

RFC5101-bis

Advancing IPFIX on the Standards Track

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Overview (since 5101)

- Fixed all existing technical and editorial errata
- Simplified template management
- Clarified timestamp encoding (references POSIX.1, explicit ranges)
- Added DTLS heartbeat (RFC6520) as SHOULD
- Reorganized sections 8-10 (editorial)
- One major open issue left: interop

Simplified template management

- Proposed relaxation of restrictions as compared to 5101, inspired by 5655 “all-transport” template management:
 - To reuse: SHOULD send a Template Withdrawal first, MAY reuse a Template ID directly without withdrawal.
 - MUST periodically retransmit on UDP, MAY retransmit on any transport; CPs on UDP MAY expire to recover resources.
 - Removal of “CP MUST close” on error.
 - Of dubious utility, doesn’t signal error effectively.
- Addition of explicit sequenceability in §8.2:
 - MUST ensure that template management actions make sense from the CP’s perspective, when sequenced in order from the Export Time header.

Template management interop

- 5101 EP → 5101bis CP: interoperates
 - Will not terminate session on protocol error
- 5101bis EP (SHOULD) → 5101 CP: interoperates
- 5101bis EP (MAY) → 5101 CP: potential issue
 - Relaxed template management may lead to session reset:
 - Reuse without withdrawal on TCP/SCTP or withdrawal on UDP
 - No interop test to date of session reset behavior
- **Question:** if relaxed template management (“MAY” behavior) MUST BE configurable at the EP, is interoperability sufficient for advancement?

Open Issue: Interoperability

- RFC 2026 section 4.1.2:
 - “The requirement for at least two independent and interoperable implementations applies to all of the options and features of the specification. In cases in which one or more options or features have not been demonstrated in at least two interoperable implementations, the specification may advance to the Draft Standard level only if those options or features are removed.”
- Several features not yet successfully tested for interop
- → we will need to interop these before the document is published, because removing the features is not really an option.

Features requiring interop testing

- Template withdrawal and ID reuse (§8.1)
- Template stream separation in SCTP (§8.3)
- Template expiration in UDP (§8.4)
- Multiple-stream export in SCTP (§10.2.6)
- DTLS over SCTP and UDP (§11.1)

To do

- WG Review of new §8-10 (template management, CP, transport) and handle any open issues found.
- Handle open issue: organize interop testing
- WGLC-ready in Vancouver timeframe
 - WGLC itself delayed until after interop
- Note that this document gates all other active documents in the present charter.