BGP Extended Community for Identifying the Target Nodes

draft-dong-idr-node-target-ext-comm-05

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History and Updates

➢ Presented at IETF#101/109 and got good feedback from WG
   • Thanks people below for their comments and suggestions
     • Zhenbin Li, Ercin Torun, Jeff Haas, Robert Raszuk, John Scudder and Ignas Bagdonas etc.
     • All of the received comments have been addressed

➢ Enable RR to configure local-policy to reflect the Updates to the matched BGP peers.

➢ Added texts on security considerations
   ➢ Thanks to John Scudder for the useful comment
An example to show the problem – Why Not Use RT

- Node A advertises a VPN FlowSpec route targeted at VRF RED on node B

- If RT is used to designate the target node B
  - Both RT Node-B and RT RED are carried in BGP Update
  - Both node B and node D would import the VPN route to VRF RED - The purpose of the user is to prevent node D from importing such route.

- This document proposes a generic mechanism to designate the target nodes for information advertised using BGP
  - Independent from the use of RT

Advertise VPN FlowSpec with RT: Node-B, RED
Imported to VRF RED
Match node B, imported to VRF RED
How to prevent node D from importing routes that do not belong to it?
Proposed Solution

- A new BGP extended community to carry the target node information
  - Node Target extended community (NT)

  ![Diagram of Node Target extended community]

  - Target BGP Identifier: 4-octet unsigned, non-zero integer to identify a BGP node

- One or more Node Target extended communities may be carried in BGP Update

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Next Steps

- Comments and feedbacks are welcomed
- Request for WG Adoption
Thank You