IDR Report for rtgarea

IETF 116 - Yokohama

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Meetings

• IDR met earlier Thursday morning.
• We will have an interim meeting 24 April to cover overflow topics.
Wiki Migration

• IDR wiki migration in progress, painfully so.
• Due to large number of documents in flight, IDR heavily uses its wiki to track state.
• It’s also where our implementation reports have been going. Migration means we no longer have stable references for such things. (We no longer require implementation report RFCs.)
BGP Routes With Color

• Competing drafts: draft-ietf-idr-bgp-car / draft-ietf-idr-bgp-ct
• General idea is providing BGP transport nexthop endpoints that are differentiated by a “color” attribute. Where this color lives varies depending on the proposal.
• bgp-car uses a format more similar to BGP labeled unicast with forwarding information in new optional-NLRI field.
• bgp-ct uses format similar to existing BGP L3VPN format.
• No consensus on which solution to adopt. Both adopted as experimental. Each will progress separately for now.
• Interop procedures will be defined.
BGP YANG Model

• draft-ietf-idr-bgp-model-16 published and should be 99% done.
• Lots of changes, very large.
• Needs another set of Working Group review for a last all, and YANG doctor review.
• Provided a lot of interesting modeling challenges. Presenting some of those later.
• Hopefully progressing soon
Dealing With Blocked BGP Peering Sessions

• BGP uses TCP as its transport protocol.
• BGP has a holdtimer that is intended to deal with dropping peers that don’t send PDUs. This is detected at the receive side of things.
• What happens if you block on the send side? (Typically, tcp zero-windowing.)

Discussion/drafts:
• draft-spaghetti-idr-bgp-sendholdtimer - A long duration timer that drops the session if you can’t send PDUs for too long.
• draft-chen-idr-tcp-user-timeout - Use the tcp user timeout feature, where it’s implemented, to deal with unacknowledged tcp acks.

• More discussion at upcoming interim on 24 April.
Multi-AS Spanning Features

• One Administrative Domain (draft-uttaro-idr-bgp-oad)
• Idea similar to BGP Confederations (RFC 5065), but without using actual Confederation ASes.
• Addresses multi-AS features where multiple ASes are under control of single administrative entity, or perhaps multiple highly cooperating entities.
• To be discussed at 24 April interim.
What To Do About BGP-LS Documents?

• BGP-LS takes up a large amount of document traffic in IDR, but has different constituency interest.
• Majority of features are parity for IGP features specified in LSR.
• LSR isn’t interested in doing the BGP-LS work in parallel in their WG.
• Three types of work:
  • IGP parity features
  • BGP-LS small features that don’t change the protocol
  • Big changes to BGP-LS itself (keep in IDR?)
• Split into separate WG? Split work to different meetings and mailing lists? Discussion is underway with ADs.
Hiccups

- EVPN Interworking with IPVPN (draft-ietf-bess-evpn-ipvpn-internetworking) DPATH issue:
  - Changes fundamental route selection behavior for BGP
  - Can result in inconsistent route selection.
  - Accidentally applicable to Internet-scoped BGP routes

- Actions:
  - Working with authors to figure out how to scope the attribute in a backward compatible fashion.
  - Need better coordination with bess chairs to figure out how to avoid late-stage gotchas being caught.
Progressing Through Publication Process

• BGP Long Lived Graceful Restart (draft-ietf-idr-long-lived-gr) should be published soon.
• draft-ietf-idr-rfc7752bis - Long awaited update for BGP-link state (LS)
• draft-ietf-idr-bfd-subcode, trivial feature to tell BGP peer that session was dropped due to BFD timeout.
Other Drafts That Have Been Adopted or Getting Discussion

• draft-dong-idr-sr-policy-nrp
• draft-ietf-idr-rt-derived-community
• draft-sas-idr-maxprefix-inbound
• draft-zhou-idr-bgp-srmpls-elp
• draft-ietf-idr-ts-flowspec-srv6-policy
• draft-wang-idr-vpn-prefix-orf
• flowspec v2
• draft-abraitis-bgp-version-capability
• draft-ietf-idr-deprecate-as-set-confed-set
• draft-ietf-idr-bgpls-srv6-ext