SRv6 Network Programming

draft-ietf-spring-srv6-network-programming-01

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Draft update

- draft-filsfils-spring-srv6-network-programming-07:
  - Split the illustrations into a separate document:
    - draft-filsfils-srv6-net-pgm-illustration-00
  - Draft adopted as the WG document last IETF:
    - draft-ietf-spring-srv6-network-programming-00
Draft update (2)

- draft-ietf-spring-srv6-network-programming-01:
  - Representation of SRv6 Locator as B:N
  - Added normative reference to SRH insertion draft
  - Clarified the use of “No Next Header for IPv6”
  - Updated the Registration procedures for the “SRv6 Endpoint Behaviors” IANA registry:
    - From “IETF Review” to “Specification required”
      - RFC5226: “..Values and their meanings must be documented in a permanent and readily available public specification”
  - Editorial updates
Future Revision

• Alignment with SRH draft (draft-ietf-6man-segment-routing-header)
  • Update SRv6 behavior pseudocodes
• It will be a large editorial change
Open issue 1: Definition of ENH

- Will be addressed automatically in next revision as/when we align with SRH draft (pseudo-codes etc.)
Open issue 2: Use of NH=59 ("No Next Header for IPv6")

- Reasoning:
  - The SID identifies the packet processing on the egress node
  - The "No Next Header for IPv6" identifies that there is no further "IP" header to be processed in the packet

- Discussions on WG mailers (spring, 6man) without any clear consensus.

- Some suggestions:
  - Use NH=97 (EtherIP)
    - Requires RFC3378 compliance (EtherIP Header)
  - Allocate a new protocol value in "Internet Protocol Numbers" registry for NH=Ethernet
  - Redefine the meaning of "59"
  - Keep the current use (NH=59)
Open issue 2: Use of NH=59 ("No Next Header for IPv6") (2)

• Additionally:
  • No solutions were given to satisfy requirements (used for encapsulating ethernet frames and unstructured PDUs)
  • Does not seem reasonable to allocate a new Next Header value for “No Next Internet Protocol header to be processed in the packet” given the existence of “No Next Header”
Thanks!

• Comments ? Questions?