

# RIPE-Atlas-tools

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# Realtimeness

## Starting points

- Current tools – wait minutes, need fast, better!
- Need more data – like ASNs
- Need more operator useful data/use-cases
- Beginners need an API key :-(  
Maybe create some API keys with some credit pool?

# Doing a traceroute initially / before

```
+ ripe-atlas measure traceroute --from-probes=6103 --target edge.home.hayes.ie
```

Probe #6103

1	193.3.157.1	0.378 ms	0.265 ms	0.271 ms
2	77.243.33.201	4.686 ms	0.564 ms	1.72 ms
3	77.243.32.142	0.664 ms	0.662 ms	0.603 ms
4	80.150.171.249	2.553 ms	4.48 ms	4.576 ms
5	217.239.47.170	29.674 ms	29.568 ms	29.671 ms
6	213.46.174.201	27.841 ms	27.809 ms	27.876 ms
7	*	*	*	*
8	84.116.137.73	41.752 ms	40.427 ms	40.491 ms
9	84.116.238.69	40.243 ms	40.297 ms	40.291 ms
10	109.255.254.3	41.005 ms	40.945 ms	40.98 ms
11	*	*	*	*
12	*	*	*	*
13	*	*	*	*
14	*	*	*	*
15	*	*	*	*
255	*	*	*	*

real 2m4.002s

# Faster traceroute

- Changing the default matter a lot

```
+ ripe-atlas measure traceroute --from-probes=6103 --target edge.home.hayes.ie --response-timeout 500 --packets 1

Probe #6103

 1 193.3.157.1          0.332 ms
 2 77.243.33.201       25.27 ms
 3 77.243.32.142       0.567 ms
 4 80.150.171.249      4.175 ms
 5 217.239.47.170     29.464 ms
 6 213.46.174.201     35.012 ms
 7 *                   *
 8 84.116.137.73      66.392 ms
 9 84.116.238.69      40.265 ms
10 109.255.254.3      41.565 ms
11 *                   *
12 *                   *
13 *                   *
14 *                   *
15 *                   *
255 *                  *

real 0m40.775s
```

# Feature request

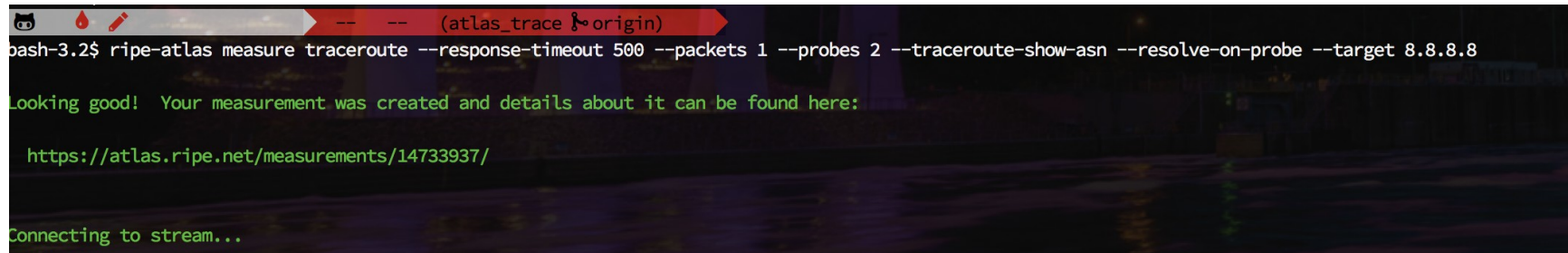
- Annika had a use-case not covered by tools
- Fine grained probe selection
- Country AND ASN – match both
- Branch  
<https://github.com/kramse/ripe-atlas-tools/tree/probe-search>
- Needs a little cleanup before it can be sent upstream

# Easier for newcomers

- Made small changes to ripe-atlas-tools
- More user-friendly, report missing API key?
- Extend with new commands with sane default
- - current tools can do all, but loooong command lines
- Just a few simple Git pull requests, to learn :-)
- <https://github.com/RIPE-NCC/ripe-atlas-tools/pull/203>
- <https://github.com/RIPE-NCC/ripe-atlas-tools/pull/201>
- Branch <https://github.com/kramse/ripe-atlas-tools/tree/doc-healthcheck>

