Route Refresh Options Extension (Updated)

draft-idr-bgp-route-refresh-options-00.txt

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Problem Statement

- BGP Route Refresh currently has no way of one-shot requesting a subset of the BGP Adj-RIB-Out

- Newer address families support multiple route types which can support different parts of the procedures (discovery, election) as well as unicast, multicast

- Address families with large numbers of elements may be stored on the receiving side only partially (VPNs, LS) or have to be demanded based on policies or configuration

Proposed Solution

- Enhance the route refresh message to allow **options** (basically one-time filters) to be added by the requesting BGP speaker

- Filters can be specified along with existing route refresh enhancements – ORF, BoRR, EoRR

- Filters can be OR'ed and AND'ed

- Future options/filters can be added to the proposed feature without requiring new capabilities

Handling Spontaneous Route Refreshes

- A BGP speaker may send a spontaneous route refresh request due to a policy change or operator intervention

- To correctly process such an event on the remote peer, the BGP speaker MUST refresh the entire Adj-RIB-Out

- The BGP speaker MUST set the 'S' flag in the options and use a Refresh ID that is most distant from the ones that are currently in use

- When the receiving BGP speaker sees the 'S' flag, it MUST discard all pending refresh requests and reset the sequence numbering space using the refresh ID in the incoming message