Information Elements for Data Link Layer Monitoring

<draft-ietf-ipfix-data-link-layer-monitoring-02>

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Background

- ❖ Submitted as WG draft version 02 in Feb. 2013.
  - ▪ Improved based on the comments from Pat Thaler.
    - • Replaced with the references of current 802.1 documents.
    - • Organized the frame formats in appendix.
    - • Improved sub-section 2.2 "Data Center Bridging"
    - ➔ Changed the title as "Virtual Ethernet Technology Summary"
    - • Removed sub-sections 2.3 "Multiple Path Ethernet Summary" and 2.4 "VXLAN Summary"
    - ➔ These points are not relevant to the data link layer monitoring.

2.2 Virtual Ethernet Technology

❖ Improved the sub-section in new draft.
- ▪ Introduces the summary of Virtual Ethernet Port Aggregator (VEPA) [IEEE802.1Qbg] and Bridge Port Extension [IEEE802.1BR].
- ▪ Summarizes the necessity of traffic monitoring for the relevant Ethernet frames.

❖ Further some improvements
- ▪ Now, we received some comments from Pat Thaler, there seems some flaws and misunderstanding.
- ▪ Next step: modify it after discussion on mail list

New Information Elements

❖ Added new Information Elements

  ▪ **dot1qTagProtocolIdentification**

    • The IE representing tag type is needed, since **dot1qVlanId** has several semantics, such as C-tag, S-tag, B-tag.

  ▪ **dot1brEChannelTag** and **dot1brEChannelPriority**

    • The IEs are needed, in the case of capturing Ethernet frame from Bridge port Extender on Controlling Bridge.

❖ Or all IEs about L2 header form are unnecessary

  ▪ Because **dataLinkFrameSection** covers all of L2 header form.

❖ We needs further comments from L2 experts and IPFIX members.

Modification of Existing IEs

❖ Needs the discussion about in the case of multi-tagged frame

- Which VLAN Id are represented by **dot1qVlanId**?

  - **dot1qVlanId** indicates outer tag
  - Or use the set of **dot1qVlanId** and **dot1qTagProtocolIdentification**

❖ Not yet improved the description about packet section IEs

- **sectionOffset** and **sectionObservedOctets** are applied to existing IEs related to packet sections
- Next step: modify these descriptions

Next Step

❖ Need more comments from L2 experts and IPFIX experts

❖ Improve sub-section 2.2 and new IEs based on the Pat Thaler's comments after the discussion on mail list

❖ Submit next version in May 2013.