Mobile Traffic Steering

draft-liebsch-dmm-mts-03.txt

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Topic background & status

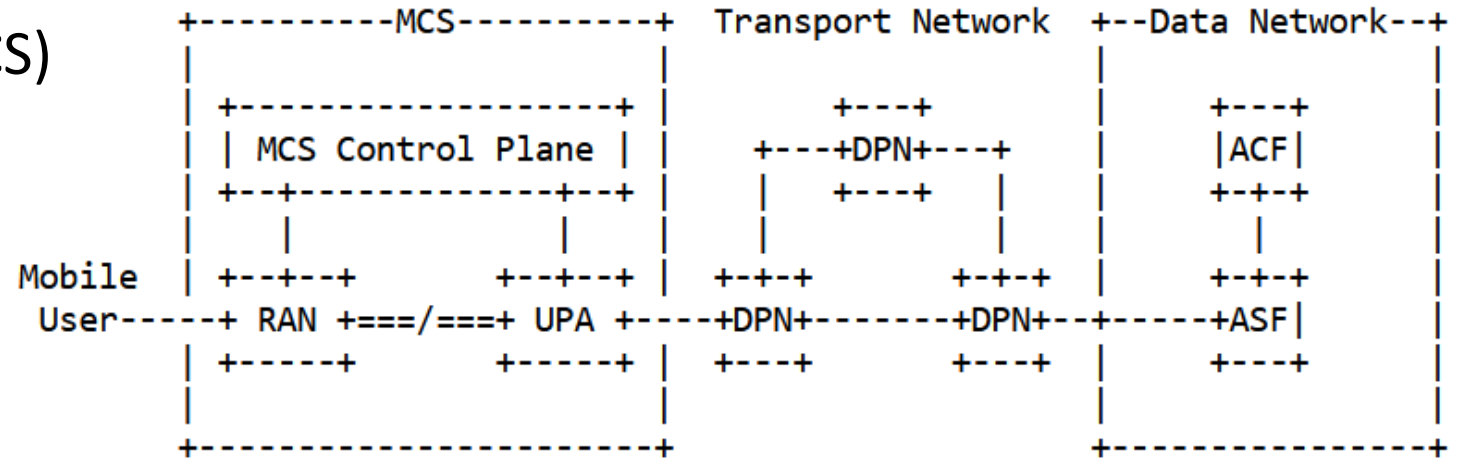
Systems for mobile communication will demand for more flexible and controllable end-to-end traffic steering

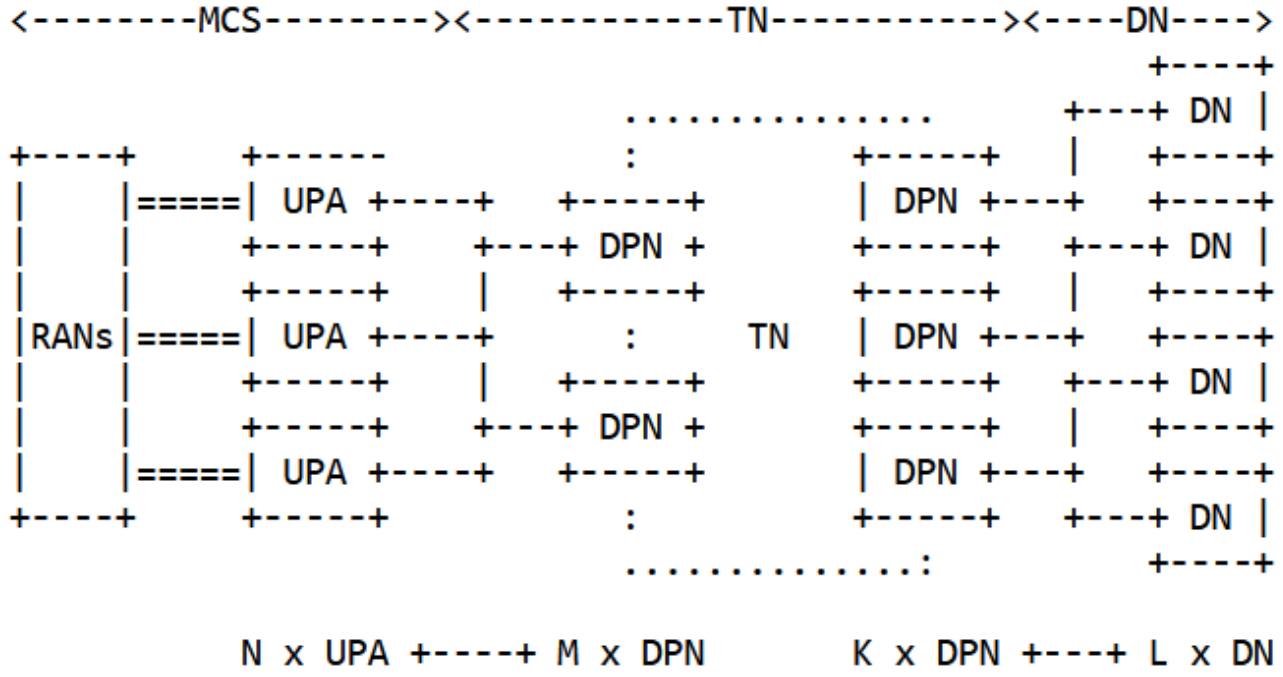
Extend and complement control on mobile traffic steering from mobile communication systems (MCS) across transport network towards data networks

