

Some Available RPKI Tools

Benno Overeinder
Carlos Martinez Cagnazzo
SIDR IETF87 @Berlin

RPKI Tools

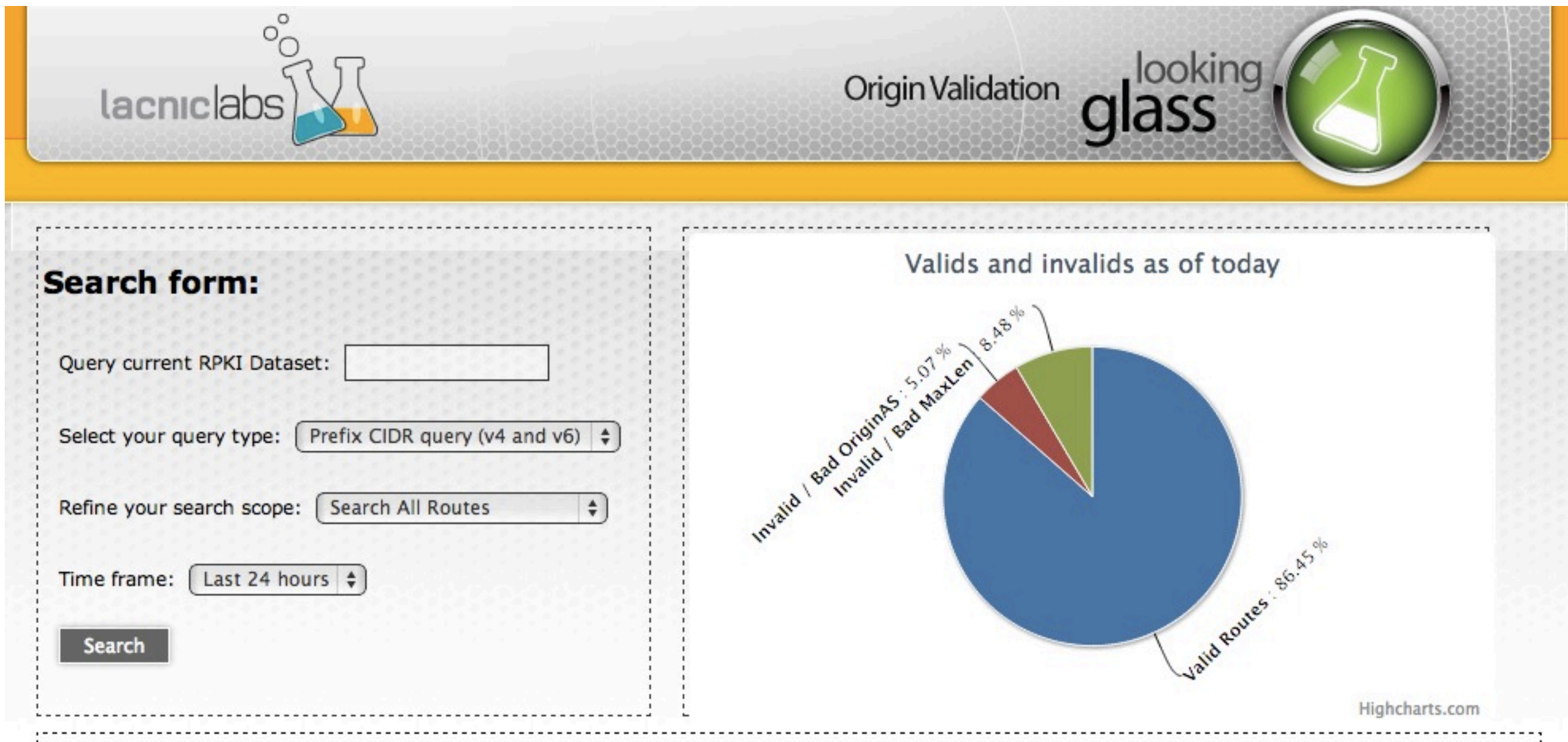
- The authors believe the information already contained in the RPKI has value in itself, even for operators not able / not willing to run OV in their routers at this time
- We believe there is a **gap** in the available tools that currently prevents this from being realized.
- We believe in **enabling and encouraging** alternative use cases for the information **already** stored in the RPKI
- There is a perceived need for better monitoring tools
- We look forward to feedback from all users as to which directions tool development should follow

