



Mobile Traffic Steering

Room for more standardization... ?

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...in discussion with others

IETF#119 – Brisbane, Australia

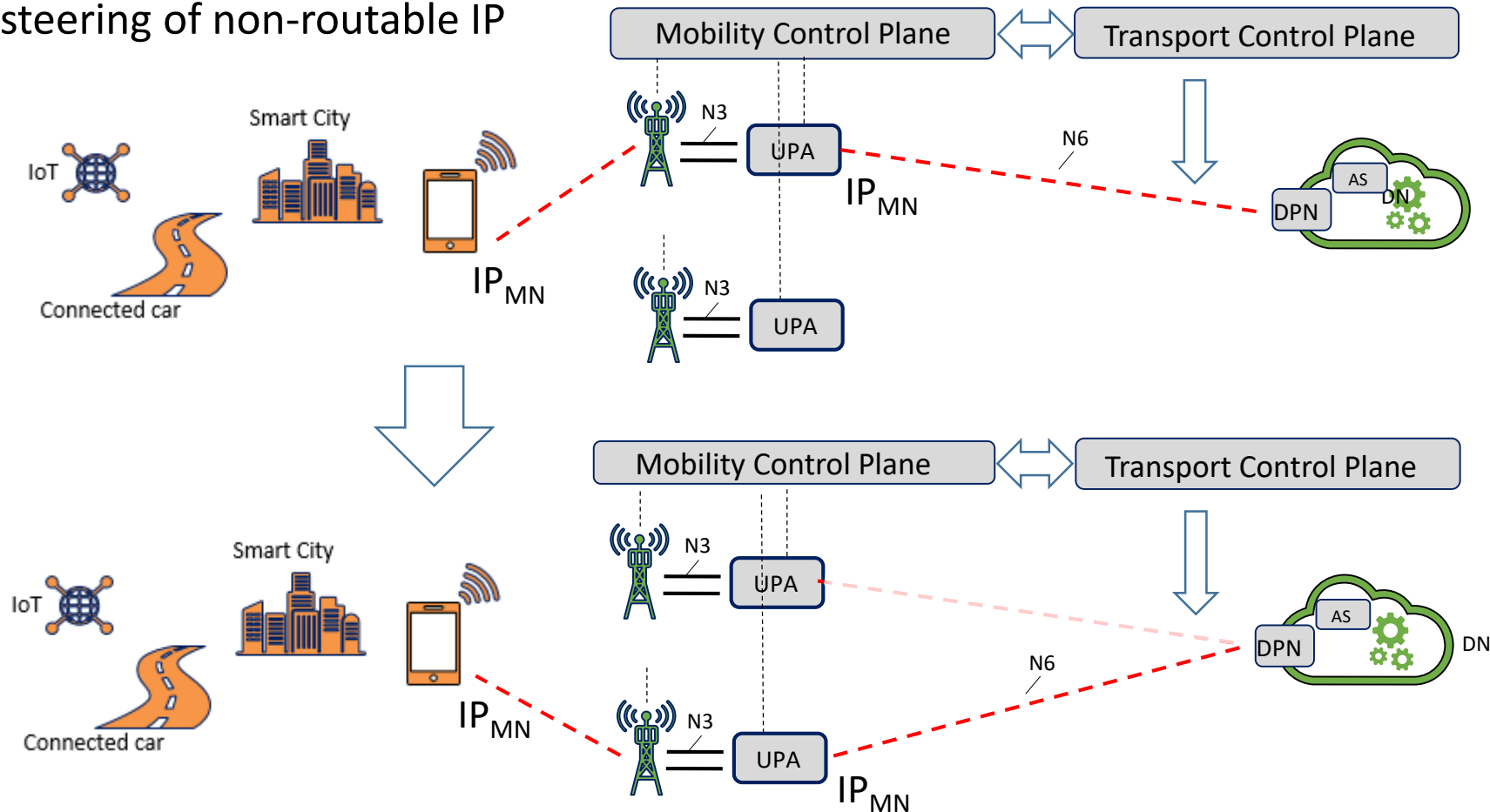
18th March 2024

Topic Background

- Mobile traffic steering in advanced mobile scenarios discussed @ IETF116
 - Applicable solution drafts from past DMM activity summarized
- Room for documentation & standardization further elaborated
- Discussion in between IETF116 and IETF117
- Public side meeting @IETF117, resulting in...
 - Set of good use cases
 - Fair comments about applicability and limitations
 - List of challenges and topics to look at
 - Converged on value and scope of documentation
- Draft being compiled...

