Use of p2mp BFD in PIM-SM over shared-media segment
draft-mirsky-pim-bfd-p2mp-use-case

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Motivation PIM

Router A
DR

(*,G) Join

Router B

Host
Member of Group A
Proposed solution

- BFD for Multipoint Networks (draft-ietf-bfd-multipoint) extends BFD for use in multipoint and multicast networks
- PIM DR advertises its BFD My Discriminator in PIM Hello packet (extension to RFC 7761) to bootstrap p2mp BFD session
- Non-DR creates MultipointTail session and uses My Discriminator value from PIM Hello packet and DR’s IP address to demultiplex BFD control packets
- Thus the p2mp BFD session has PIM DR router as root and non-DR routers as tails. The DR uses the same IP address it uses in PIM Hello as source IP address for p2mp BFD control packets
- In p2mp BFD there’s no P-F sequence with interval negotiation and Your Discriminator must always be zeroed
Extend PIM Hello

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<th>Checksum</th>
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<td>OptionValue1</td>
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<table>
<thead>
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<th>Type</th>
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<td>My Discriminator</td>
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Next steps

• Comments are welcome
• WG adoption?