Specifications of the Protocol for IPFIX Mediations

IPFIX IETF-76 Nov 11th, 2009
<draft-claise-ipfix-mediation-protocol-00.txt>

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Work Justification

Sometimes some generic solutions for all Intermediate Process Types
Sometimes some specific solutions per Intermediate Process Type
Introduction

• Not a complete new protocol, but a series of conventions on the top of the IPFIX protocol RFC5101
• First draft is a starting point: a lot of open issues
• Draft must evolve with the [IPFIX-MED-FMWK] draft

For example, section 7 “Encoding for IPFIX Message Header” discusses the export time and observation domain id
Problem 1: Observation Domain

- If an IPFIX Mediator observes data records from multiple observation domains (OD), which one does it report?
- Solution 1: 0?
- Solution 2: a new one?
- Solution 3: 0 + a list of ODs
- Solution 4: keep the Original Exporter IDs + original ODs
- Solution 5: keep the ODs when data records are not moved to different messages, and ODs don’t collide
Problem 2: Observation Point

- If an IPFIX Mediator observes data records from multiple observation points (OP), which one does it report?
  - Solution 1: none
  - **Solution 2:** we use the IPFIX Structured Data to compute an aggregated OP
Problem 3: Template Management

- Must keep the mapping of incoming versus outgoing templates mapping
- Which transport to include? SCTP, TCP, UDP
- Proposal
  Template management without a record change
  Template management with a record change
Problem 3: Time

• “It is RECOMMENDED that IPFIX Mediators handle time using absolute timestamps”

• What about data records aggregation?
  
  Export the min and max of all data record times?
Open Issues

• What to put in this protocol draft versus in the specific intermediate process drafts?
  Anonymization -> not in this draft
  Flow Keys management?
  New sampling rate management?
  Etc…
  There is no draft for the Intermediate Aggregation and Correlation Processes…

• Should we export the aggregation/correlation functions for an IPFIX concentrator?

• Shall we (always) export the original exporter information?
Conclusion

• We have no choice that solving those problems now...
• Please read the draft and provide feedback
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