

# A NRP YANG Module

[draft-wd-teas-nrp-yang](#)

TEAS WG

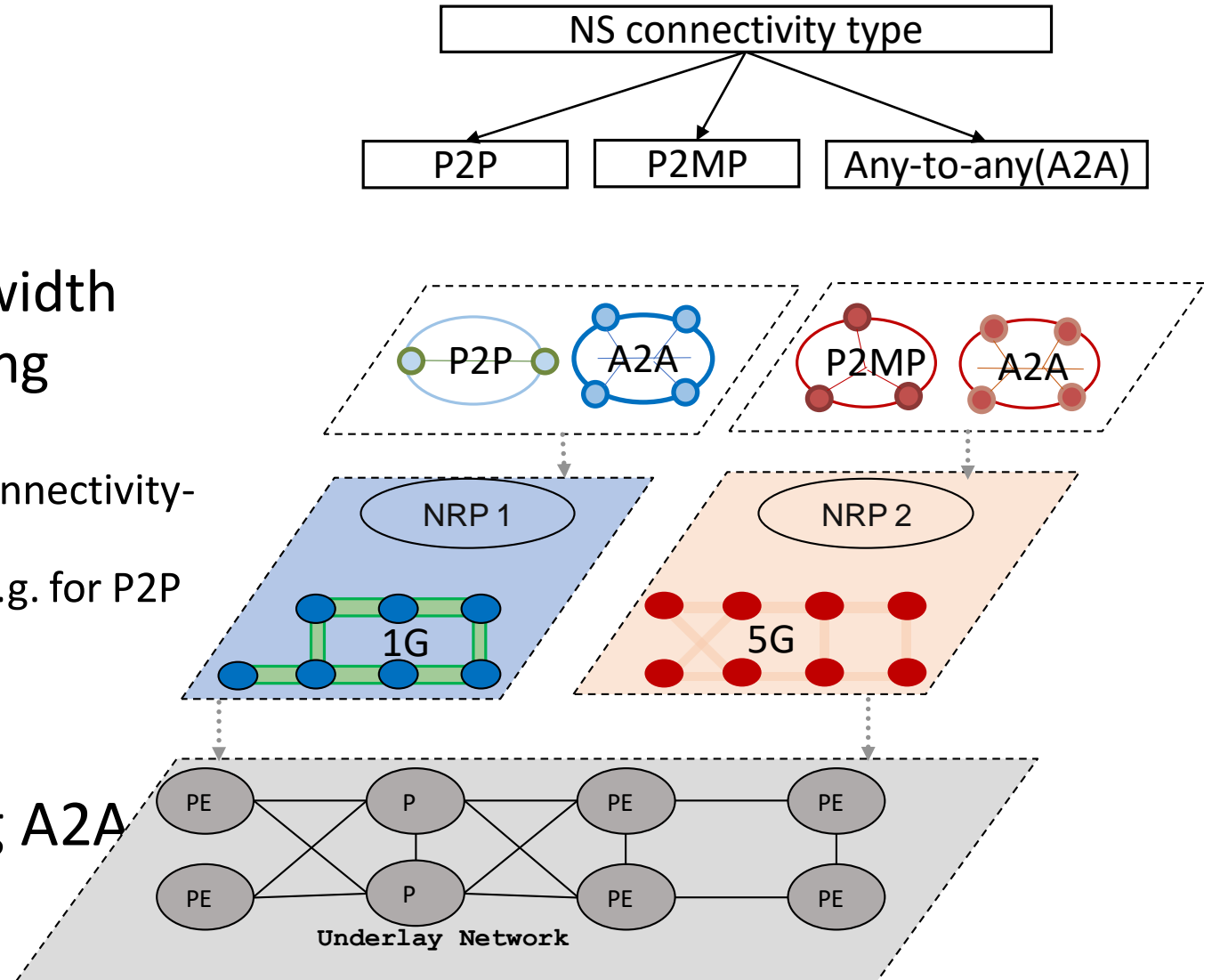
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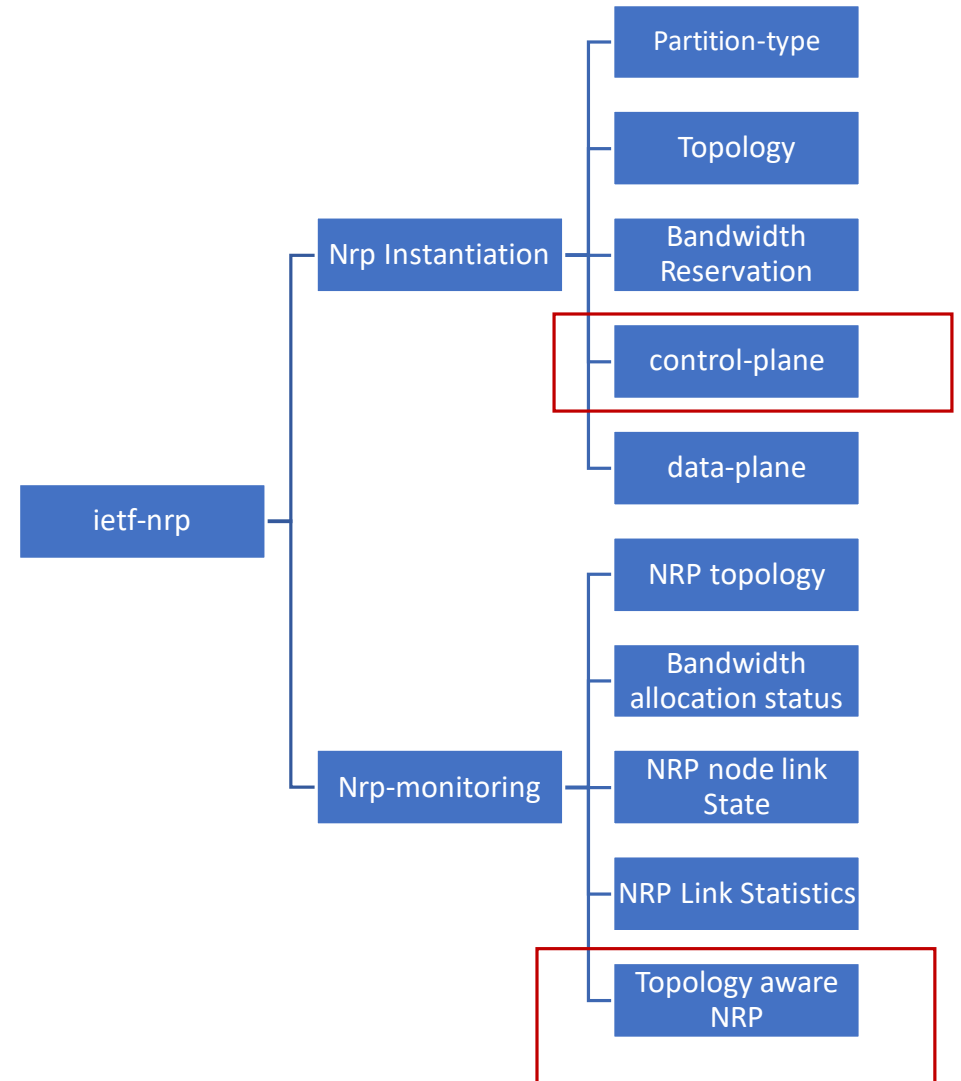
# NRP modelling requirements

