RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC Open House

Hosted vs. Delegated RPKI

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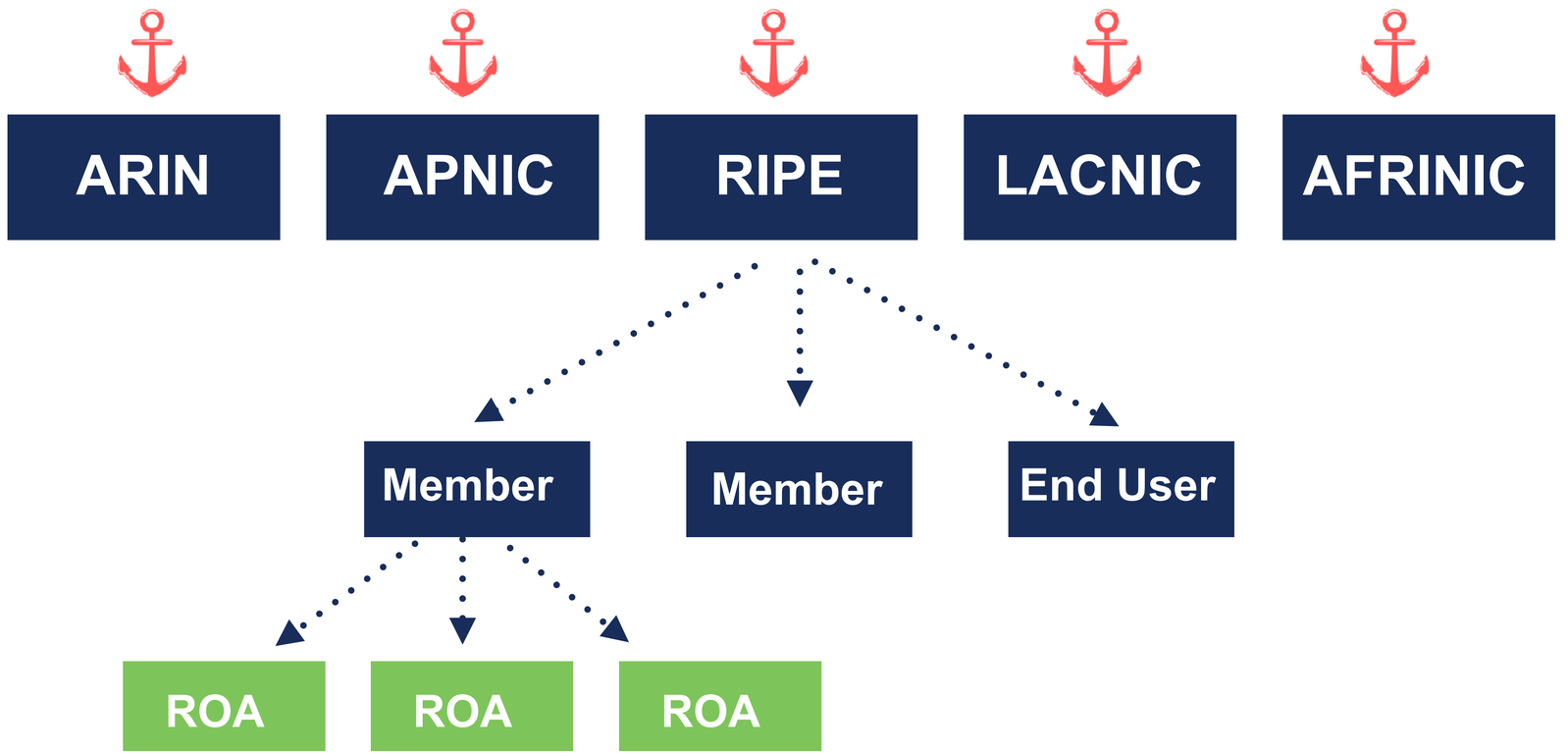
Resource Public Key Infrastructure

