

# DetNet Data Plane

## PREOF for DetNet IP

[draft-varga-detnet-ip-preof](#)

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30<sup>th</sup> July, 2021, IETF 111 online

# DetNet Data Plane PREOF for DetNet IP

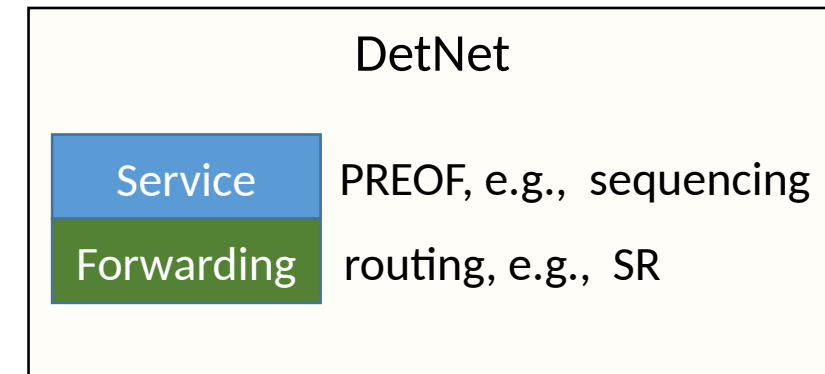
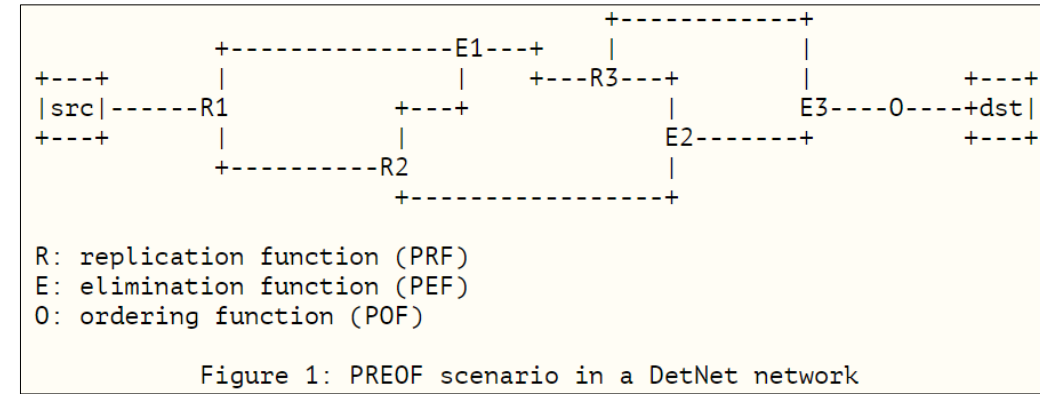
- Intended status:
  - Informational
- Actual version:
  - draft-varga-detnet-ip-preof-00
- Abstract:
  - This document describes how DetNet IP data plane can support the Packet Replication, Elimination, and Ordering Functions (PREOF) based on [RFC9025].

