IP Flow Information Accounting and Export Benchmarking Methodology

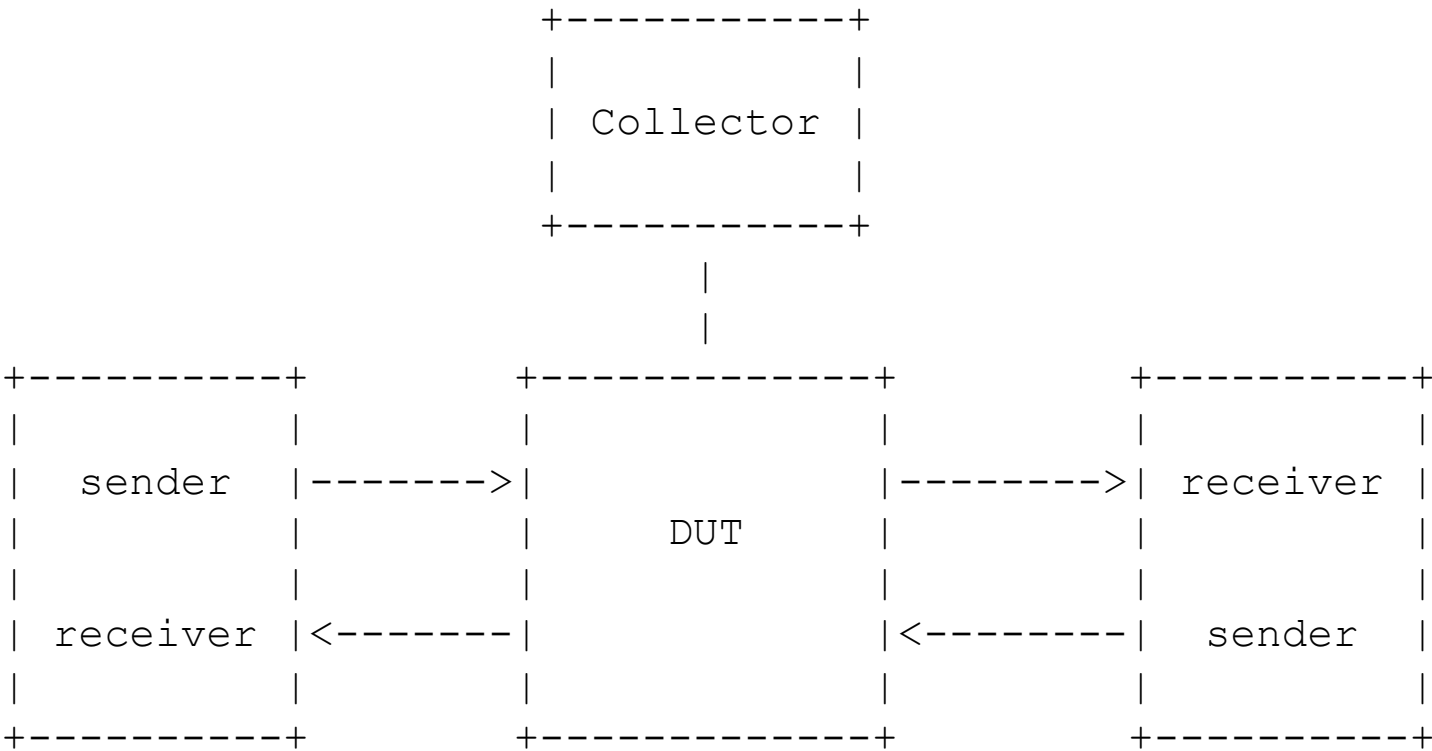http://www.ietf.org/id/draft-ietf-bmwg-ipflow-meth-00.txt

