

IPFIX Implementation Guidelines

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Motivation

- Many ongoing IPFIX implementations
- Several recommendations have been identified
 - E.g. at the IPFIX interoperability events
- This document will help improving ongoing implementations...
- ...and discusses open issues and unclear definitions

Document outline

- 1 Introduction
- 2 Terminology
- 3 General Guidelines
 - 3.1 Sets
 - 3.2 Template and Data Records
 - 3.3 Information Elements
 - 3.4 Padding
 - 3.5 IPFIX Message Header Export Time and Data Record Time
 - 3.6 The Collecting Process's side
 - 3.7 Transport Protocol
- 4 Guidelines for implementation on Middleboxes
 - 4.1 Traffic Flow Scenarios at Middleboxes
 - 4.2 Location of the Observation Point
 - 4.3 Reporting Flow-related Middlebox Internals
- 5 Extending the Information Model
 - 5.1 Adding new IETF specified Information Elements
 - 5.2 Adding Enterprise-specific Information Elements
- 6 Implementation mistakes
- 7 Security Considerations
- 8 Code availability

Changes from version -01

- New Introduction
 - History of IPFIX
 - Overview of the protocol
- Transport protocol section
 - Generally Improved
 - Added TCP section
- New section on padding
- New section 6: Extending the Information Model
 - Adding new IETF specified Information Elements
 - Adding enterprise-specific Information Elements

Open Issues and Action Items

- Describe the process for requesting new IEs
- Enterprise specific Information Elements
 - how to obtain the type of the given IE
- Information exchange between metering and exporting process
 - Clarifications on who initiates the export, how the exporting process notifies congestion...
- Clarifications as requested during the current IPFIX documents review that are not directly written in the documents

Conclusions

- **Submit as IPFIX WG Item in August 2006**