

# Information Elements for Data Link Layer Traffic Measurement

draft-ietf-ipfix-data-link-layer-monitoring-01

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85th IETF Meeting, Atlanta, 2012

# Introduction

- This document lists a series of new Information Elements for data link layer monitoring.
- The draft has been evolving over the last 3 years.
- Currently in WGLC
  - started 15th October, runs to 11th November.
- Also to be reviewed by IEEE 802.

# Changes in -01

- Per IETF 84, clarification added to section 3.4. sectionOffset:

Description:

This Information Element specifies the offset of the packet section (e.g., dataLinkFrameSection, ipHeaderPacketSection, ipPayloadPacketSection, mplsLabelStackSection and mplsPayloadPacketSection). If this Information Element is omitted, it defaults to zero (**ie, no offset**).

**If multiple sectionOffset IEs are specified within a single Template, then they apply to the packet section IEs in order. ie, the first sectionOffset applies to the first packet section, etc. Note that the "closest" sectionOffset and packet section IEs within a given Template are not necessarily related. If there are less sectionOffset IEs than packet section IEs, then subsequent packet section IEs have no offset. If there are more sectionOffset IEs than the number of packet section IEs, then the additional sectionOffset IEs are meaningless.**

# Changes in -01

- Missing paragraph (due to bad XML) re-instated:

In VXLAN networks, a traffic measurement based on multiple kinds of IP/MAC address and new VXLAN header is more important than existing Ethernet network in which traffic measurement is based on only VLAN Tag.

- Table 1 named.

# Reminder

- New Information Elements related to packet section (ie, **sectionOffset** and **sectionObservedOctets**) can be applied not only to dataLinkFrameSection but also all kinds of packet section:

ipHeaderPacketSection, ipPayloadPacketSection

mplsLabelStackSection, mplsPayloadPacketSection.

- WG feedback @ IETF 84:
  - 1: modify the existing packet section Information Elements Descriptions
  - 2: ~~deprecate existing packet section Information Elements and create new ones~~
  - 3: ~~**sectionOffset** and **sectionObservedOctets** don't apply to existing packet section Information Elements~~

# Example: ipHeaderPacketSection

This Information Element, which may have a variable length, carries a series of octets **starting sectionOffset octets** from the start of the IP header of a sampled packet. With sufficient length, this element also reports octets from the IP payload, subject to [RFC2804]. See the Security Considerations section. The size of the exported section may be constrained due to limitations in the IPFIX protocol. The data for this field **MUST NOT** be padded **unless sectionObservedOctets is also reported**.

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