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
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

User enters his/hers LACNIC ORG-ID
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 !