Making Routing Registries Great Again

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Problem Statement

- Routing Registries are Garbage In systems

- Automated process to add objects

- Varying practices about objects and proxy-registrations

- Tools not well understood

Existing tools

- http://prefix.pch.net
- http://irrexplorer.nlnog.net/
- http://www.radb.net/
- Whois
- bgpq3

Process for accepting routes

- 1 – Customer wants something routed
- 2 – ?
- 3 – Profit!

How it actually works

- Cogent
  - E-Mail your sales representative to have prefixes added
  - Validiaton check
  - Passed to be implementation team
- NTT
  - Generates filters from IRRs { NTTCOM, RIPE, ARIN, ALTDB, RADB, … }
  - Can be described as GIGO (Garbage in, Garbage Out)

How to address this?

- Create new registry with human validated objects!
- Create a score and weight based on data such as
    - ROA/RPKI
    - Allocation data, present and past
    - Historical Announcements
    - Human review of paperwork
- Provide feedback to requestor

Benefits to requestor

- Ongoing thoughts in this space
  - Block rogue announcements
  - Improved access to BGP communities for traffic engineering
  - Higher confidence in regular routing outcomes
    - Fewer hijacks and sub-prefix hijacks
  - Strictly tied to origin ASN?
  - Immediate access to rebuild prefix-sets and lists
    - No more waiting until cron runs, rebuild on demand!

Why not other $my_technology

- ROAs and RPKI are not accessible technology
  - Wrapping social problem in cryptography does not solve social problem
- Existing IRR cleanup efforts feasible
  - Tools exist, require significant education and training
- Routing police can be ineffective
  - Often lacks real world outcomes in business critical timelines

Feedback/Questions?

Abuse, ice cream and warm cookies welcome!

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