

# 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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IETF, GROW Working Group

# Drafting status (1/2)

- Drafts first presented in Chicago (March 2017)
- Key drafts to expand BMP protocol functionality beyond the existing RFC
- Plenty of interest, feedback received and processed
- Since IETF 103 (yet again) only minor changes:
  - Loc-RIB: Peer Down new reason code allowing for TLV info
  - Adj-RIB-Out: minor wording

# Drafting status (2/2)

- Loc-RIB: after Bangkok presentation and some hallway conversation, it is important to further clarify (not saying anything new, just stressing it):
  - This is about BGP RIB, not about FIB: FIB brings L1/L2 underlays, ie. LAGs, ECMP and balancing algorithms, etc. which authors prefer to keep out of scope of this draft.
  - Undoubtedly there are use-cases for FIB but perhaps a new draft could be started around those.
- Still thinking we should wrap-up this effort soon and move on

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

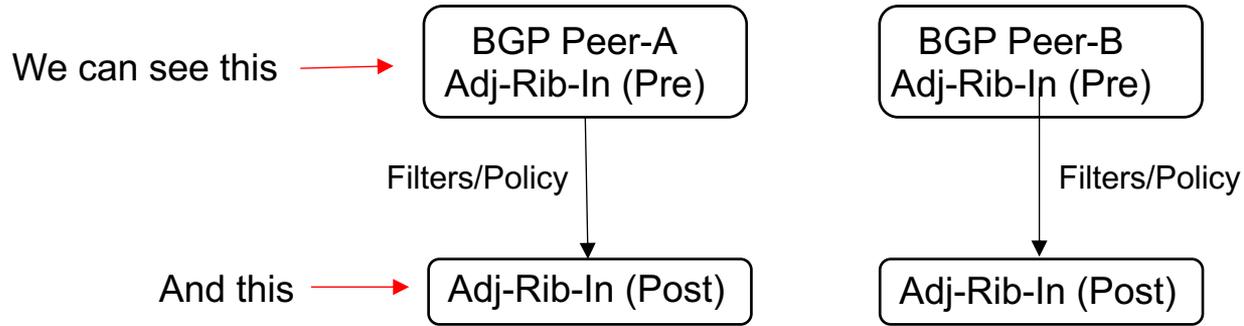
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# Loc-RIB and Adj-RIB-Out Extensions to BMP

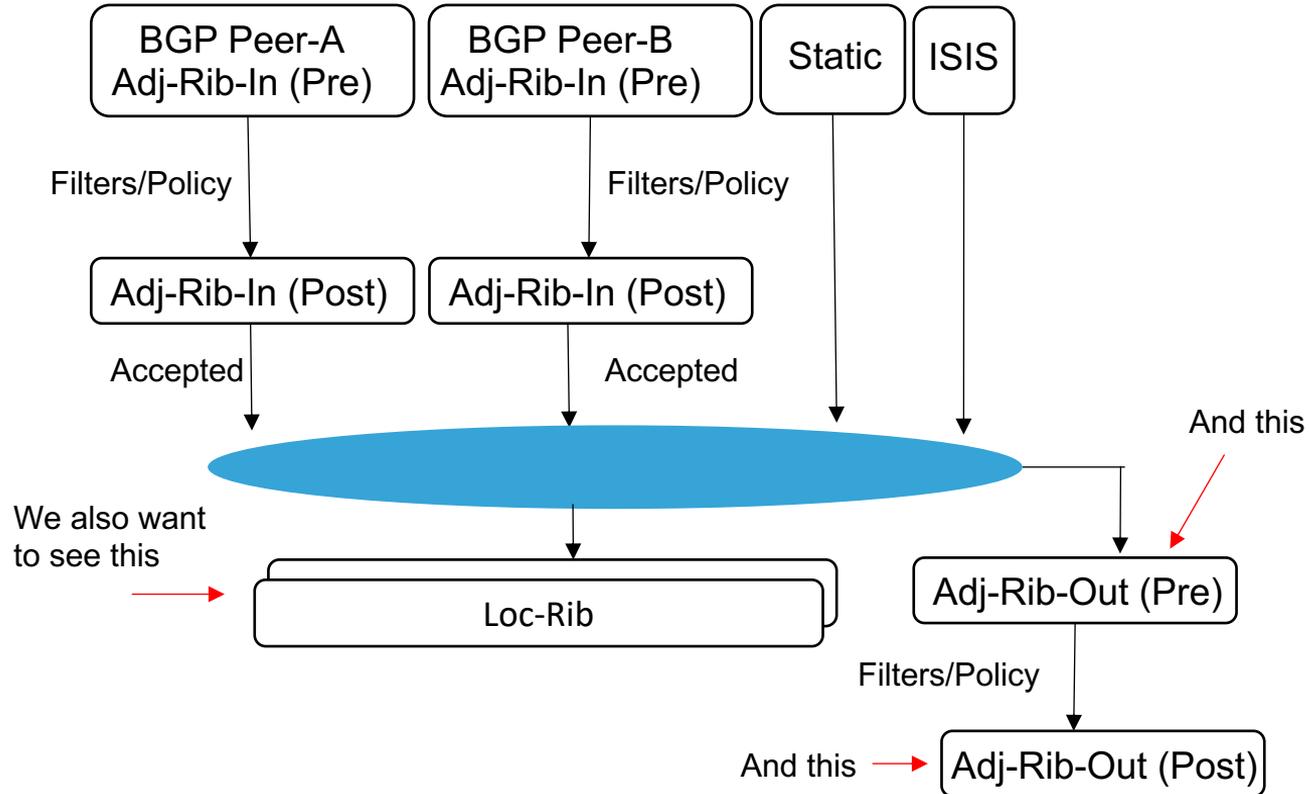
Backup Slides

# Current BMP status

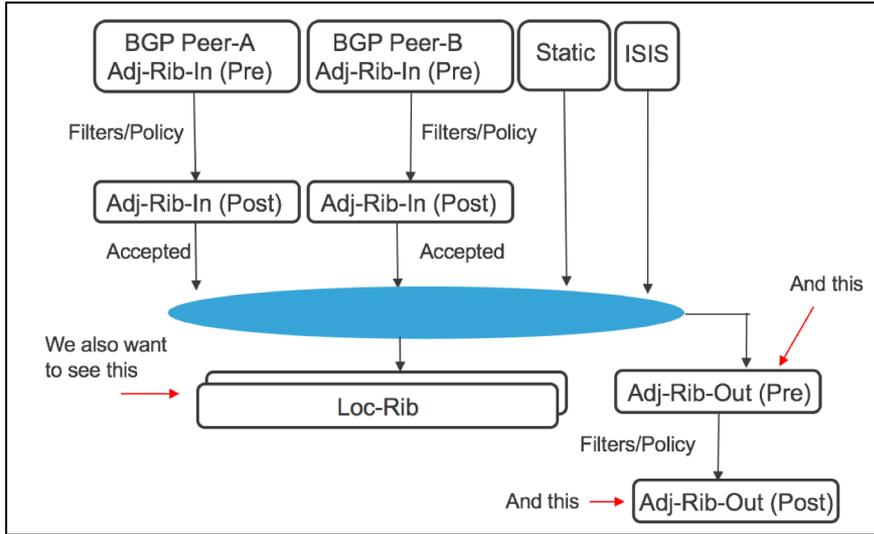
RFC 7854 defines access to Adj-RIB-In only



# Proposal: extend access to Adj-RIB-Out, Loc-RIB



# 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