IPFIX Mediation: Framework

draft-ietf-ipfix-mediators-framework-03

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Status

- Posted version -03
  - Changes from -02 to -03
    - Feedback from problem statement WG Last Call.
    - Feedback from received comments among co-authors.
- There is still one open issue.
Feedback from PS WG Last Call

- Terminologies section
- All descriptions are aligned with Intermediate Process.
- Described different specific Intermediate Processes.
  - Intermediate Selection Process
  - Intermediate Correlation Process
  - Intermediate Aggregation Process
  - Intermediate Anonymization Process
Feedback from received comments

- Which intermediate process types are hosted in specific IPFIX Mediator type?
  ➞ Added the following table.

<table>
<thead>
<tr>
<th>Mediator Type</th>
<th>Number of hosted IPs</th>
<th>IP Type</th>
<th>Number of IPFIX Transport Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proxy</td>
<td>zero</td>
<td></td>
<td>incoming: zero(*) or one outgoing: one or more</td>
</tr>
<tr>
<td>Distributor</td>
<td>one or more</td>
<td>Selection</td>
<td>incoming: one or more outgoing: one or more</td>
</tr>
<tr>
<td>Concentrator</td>
<td>zero or more</td>
<td>Aggregation</td>
<td>incoming: one or more outgoing: one</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Correlation</td>
<td></td>
</tr>
<tr>
<td>Masquerading</td>
<td>one or more</td>
<td>Anonymization</td>
<td>incoming: one or more outgoing: one</td>
</tr>
<tr>
<td>Proxy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*) When an IPFIX Proxy converts IPFIX from other protocols.

➢ Regarding an IPFIX Proxy and Concentrator, the table need to be rewritten based on problem statement slide.
Feedback from received comments

Clarity the number of incoming/outgoing sessions in each IPFIX Mediator type.

Added the following figure.

Figure K: Component Models in Specific IPFIX Mediators.
Feedback from received comments

- What consideration points are when encoding IPFIX Header?
  - Added the following description in section 7.
  - Export time
    - Case 1: keeping the field value of incoming Transport Sessions
    - Case 2: setting the time at which an IPFIX Message leaves the IPFIX Mediator
    - In case 2, the IPFIX Mediator needs to handle any delta time stamp fields
  - Sequence Number
    - IPFIX Proxy needs to handle the Sequence Number value when the incoming Transport Session shuts down and starts.
  - Observation Domain ID
    - When relaying an IPFIX Message after replacing each incoming ODID with a new value, and using incoming ODIDs as the scope fields, it needs to set the appropriate scope fields in Data Records defined in Options Template Records.
Resolved issue in -03

- How to inform observation information, when aggregating Data Records.
  - RFC5101 mentions that ODID should be 0 when aggregation.
  - Added the following description in section 7.
    - In that case, an IPFIX Concentrator can add new field to Flow Record. The new Information Element indicates observation information instead of ODID.
Open issue

In case of NetFlow to IPFIX, what function is needed?

- Gerhard proposed that an “Intermediate Conversion Process” converts information element ID and option template structure.
  - Maybe yes. But, not yet described it.
  - However, particular assumption (NetFlow) on how traffic records are transferred to IPFIX Mediator is allowed?
  - The description needs to be generalized, NetFlow is as one of examples. Is it right?
Next Step

- Need to rewrite it based on feedback from problem statement, today discussion and resolve open issue.
- After them, it is ready for WG last call.