

draft-litkowski-spring-sr-yang-
01

=> draft-ietf-spring-sr-yang-00

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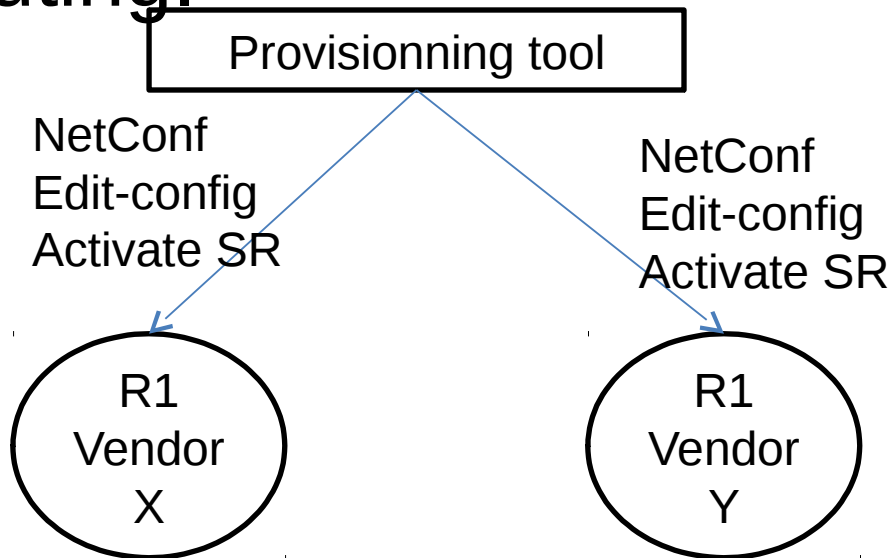
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Y. Qu, Cisco

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Goal

- Define a standard device configuration and operation model in YANG for segment routing.



Changes from -00 to -01

- Module structure as completely changed
 - Before :
 - Groupings defined in ietf-segment-routing
 - Augmentation to IGPs was done also in ietf-segment-routing
 - We so expected all (most) protocol augmentation to be in ietf-segment-routing
 - Issue :
 - In previous version, supporting ietf-segment-routing meant support of both ISIS and OSPF => this may not be the case of all implementations
 - After document being RFC, no more way to add other protocol augmentation in the document, so separated modules will be created

Changes from -00 to -01

- Module structure as completely changed (cont.) :
 - Solution we took :
 - Let's consider protocol extensions as separate modules (ietf-isis-sr and ietf-ospf-sr created)
 - These modules rely on groupings from ietf-segment-routing module
 - ietf-isis-sr module is defined in ISIS Yang draft (no new doc), ietf-ospf-sr is defined in OSPF Yang draft.

Changes from -00 to -01

- Prefix SID configuration :
 - Before :
 - Was under IGP interface configuration
 - Issue :
 - When IP address of interface is changed, there may be some transient situation where routers does not agree anymore on the routing of a particular SID (leading to transient loops)
 - Solution we propose :
 - As for mapping-server, we define a policy « connected-prefix-sid-map » to statically configure prefix to SID mapping rather than interface to SID mappings.
 - This is done in global configuration context of SR, no more under IGP.
 - This proposal still requires discussion.

Changes from -00 to -01

- Prefix SID configuration (cont.) :

```
+--rw bindings
|   +--rw mapping-server {mapping-server}?
...
|   +--rw connected-prefix-sid-map
|       +--rw ipv4
|           +--rw ipv4-prefix-sid* [prefix]
|               +--rw prefix                inet:ipv4-prefix
|               +--rw value-type?           enumeration
|               +--rw start-sid             uint32
|               +--rw range?                uint32
|               +--rw last-hop-behavior?    enumeration {sid-last-hop-behavior}?
|       +--rw ipv6
|           +--rw ipv6-prefix-sid* [prefix]
|               +--rw prefix                inet:ipv6-prefix
|               +--rw value-type?           enumeration
|               +--rw start-sid             uint32
|               +--rw range?                uint32
|               +--rw last-hop-behavior?    enumeration {sid-last-hop-behavior}?
```

Changes from -00 to -01

- We also took into account WG comments since last IETF :
 - Adding ability to have multiple policies for mapping-server
 - Adding node capabilities in ops state (RLD, max push ...)
- Added TI-LFA and RLFA-SR support as a feature :
 - Augment the fast-reroute container of IGP.

Next steps

- Draft just adopted as WG doc : draft-ietf-spring-sr-yang-00
- Welcome all comments from WG about the proposed changes.
- Do we miss something ?
 - SR-TE should be part of TE module, nothing really specific to SR.
- As for other Yang modules, we are stuck with the operational part modeling : needed IETF consensus about how to model ops states.
 - Ops state are there but some reorganization may be necessary