



RIPE NCC

RIPE NETWORK COORDINATION CENTRE

RPKI at RIPE NCC

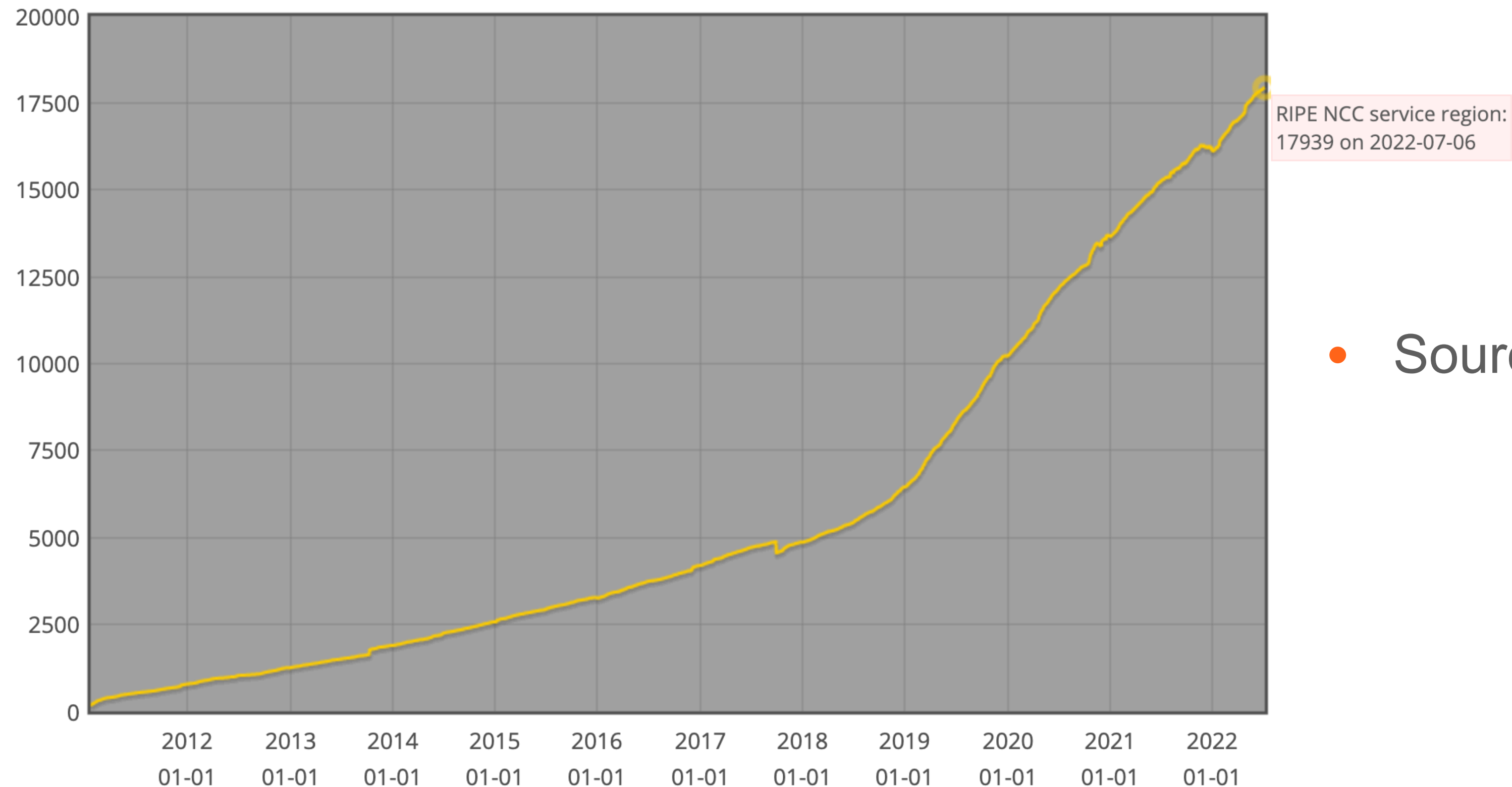
Nathalie Trenaman | 6 July 2022 | ISOC RPKI Week

RPKI Deployment Numbers



Number of Certificates ▾ ☐ AfriNIC ☐ APNIC ☐ ARIN ☐ LACNIC ☒ RIPE NCC

This graph shows the total number of resource certificates created under the RIR Trust Anchor. One certificate is generated per LIR, listing all eligible Internet number resources



