

# DetNet

## Packet Ordering Function (POF)

[draft-varga-detnet-pof](#)

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# DetNet Service sub-layer Packet Ordering Function (POF)

- Intended status:
  - Informational
- Actual version:
  - draft-varga-detnet-pof-02

- Abstract:

- Replication and Elimination functions of DetNet [RFC8655] may result in out-of-order packets, which may not be acceptable for some time-sensitive applications. The [Packet Ordering Function \(POF\)](#) algorithm described herein enables to restore the correct packet order when replication and elimination functions are used in DetNet networks.

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# Updates on DetNet POF

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- Some editorial updates
- Clarification on possible delay variation caused by POF
  - It is out-of-scope: to eliminate the delay variation caused by the packet ordering.
  - Dealing with delay variation is a DetNet forwarding sub-layer target and it can be achieved for example by placing a de-jitter buffer or flow regulator (e.g., shaping) function after the POF functionality.
- Security considerations
  - Reference to security document [RFC9055]

# Summary – Next Steps

- Discussion on the list:
  - Proposed changes/clarifications (thanks!): DONE
  - Content is stable
- Next Steps
  - Asking for WG adoption

Thanks ...

# Two POF Algorithms Defined

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- Basic algorithm
  - Max incremental packet delay: "POFMaxDelay" time.
  - In-order packets are not delayed.
  - Applicable to all scenarios where the delay budget of a flow allows "POFMaxDelay" time for ordering.
  - Management & Control: "POFMaxDelay", "POFTakeAnyTime"
- Advanced algorithm adds the following extensions to the basic algorithm
  - Identify the path of the received packet at the POF location
  - Path dependent "POFMaxDelay": "POFMaxDelay<sub>i</sub>", where "i" denotes the path.
  - Management & Control : "POFMaxDelay<sub>i</sub>", "POFTakeAnyTime", path identification related configuration(s)

