

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

`draft-ietf-grow-bmp-tlv`

Paolo Lucente, NTT

Yunan Gu, Huawei

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IETF GROW WG

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 IETF119 / draft-ietf-grow-bmp-tlv-14

- No additional drafting work, two open questions:
 - Guess REACH, UNREACH, [..] is part of the same UPDATE message:
 - How does that affect index count? (Luuk)
 - Unlock the possibility of groups of groups?

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

- All feedback processed
- Keep reflecting, implementing

Logging of routing events in BGP Monitoring Protocol (BMP)

`draft-ietf-grow-bmp-rel`

Paolo Lucente, NTT

Camilo Cardona, NTT

24 Jul 2024

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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 IETF119 / draft-ietf-grow-bmp-rel-01 (1/2)

- Crossed Warning Bound, Crossed Upper Bound:
 - Added code point in Event Reason TLV;
 - Worked out TLVs (4 bytes integers)
- Further worked out TLVs:
 - Malformed Packet TLV (feedback from Ben)
 - Policy Discard TLV (feedback from Thomas):
 - *“On the escort of Section 4 of [RFC9067] and YANG Model for Border Gateway Protocol (BGP-4) [I-D.ietf-idr-bgp-model] it is RECOMMENDED to organize the string as a comma-separated string with the policy definition name being followed by the statement name.”*

Since IETF119 / draft-ietf-grow-bmp-rel-01 (2/2)

- Reworked Operational Considerations
- Added due credits in Acknowledgements section

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

- No feedback to process
- Detail still unworked TLVs
- *“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?

Filtering Adj-Rib-In and Adj-Rib-Out to BMP receivers

`draft-pcmy-grow-bmp-adj-ribs-filtered`

Paolo Lucente, NTT

Camilo Cardona, NTT

Mukul Srivastava, Juniper

24 Jul 2024

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Intuition

- Loc-RIB features a F flag for filtered RIB
- Post-Policy Adj-Rib-In, Post-Policy Adj-Rib-Out miss this flag
- It can simply be useful to have this feature available:
 - For completeness of the protocol
 - For use-cases:
 - Limit the fire-hose to data of interest
 - Filter down to Afs of interest
 - ...

draft-pcm-grow-bmp-adj-ribs-filtered (1/2)

- Add F Flag to "BMP Peer Flags for Peer Types 0 through 2" registry
- When filtering set flag to one (1)
- Stats messages should reflect numbers post-filter application
- Trigger Peer Down should filter change

draft-pcm-grow-bmp-adj-ribs-filtered (2/2)

- Recommend to set VRF/Table Name TLV to a meaningful value:
 - Either in Peer Up message (optimal for sender, wire encoding)
 - Or in Route Monitoring message (optimal for receiver)

Status draft-pcm-grow-bmp-adj-ribs-filtered

- Receive feedback
- Keep working on text
- WG adoption?