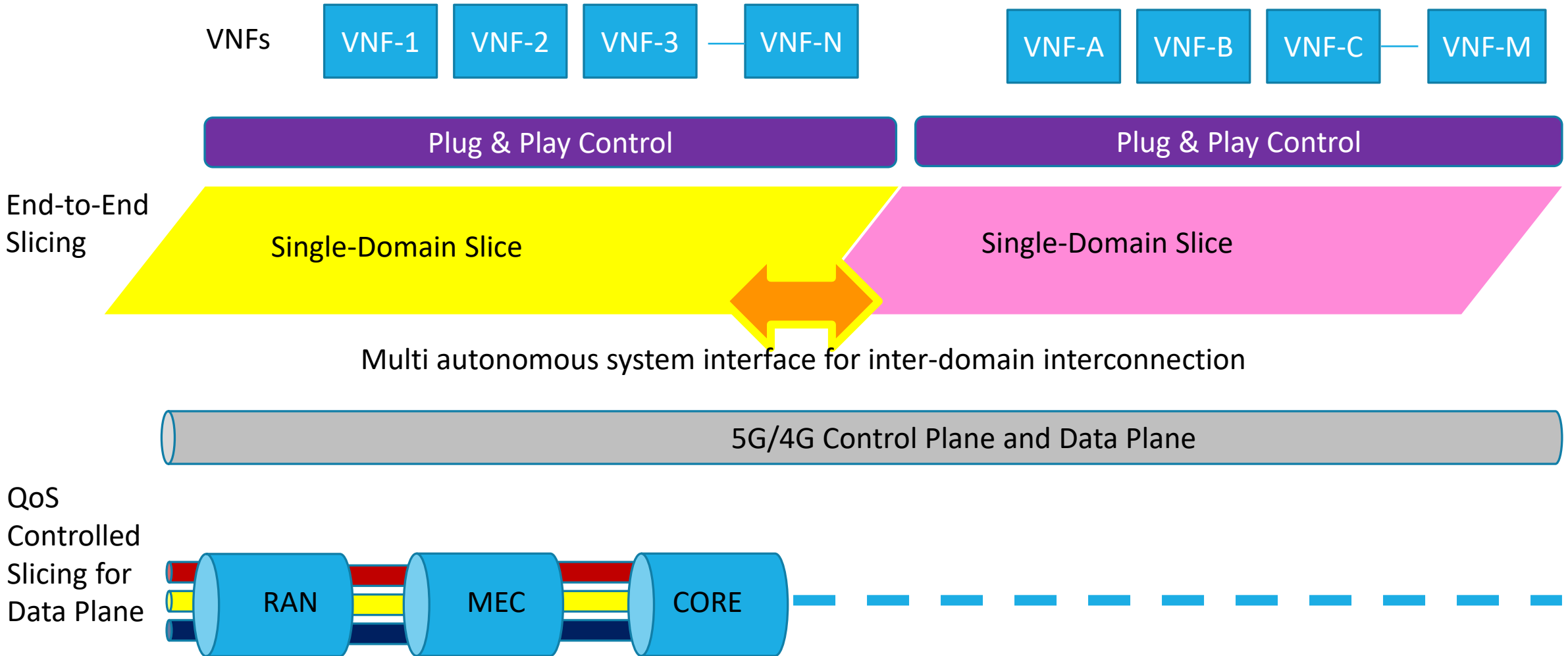
eHealth slicing



End-to-end inter-domain slicing



End-to-end inter-domain slicing for use cases



Concluding Remarks

- ❑ Multi-domain considerations are important towards achieving true end-to-end network slicing across various domains of different ownerships (network operators/service providers, verticals etc.) and technologies
- ❑ Different verticals' use cases impose diverse requirements on multi-domain network slicing scenarios (e.g., static vs. mobile, roaming based or not)
- ❑ End-to-end inter-domain slicing may be modelled through the business roles and achieved through a multi-layer approach
- ❑ Work in underway to design and prototype the different multi-domain network slicing scenarios inspired by and for the project's use cases