

IDR interim meeting BGP Nexthops and Link Bandwidth

23 September, 2024

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- [BCP 9](#) (Internet Standards Process)
- [BCP 25](#) (Working Group processes)
- [BCP 25](#) (Anti-Harassment Procedures)
- [BCP 54](#) (Code of Conduct)
- [BCP 78](#) (Copyright)
- [BCP 79](#) (Patents, Participation)
- <https://www.ietf.org/privacy-policy/>(Privacy Policy)

Agenda

BGP Nexthops

- draft-ssangli-idr-bgp-generic-metric-00
- draft-ietf-idr-entropy-label-14 (Nexthop capabilities)
- draft-ietf-idr-multinexthop-attribute-01

BGP Link Bandwidth

- draft-ietf-idr-link-bandwidth-07
- draft-ietf-bess-ebgp-dmz
- draft-ietf-bess-evpn-unequal-lb
- draft-li-idr-link-bandwidth-ext/02/
- draft-xu-idr-fare-01

BGP Nexthops

- Increasingly, route properties are being scoped to BGP Nexthops rather than to BGP Routes (in the RFC 4271 sense)
- AIGP was intended to be a general purpose mechanism, but has run into incremental deployment and scoping issues.
- Features such as Tunnel Encapsulation Attribute (RFC 9012) provide a way to augment the information in a nexthop and for the set of attached routes, but it is similarly suffering from scoping issues.
- Scoping issues can be synonymous with “security issues”
- Our goal is to review mechanisms for BGP Nexthops and discuss next generation BGP desired properties for them.

BGP Link Bandwidth

- Link bandwidth has been “deployed” for a number of year.
- However, the deployments are not fully matching standards.
- The points of difference in implementation are also a discussion point for scoping of link bandwidth.
- Our goal for the upcoming presentations is to discuss interoperability issues with the feature, discuss resolving them, and discuss use cases leveraging the feature.
- We would like a single protocol specification. Use case documents leveraging this specification are appropriate

Brief aside about BGP Extended Community (RFC 4360) Transitivity.

- Section 6, Operations:
“If a route has a non-transitivity extended community, then before advertising the route across the Autonomous System boundary the community SHOULD be removed from the route.”
- The use case is clear if a router is receiving and *propagating* a non-transitive extended community.
- Should it be possible to *attach a new non-transitive extended community* when advertising routes to eBGP speakers?
 - Use cases suggest this is necessary.
- We likely need a RFC 4360-bis to clarify.