NRP YANG Modules
draft-bestbar-teas-yang-nrp-policy
draft-wd-teas-nrp-yang

TEAS WG

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I E T F

Background

- Two NRP specific modeling drafts – different functional perspectives, but similar set of constructs
  - **draft-bestbar-teas-yang-nrp-policy**
  - **draft-wd-teas-nrp-yang**
- The authors of two drafts have agreed to produce a **new merged draft (**meeting regularly since IETF 115)
  - **draft-wdbsp-teas-nrp-yang***
- The goal is to define a single NRP specific YANG draft covering both network model and device model
  - NRP network model
    - NRP Instantiation and modification
    - NRP monitoring
  - NRP device model

* To be published soon

Merged Draft Progress Summary
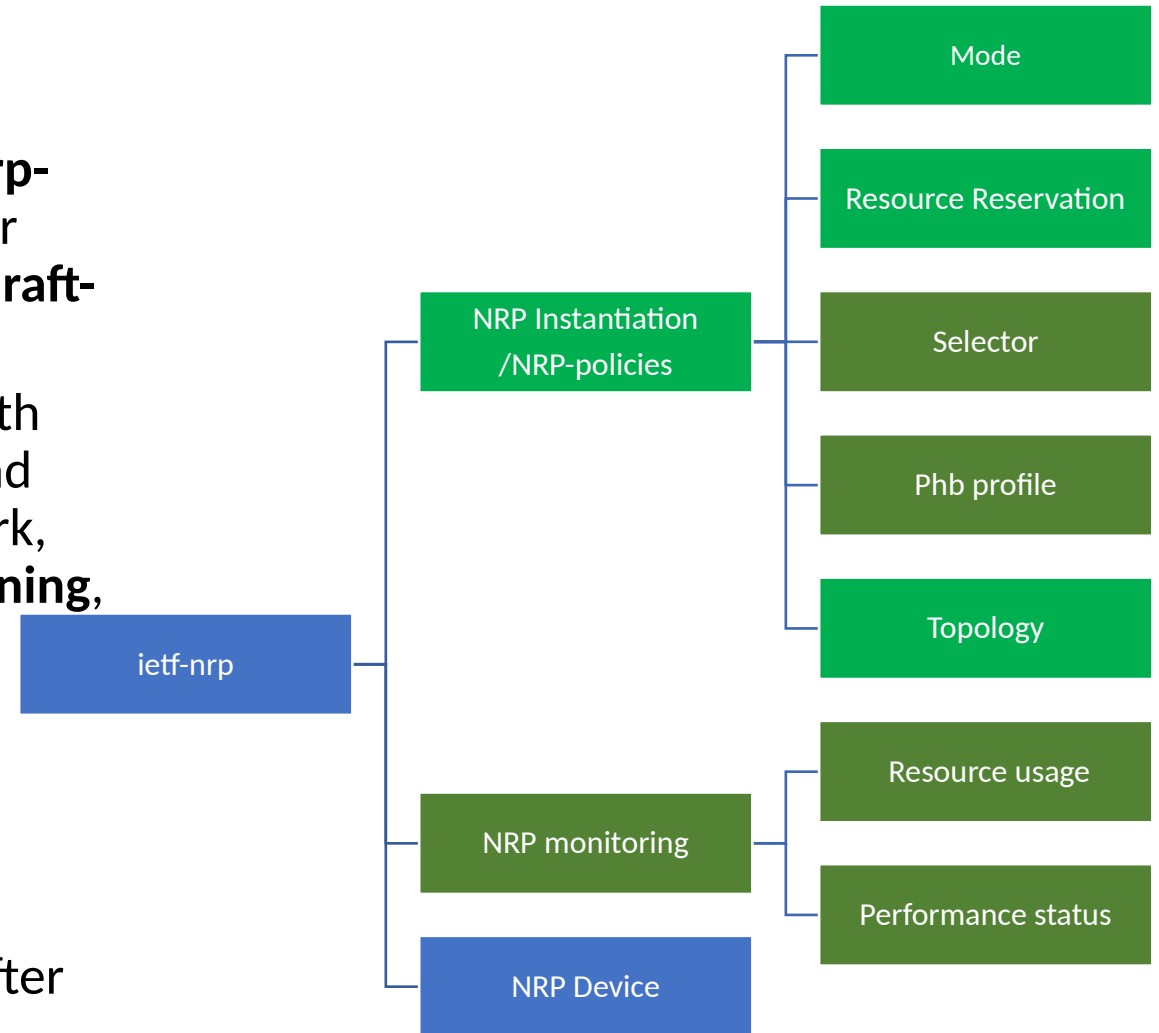
- **Agreement on NRP Instantiation**
  - The primary constructs are borrowed from **draft-nrp-policy** and augmented with additional attributes for **IGP congruency** and **direct topology option** from **draft-nrp-model**
  - An **NRP policy** specifies the topology associated with the NRP and specifies how resource partitioning and SLO mechanisms can be realized in IP/MPLS network, e.g. **data plane partitioning**, **control plane partitioning**, or **both**

- **NRP monitoring**
  - Mainly from **draft-nrp-model**, under discussion

- **NRP device**
  - Major nodes come from "nrp-policy", will decide after the NRP network model is stable

ietf-nrp

NRP Instantiation /NRP-policies
- Mode
- Resource Reservation
- Selector
- Phb profile
- Topology

NRP monitoring
- Resource usage
- Performance status

NRP Device

NRP Selector

- NRP selector, in data plane partitioning mode, is used to identify NRP-specific forwarding resources
  - Classified as **dedicated** or **derived**
  - Encapsulation type: IPv6, SRv6, MPLS or IPv4
  - For MPLS, the authors will add **MPLS Network Actions** (MNA) specific option(s) for carrying the NRP selector based on the progress of the relevant work in the MPLS WG

"Phb-profile" definition

- **Definition follows**
  https://datatracker.ietf.org/doc/html/draft-ietf-teas-ns-ip-mpls-02#section-5.1.3
  - References the name of a pre-defined NRP phb profile

- **Open Item**
  - **Should both "Standard profile" and "custom profile" be defined?**
    - **IETF Network Slice Service model (NSSM) uses** "qos-policy-name"
    - IETF **LxSM** and **LxNM** use "qos-profile"

- Need WG feedback: Naming consistency, Provide both options

Next Step

- Publish the merged draft (this week) and request WG adoption
- Continue working on unresolved items
- Reviews and comments are welcome