NSH MD Type 1 Allocation: Timestamp

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The NSH Timestamp in a Nutshell

Timestamp is incorporated in metadata (MD Type 0x1).

Timestamp can be read / used by SFFs / SFs.
What is this useful for?

- One-way network delay.
- Logging for flow monitoring.
NSH Timestamp Allocation Format

Can be used for detecting:
- Out-of-order
- Duplicates
- Loops

Interface identifier at the classifier.

Timestamp in IEEE 1588 truncated format.
Draft Status and Next Steps

• January 2017 – draft 00 submitted.
• March 2017 – presented in IETF 98.
• August 2017 – draft 01 – updates based on comments from WG.
• August 2017:
  – SFC call for MD-1 documents.
• MD-1 with timestamp:
  – draft-guichard-sfc-nsh-dc-allocation
  – draft-mymb-sfc-nsh-allocation-timestamp
• Next steps:
  – Working group feedback.
  – Consider WG adoption.
Thanks!
Related Work

• This presentation summarizes [1].
• The NSH timestamp of this draft can be used in conjunction with [2] or [4], which also use timestamping in NSH.
• NSH timestamping can be used for various use cases ([1], [3], [5]).
• Security considerations are discussed in [1] and in [2]. Security considerations of time protocols are discussed in [6].
References


