Telefónica

Summary of recent activities around SRv6

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SR Operations Side Meeting

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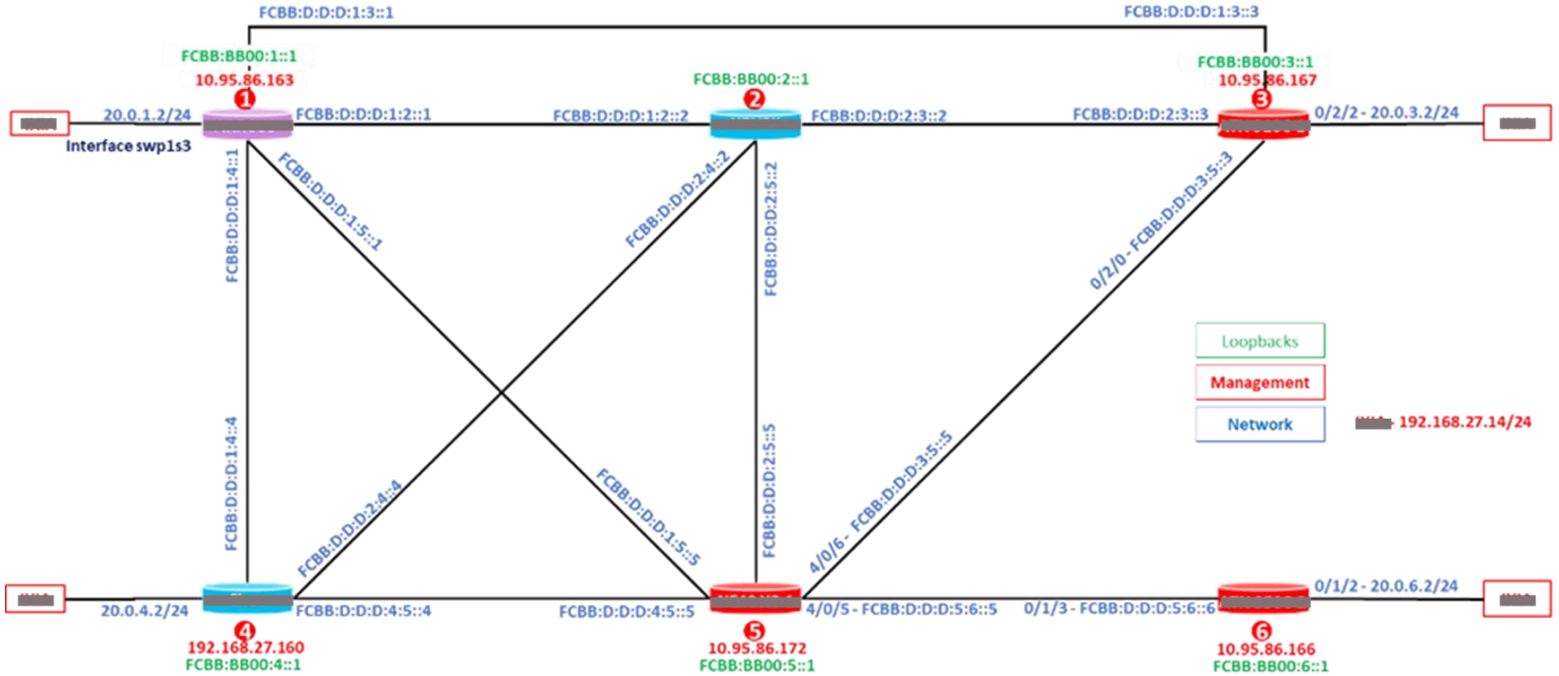
Agenda

- Telefonica CTIO Interop tests
- Telefonica Brazil (Vivo) PoCs
- Automation
- SR Development

