

Export BGP community information in IPFIX

draft-ietf-opsawg-ipfix-bgp-community-01.txt

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Main content

- Traffic aggregation in BGP community granularity is useful for several applications such as backbone network traffic engineering.
- This draft introduces three information elements in IPFIX to export the BGP community information of a specific traffic flow.
- **bgpCommunity:**
 - unsigned32 value containing one BGP community
- **bgpSourceCommunityList:**
 - basicList of bgpCommunity
 - Containing zero or more BGP communities corresponding with source IP address of a specific flow
- **bgpDestinationCommunityList:**
 - basicList of bgpCommunity
 - Containing zero or more BGP communities corresponding with destination IP address of a specific flow

Current status

- Adopted by the working group a couple of weeks ago.
- Security Considerations and IANA Considerations are improved according to the comments from Stewart Bryant.
- Does one IPFIX message have enough space to fit all the communities related to a specific flow? **Yes?**
 - BGP community, including standard, extended, large and wide, is a path attribute of BGP distributed in an update message.
 - The maximum length of one BGP message is 4096 bytes as per RFC4271 and 64K bytes for one IPFIX message as per RFC7011.

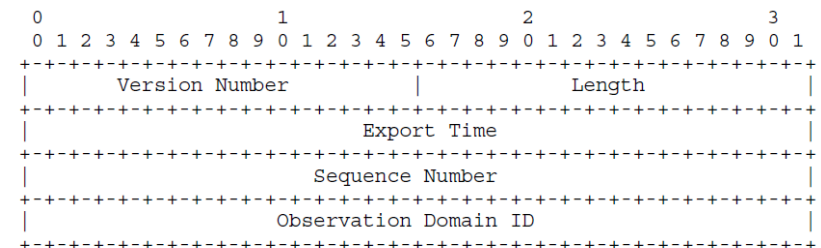
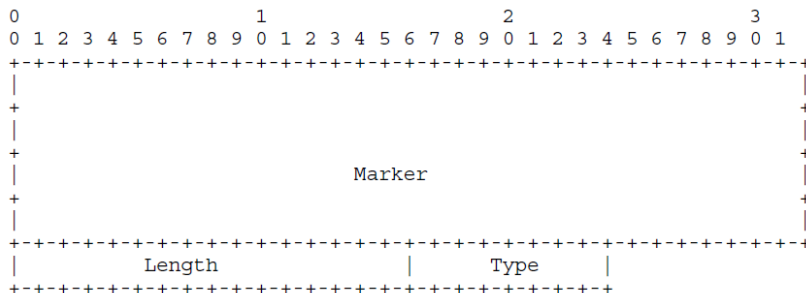


Figure F: IPFIX Message Header Format

RFC4271 says the value of the Length field MUST always be at least 19 and no greater than 4096, and MAY be further constrained, depending on the message type.

Current status

- Do we need to cover other kinds of BGP communities?
 - Standard community [RFC 1997]. **Done!**
 - Extend community [RFC 4360]. **No?**
 - Large community [RFC 8092]. **Yes!**
 - Wide community [draft-ietf-idr-wide-bgp-communities] **No or in separate draft?**

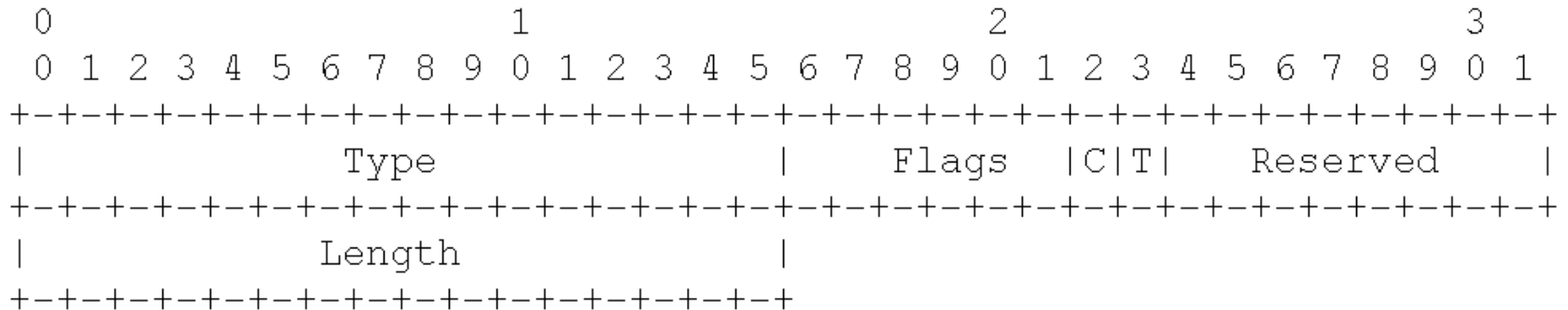


Figure 1: Common container header

Thank you all for the comments!

Next steps

- Read the draft
- Comment in the mail list
- Modify the draft according to the comment consensus and make it stable for WGLC

Thanks