Loc-RIB and Adj-RIB-Out
Extensions to BMP

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

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July 18, 2018
IETF, GROW Working Group
Drafting status

- Drafts first presented in Chicago (March 2017)
- Plenty of interest, feedback received and processed
- No known outstanding issues:
  - Henk Smit (Nokia) recent on-list feedback materialized in a separate (forward looking and non-competing) draft, `draft-hsmit-bmp-extensible-routemon-msgs`
- So what’s next for these two drafts? Last-call?
Loc-RIB and Adj-RIB-Out Extensions to BMP

exit(0)
Loc-RIB and Adj-RIB-Out Extensions to BMP

Backup Slides
Current BMP status

RFC 7854 defines access to Adj-RIB-In only

We can see this

And this

BGP Peer-A
Adj-Rib-In (Pre)
Filters/Policy
Adj-Rib-In (Post)

BGP Peer-B
Adj-Rib-In (Pre)
Filters/Policy
Adj-Rib-In (Post)
Proposal: extend access to Adj-RIB-Out, Loc-RIB

BGP Peer-A
Adj-Rib-In (Pre) → Filters/Policy → Adj-Rib-In (Post) → Accepted → Loc-Rib

BGP Peer-B
Adj-Rib-In (Pre) → Filters/Policy → Adj-Rib-In (Post) → Accepted → Loc-Rib

Static

ISIS

We also want to see this

Adj-Rib-Out (Pre) → Filters/Policy → Adj-Rib-Out (Post)

And this

And this
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