Telefonica CTIO Interop tests

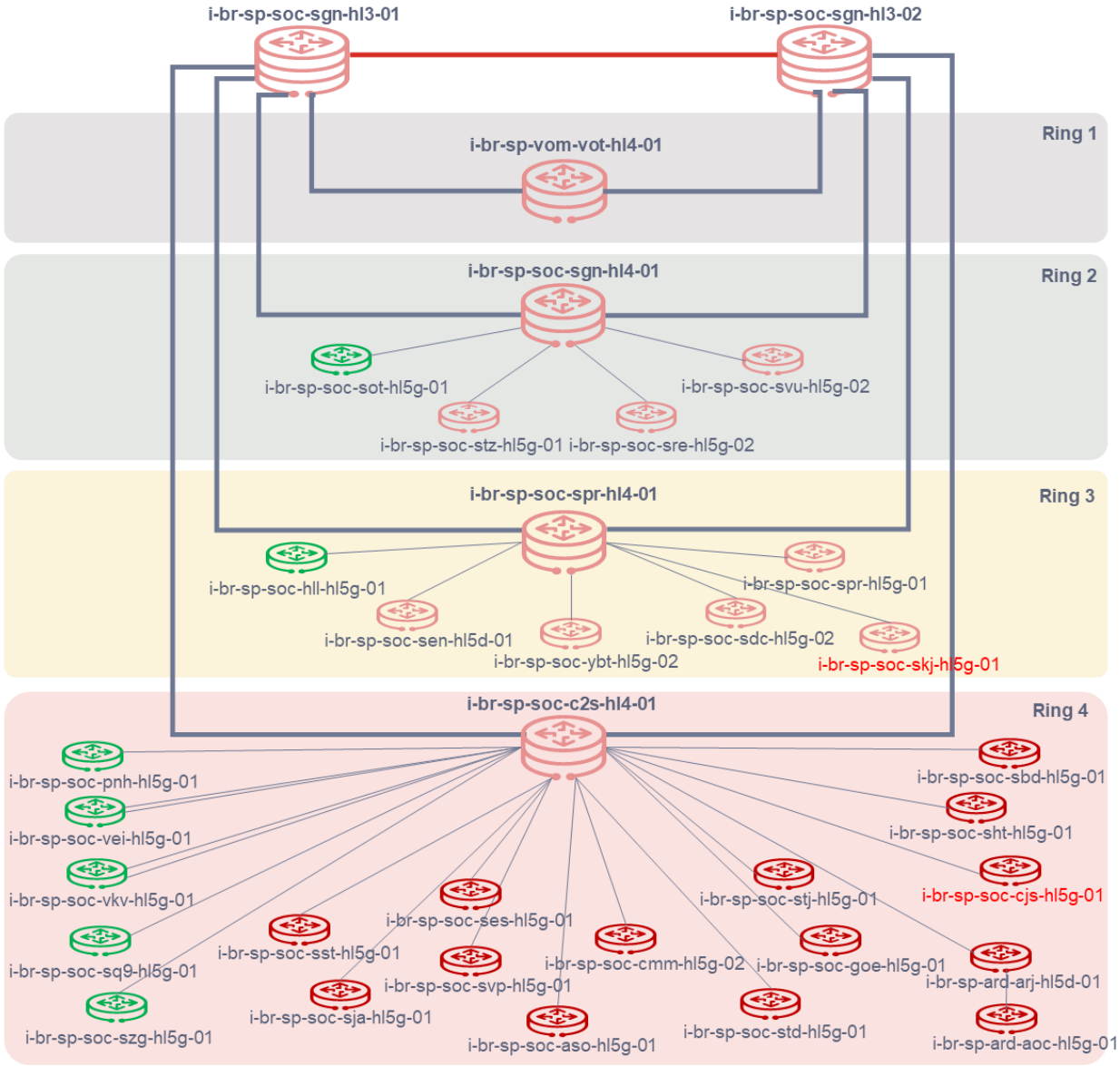
- Three vendors initially tested , plus instrumentation vendor
  - L3VPN, TI-LFA, uSID, FlexAlgo
- Several months of execution



- Next steps: two additional vendors to be included (1 already tested in standalone manner)

Telefonica Brazil (Vivo) PoCs

- Two pilots up and running
  - 1 cluster with 2 vendors
  - 1 cluster single vendor
  - Interworking across IPv6 network
  - Inter-cluster services on MPLS when the other end is not SRv6 capable
  - uSID
  - ~ 50k fixed & ~ 100k mobile users
  - Small overhead increase in terms of bandwidth
- Next step: extension of SRv6 to backbone core

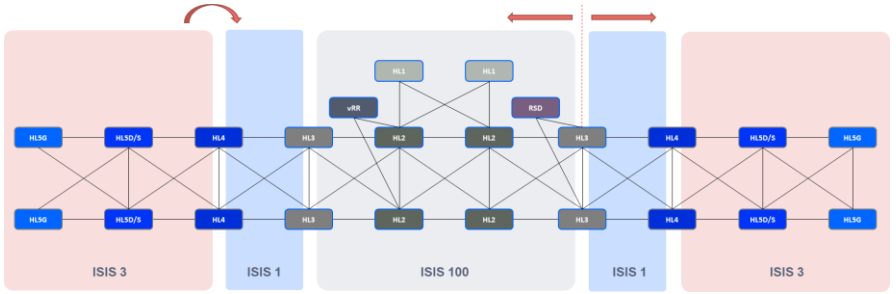


Issues observed

- Interoperability issues
  - Sharing of routes in BGP and IS-IS, support of certain IP loopback addresess, uSID interop, particularities on each implementation, etc
  - All of them solved by intense collaboration among vendors
  - Need of SW upgrades during the process up to reaching stable situation
- SRv6 is more than simply SRH
  - Companion protocols require also to be interoperable ready
  - Careful planning of IPv6 addresses, uSID, summarization, etc
- In recent RFQs the level of compliance of requirements is yet low …
  - … this can be reasonable due to the point of maturity of the specs

Automation and control

- The first use case is reporting network topology for the scenario with SRv6 uSID and flex-algo information for planning purposes
  - Augmenting rfc 8345 and draft-ogondio-opsawg-isis-topology
  - Visualize the different domain
  - We can predict how the network will behave



- Tests with PCE: Starting with one PCE per cluster
- Definition of services using SRv6 still under contruction