Jan Novak

Cisco Systems
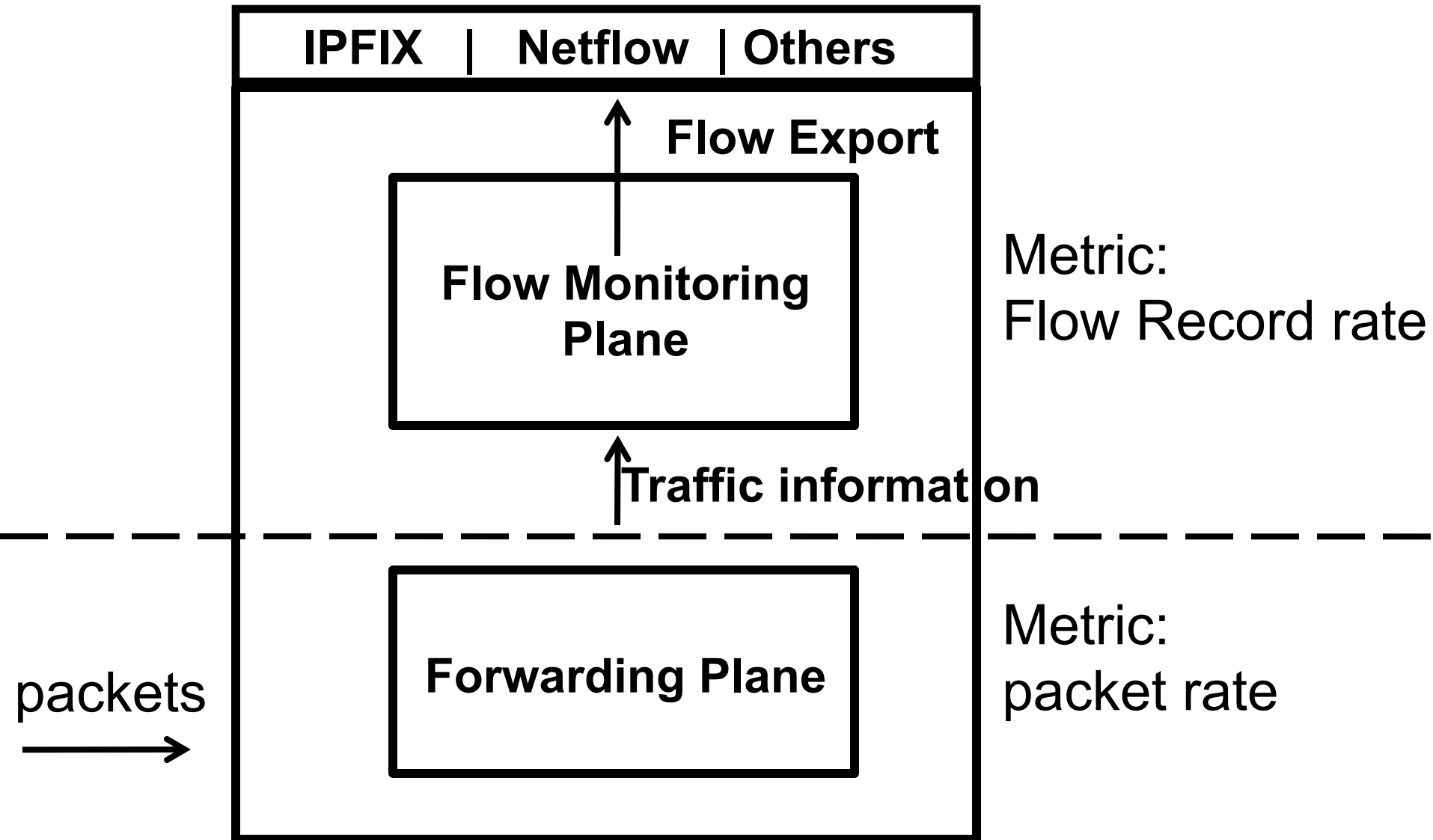
Presenting to BMWG @ IETF80

Document Goal

- Defines metrics to characterise Flow Monitoring performance based on:

  - Architecture Model for IP Flow Information Export: RFC5740

- Defines conditions to perform Network Devices benchmarking in the presence of Flow Monitoring

  – IPv4 Benchmarking Methodology: RFC2544
  – IPv6 Benchmarking Methodology: RFC5180

Test Topology

```
                        +-----------+
                        |           |
                        | Collector |
                        |           |
                        +-----------+
                              |
                              |
+----------+          +-------------+          +----------+
|          |          |             |          |          |
| sender   |------->| |             | |------->| receiver |
|          |          |    DUT      | |        |          |
|          |          |             | |        |          |
| receiver |<-------| |             | |<-------| sender   |
|          |          |             | |        |          |
+----------+          +-------------+          +----------+
```

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The Concept – DUT

IPFIX | Netflow | Others

Flow Export

Flow Monitoring Plane

Metric:
Flow Record rate

Traffic information

Forwarding Plane

Metric:
packet rate

packets

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What are the Benchmarks

Flow Monitoring Plane:

How many Flow Records the DUT can handle per second without dropping any Flow information and packets – Flow Monitoring Throughput

Data Forwarding Plane:

RFC2544 Throughput measured in the presence of Flow Monitoring

Pending Changes

Remove references to Sflow

Remove section 3.5 – 3.6 (SW and HW platforms discussion)

Do we need a separate terminology document ???

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