IXP-Jedi – finding routing issues

Atlas probes

https://atlas.ripe.net/
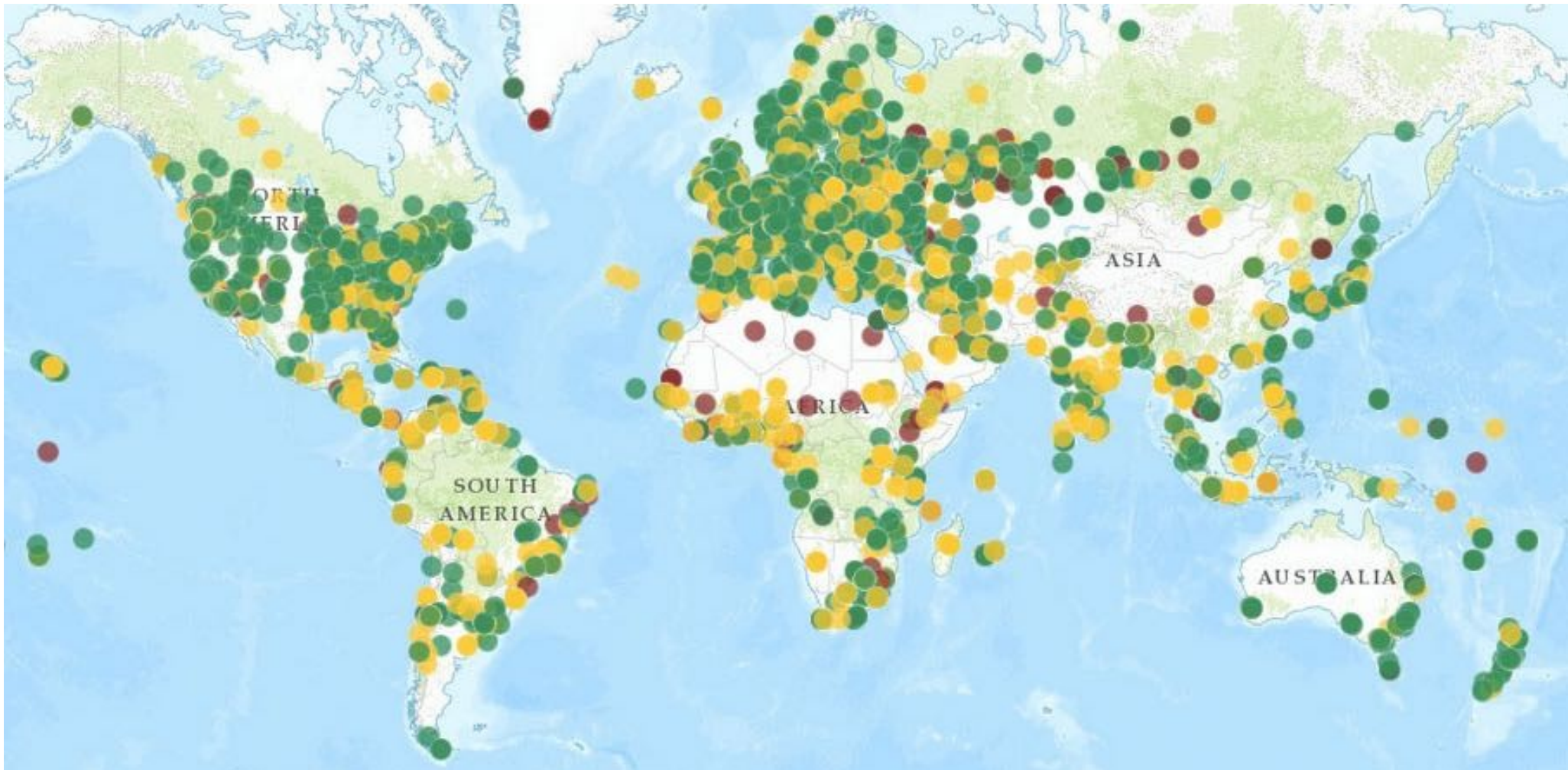
Probe at TIX

RIPE Laps experiment

- https://labs.ripe.net/Members/emileaben/measuring-ixps-with-ripe-atlas
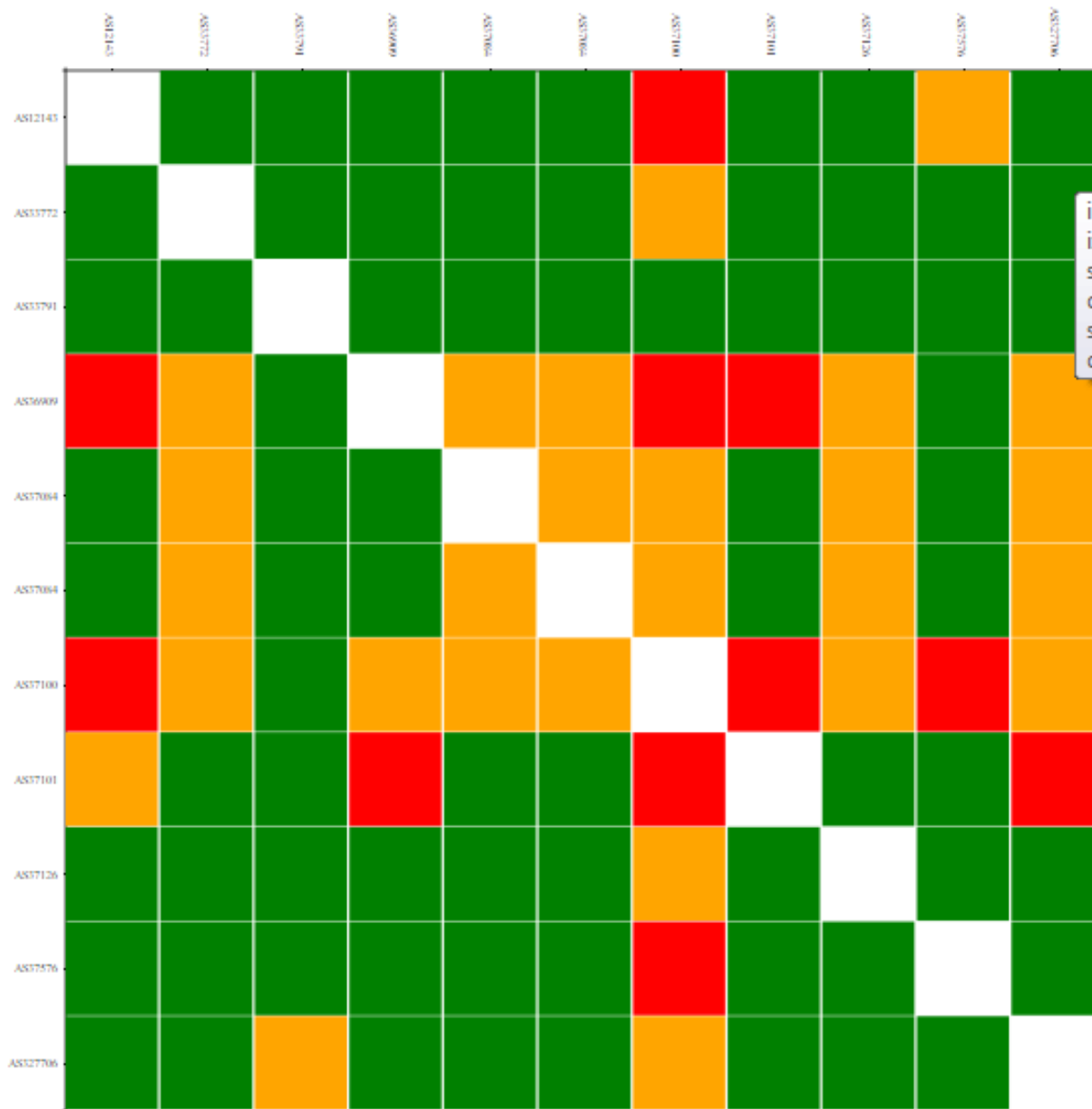
- Run monthly

- Source code available
    - Means you can do your own tests
      (with Atlas credits)

- Tests Atlas probes in a country and whether traceroutes between them traverse IXP

Legend:
- ■ (green) IXP IPs: YES, out-of-country IPs: NO
- ■ (orange) IXP IPs: NO, out-of-country IPs: NO
- ■ (blue) IXP IPs: YES, out-of-country IPs: YES
- ■ (red) IXP IPs: NO, out-of-country IPs: YES

Destination (by ASN)

Source (by ASN)

Tooltip:
incc: yes
ixp: yes
srcAS12143
dstAS327706
srcPrb23538
dstPrb13141

msm_id:44881
1 () 192.168.0.
2 (AS12143) 196
3 err:{u'x': u'
3 (AS12143) 196
4 (AS12143) 196
5 (AS12143) 196
6 () simbanet-t
7 (AS37084) 155
8 (AS37084) 155
9 (AS33765) 41.
10 (AS327706) 1

http://sg-pub.ripe.net/emile/ixp-country-jedi/history/2016-08-01/TZ/ixpcountry/

Unwanted one-way example

From Seacom to KENET

From KENET to Seacom

incc: yes
ixp: yes
srcAS36914
dstAS37100
srcPrb24402
dstPrb25210

More examples of unwanted routing

- Traffic engineering,
  announcing specifics to upstreams

```
41.138.200.0/24     *[BGP/170] 4d 06:46:32, localpref xx

                       AS path: 6453 6762 33765 37602 37120 I
```

- Not announcing new addresses to IXPs / peerings

How to fix?

- More attention by engineers
- Real action after notifications
- Attention to it by their "upper layers"
- Only if local traffic is optimised, we get maximum buy-in from the managers
- Only then we can get upgrades to IXP connections