

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

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

Serpil Bayraktar and Tim Evens, Cisco

Paolo Lucente, NTT

Jul 24th, 2019

IETF, GROW Working Group

Drafting status

- Drafts first presented in Chicago (March 2017)
- Key drafts to expand BMP protocol functionality beyond the existing RFC
- Since IETF 104 (yet again) only minor changes:
 - Loc-RIB:
 - Processed feedback (by Jeff Haas and others)
 - Multiple VRF/Table Name TLVs allowed
 - Adj-RIB-Out: IESG review

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

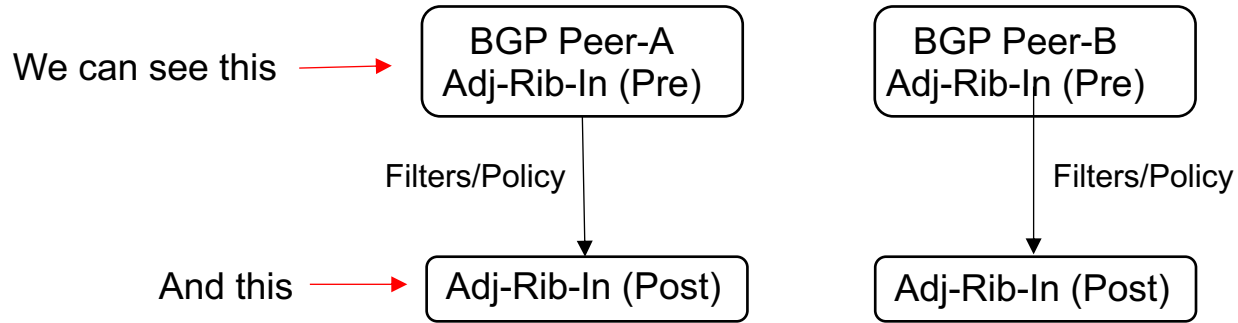
exit(0)

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

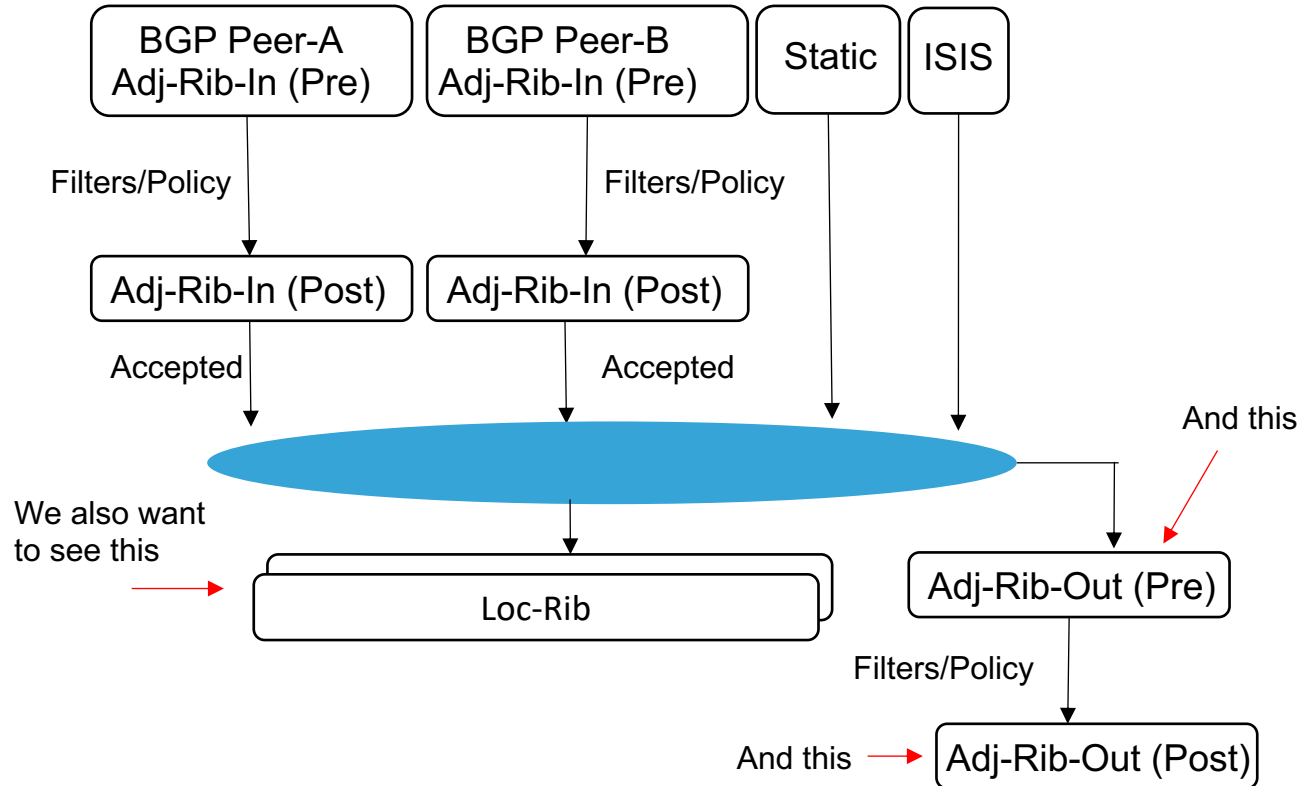
Backup Slides

Current BMP status

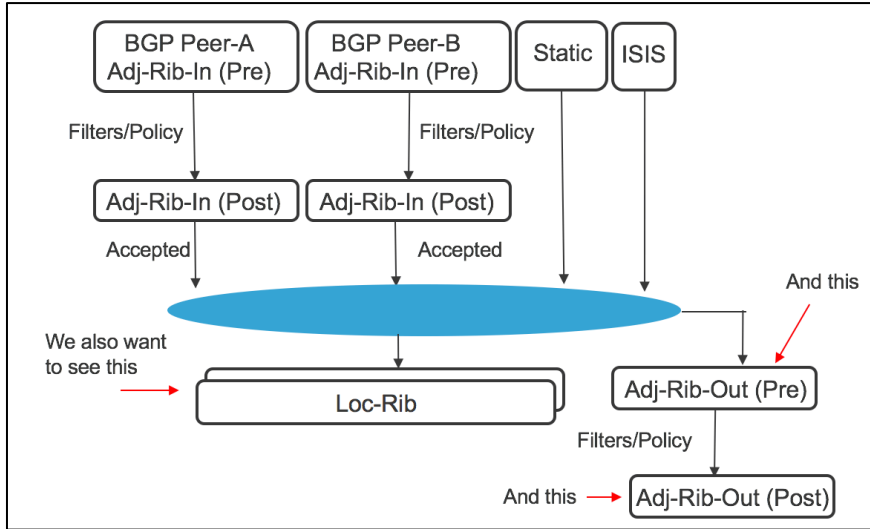
RFC 7854 defines access to Adj-RIB-In only



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