

BMP v4: TLV support for BMP Route Monitoring and Peer Down Messages

`draft-ietf-grow-bmp-tlv`

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draft-ietf-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 IETF118 / draft-ietf-grow-bmp-tlv-13 (1)

- Stateless Parsing TLV re-worked (Colin, Luuk feedback)
 - One TLV, defined a Stateless Parsing registry
 - If TLV is absent revert to classic behavior (look to Peer Up)
- Group TLV indexing re-worked (Dhananjay, self feedback):
 - G bit set to 1, independent indexing from NLRIs
 - Removed need for Index + Group Index

Since IETF118 / draft-ietf-grow-bmp-tlv-13 (2)

- Note on TLV ordering (Colin feedback):
 - Define groups (Group TLV recommended value 0)
 - Define parsing (SP TLV recommended value 1)
- Updated wire-format example (Shunwan feedback)

Status / open issues draft-ietf-grow-bmp-tlv

- No open issues at the moment
- All feedback processed
- Pause, reflect, implement

Support for Enterprise-specific TLVs in the BGP Monitoring Protocol

`draft-ietf-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”

Since IETF118 / draft-ietf-grow-bmp-tlv-ebit-04

- Inverted PEN and Index fields for RM messages
 - Rationale: index is not included in length; PEN instead is
 - Luuk feedback

Status / open issues draft-ietf-grow-bmp-tlv-ebit

- No open issues at the moment
- Some feedback to process
- Dependency on `draft-ietf-grow-tlv` for WGLC

Logging of routing events in BGP Monitoring Protocol (BMP)

`draft-ietf-grow-bmp-rel`

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Intuition

- Add an event-driven message type to BMP:
 - Alerting
 - Reporting
 - On-change analysis
- Complement to:
 - State Synchronization (Route Monitoring)
 - Debugging (Route Mirroring)
 - Session reporting (Peer Up, Peer Down)
 - Stats

Since IETF118 / draft-lucente-grow-bmp-rel-03

- Reworked Policy TLV (Jeff, Ruediger feedback):
 - It's a string, implementors are free to organize it as they prefer
 - Removed length limitation
- A hint to REL vs Route Mirroring in Operational Considerations:
 - Feedback by Ahmed Elhassany
 - More later
- Added Group TLV and Stateless Parsing TLV
- Document adopted!

Route Mirroring vs Route Event Logging (1)

Route Mirroring

- Verbatim copy of routes
- Sample erroneous packets

Route Event Logging

- Alerting
- Reporting
- On-change analysis
- Feedback Loop
- Sample erroneous packets

Route Mirroring vs Route Event Logging (2)

- Current approach:
 - Note in Operational Considerations
- Thoughts?
 - Shall we leave like that?
 - Shall we remove the use-case from REL?
 - Shall we remove the use-case from Route Mirroring?

Status / open issues draft-ietf-grow-bmp-rel

- Detail all other TLVs
- Feedback to process
- *“What does REL want to do as a grown up”* – Jeff
 - Enter in Feedback Loop use-cases?
 - Make BGP Update PDU TLV optional to intercept further use-cases?