

# Guidelines for Authors and Reviewers of IPFIX IEs (draft-trammell-ipfix-ie-doctors-01)

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# IE-DOCTORS in a nutshell

- IPFIX is expanding into new application areas
- Most new applications just need new IEs
- → Streamline IE definition process
  - Enable domain experts to specify new IEs and applications with assistance from IPFIX experts, or IE-DOCTORS.
  - Provide processes in line with RFC 5102 and existing IANA Expert Review process.

# Contents

- 1. Introduction
  - Intended audience: IETF contributors extending the applicability of IPFIX; IPFIX Experts (IE-DOCTORS) assisting and reviewing these extensions; and IANA, which manages the registry
- 2. Terminology
  - **Application:** a candidate protocol, task, or domain to which IPFIX export, collection, and/or storage is applied.
- 3. How to apply IPFIX
  - Guidelines for selecting good candidate applications

# More contents

- 4. Defining new IEs
  - Guidelines for defining IEs: naming, typing, structure, etc; based on RFC5102.
  - **New since -01**: promotion of enterprise-specific IEs to IANA
- 5. The IE Lifecycle
  - Defines deprecated and obsolete status, and procedures for managing them
  - **Significantly revised since -01**: reorganized, added process definition, IE version numbers, registry versioning
- 6. When not to define new IEs
  - Guidelines for reducing IE space explosion through reuse and application of enterprise-specific IEs where appropriate.

# Yet more contents

- 7. Applying IPFIX to non-Flow Applications
- 8. Writing I-Ds for IPFIX Applications
- 9. A Textual Format for Specifying IEs and Templates
  - adapted from expired draft-trammell-ipfix-text-iespec
- 11. IANA Considerations
  - **Revised since -01:** specified new columns for IANA registry to support versioning and enterprise-specific IE promotion.

# Defining Information Elements

- Use existing Information Elements when possible
  - New IANA IEs MUST be sufficiently unique
- Use enterprise-specific Information Elements when appropriate.
  - New IANA IEs SHOULD be generally applicable to an application of general interest.
  - For experimentation or pre-commercial use of es-IEs: backreference in IANA IEs to previous es-IE definition.
- Otherwise, define new Information Elements that look like those in 5102.

# Modification and Deprecation

- Information Elements may be **modified**
  - if such modification is *interoperable*, or
  - if the Information Element is not yet widely implemented ("grace period" for trivial, editorial, or errata changes to new IEs)
- Information Elements may be **deprecated**
  - when not modifiable, and a new IE is required to address an error, a change in the application, or a change in the IPFIX Protocol
  - Deprecated IEs transition to **obsolete**

# The IE-DOCTORS Process

- IE-DOCTORS are a designated group of IPFIX experts appointed by IETF Ops ADs.
- Requests for changes to the IANA IE registry sent to IANA, forwarded to the IE-DOCTORS for Expert Review.
- IE Doctors review changes, work with requestors to fix issues.
- Does not apply to v9-compatible IEs (may only be requested by a separately-appointed NetFlow v9 expert).



# Next steps

- WG adoption
  - Additions from Prague were incorporated into -02 revision
  - Resolved the last remaining open issue (versioning) in -02
  - New request for -03: clarify type system requires standards action change, but is usually not necessary anyway
  - Reviews and feedback from the WG!
- Ready for submission to IESG in Taipei timeframe