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# DetNet IP PREOF Goals

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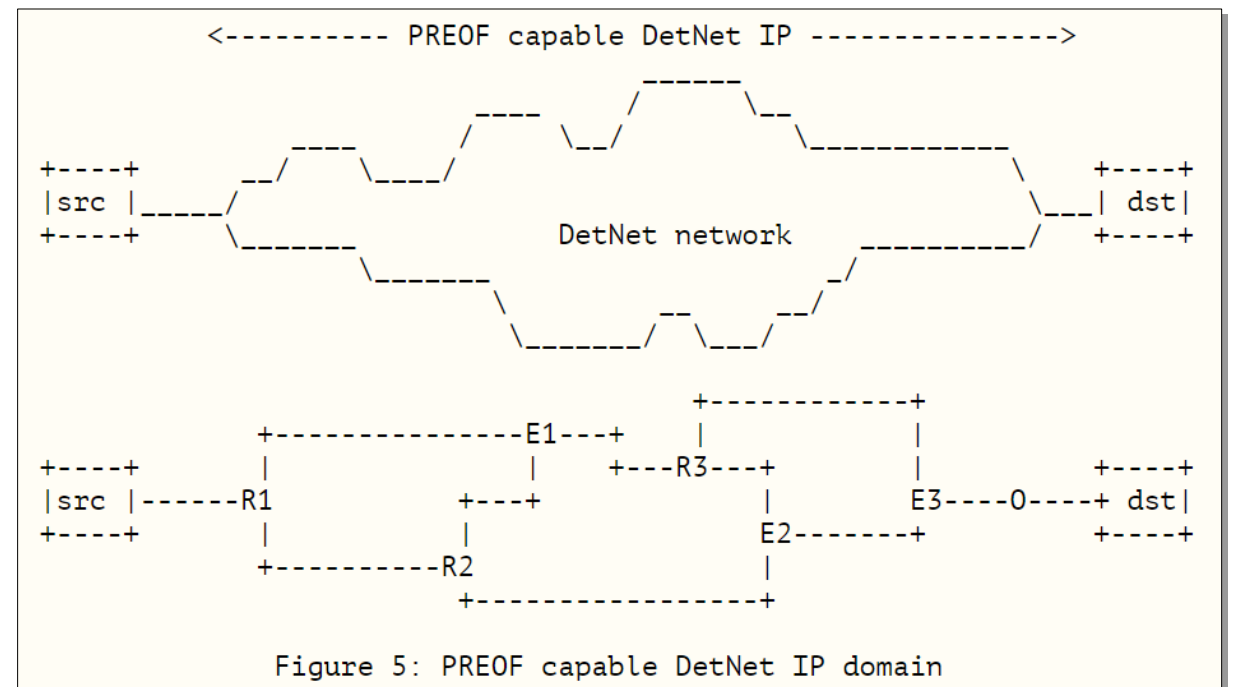
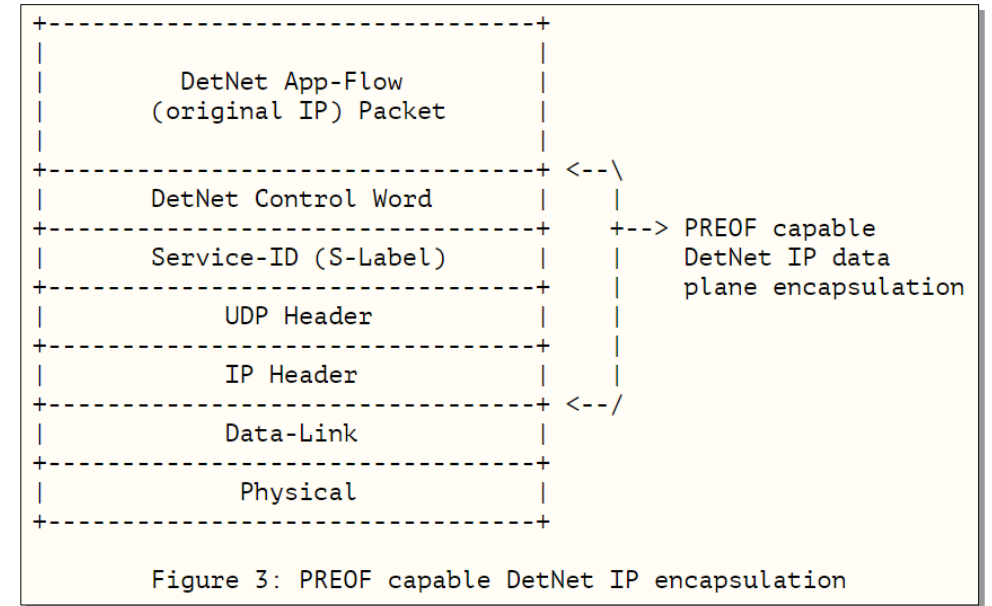
- Add PREOF to DetNet IP
- Reuse existing DetNet data plane (e.g., [RFC8939] & [RFC9025] (\*) [RFC8964])
- □ Provide DetNet service sub-layer for IP with minimal effort; minimal standardization and implementation effort
- Maintain DetNet service sub-layer and DetNet forwarding sub-layer characteristics
  - Service sub-layer includes PREOF functions, e.g., sequencing
  - Forwarding sub-layer includes routing functions, e.g., explicit routing provided by, e.g., Segment Routing (SR)
- □ Enable seamless use of existing routing techniques, e.g., SR (SRv6 in case of IPv6)



# DetNet IP PREOF

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- Basic Concept
  - "UDP tunneling" between relay nodes
  - Maintain the 6-tuple-based DetNet flow identification in DetNet transit nodes
- Provides
  - Encapsulation,
  - Packet Processing
  - Flow aggregation
  - PREOF procedures
  - Control and management parameters



# Summary & Next Steps

- Summary

- This draft leverages existing DetNet Data Plane “building blocks
- No new header fields are specified
- Generic IP solution
- It is already available, both for IPv6 and IPv4
- Defines PREOF at the DetNet service sub-layer, where it belongs to
- Applicable irrespective of what routing technique is used “underneath” (i.e., at the DetNet forwarding sub-layer)
  - Any IP routing technique can be applied, e.g., SRv6
- Does NOT require any additional processing on transit nodes ...

- Next Steps

- Looking for further comments
- Asking for WG adoption

Thanks ...