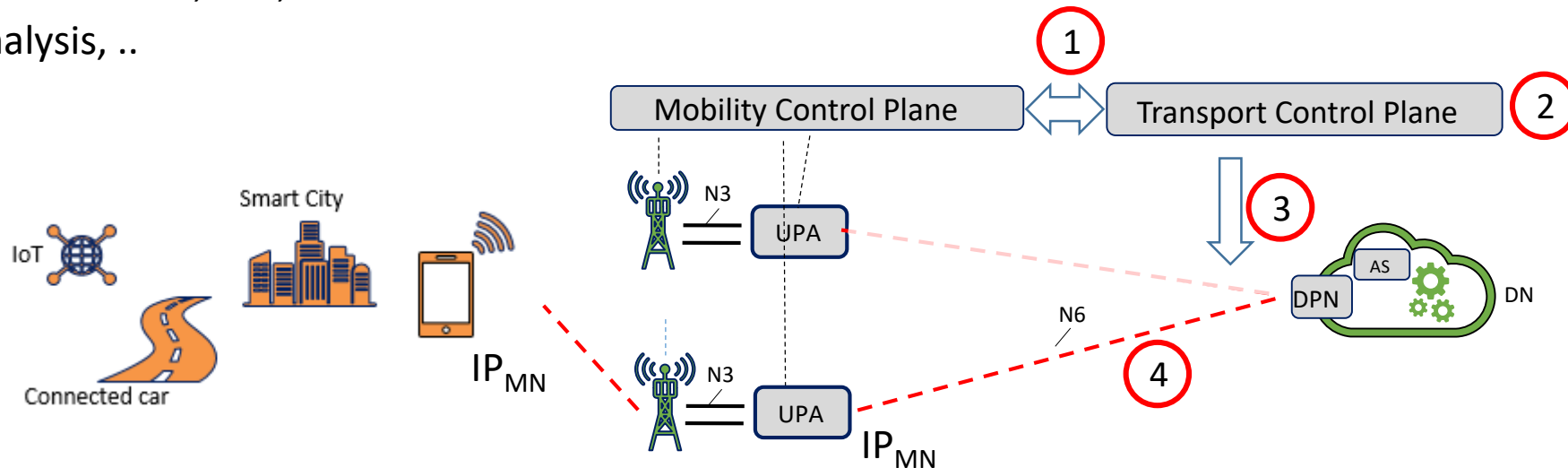
Basic scenario

- IP address continuity by de-coupling of a mobile node's IP address from a topologically matching User Plane Anchor (UPA)
- Traffic steering of non-routable IP



Past Discussion

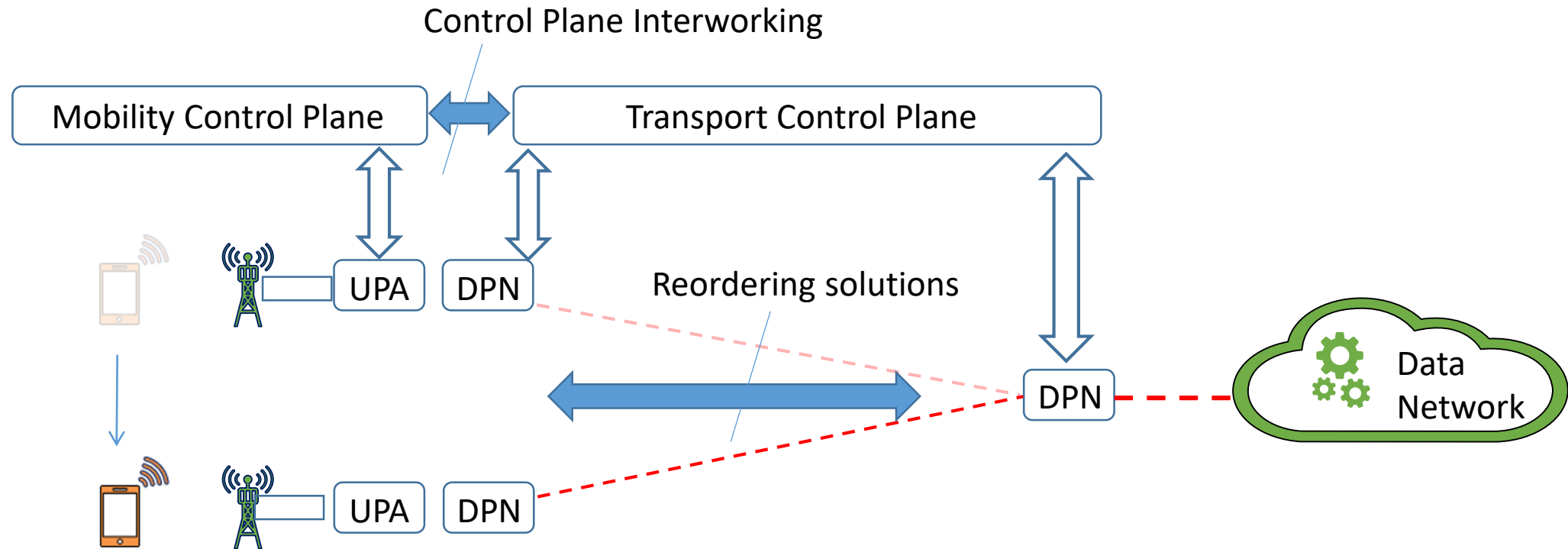
- Interest in such work ?
- Value and relevance of such work ?
- Technical scope of the work ?
 - Semantics and information model to/from Transport Control Plane (1)
 - Transport Control Plane (2) and Control-/Data Plane interface semantics (3)
 - Forwarding Plane (4)
- Intended status and type ?
 - Informational, BCP, ..
 - Analysis, ..



