



Packet Timestamp Formats

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[draft-ietf-ntp-packet-timestamps-00](#)

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Goals of this Draft

- **Recommended** timestamp formats.
- **Guidelines** for defining new timestamp formats.

History of this Draft

- June 2017 – draft 00 submitted.
- July 2017 – presented in IETF 99.
- September 2017 – revised based on comments.
- October 2017 – adopted by the NTP WG.

- Main changes compared to draft 00:
 - More discussion on what to consider before you pick a timestamp format.
 - Added a Use Case section.
 - ‘Synchronization Aspects’ have been separated from the timestamp format.

Things to consider before choosing a timestamp format

- Timestamp resolution
- Wraparound period
- Timestamp size
- Co-existence with other protocols
- ...

Timestamp Use Cases

Protocol	Recommended formats			Other format
	NTP 64-bit	NTP 32-bit	PTP Trunc.	
NTP [RFC5905]	+			
OWAMP [RFC4656]	+			
TWAMP [RFC5357]	+			
TWAMP [RFC8186]			+	
TRILL [RFC7456]			+	
MPLS [RFC6374]			+	
TCP [RFC1323]				+
RTP [RFC3550]	+			+
draft-ietf-ippm- initial-registry	+	+		

→ To be added to the draft

Next Steps

- Address comments from the WG
 - Rodney Cummings, Warner Losh.
- Control field for packet timestamp
- WG last call

Thanks!

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Packet Timestamps – The Problem

- No common timestamp format(s).
- No common format for defining a new timestamp.

[RFC 5905] – NTP
[RFC 4656] – OWAMP
[RFC 5357] – TWAMP
[RFC 1323] – TCP
[RFC 6374] – MPLS
[RFC 7456] – TRILL
[RFC 3550] – RTP

...

draft-ietf-ippm-ioam-data
draft-ietf-ippm-initial-registry
draft-lijo-6lo-expiration-time
draft-foschiano-erspan
draft-ooamdt-rtgwg-ooam-header
draft-mymb-sfc-nsh-allocation-timestamp
draft-browne-sfc-nsh-kpi-stamp

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References

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- [4] Foschiano, M., Ghosh, K. and M. Mehta, “Cisco Systems' Encapsulated Remote Switch Port Analyzer (ERSPAN)”, [draft-foschiano-erspan-03](#), work in progress, 2017.
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