- Mobile traffic steering in advanced mobile scenarios discussed @IETF116; public side meeting @IETF117
- Past DMM WG contributions in this context summarized
- Room for documentation & standardization has been further elaborated
- Drafts published and updates discussed at and in between past IETF meetings
- 3rd revision of draft defines clear scope and inter-working options, use cases, deployment options and information model

Reference end-to-end architecture

Mobile Communication System (MCS)
User Plane Anchor (UPA)
Data Plane Node (DPN)
Data Network (DN)
Application Service Function (ASF)
Application Control Function (ACF)





Flexible constellations between groups of UPAs, DPNs and Data Networks

Exemplary Use Cases in an evolved end-to-end system

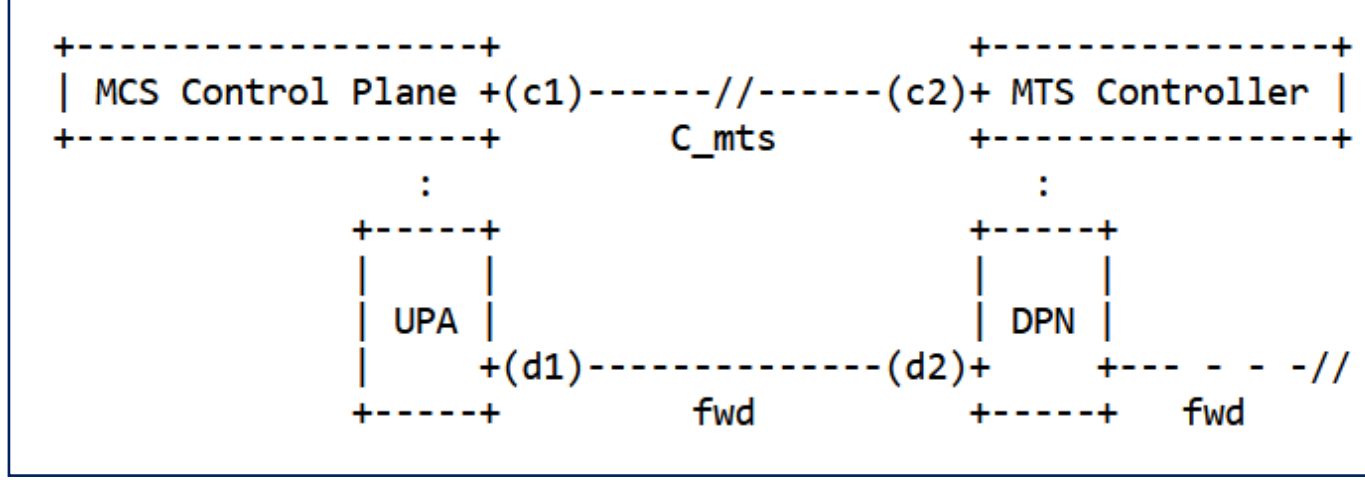
- User Plane Anchor (UPA) re-location – proactive / reactive
  - Mobile device mobility, load balancing, failover
- Multiple UPAs serving a mobile device
- Node ephemerality – May apply to UPA, Data Plane Node (DPN), Data Network (DN)
  - Energy saving schedule, mobile functions / resources (non-terrestrial or vehicular networks)
- Route optimization and updates for traffic between UPAs
- End-to-end QoS – Alignment between mobile communication system and network up to Data Network