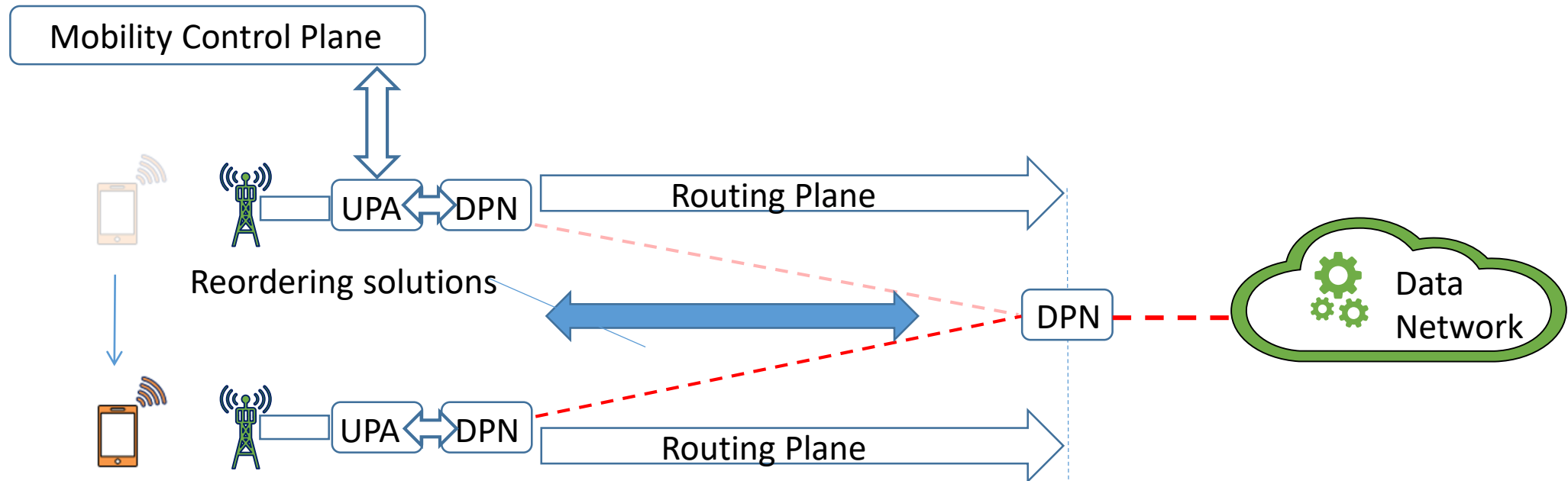
General topics that came up...

- Beyond UE mobility: Architectures with moving nodes (services, NTN, network functions) on path
- Mid-session node handover: Data plane packet re-ordering during UPF re-location
- UE-to-UE communication
- Cross-domain mobility aspects
- End-to-end QoS
- Functional Architecture representation
- 5GS specifics to complement/leverage (Application Function, UE Route Selection Policy, ..)
- Synergies with other standards groups
- ...

Potential work in a controller-based architecture



Potential work in an architecture with distributed routing plane



Lessons Learned & Next

Main conclusion

- End-to-end problem statement cannot be generalized and depends on deployment details
- Potential work identified; standardization vs. carrier-specific solutions

Potential work

- Semantics in between transport network controller and mobility control plane
- Data Plane optimizations during path switching (re-ordering)

Starting point...

- Documentation of deployment options
- Document discusses possible solution- and standardization options

Draft ToC

Internet-Draft

Mobile Traffic Steering

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