IETF-123

DetNet Data Plane: SRv6

draft-varga-detnet-srv6-data-plane-02
draft-varga-spring-preof-sid-02

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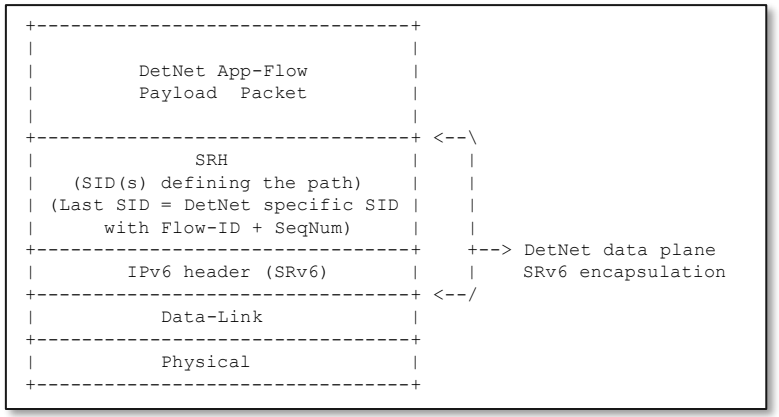
Drafts' History + Update



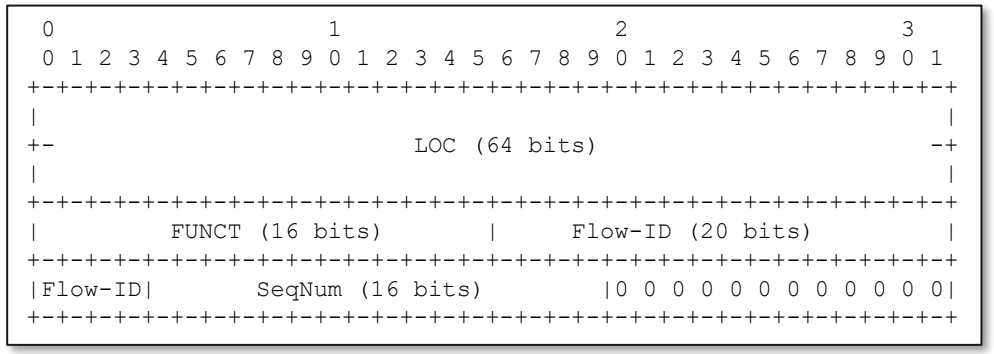
- draft-varga-detnet-srv6-data-plane-02
  - Scope: leverages existing IPv6 encapsulations using DetNet specific SIDs and optionally the Traffic Engineering mechanisms provided by SRv6.
- draft-varga-spring-preof-sid-02
  - Scope: extends SRv6 Network Programming with new SR endpoint and transit behaviors to support the specific service protection treatment.
- Updates of the drafts (based on the received feedbacks)
  - Fine-tunings + editorial changes
  - Appendix A.: Illustrations of usage of DetNet specific SID in a multi-PREOF scenario

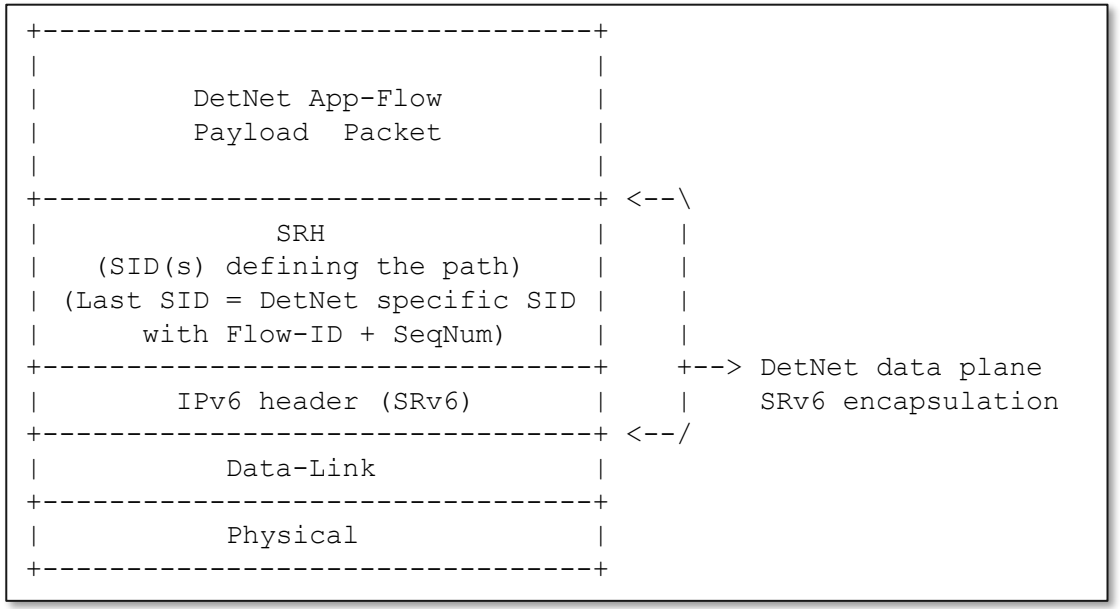
- Note: There is a related draft in SPRING: draft-ietf-spring-sr-redundancy-protection
  - There are some technical differences, also affecting covered scenarios