Tool #1: Origin Validation LG



- Goals
 - Ability to display and showcase the current status of RPKI deployment
 - Enable possible uses of RPKI without having to enable OV in routers just yet
 - Check proper resource usage rights when establishing peering relationships
 - Automating alarms

Origin Validation LG

Available at: http://www.labs.lacnic.net/rpkitools/looking_glass/




Origin Validation LG


lacniclabs  Origin Validation 

Query string: 28000 | Query type: asn2 | Query scope: all | Query timeframe: 1 days | Result count: 4

Bookmark this query as a REST URI: http://www.labs.lacnic.net/rpkitools/looking_glass/rest/all/asn2/28000

Prefix	SIDR Status	OriginAS	Last Seen	More info
200.7.84.0/23	Valid	28000	Aug. 1, 2013, 8:52 a.m.	More info...
200.7.87.0/24	Valid	28000	Aug. 1, 2013, 8:52 a.m.	More info...
2001:13c7:7001::/48	Valid	28000	Aug. 1, 2013, 8:52 a.m.	More info...
200.10.62.0/23	Valid	28000	Aug. 1, 2013, 8:52 a.m.	More info...

lacniclabs 

 www.labs.lacnic.net/rpkitools/looking_glass/rest/all/asn2/28000/

```
200.7.84.0/23 | Valid | 28000
200.7.87.0/24 | Valid | 28000
2001:13c7:7001::/48 | Valid | 28000
200.10.62.0/23 | Valid | 28000
```

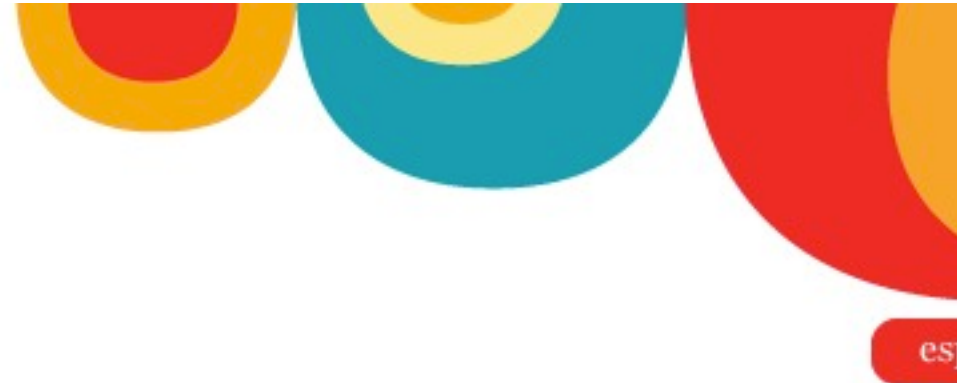
Origin Validation LG

- Allows searching dataset by prefix, expected origin ASN as per ROAs, currently-seen origin ASN and filtering by valid / invalid
- Web-friendly or machine-readable output. Queries are bookmarkable
- Enables additional RPKI usage scenarios:
 - #1: When establishing peering relationships, parties can manually check ROA data and use it configure peering session
 - #2: Automate some infrastructure checks

Tool #2: The RPKI Dashboard

- [Over to Benno]

Tool #3: The ROA Wizard



Org ID:

UY-ANTA-LACNIC

User enters his/
hers LACNIC
ORG-ID

ROA - AS6057: (Criterio 1)