Deployment options and applicable reference points

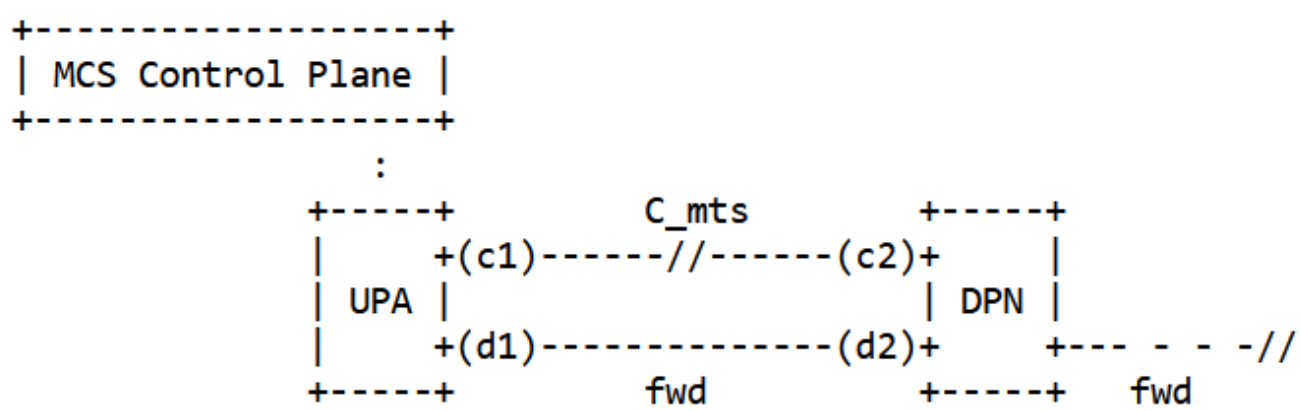
Draft specifies semantics on `C_mts` Control Interface, operations and Information Model

