IETF Hackathon

IETF 123
19–20 July 2025
Madrid, Spain

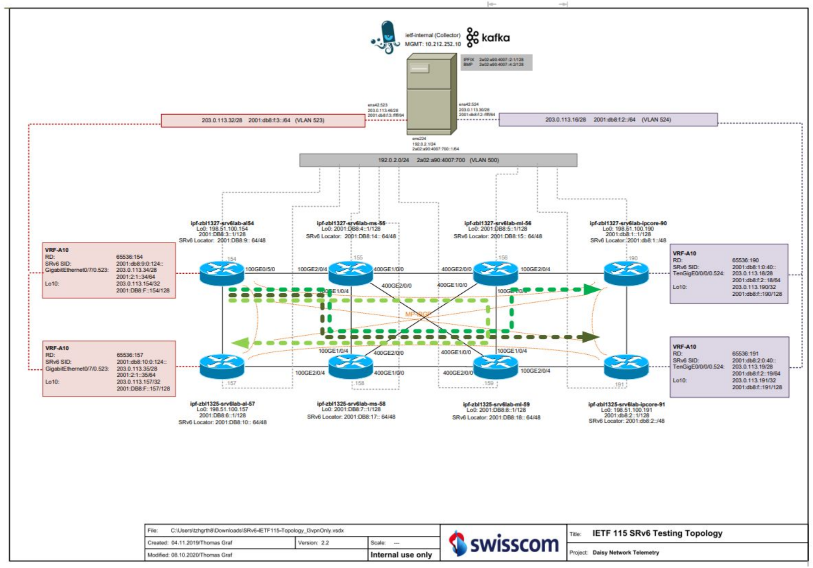
I E T F

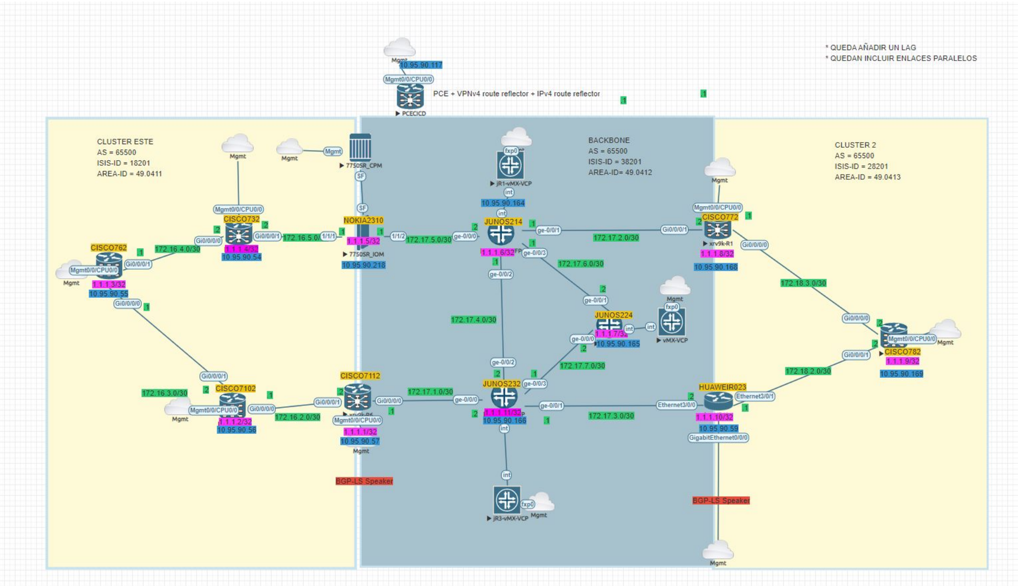
SIMAP: Hackathon Plan

- SIMAP (formerly known as Digital Map)
- IETF 121 Hackathon:
  - Filling RFC8345 gaps for ISIS
  - Prototype of adding external references to topological elements
- IETF 122 Hackathon:
  - Explore options for adding external references about topological elements (Templates)
  - Start modelling SRv6 for SIMAP
- Templates design ⇒ **draft-vivek-simap-external-relationship-00**
- IETF 123 Hackathon:
  - Support of draft-vivek-simap-external-relationship-00 in the code
  - Add VPN Services transported with SRv6 based on previous modeling efforts