- NRP components:
  - Topology: nodes and links
  - Resource reservation: e.g. bandwidth
  - NRP aware routing and forwarding
    - Control plane:
      - **NRP aware routing** (e.g. for A2A connectivity-construct)
      - NRP aware TE path computation (e.g. for P2P connectivity-construct)
    - Data plane
      - NRP identifier encapsulation
- This model focuses on supporting A2A mapping.



# NRP Model Updates Summary

- NRP Instantiation
  - **NRP control plane** - NRP aware routing
    - Flexalgo, MT
    - A new **flag** to mark topology cannot be modified because the NRP routing need to be consistent with the NRP topology
- NRP monitoring
  - NRP aware topology
    - In addition to the per-NRP abstract topology status, the **NRP link resources status on the underlay topology** is also shown



# NRP Merge Discussion Status

- First Step: NRP Instantiation
  - **Two NRP Topology options**
    - NRP YANG: In instantiation, selecting nodes and links from the **underlay topology**
    - NRP policy: Referencing an **existing topology filter**
  - **Bandwidth Resource Reservation**
  - **Resource partition type:** FlexE, QoS profile (name as PHB in NRP policy), etc.
  - **Control Plane**
    - NRP YANG: **NRP aware routing** (for scalable A2Aconnectivity)
    - NRP policy: **TE path computation:** RSVP-TE, SR (for P2P connectivity-construct)
  - **Data Plane**
    - NRP YANG: resource-identifier
    - NRP policy: flow-agg-selector
- NRP monitoring
- NRP device model

# Next Step

- To merge by next IETF
- Solicit comments and reviews from WG