

So I Need to Start Route Filtering Peers

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Who's a Transit
ISP?

AS15169?

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Route Data Sources

IRR, RPKI, <internal TE>

- IRR data for what peers think they will be sending
 - RPKI data where available to validate IRR data
 - Internal TE sources to limit further if required
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Procedure

1. Notify peers (howdy!) that this is going to start happening
2. Collect data regularly (daily?)
3. Parse and place into internal data service
4. Create per-ASN filter content
5. Apply changes to network device(s)
6. Mark today, drop tomorrow



Notification

Notify Peers

Notifying peers through standard mechanisms

**Portal update to explain timelines
and display current data for your
ASN**

<https://isp.google.com>

**Implement ability to request ‘update
because I updated’ by peer(s)**

**Feedback once this is working will be
important**

Collect Data

Collect and Parse
IRR/RPKI data,
easy?

Collection is the ‘simple’ part of the problem

IRR data is relatively easy to find:

`ftp://ftp.radb.net/`

Decide on which IRR databases to collect and parse.

Parse IRR data

IRR, Y U Be So Weird?

IRR data is generally formatted

**Follow the AS -> Maintainer ->
AS-SET trees... ‘Everyone’ keeps
theirs updated, right?**

**(these aren’t really IRR problems as
such)**

**What tooling exists for this
today?**

Irrtoolset - no

**Bgpq3 - not usable (internal
problems)**

**Run a local IRRd... doesn’t
actually solve the problem of
making the data available to the
other tooling used**

Create per-ASN
data/filters

Vendor Neutral Formatting

OpenConfig(OC) sounds right

Request from the internal service

**Output for configuration generation
system in OC form**

Probably OC is fine

Tooling already knows OC

**Tooling may have to know
prefix-list vs route-filter**

Application

Apply Changes as Required

When changes arrive, apply them in the normal fashion

Follow existing device configuration processes

New processes are bad/hard/problems

Conclusion

Goal is to start marking routes based on filter inclusion / exclusion by 01/2019

Reject/Drop by 03/2019