

In-situ OAM (IOAM) Data Fields

[draft-ietf-ippm-ioam-data-02](#)

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Updates between -01 and -02 version

- New section on timestamp formats in IOAM (section 5)
- Introduction of “IOAM Type” (section 7.2)
- Editorial

IOAM Type (section 7.2)

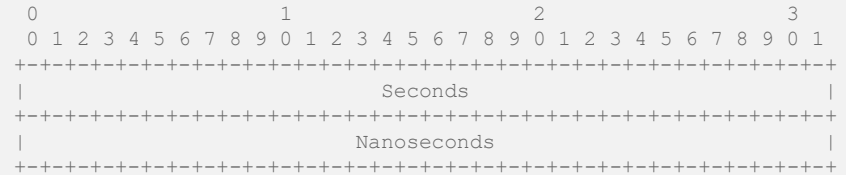
IOAM Type inspired by the need for a consistent approach to encapsulating IOAM data in protocols

- Allows to only use a single “next protocol” code point for IOAM from protocols that IOAM is encapsulated in
 - Required for some protocols (e.g. GRE)
- Consistent structure for all IOAM data with Type/Sub-Type
 - Currently 4 IOAM Types:
 - IOAM pre-allocated trace, IOAM incremental trace, IOAM POT, IOAM E2E
 - Each type has its own set of sub-types
 - -01 only had sub-types for pre-allocated and incremental trace,
 - -02 enables sub-types for all Types, thus making the definition consistent and future proof

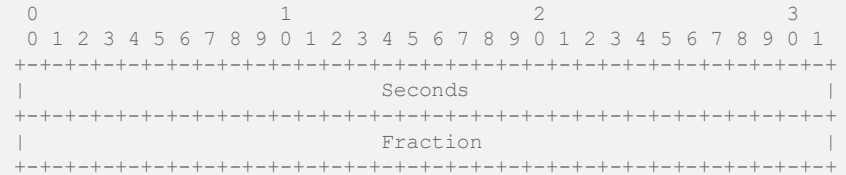
IOAM timestamp format (section 5)

- Two generic fields for timestamps coarse granularity and fine granularity
- Three possible interpretations:
 - PTP, NTP, POSIX
 - Management plane determines which format is used
- Consistent definition of timestamp format for trace options and E2E option

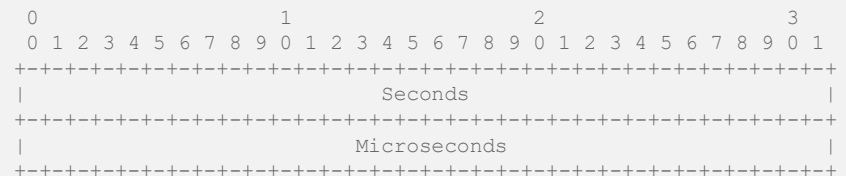
PTP/
1588



NTP



POSIX



Editorial Updates

- Octets-left became RemainingLen: Avoid potential confusion with definitions in encapsulating protocols
- Clean up of reference section: No more references to unmaintained documents
- Language clean up (Thanks to Mickey Spiegel)

Next Steps

- Please continue commenting. Targetting a stable doc (e.g., WGLC) by IETF102
- Sections which still require additional work
 - Security section – needs completion
 - Manageability section – needs completion
 - IOAM data export section – reference new [draft-spiegel-ippm-ioam-rawexport-00.txt](#)