

Multicast traceroute for MVPN

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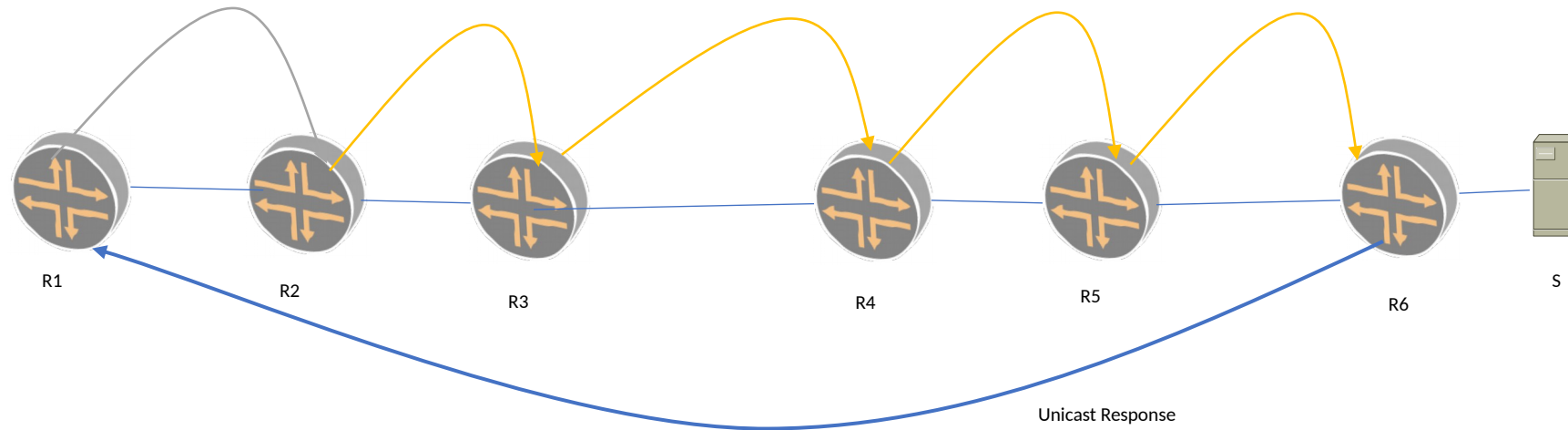
History

- Presented in IETF 90
- Some comments were received from WG members , and draft was in expired state
- Mtrace V2 for native multicast is standard now, So we want to revisit MVPN part of it.

Current state of draft & next step

- Currently this draft does not any new content. We just revised the draft to make its state active
- All the comments would be address by IETF 104
- Most of the slides in current presentation are from previous presentations IETF 90

