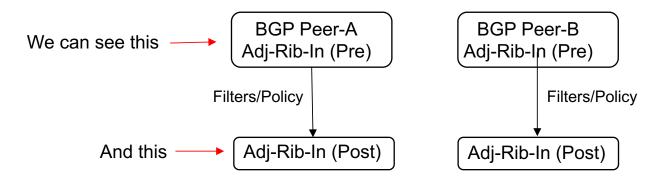# draft-ietf-grow-bmp-local-rib
draft-ietf-grow-bmp-adj-rib-out update

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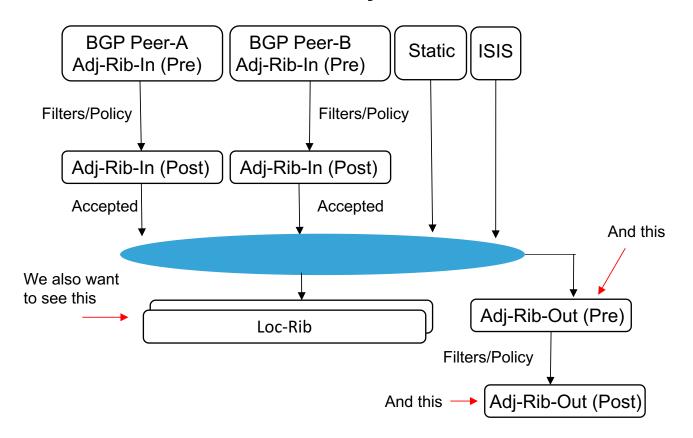
July 17, 2017 @ IETF 99, GROW WG

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

                           │ Filters/Policy   │ Filters/Policy
                           ▼   ▼

And this →   [Adj-Rib-In (Post)]   [Adj-Rib-In (Post)]

Recap from IETF 98: extend to Adj-RIB-Out and Loc-RIB

| BGP Peer-A Adj-Rib-In (Pre) | BGP Peer-B Adj-Rib-In (Pre) | Static | ISIS |

Filters/Policy   Filters/Policy

| Adj-Rib-In (Post) | Adj-Rib-In (Post) |

Accepted   Accepted

And this

We also want to see this

| Loc-Rib |

| Adj-Rib-Out (Pre) |

Filters/Policy

And this | Adj-Rib-Out (Post) |

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)

draft-ietf-grow-adj-rib-out diffs

- New co-authors: Penghui Mi (Tencent), Shunwan Zhuang (Huawei)

- Recent discussion about peer-group ~~vs~~ <u>and</u> 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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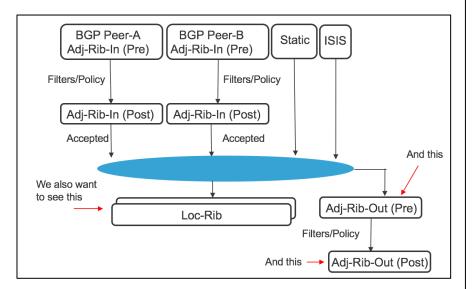
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Backup slides (from IETF 98)

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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