

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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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
- -02 of both drafts only refreshed dates

Drafting status (2/2)

- -03 is in the cards and, in line with drafts evolution to this point, there are no structural issues addressed. Only:
 - A few text clarifications: ie. local-rib being only best path/selected NLRIs, sender implementations to default local-rib to only send the address families configured for BMP monitoring
 - A single minor change: filter flag will move to an INFO TLV in PEER UP message from current per-peer header flag
- Still thinking we should wrap-up this effort soon and move on

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

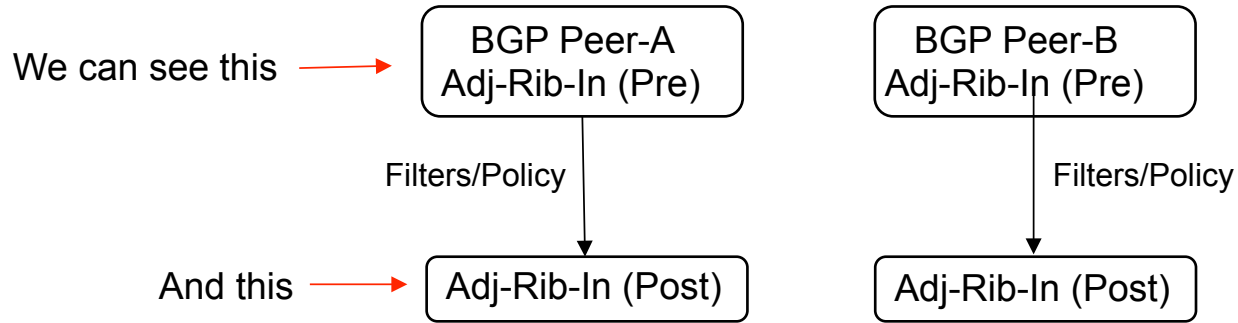
`exit(0)`

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

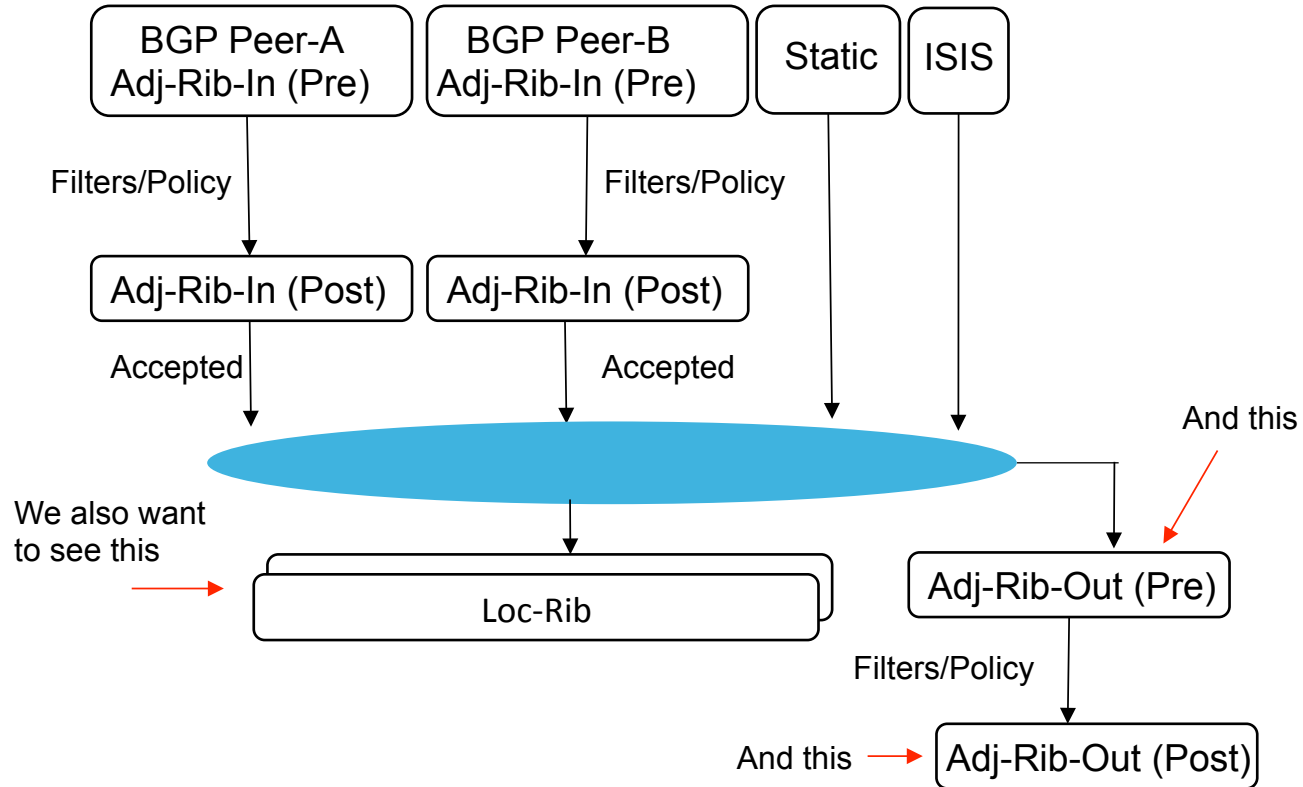
Backup Slides

Current BMP status

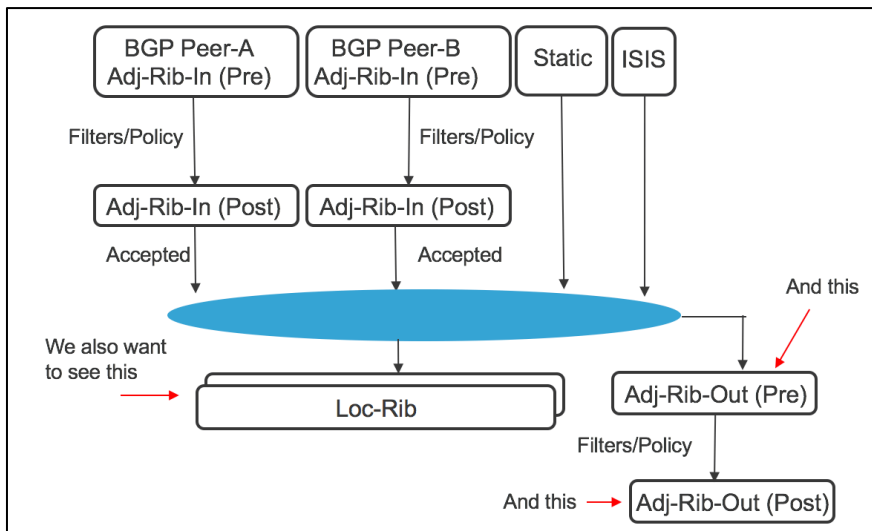
RFC 7854 defines access to Adj-RIB-In only



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