Applies between (c1) (c2) endpoints

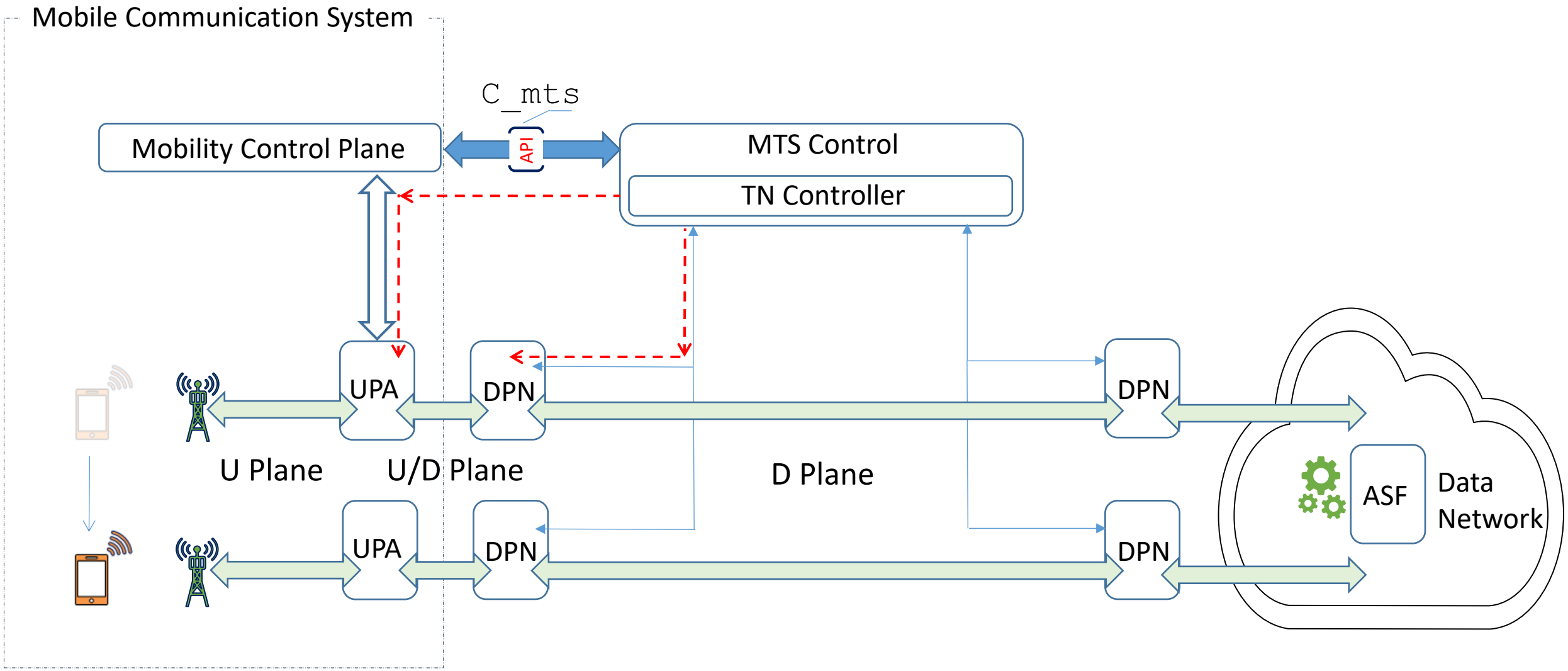
Dedicated Control Plane



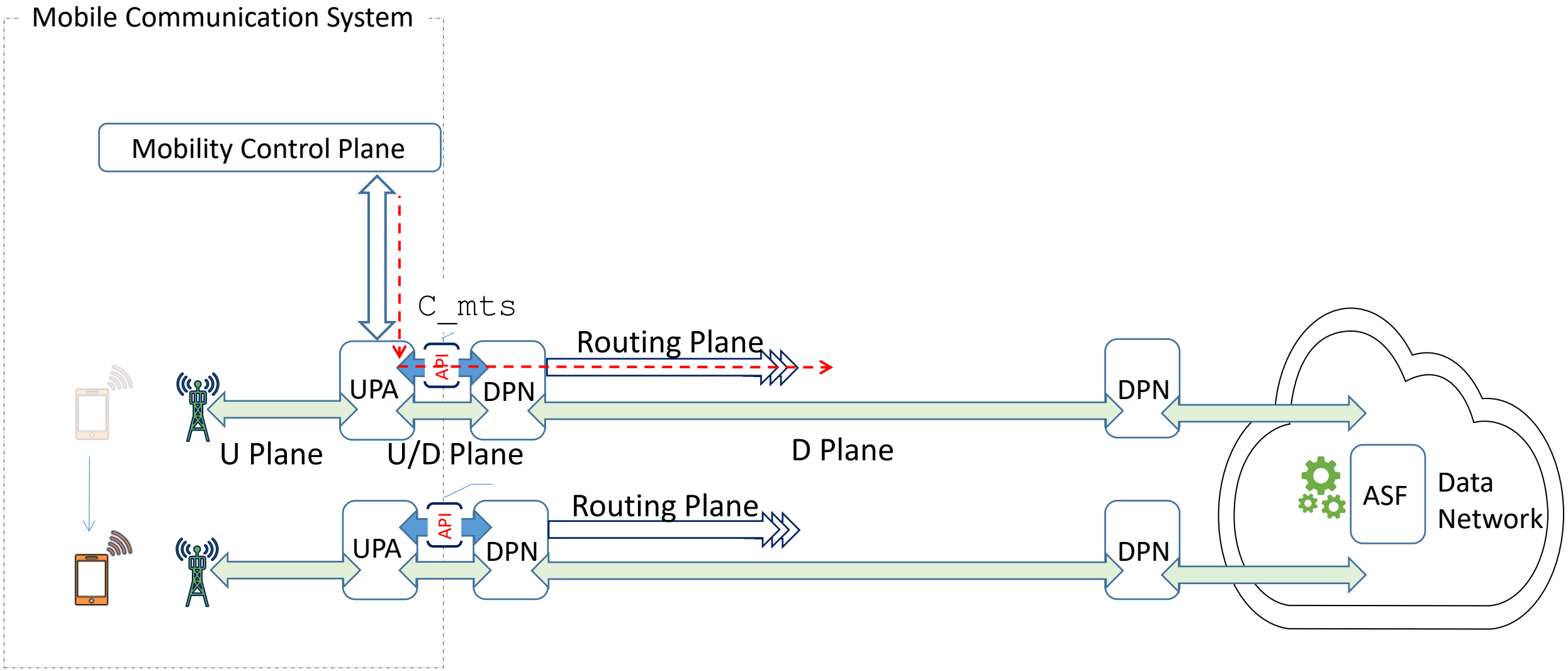
Decentralized Control Plane



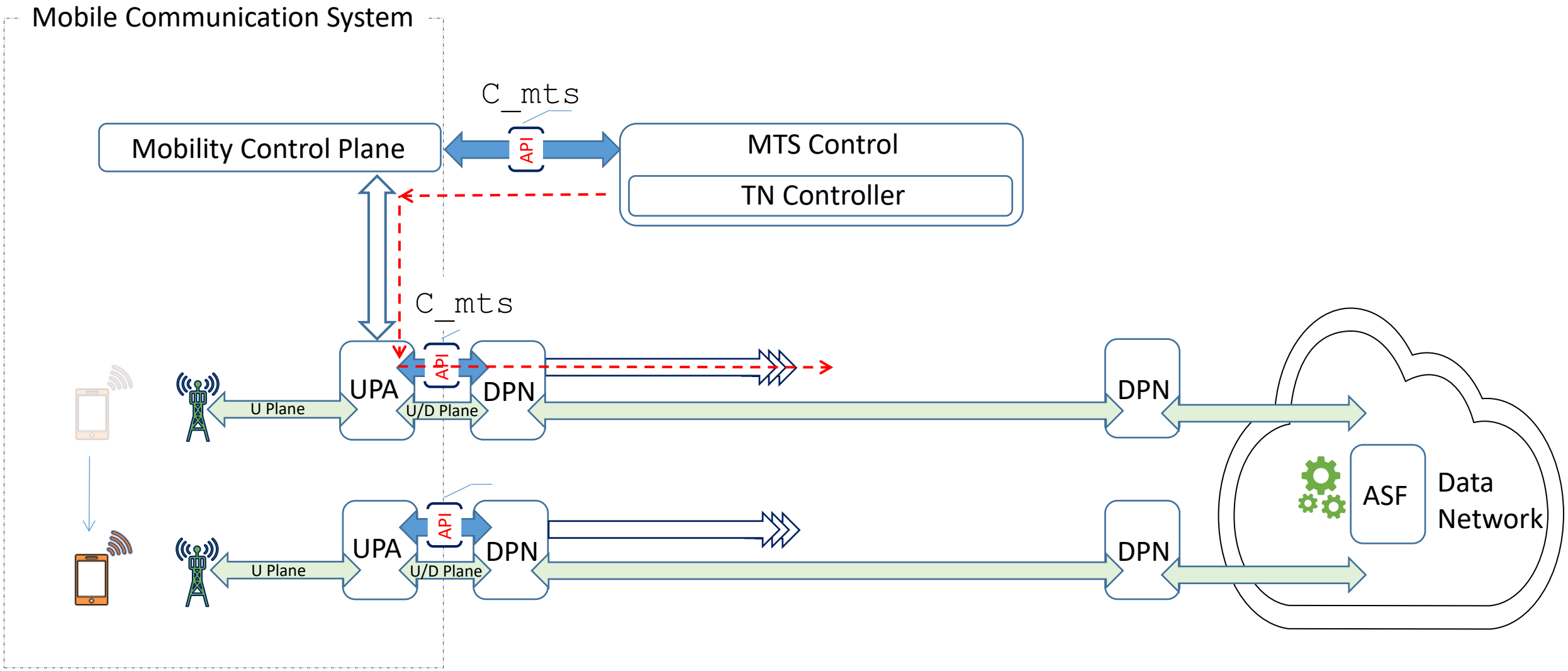
Operational Mode I – Controller-centric operation



Operational Mode II – De-centralized operation



Operational Mode III – Hybrid operation



Draft structure

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- Extend operations section
- Unify format for Information Model

- Call for adoption as WG document