BMP BGP RIB Statistics
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Agenda

- Introduction
- Proposal
- Summary & Next step
Introduction

• BMP RFC7854 defines several different BMP statistics types to observe interesting events that occur on the router.

• This draft defines new gauges for BMP statistics message.

• Motivation.
  • Statistics are cheap and efficient way to communicate network state.
Proposal

• New RIB-IN and RIB-OUT counters. Details in following slides.

• Commonality across all the proposed counters:
  • Current view at the router.
  • Per AFI/SAFI view.
  • All are 64-bit Gauge. (A non-negative integer that may increase or decrease, but shall never exceed a maximum value, nor fall below a minimum one).
  • The counter value will change based on network events or current configuration.
  • The value is structured as: 2-byte Address Family Identifier (AFI), 1-byte Subsequent Address Family Identifier (SAFI), followed by a 64-bit Gauge.
Proposal (RIB-IN)

- Type = TBD1: (64-bit Gauge) Current number of routes in per-AFI/SAFI rejected by inbound policy.
- Type = TBD2: (64-bit Gauge) Current number of routes in per-AFI/SAFI accepted by inbound policy.
- Type = TBD3: (64-bit Gauge) Current number of routes in per-AFI/SAFI selected as active route.
- Type = TBD4: (64-bit Gauge) Current number of routes in per-AFI/SAFI damped by configured route damping policy.
- Type = TBD5: (64-bit Gauge) Current number of routes in per-AFI/SAFI marked as stale as part of BGP graceful restart (GR) [RFC4784] process.
- Type = TBD6: (64-bit Gauge) Current number of routes in per-AFI/SAFI marked as stale as part of long lived graceful restart (LLGR) process.
Proposal (RIB-OUT)

- Type = TBD7: (64-bit Gauge) Current number of routes in per-AFI/SAFI rejected by outbound policy. These routes are active routes which should otherwise would have been advertised in absence of outbound policy which rejected them.
Summary & Next steps

- Proposal introduces new counters which can help provide insights about various events at a router.
- Request GROW to accept it as wg document.
- Request to allocate code points.
Thank you