

SRv6 Data-Plane Visibility

OPSAWG WG

IETF 115

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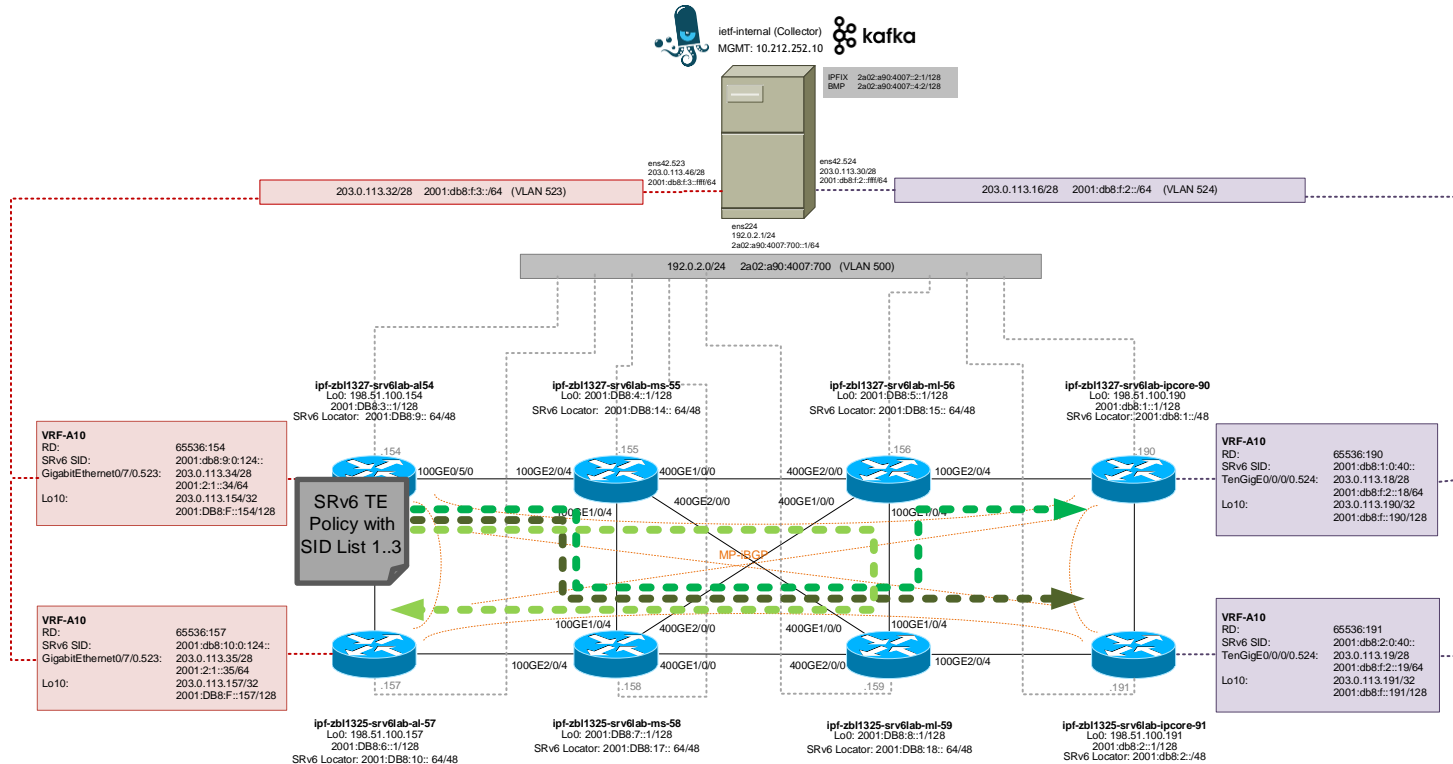
Hackathon