- Source: <https://certification-stats.ripe.net/>

Fun Facts



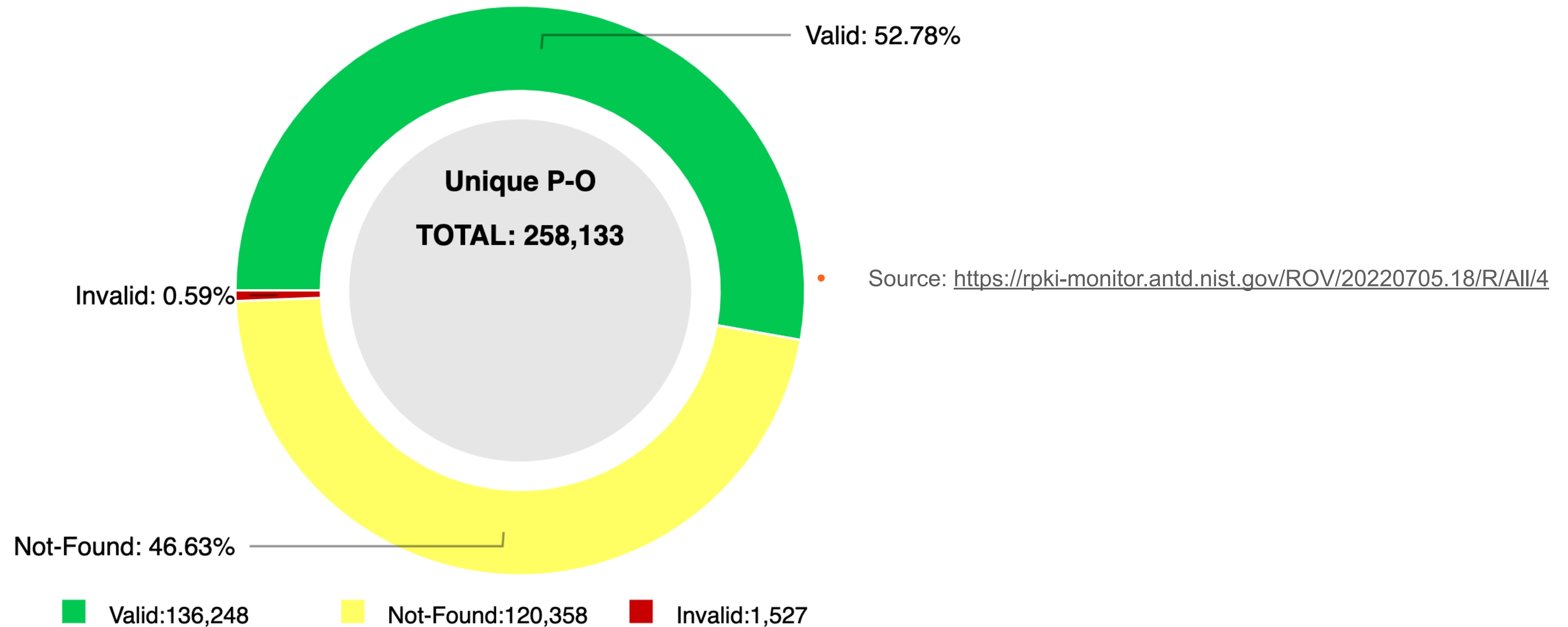
- 75% of our members created a Certification Authority (CA)
- Around 17% of these CA's don't create ROAs in our dashboard!
- 52% of RIPE NCC space is covered with a ROA
- People (still!) don't pay much attention to IPv6

ROA Coverage for IPv4



RPKI-ROV Analysis: RIPE

RPKI-ROV Analysis of Unique Prefix-Origin Pairs in RIPE (IPv4)



