# IETF Network Slice Service YANG Model

draft-ietf-teas-ietf-network-slice-nbi-yang-01

## TEAS WG

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# NS Service model Status Summary

## Rev-01 summary:

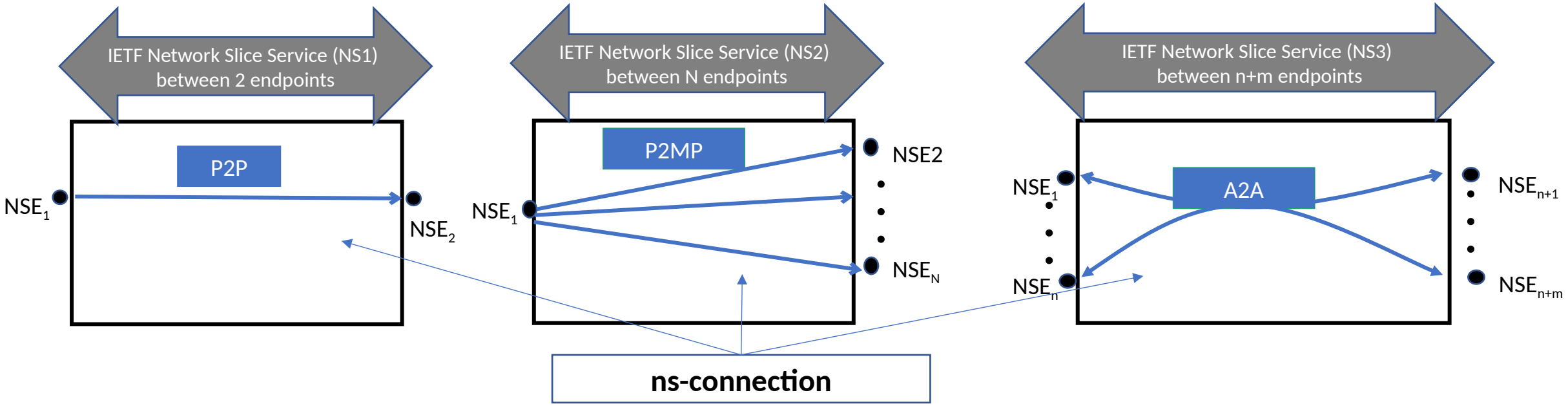
- Aligns the “ns-connection” with the connectivity construct definition of NS framework rev-07
  - An NS  can have a single or multiple connectivity constructs
    - Introduce “ns-connection-group”: a group ns-connection MAY share a common SLO
    - Remove per-NS connection-type and “ep-role” - connectivity construct-based connections only
- Define a extensible list of “ns-tag”, which have a ‘description’ and ‘value’ to define a generic semantic which provides additional information. Note: all ns-tags are OPTIONAL. Examples:
  - customer-name
  - 5G S-NSSAI
  - VPN service type : L1/L2/L3
- Add more AC (CE-PE) attributes of ns-endpoints (NSE):
  - AC (ep-network-access-point ) is optional, while NSE is mandatory
  - AC specific ns-match-criteria, network-access-tag, rate-limits
    - identify a class of service
    - QoS profiles for each class of service guaranteed amount of bandwidth, latency, jitter, rate-limit

## Issues status

- Open issues, 3 total open issues so far:
  - https://github.com/lana-wu/ietf-ns-nbi/issues

