draft-ietf-grow-bmp-local-rib

draft-ietf-grow-bmp-adj-rib-out-update

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July 17, 2017 @ IETF 99, GROW WG
Recap from IETF 98: current state

- RFC 7854 defines access to Adj-RIB-In only

We can see this

BGP Peer-A
Adj-Rib-In (Pre)

Filters/Policy

Adj-Rib-In (Post)

And this

BGP Peer-B
Adj-Rib-In (Pre)

Filters/Policy

Adj-Rib-In (Post)
Recap from IETF 98: extend to Adj-RIB-Out and Loc-RIB

We also want to see this

And this

Filters/Policy
draft-ietf-grow-bmp-local-rib-diffs

- Expanded on current state (Adj-RIB-In) complexities if local-RIB is wanted:
  - Add a middle-box to BGP peer with, then export BMP Adj-RIB-In pre-policies
- Expanded on Peer UP proposed type 3 TLV to indicate VRF/table name:
  - Max 255 chars string, default value “global” with zero-filled Route Distinguisher
- Added section 5.4.2 on Granularity
  - Note about potential state compression (emerged during BMP BoF at IETF 98)
New co-authors: Penghui Mi (Tencent), Shunwan Zhuang (Huawei)

Recent discussion about peer-group vs and per-peer data:
- Keep it open to both scenarios
- Keep it simple
- Proposal: new Peer UP TLV to encode peer-group information
Thanks, Questions, Tomatoes.

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Backup slides (from IETF 98)

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**Use Cases**

**Local-RIB**
- Monitor routes selected and used by the router
  - ECMP
  - Correlation with netflow/ipfix
  - Next hop preservation
- Monitor locally originated and BGP routes without requiring peering
- Policy verification

**Adj-RIB-Out**
- Monitor routes advertised to peers
- Policy verification
Extensions to RFC 7854

Local-RIB

- New Peer Type 3
  - Supports backwards capability
- Flags are specific to Peer Type
- New F Flag: indicates filtered
- Using existing Stats
- Replaces “Locally Originated Routes” specified in Section 8.2
- Peer Up Info TLV Type 3 : vrf name

Adj-RIB-Out

- New per peer header O flag to indicate Adj-RIB-In or Adj-RIB-Out
- Added statistics Types 14-17
  - 14 = Adj-RIB-Out pre-policy
  - 15 = Adj-RIB-Out post-policy
  - 16 = Adj-RIB-Out pre-policy per AFI/SAFI
  - 17 = Adj-RIB-Out post-policy per AFI/SAFI