

Internet2 NTAC Peering and Routing Working Group

6/18/2018 working group call minutes

1. Agenda Bash
 - a. There was no agenda bashing.
2. IRR issues & Hurricane Electric
 - a. Jeff Bartig: This issue came to attention because of a ticket from a connector. A connecting network was experiencing asymmetric routing, which caused an issue for them because of local routing policies. **Investigation revealed that HE (Hurricane Electric) was blocking most routes from Internet2.**
 - b. Found through conversations with HE engineers that this is because there isn't an as-set registered in IRR.
 - c. HE engineers suggested that registering an as-set for network is solution.
 - d. Bartig: this meant that 40 of 4000 routes were accepted.
 - e. Bartig: **concern is that proxy-registering thousands of prefixes may not be a good thing.**
 - f. Dave Farmer: have been telling folks for some time that they need to publish as-set
 - g. Farmer: Has been registering for network members, putting the member down as a notify.
 - h. Bill Owens: proxy registrations are likely a necessary evil given that campus networks are unlikely to register with RADb.
 - i. RADb vs Level three IRR vs old Wiltel IRR
 - j. Farmer: HE does this for ASes they peer with.
 - k. Farmer: go to <http://routing.he.net> and type in 1164, see filters and results of filters.
 - l. Tony Brock: spent a lot of time with NERO to get Oregon records straight. Still not sure it will pass filters. How to get confidence that records are complete?
 - m. Farmer: google has committed to putting something in ISP portal. If you don't have access to ISP portal, you should ask for it.
 - n. Farmer: IRRexplorer is very good but not a guarantee.
 - o. Tony: would like to document a set of instructions on how to register.
 - p. HE will give you some reason for why not accepting.
 - q. See: <https://support.google.com/interconnect#topic=9326690>
 - r. See: <https://peering.google.com/#/learn-more/faq>
 - s. Farmer: ARIN will in the future allow delegations for routing-specific contacts
 - t. Owens: will be problematic for non-savvy campus.
 - u. Bartig: when should I2 produce and as-set and/or proxy registrations?
 - v. Bartig: was worried that there may be some peers that would fall back to another method for producing a prefix-list.
 - w. Brock: how did you/would you generate the list?
 - x. Bartig: do not have a developed method yet.
 - y. Farmer: Info on ARIN's new IRR project
<https://www.arin.net/vault/announcements/2018/20180109.html>
 - z. Brock: how should we get this published? What methodology?
 - aa. Bartig: would have to look at advertised ASes.
 - bb. Michael Lambert: Brent Sweeny long ago brought up idea of I2 running a registry.
 - cc. Bartig: how to get others to pay attention to it?
 - dd. Farmer: have RADb mirror it.
 - ee. Bartig: others like Google may not look at it.
 - ff. Brock: how to distribute management?
 - gg. Farmer: RONS can maintain own as-sets, assuming RONS are willing.

- hh. Farmer: one for R&E table, another for PX table?
 - ii. Bartig: peers want an as-set not a route-set. The latter would be easier to develop. As-set expands to a list of route objects, and 40% are wrong.
 - jj. Brock: is there another solution?
 - kk. Farmer: publicly available code is not very good.
 - ll. Farmer: I2 running its own routing registry is orthogonal.
 - mm. Brock: apparently there is not a perfect solution. So, what do we do?
 - nn. Lambert: will be getting info out to IRR working group.
 - oo. Farmer: answer is likely for I2 to request as-sets from connectors. It is connector's problem to determine that route objects and as-sets are correct. Penalty for non-compliance is that you will not get traffic.
 - pp. Bartig: can likely generate a list of prefixes that will be accepted and denied.
 - qq. Farmer: might be able to use IRRexplorer code on github to create an "I2PXexplorer" or similar tool.
 - rr. Brock: next step is to make this tool so that we can make folks aware of issues.
 - ss. Bartig: challenge is reaching bgp neighbors who are not on this call.
 - tt. Folks should update their peeringDB records.
 - uu. Participants need to know that this info is needed and is correct.
 - vv. Brock: This is not an I2 problem, but I2 is in a good position to get the word out/get the community to move forward.
 - ww. Two suggestions from this discussion:**
 - i. This working group should draft something to community and carpet bomb (distribute widely).**
 - ii. Develop crude tool to give a list of resources that are in jeopardy.**
 - xx. Bartig: there is a need for IRR education.
 - yy. Farmer: would encourage a volunteer core of people to help walk folks through the various pieces of the puzzle.
 - zz. Lambert: Farmer: what fraction of ARIN community is up to date?
 - aaa. Farmer: don't have a good answer offhand. Chris Spears was looking into something similar but has moved on.
 - bbb. Bartig was looking to reproduce what Chris Spears was working on.
 - ccc. Farmer: CDN youtube AS 36040 is going away in some exchanges, replaced with AS 15149, google backbone AS. May have significant impact.
3. Update on peering & TR-CPS/I2
 - a. Bartig: Nothing critical given discussion above.
 4. Network weather update – trends and coming events
 - a. Not discussed because of time constraints
 5. I2 network update
 - a. Not discussed because of time constraints
 6. AOB
 - a. Farmer: CDN YouTube AS 36040 is going away in some exchanges, replaced with AS 15149, google backbone AS. May have significant impact.