

draft-lw-spring-sid-allocation-02

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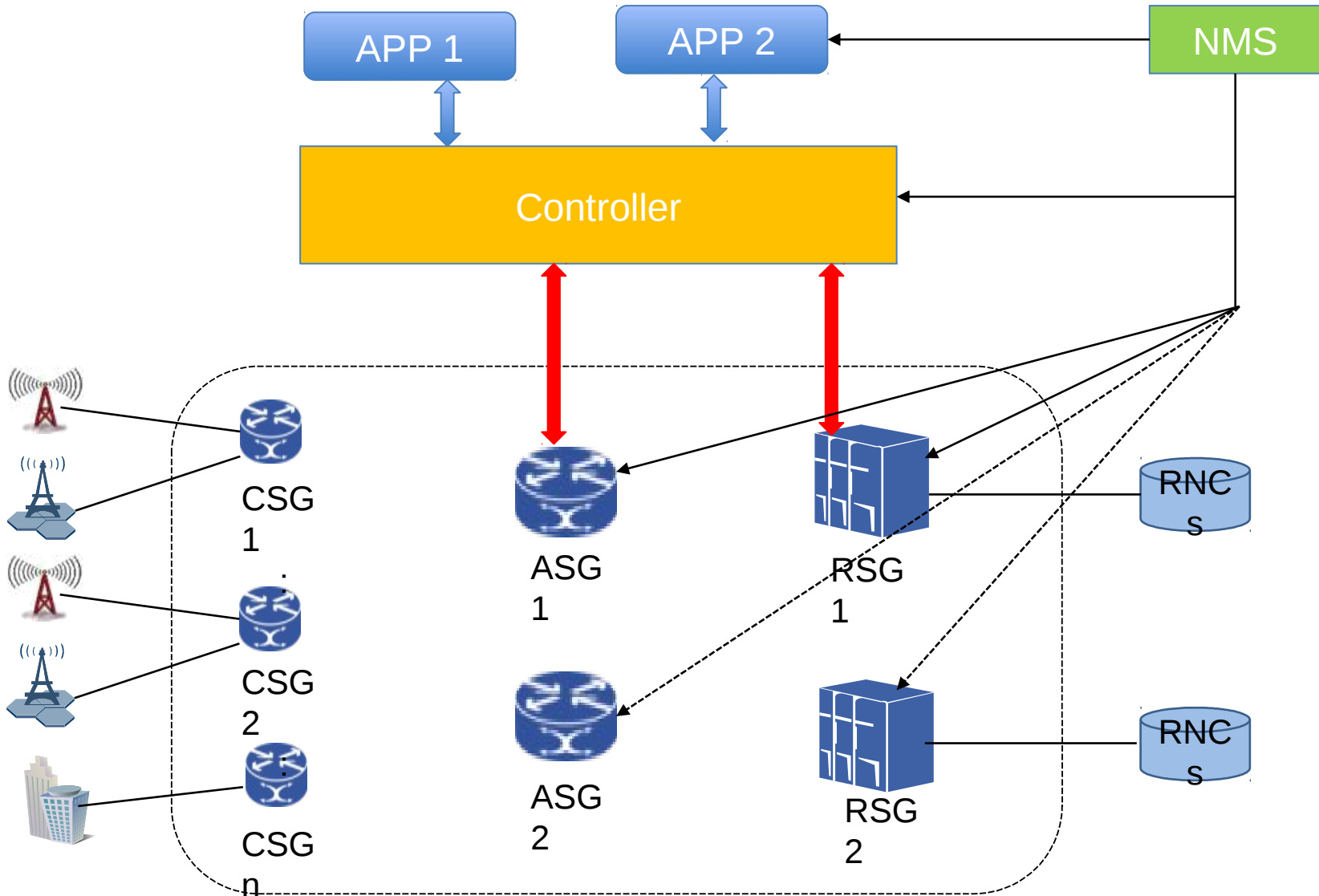
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Motivation

- Manual configuration is not flexible in a large SR domain(such as the IPRAN scenario)
- An automatic allocation solution is introduced to reduce the SID related configuration in a SR domain

IPRAN Scenario



Solution Overview

- CSGs are loaded up with zero-touch , and the IP address is generated from MAC by default algorithm currently
- The IGP protocol is loaded up default, and flooded the IP addresses information in the domain.
- Then the topology will be collected by the ASGs
- The NMS configures the SRGB block information to the ASGs(as a SRMN)
- The SRMN generates the SID mapping or banding to the IP, and allocates the mapping messages by IGP protocol.

SID Generation and Allocation

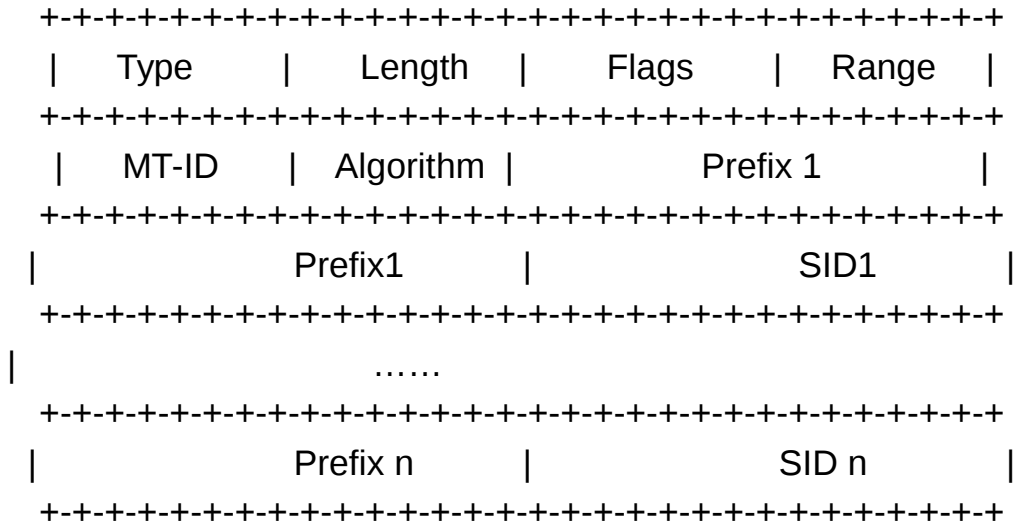
- The SID Generation principle
 - based on the configuration of the NMS
 - Based on the default generation rule decided by the SRMN, such as the numerically higher router-id with the higher SID allocated
- The SID Allocation
 - The SRMN allocates the SIDs mapping information to each SR node by using the extension of SID Allocation TLV or the SID Binding TLV

The tie-breaker of SRMNs

- If more than one SRMN is assigned to allocate the SID for the SR node.
- The SRMN is required to announce that it has the allocation capability.
- The SRMN decision principle is decided by the SR node, such as decided by the value of SRMNs' router id or system id

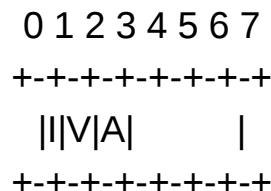
The IGP extension

- The SID Allocation TLV



- The SID Allocation capability extension

- By the bit set in FLAG or RESERVED the SR capability sub-TLV



Next Step

- Comments welcome
- Workgroup adoption?

Thank you!