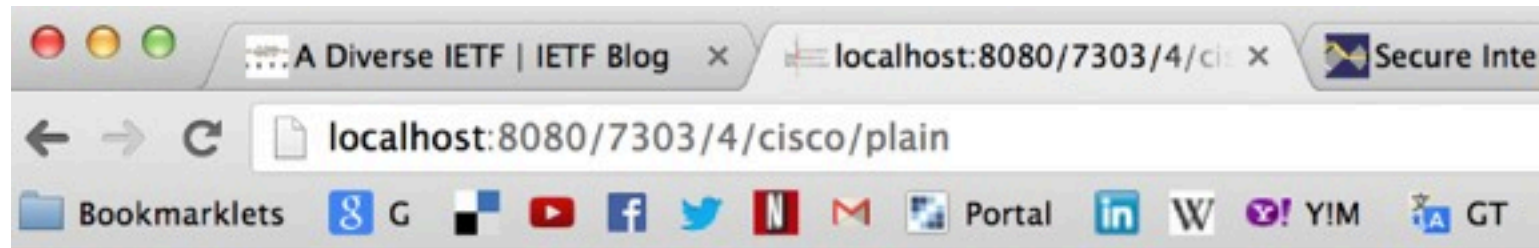
Recommended if ASN is yours

Prefix	Max length
179.24.0.0/13	20
186.48.0.0/14	20
186.52.0.0/14	20
190.0.128.0/19	20
190.132.0.0/16	20
190.133.0.0/16	20
190.134.0.0/15	20
190.64.0.0/17	20

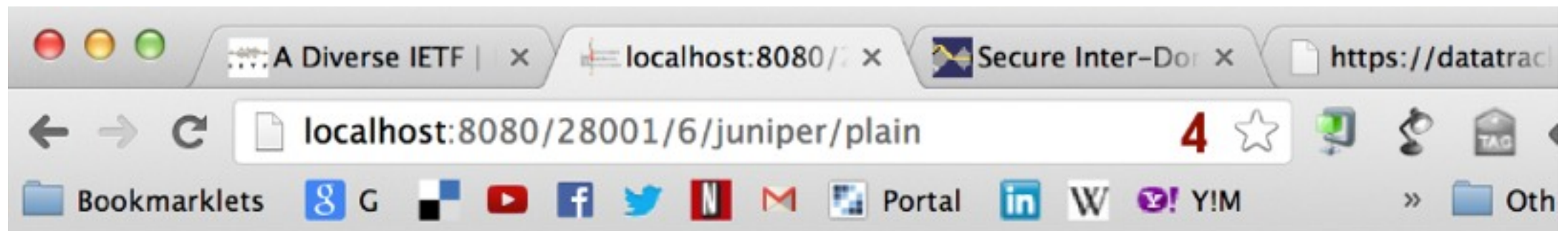
The ROA Wizard

- Allows easy ROA previewing, no login needed (i.e. can be used by ops engineers with no portal login rights)
- If you have the login, you can create the detected ROA in two clicks

A ROA to BGP prefix list 'converter'



```
ip prefix-list RPKI-BGP seq 10 permit 201.253.0.0/16 le 32
ip prefix-list RPKI-BGP seq 20 permit 190.228.0.0/14 le 32
ip prefix-list RPKI-BGP seq 30 permit 200.43.0.0/16 le 32
ip prefix-list RPKI-BGP seq 40 permit 190.31.0.0/16 le 32
ip prefix-list RPKI-BGP seq 50 permit 190.138.0.0/15 le 32
ip prefix-list RPKI-BGP seq 60 permit 200.117.64.0/18 le 32
ip prefix-list RPKI-BGP seq 70 permit 200.82.64.0/18 le 32
ip prefix-list RPKI-BGP seq 80 permit 190.136.0.0/16 le 32
ip prefix-list RPKI-BGP seq 90 permit 190.185.192.0/23 le 24
ip prefix-list RPKI-BGP seq 100 permit 190.103.231.0/24 le 24
ip prefix-list RPKI-BGP seq 110 permit 190.137.0.0/16 le 32
ip prefix-list RPKI-BGP seq 120 permit 186.152.0.0/15 le 32
ip prefix-list RPKI-BGP seq 130 permit 200.82.0.0/18 le 32
ip prefix-list RPKI-BGP seq 140 permit 190.30.0.0/16 le 32
ip prefix-list RPKI-BGP seq 150 permit 200.3.64.0/19 le 32
ip prefix-list RPKI-BGP seq 160 permit 190.226.0.0/15 le 32
ip prefix-list RPKI-BGP seq 170 permit 190.185.227.0/24 le 24
```



```
set policy-options prefix-list RPKI-BGP 2001:13c7:7010::/46
set policy-options prefix-list RPKI-BGP 2001:13c7:7002::/48
set policy-options prefix-list RPKI-BGP 2001:13c7:7012::/47
```

Thanks !