BGP Diagnostic Path Attribute draft-heitz-idr-diagnostic-attr

Jakob Heitz (Cisco)

Prasad S. Narasimha (Cisco)

Sameer Gulrajani (Cisco)

IETF 104, March 2019

Prague

Usage

- A path attribute to assist with network troubleshooting.
- It is attached to UPDATE messages.
- Can be attached to a withdrawal message.

- Checksum to narrow down corruption within a BGP speaker
- Timestamp to narrow down delays within and between BGP speakers
- Track the source of route oscillations

Elements

- The diagnostic attribute consists of a series of elements.

- As an NLRI propagates through a network, each BGP speaker may add an element.

- A speaker may also remove elements.

- Each element contains:
  - ASN and BGP Identifier of the speaker.
  - TLVs.

TLVs

- Timestamp.
  - Different timestamps for various processing stages.
- Checksum.

No Unintended Propagation

- Non-transitive.
  - Legacy speakers will not propagate.
- Configuration is required to propagate.

- Question: Should it propagate by default within an AS if implemented?