Quick Recap to Mtrace V2

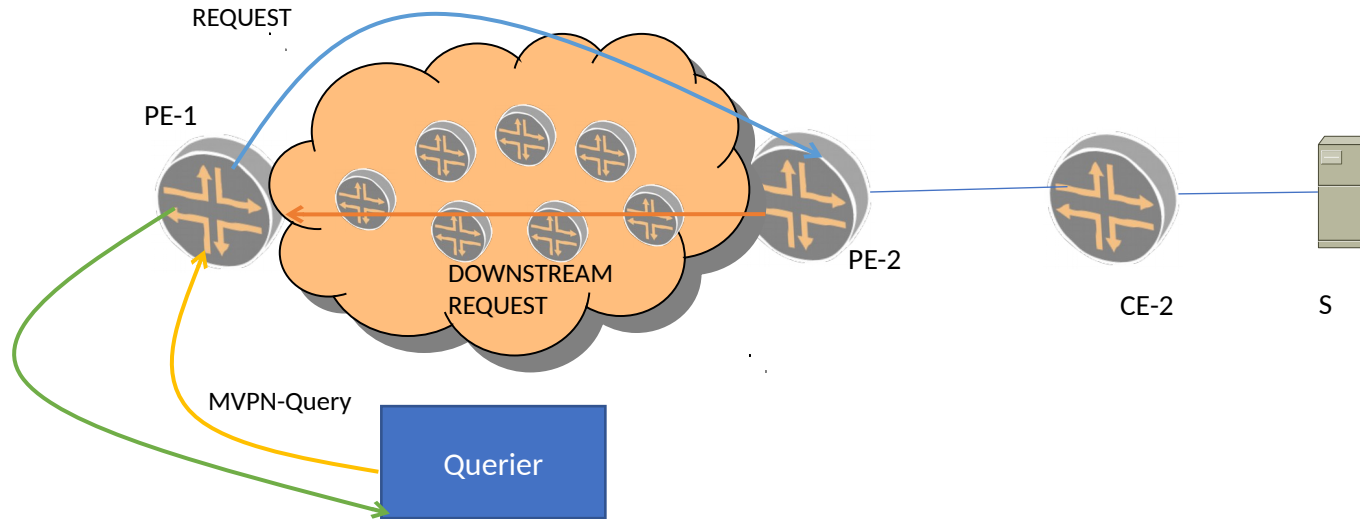


- Starts at the “Last-Hop” and travels to each upstream neighbor towards the source.
- Multicast problems interpreted based on the response block and error codes added
- Successful mtrace results in the Querier receiving the mtrace with Response Blocks populated

What's missing from mtraceV2 with respect to MVPN

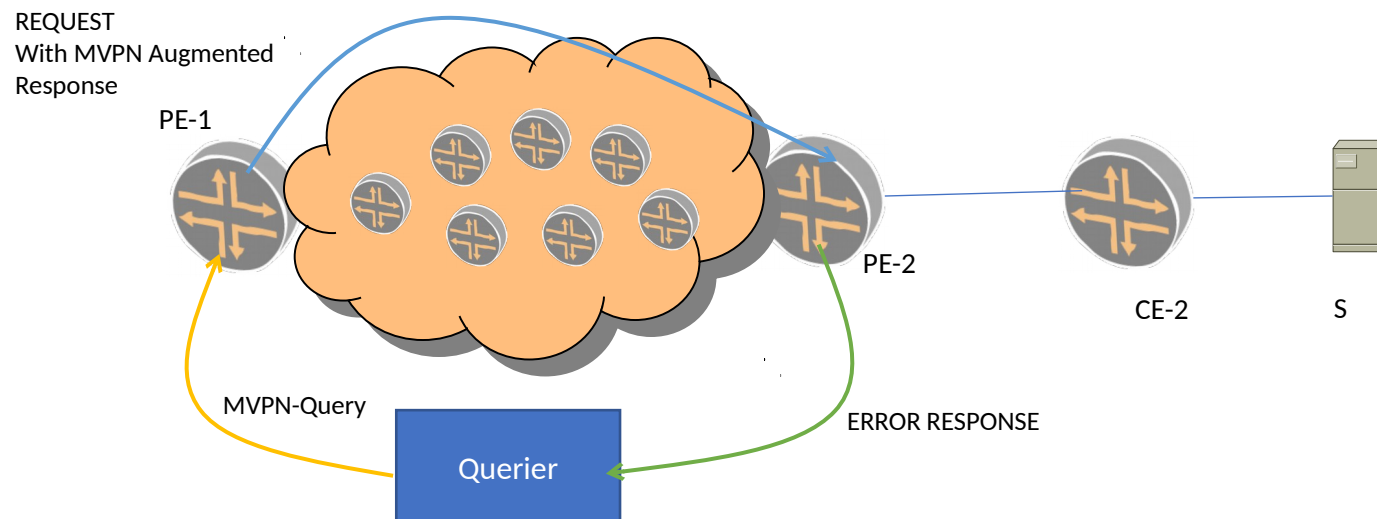
- Mtrace, as is, does not work in BGP-MPLS MVPN scenario
- PE routers are not PIM adjacencies
- No checking of MVPN state
- No BGP-MVPN specific error codes available.

Mtrace for MVPN



- Initiated within provider space
- New 'MVPN Extended Query block' to identify MVPN specific Mtrace Query
- Downstream Request is sent on same provider tunnel that the traffic is sent on
- New Response Blocks to carry NLRI and PMSI tunnel Attributes which is used by PE's for control plane validations
- New MVPN specific error codes added to identify MVPN related issues
- Applied to various MVPN deployment scenarios

Mtrace for MVPN, Error conditions



- MVPN Mtrace handles MVPN specific error conditions.
- For example, consider situation where PE-1 sent a Leaf AD route in response to SPMSI AD advertised by PE-2
- Due to BGP related issues at RRs or PEs, PE-2 did not receive the LEAF-AD route from PE-1
- A Mtrace Query for this (C-S,C-G) from PE-1 would result in an appropriate MVPN error code. This is sent from PE-2 to the Querier

Questions & Feedback