BGP Next-Hop SAFI

draft-varlashkin-bgp-nh-cost

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Next-Hop SAIFI overview

• Inform Route-Reflector about cost to NH
  - where IGP has no visibility, or
  - where non-IGP based cost is desirable
• Applicable to both IPv4 and IPv6, also VPN
• Query/response operations
  – asynchronous (ask when need, inform when have something to say)
  – utilises existing BGP Attribute 14
Basic usage

What’s your cost to R1, R2?

Cost to R1 is 1, to R2 is 2

("Link R3-R1 failed" event)

R1 is unreachable

BGP NH SAFI conversation

per-peer best path selection

NHIB maintenance

input for

NHIB
Multiple Route-Reflectors
Non-IGP cost to Next-Hop
What’s next?

• WITHDRAW encoding: Attribute 14 or 15?
• Inter-RR optimisation?
• General interest?
  – WG adoption?
Thank you!