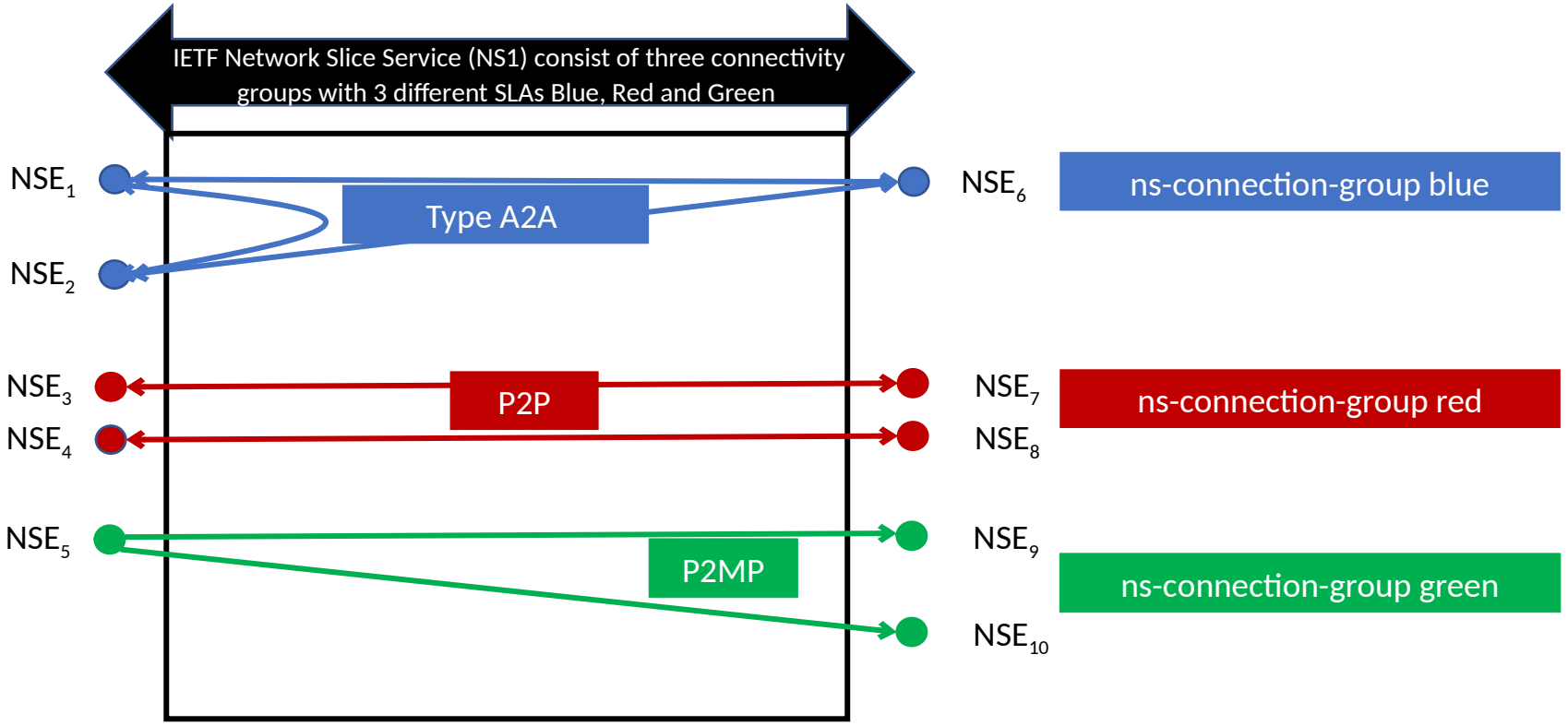
# NS connectivity construct modelling

- NS framework draft defines three basic connectivity construct
  - P2P, P2MP, A2A



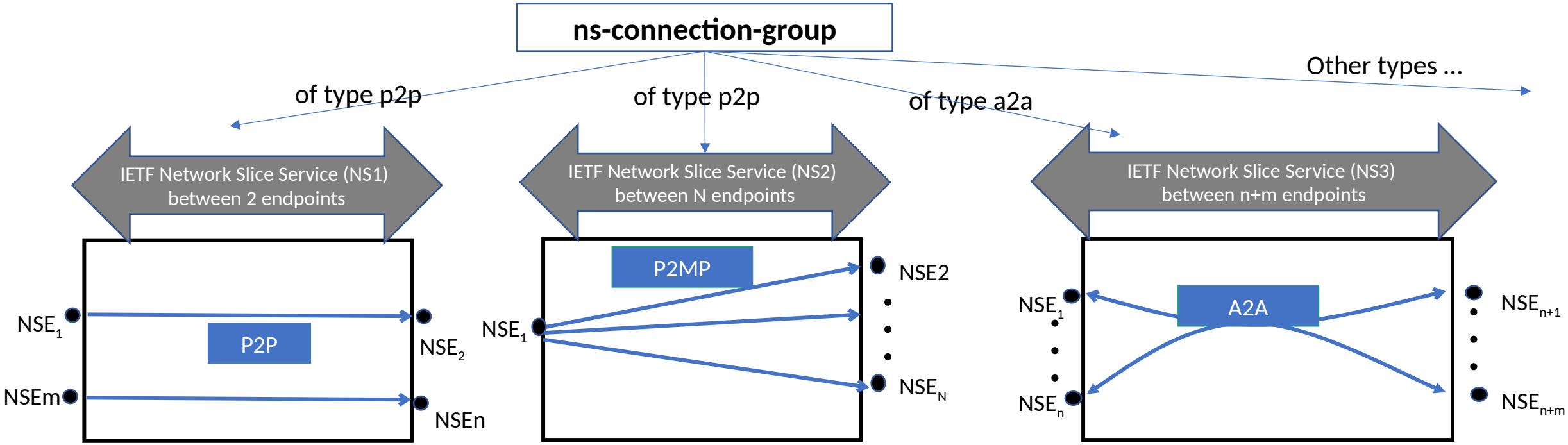
# Introduce “ns-connection-group”

- A group of ns-connection MAY share a common SLO



# Open issue#1 - Add connectivity-type @“ns-connection-group”

- In addition to connectivity-type at connection level, allow flexible topology definition: e.g. hub-spoke



# Open issue#2 - Add a formal import of RFC9181

- https://github.com/lana-wu/ietf-ns-nbi/issues/5
- RFC 9181 VPN Common YANG
  - Identity vpn-topology: any-to-any, hub-spoke, hub-spoke-disjoint, custom
  - Identity role: any-to-any-role, spoke-role, hub-role, custom-role
  - Grouping service-status, oper-status-timestamp
- **Proposal:**
  - Reuse grouping service-status, oper-status-timestamp
  - Add connectivity-type to “ns-connection-group” as well

# Open issue#3 - Add Statistical parameters

- https://github.com/lana-wu/ietf-ns-nbi/issues/6
- It is proposed to add percentile SLO parameters
- Current SLO parameters is aligned with NS framework
  - Minimum Bandwidth
  - Maximum Latency
  - Maximum Permissible Delay Variation
  - Maximum Permissible Packet Loss Rate
- **Proposal**
  - When they are accepted by the framework, they will be added

# Next step

- Resolve the open issues
- Make some terminologies such as SDP (instead of NSE) consistent with NS framework draft
- “Align terminology for ‘ep-network-access-point’ to Attachment-Circuit”
- Clarify use of ‘network-access-node-id’ in the context of multi-homing