Hackathon - Plan

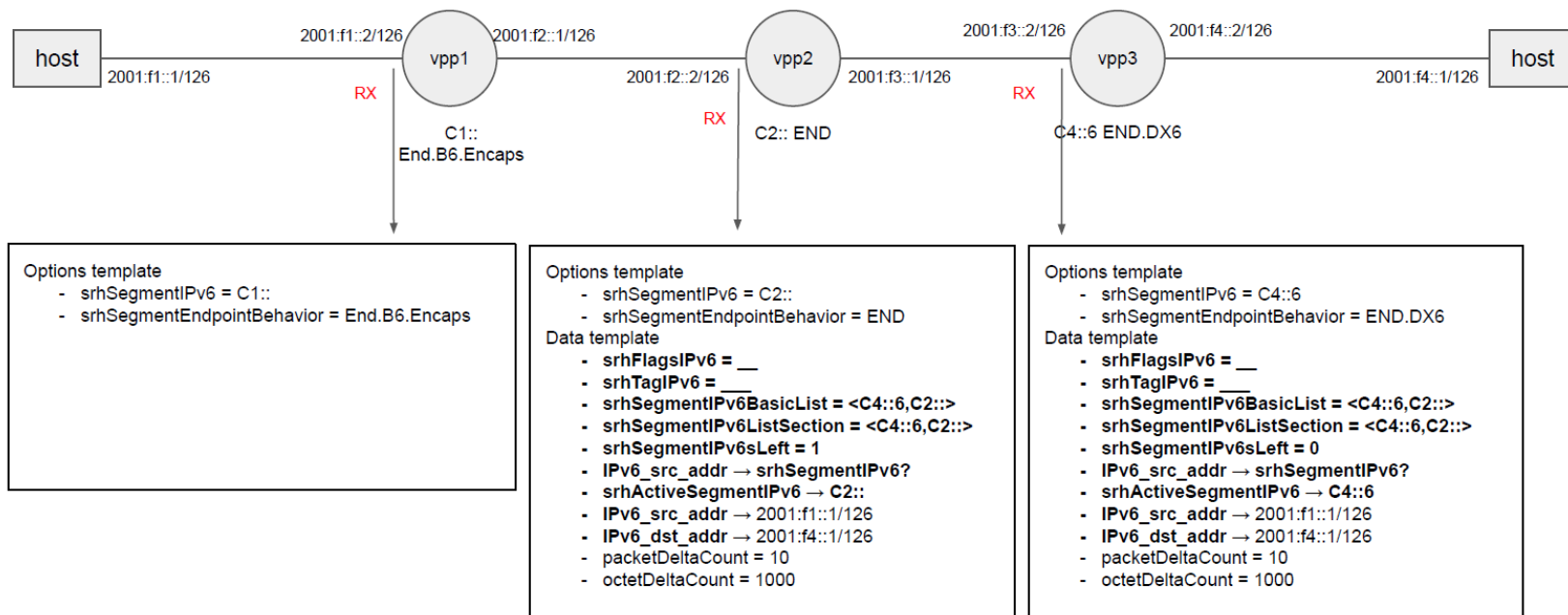
- Establish multivendor SRv6 network topology with network telemetry data collection and processing pipeline.
- Validate and visualize two IPFIX implementations of [draft-ietf-opsawg-ipfix-srv6-srh](#) in [FD.io](#) VPP and on Huawei VRP.

Hackathon – Network (1/2)