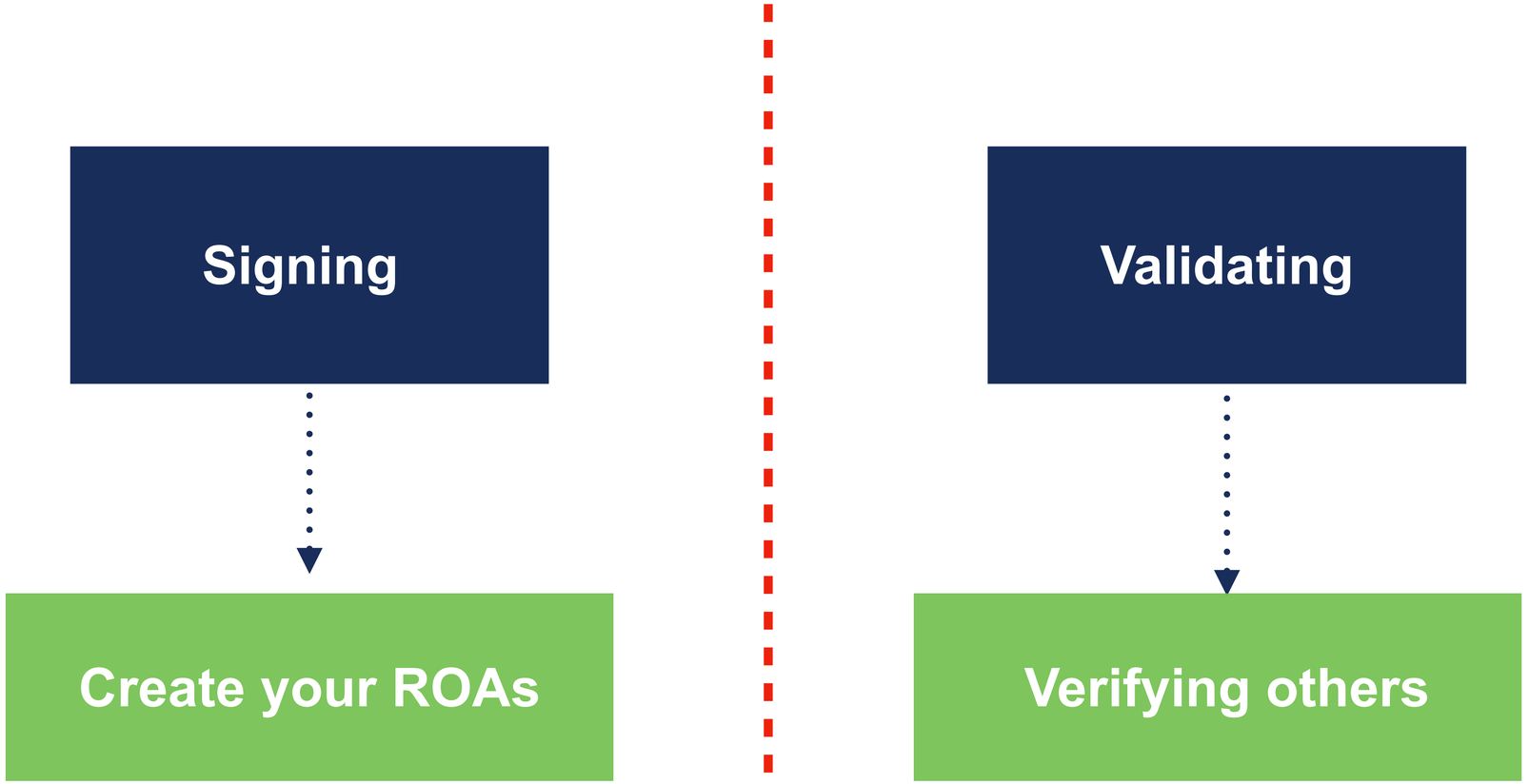
- Ties IP addresses and AS numbers to public keys
- Follows the hierarchy of the IP address registries
- Allows for authorised statements from IP address holders
  - AS X is authorised to announce my prefix Y
  - Signed, holder of Y