SIMAP: Previous Labs

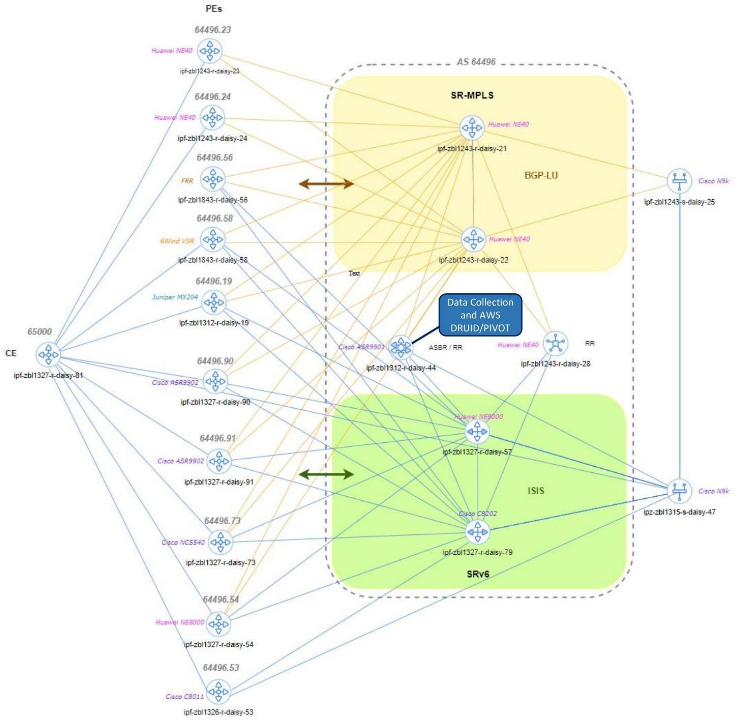
- We were using the lab from Swisscom and Telefonica





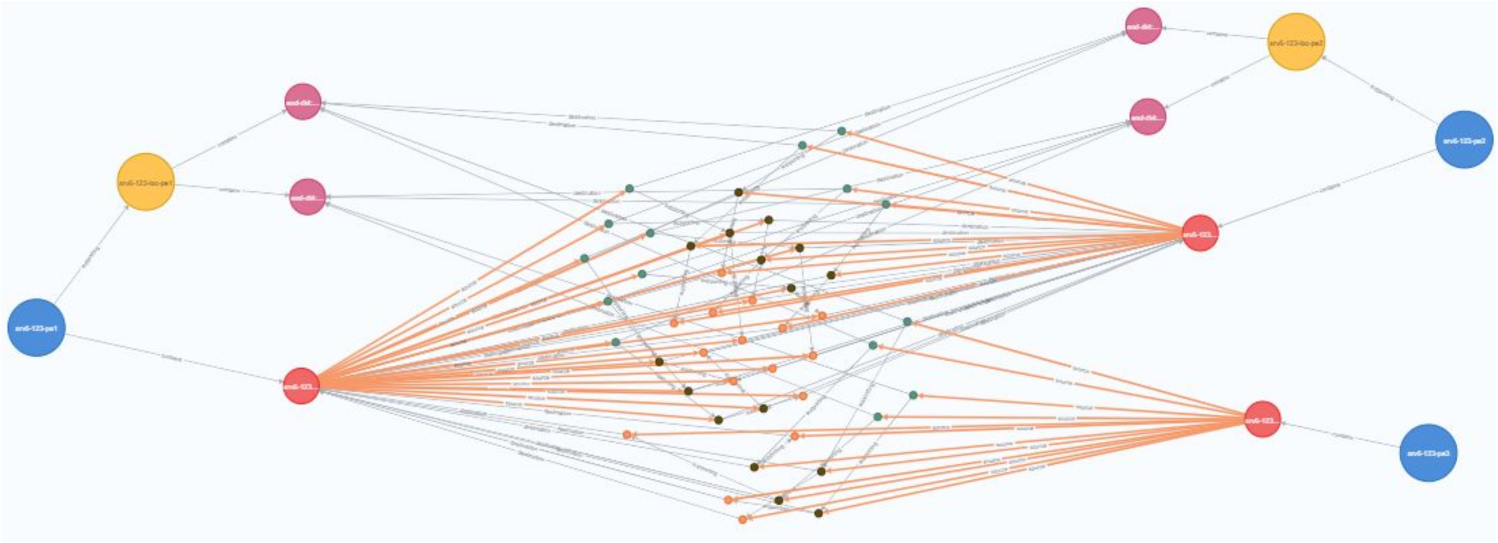
SIMAP: New Labs

- We added more labs, the SRv6 lab from Swisscom + Virtual labs



CONTAINERlab

SIMAP: What we achieved



Only showing segments, segment lists and candidate paths.
SRv6 Policies / Tunnels and Underlay network not showing

Node labels

* (76) srv6-locator (6) sid (10) srv6-node (6)

source-address (7) sid-link (15) sid-list (16) srv6-cp (16)

Relationship types

* (144) contains (14) supporting (36) destination (47)

SIMAP: What we achieved

- Linking topological entities to external models/data
  Consensus reached on templates
  - Based on previous Hackathon experience
  - Based on feedback from Operators and NMOP WG members
  - Documented in draft-vivek-simap-external-relationship-00
  - **Implemented** in a library
- Rely on templates to query information from the net
  - L3: operational state of interface
  - ISIS: lsp timer configuration
- Added SRv6 modeling for segment, segment list, candidate path, policy
- Added L3VPN over SRv6 to SIMAP
  - Based on Ad-hoc models (slides)

SIMAP: What next

- Feedback to NMOP
- Get feedback on the “Ad-hoc” SRv6 models
  - Turn SRv6 models into SIMAP models and submit them to NMOP
  - Adapt the code to feedback from NMOP
- Support steering of SRv6 L3VPN services over SRv6 Policy-driven paths
- Align with SIMAP modeling (draft-havel-nmop-simap-yang)

SIMAP: Team Members

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