
Simple IPFIX Files for Persistent Storage

draft-trammell-ipfix-file-00

<http://www.cert.org/ietf/ipfix/draft-trammell-ipfix-file-00.txt>
(expired)

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The Idea (-00)

- Describe legacy formats by IPFIX templates.
- Attach IPFIX templates as headers to existing files
 - Requires Message Header and Set Header extension to signify “this message/set continues to EOF”.
 - -00 proposes length zero for this purpose
- Not much more space efficient
 - average case (1440 MTU), saves 24B/1440B → 1.67%
 - worst case (64kB), saves 24B/64kB → 0.037%.
 - Efficiency of implementation, not of storage

The Opportunity (in general)

- Large-scale flow collection infrastructures often use flat-file binary storage.
 - SiLK, NCSA, OSU...
- IPFIX data format is very nearly perfect for this application...
 - self-describing
 - compact
- Downstream processes can benefit from file-based interoperability.
- Ability to reuse code between protocol and archive implementation.

Possible File Format Features

- Message- and set-level compression
- Message- and set-level archival encryption and signing
- Message- and set-scoping in Options Data Records
- Set-level indexing

Next Steps

- Detailed proposal to mailing for additional message-level and set-level features
- Future discussion of adoption by WG as an Informational RFC
 - Not ready for inclusion in this charter iteration
 - “IETF does protocols, not formats”