# Improve usability

- Canned commands with useful default
- atlas-trace
- Have a set of recipes
- Before and after, easier running a traceroute

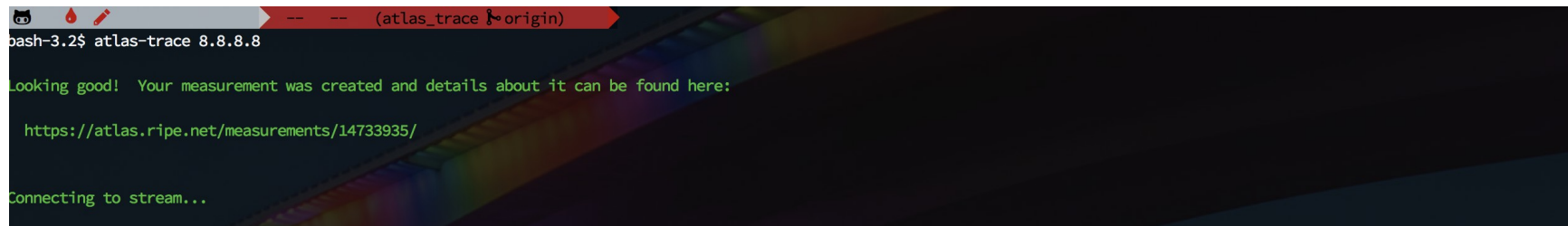


```
bash-3.2$ ripe-atlas measure traceroute --response-timeout 500 --packets 1 --probes 2 --traceroute-show-asn --resolve-on-probe --target 8.8.8.8

Looking good! Your measurement was created and details about it can be found here:

https://atlas.ripe.net/measurements/14733937/

Connecting to stream...
```



```
bash-3.2$ atlas-trace 8.8.8.8

Looking good! Your measurement was created and details about it can be found here:

https://atlas.ripe.net/measurements/14733935/

Connecting to stream...
```

# Improvement colourise-traceroute

- Adding hostnames, ASN, colour and latency bars
- Using database of 15 million data points
- Colours by round trip time (RTT) anomalies
- Latency bars added for further visibility
- `ripe-atlas report --render traceroute_asboundry 14680937`



# screenshot

Probe #32203

Sat Jun 23 13:34:38 IST 2018

1	*		0.962 ms	0.737 ms	0.726 ms	
2	*		*	*	*	
3	be17.cbr01-ntr.net.bbox.fr	AS5410	25.572 ms	26.219 ms	26.091 ms	
4	la12.rpt01-ix2.net.bbox.fr	AS5410	*	23.885 ms	24.203 ms	
5	lag-106.ear3.paris1.level3.net	AS3356	*	24.336 ms	23.88 ms	
6	ae-2-12.bar1.dublin3.level3.net	AS3356	40.667 ms	51.955 ms	40.23 ms	
7	libertyglobal-level3-30g.dublin3.level3.net	AS3356	41.112 ms	40.923 ms	41.199 ms	
8	ie-dub02a-rc1-ae64-0.aorta.net	AS6830	50.5 ms	50.428 ms	50.904 ms	
9	ie-dsan-ram-a-ae1-0.aorta.net	AS6830	49.474 ms	49.939 ms	53.425 ms	
10	*	AS6830	48.276 ms	49.002 ms	47.369 ms	
11	*		*	*	*	
12	*		*	*	*	
13	*		*	*	*	
14	*		*	*	*	
15	*		*	*	*	
255	*		*	*	*	

# Graphing traceroute from measurement

- Idea from <https://ring.nlnog.net/toolbox/ring-trace> tool can do some really nice graphs with Graphviz
- Lots of problems - “its a PoC”
- Branch  
<https://github.com/kramse/ripe-atlas-tools/tree/graph-traceroute>
- Better to use pygraphviz?  
<https://pygraphviz.github.io/>

