

# **Methodology Network Flow Performance Measurement**

**<draft-akhter-opsawg-perfmon-method>**

# **IPFIX Information Elements for Flow Performance Measurement**

**<draft-akhter-opsawg-perfmon-ipfix>**

**IETF-80, March 28th, 2011**

**Aamer Akhter / aa@cisco.com**

# Intro

---

- 2 drafts: methodology + IPFIX
- Based on cisco IOS performance monitor feature experience
- Measure and report performance of **network** and **applications**
  - Validate SLAs
  - Fault isolation
  - Early warning
- Provide context for reporting
- **This is not directly about RTP, audio/video**

# Methodology Issues

---

- **Better define timing methodology**
- **Need wider review**

**More confidence in scalable data plane  
implementation**

- 
- **Thank-you!**

# A little bit of history

---

Received some good feedback from Rahul Patel, Jan Novak, Al Morton, Shingo KASHIMA, Mike Patterson

- **draft-akhter-ipfix-perfmon-00/01, Oct 17/25**
- **IPTV Traffic Monitoring System with IPFIX/PSAMP, NMRG IETF78**
- **I-D.huici-ipfix-sipfix, Jun 22 2009**  
SIPFIX: Use Cases and Problem Statement for VoIP Monitoring and Exporting
- **I-D.ietf-pmol-metrics-framework**
- **I-D.ietf-pmol-sip-perf-metrics**
- **nProbe support for RTP**
- **RFC4710 - Real-time Application Quality-of-Service Monitoring (RAQMON) Framework**
- **RFC3550 RTP**
- **Separated original drafts into methodology and IPFIX drafts**

# Rev -01, IEs

---

- **Transport Layer**
  - perfPacketLoss**
  - perfPacketExpected**
  - perfPacketLossRate**
  - perfPacketLossEvent**
  - perfPacketInterArrivalJitterAvg**
  - perfPacketInterArrivalJitterMin**
  - perfPacketInterArrivalJitterMax**
- **User and Application Layer**
  - perfSessionSetupDelay**
- **Contextual Element**
  - mediaRTPSSRC**
  - mediaRTPPayloadType**
  - mediaCodec**

# Directions

---

- **Use PMOL guidelines for measurement methodology**
- **Separate measurements from reporting?**
  - Per (transport) protocol measurement methodology docs**
  - Reduced number of IPFIX reporting docs**

# IPFIX Issues

---

- **New data types / semantics**
  - Percentage**
  - Floating point**
  - Etc**
- **How to express ‘not applicable’**



# Summary

---

- **Draft out for review**
- **Decide on measurement separation**
- **Post new version(s)**
- **WG item?**