TLV support for BMP Route Monitoring and Peer Down Messages

`draft-ietf-grow-bmp-tlv`

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IETF GROW WG

draft-lucente-grow-bmp-tlv

- Problem statement:
  - Not all BMP message types support TLVs
- Ideas in the draft:
  - Support TLVs in Route Monitoring
  - Support TLVs in Peer Down
  - Bump version for backwards compatibility

Since IETF 106

- -03 and -04 versions

- Per-NLRI TLVs:
  - -04 (current): indexed TLVs
  - -03: we got distracted by TLV containers; removed from -04

- Operational Considerations section

- Minor editorial changes

Support for Enterprise-specific TLVs in the BGP Monitoring Protocol

`draft-lucente-grow-bmp-tlv-ebit`

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Problem statement

"Vendors need the ability to define proprietary Information Elements, because, for example, they are delivering a pre-standards product, or the Information Element is in some way commercially sensitive"

Status & Next steps

- Open questions:
  - Not much, tbh
- Positive feedback received on the mailing-list:
  - Actual feedback to be processed
  - Shall we go for WG adoption?

exit(0)

Support for Enterprise-specific TLVs in the BGP Monitoring Protocol

Backup Slides

Introduction

- PEN => IANA-assigned Private Enterprise Number
- Goal: By using a PEN in a TLV we can make it enterprise-specific
- Idea borrowed by IPFIX

IANA-governed TLVs encoding

```
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|E|            Type               |         Length (2 octets)     |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                        Value (variable)                        |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

Enterprise-specific TLVs encoding

```
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|E|            Type              |        Length (2 octets)      |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                        Enterprise number                       |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
|                        Value (variable)                        |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```