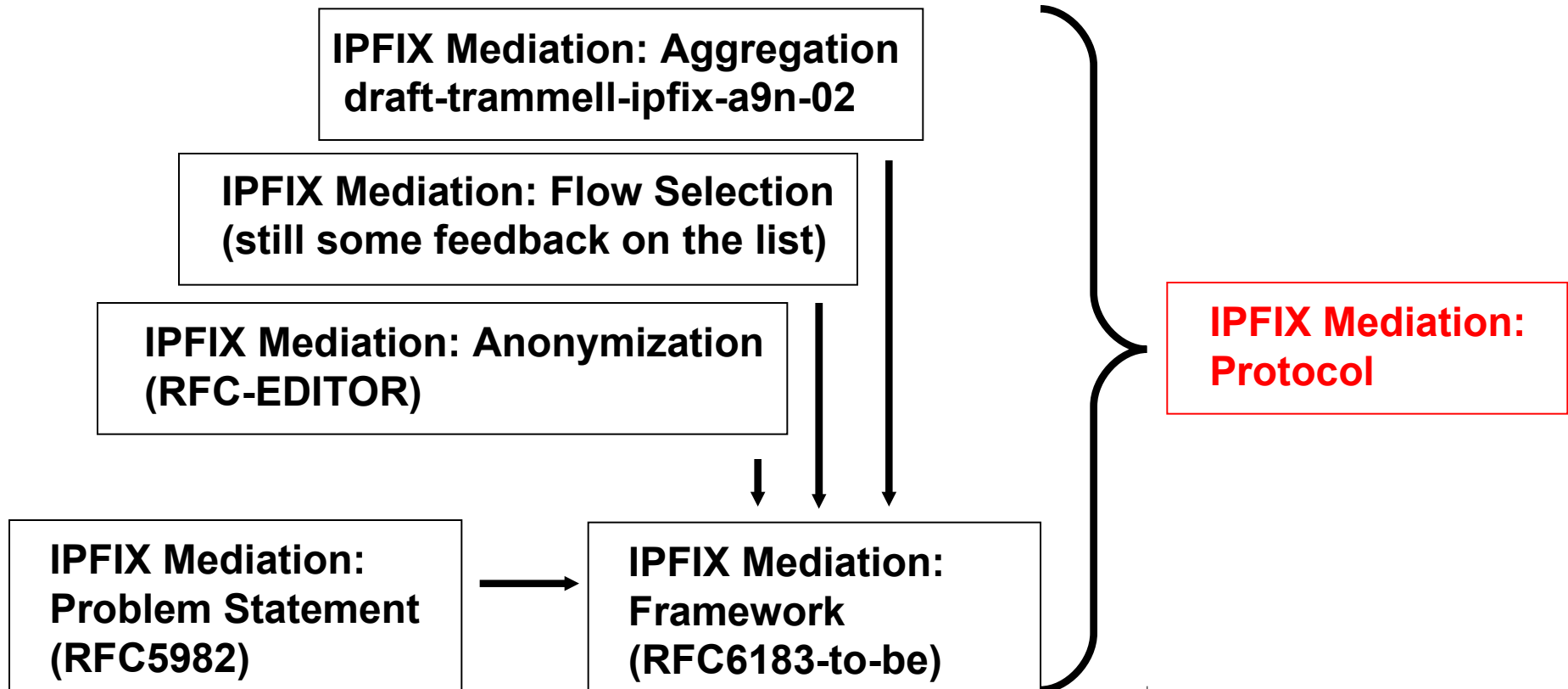# Specifications of the Protocol for IPFIX Mediations

IETF-80, March 2011

<draft-claise-ipfix-mediation-protocol-03.txt>

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Mediation Related Drafts

**IPFIX Mediation: Aggregation
draft-trammell-ipfix-a9n-02**

**IPFIX Mediation: Flow Selection
(still some feedback on the list)**

**IPFIX Mediation: Anonymization
(RFC-EDITOR)**

**IPFIX Mediation:
Problem Statement
(RFC5982)**

**IPFIX Mediation:
Framework
(RFC6183-to-be)**

**IPFIX Mediation:
Protocol**

Sometimes some generic solutions for all Intermediate Process Types

Sometimes some specific solutions per Intermediate Process Type

New in this Version

- ## ACTION from the last IETF

  Check that all documents (this one, [IPFIX-MED-ANON], [IPFIX-MED-FLOWSEL], [IPFIX-MED-AGGR]) all fit together

- ## DONE in this version

  For example, all the terminology is in line.

  Review from Brian & Benoit on [IPFIX- MED-FLOWSEL]

New in this Version: Template Mapping

- **Template Mapping**

  A mapping from Template Records and/or Options Template Records received by a Mediator to Template Records and/or Options Template Records sent by that IPFIX Mediator. Each entry in a Template Mapping is scoped by incoming or outgoing Transport Session and Observation Domain, as with Templates and Options Templates in the IPFIX Protocol.

New in this Version: Template Management

- **We were able to classify all Intermediate Process into 2 categories:**

  Template Management Without Template Record Change (Example: Distributor)

  Template Management With Template Record Change (Example: aggregation)

- **We gave some examples, also including the Template Mapping.**

Template Mapping example (Distributor)

Template Mapping Entry A

Entry B

Entry C

Entry D

```
                                  Templ. .---------.
                                  ID 256 |         |
                                    .---->|Collector|<==>Customer
                                    |     |#1       |     #A
                                    |     |         |
                                  RD=100:1 '---------'
.---------.Templ.  .---------.       |
|         |Id      |         |       |----'      .---------.
|         |258     |         |       | RD=100:2 |         |
|IPFIX    |------->|IPFIX    |--------->|Collector|<==>Customer
|Exporter |        |Mediator | Templ.   |#2       |     #B
|#1       |        |         | | ID 257 |         |
|         |        |         | |----.    '---------'
'---------'        '---------'    |
                                RD=100:3
                              Templ.|     .---------.
                              ID    |    |         |
                           D    257 '---->|Collector|<==>Customer
                                          |#3       |     #C
                                          |         |
                                          '---------'
```

Template Mapping example (Distributor)

- **Template Entry A:**

  Incoming Transport Session (from Exporter#1):
  Source IP: <Exporter#1 export IP address>
  Destination IP: <IPFIX Mediator IP address>
  Source Port: <source port>
  Destination Port: 4739 (IPFIX)

  Observation Domain Id: <Observation Domain ID>

  Template Id: 258
  Flow Keys: <series of Flow Keys>
  Non Flow Keys: <series of non Flow Keys>

- **The Template Mapping:**

  Template Entry A <----> Template Entry B

  Template Entry A <----> Template Entry C

  Template Entry A <----> Template Entry D

New in this Version

- **Observation Domain Management: new section based on Template Mapping notion**

- **New section on configuration management**

- **3 new Informations Elements: originalExporterIPv4Address, originalExporterIPv6Address, and   originalObservationDomainId**

- **We have resolved all the open issues.**

- **This draft fits the mediation requirements, the framework, the anonymization, and the aggregation drafts.**

What's next?

- **We have resolved all the open issues.**

- **This draft fits the mediation requirements, the framework, the anonymization, and the aggregation drafts**

  Have to double-check for latest version of [IPFIX- MED- FLOWSEL]