Overview of Proposals

Building blocks of the proposed DetNet SRv6 solution:

1. A DetNet-specific SID format, which contains the Sequence Number parameter used by PREOF instances.
2. A method to place Flow-ID and Sequence Number in the argument (ARG) part of the DetNet-specific SID.
3. A new set of SRv6 SID behaviors regarding the DetNet-specific SID
   - SR Endpoint Behavior
     - End.PREOF
   - SR Policy Headend Behaviors
     - H.Encaps.PREOF
     - H.Encaps.PREOF.Red
     - H.Encaps.PREOF.L2
     - H.Encaps.PREOF.L2.Red

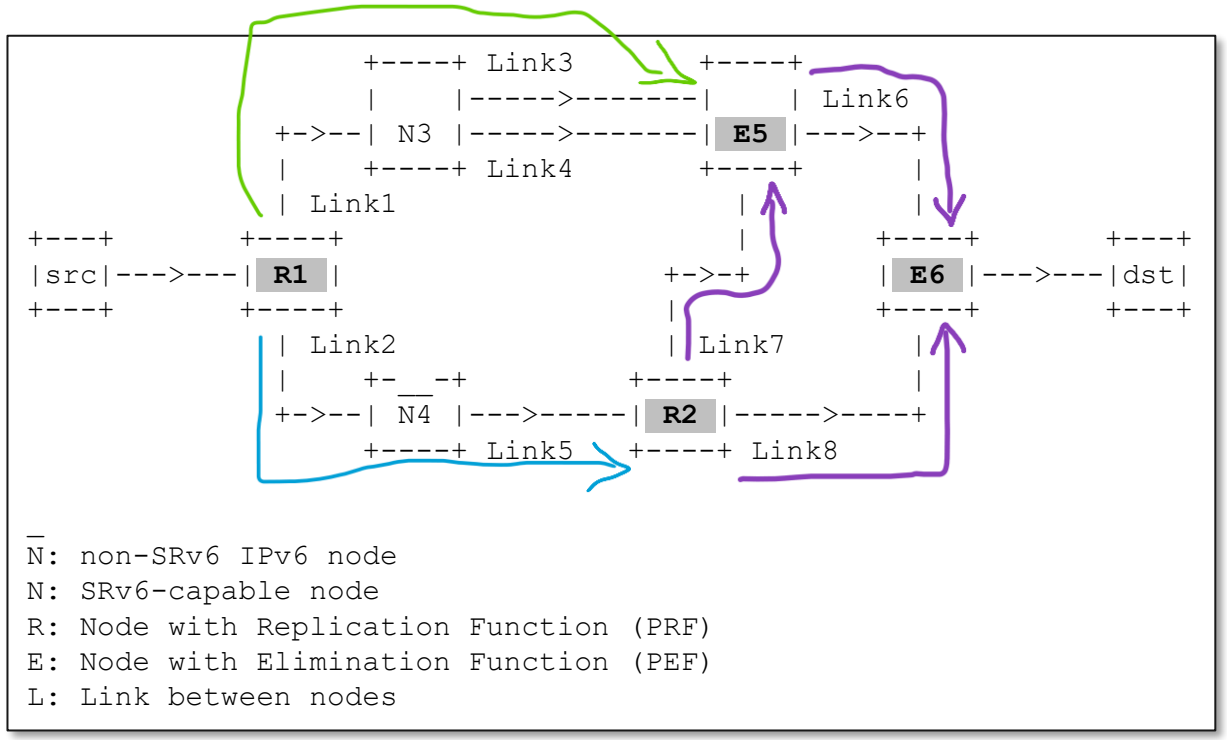




Appendix A. Illustrations

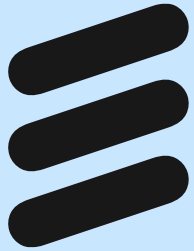
- Scenario:
  - 4 PREOF actions: 2xR, 2xE
  - Mix of SRv6-capable and IPv6 nodes

- Description of operation
  - PREOF actions
  - Encapsulation (usage of PREOF-SID)
    - **R1**-N4-**R2**: non-SRv6 path (no TE)
    - **R1**-N3.Link3-**E5**: SRv6 path (Traffic Steering)



- Note: any of the links can be replaced with an SRv6 network segment.

Next-Steps

- Next-Steps:
  - Seeking for further feedbacks …
  - Need for any further clarification?

  - Working on the explicit format and characteristics of the PREOF-SID:
    - draft-varga-spring-preof-sid
    - draft-ietf-spring-sr-redundancy-protection
    - Authors are working together to “get closer” / “merge” the proposals (expected for IETF-124)