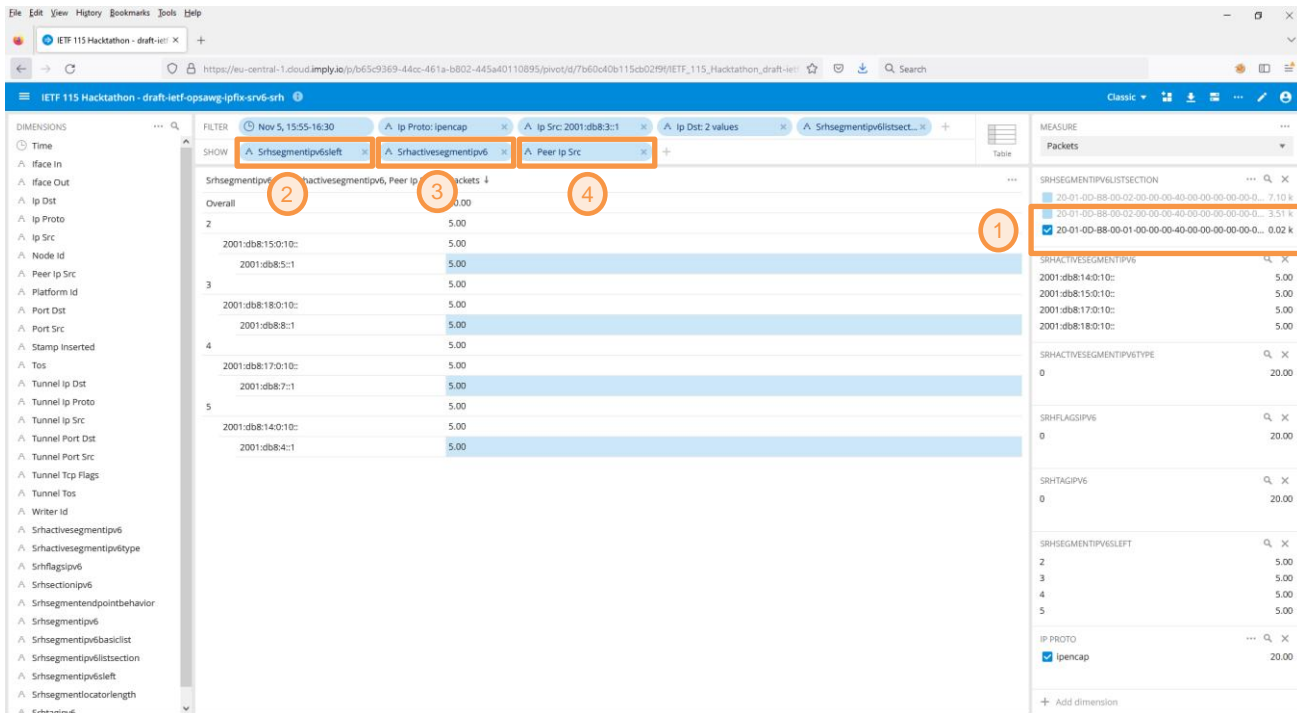
- SRv6 network topology with two vendors and IPFIX data processing pipeline.
- Huawei with four P and two PE nodes exposing SRH provider data-plane as described in draft-ietf-opsawg-ipfix-srv6-srh.
- Cisco with two PE nodes exposing customer data-plane.

Hackathon – Network (2/2)



- FD.io VPP Open Source Code published: <https://github.com/insa-unyte/vpp-srh-onpath-telemetry>

Visualization



- (1) With Segment List Section we can **select the traffic engineered path.**
- (2) Segments Left shows **where we are** in the forwarding path.
- (3) Active Segment **where we forward next to.**
- (4) Peer IP Src from where the metrics were **exported.**

Conclusion

Achievements

- Running SRv6 multivendor network topology with traffic engineering
- Validating two interoperable implementations of [draft-ietf-opsawg-ipfix-srv6-srh](#)
- Decompose srhSegmentIPv6ListSection in [pmacct](#) data collection
- Suddenly realizing that **on one desk we are changing a traffic engineered** path and **on the other desk observing the change in the observed path**.



Next Steps

- Adding support for [draft-tgraf-opsawg-ipfix-on-path-telemetry](#) in VPP
- Validate customer data-plane visibility in SRv6 for L2 and L3 EVPN
- Posting new draft version with minor updates today

What we learned (again)

- Good

- Thanks to our hackathon neighbors, our crowded hackathon group could slowly invade their tables to obtain power and space.
- As always... the beers were most welcome!



- Bad

- Lab access was trickier to troubleshoot than the IPFIX implementation we planned to.

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....and Huawei, INSA Lyon and [Pmacct](#) for the network environment, software and test cases.