NIST RPKI Monitor: RPKI-ROV Analysis

Protocol: IPv4

RIR: RIPE

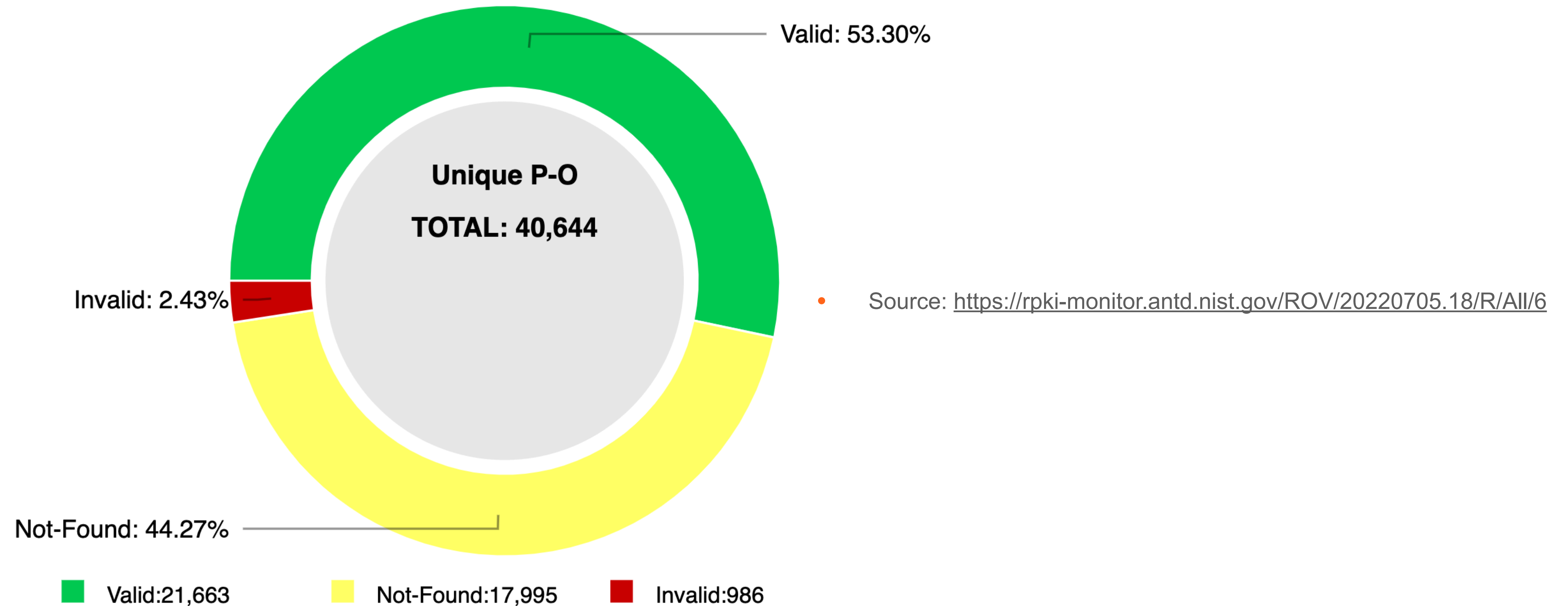
Date: 2022-07-05 18:00

ROA Coverage for IPv6



RPKI-ROV Analysis: RIPE

RPKI-ROV Analysis of Unique Prefix-Origin Pairs in RIPE (IPv6)



NIST RPKI Monitor: RPKI-ROV Analysis

Protocol: IPv6

RIR: RIPE

Date: 2022-07-05 18:00

Training is Essential!



- But in 2021, all we had were webinars :(
- We held 15 RPKI and BGP Security webinars
 - but we learned that operators want hands-on training
- So we're building a new lab environment

An Easy User Interface helps (?)



RPKI Dashboard

3 CERTIFIED RESOURCES

ALERTS ARE SENT TO 5 ADDR

2 BGP Announcements

2 Valid

0 Invalid

0 Unknown

2 ROAs

2 OK

0 Causing problems

BGP Announcements

Route Origin Authorisations (ROAs)

History

Search...

Create ROAs for selected BGP Announcements

Valid

Invalid

Unknown

<input type="checkbox"/> Origin AS	Prefix	Current Status	
<input type="checkbox"/> AS2121	193.0.24.0/21	VALID	
<input type="checkbox"/> AS2121	2001:67c:64::/48	VALID	

Show 25 ▾

Looking for ROA Certification for PI resources?

Revoke hosted CA

Route Origin Validation



- RIPE NCC performs Route Origin Validation for AS3333
 - Since April last year
 - To share our experience and “eat our own dog food”
 - https://labs.ripe.net/author/nathalie_nathalie/rpki-and-as3333-or-how-we-eat-our-own-dog-food/