RPKI Certificate Structure

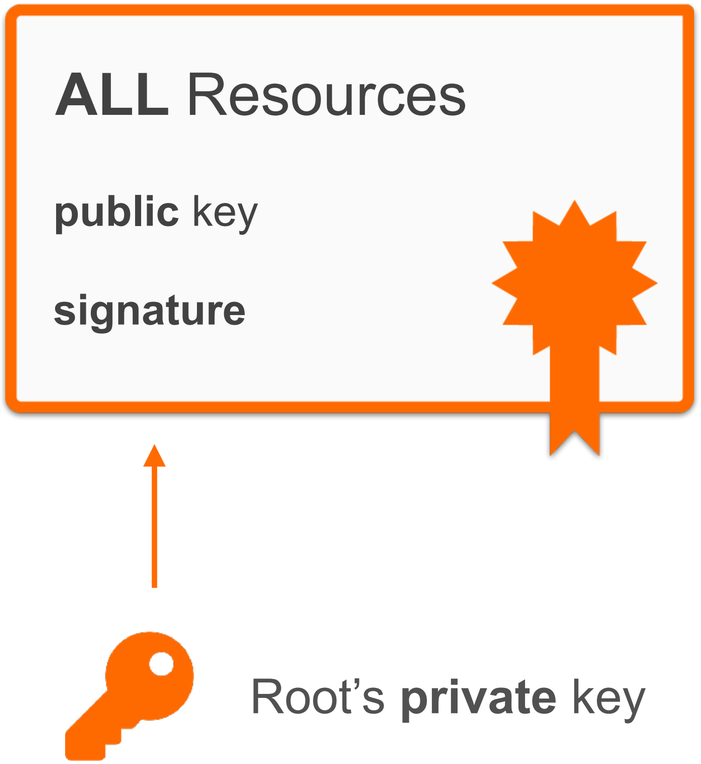
Certificate hierarchy follows allocation hierarchy



Two Elements of RPKI



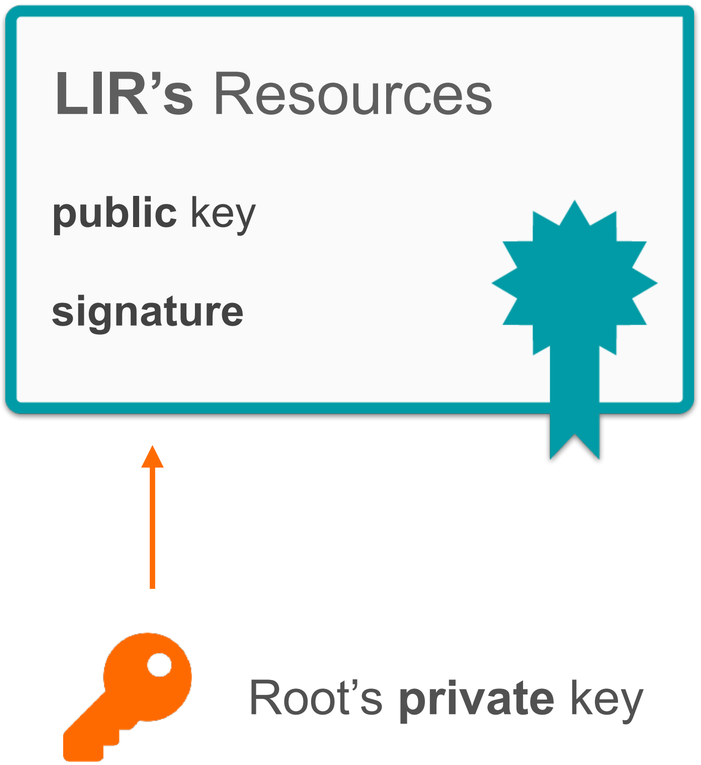
RPKI Chain of Trust



RIPE NCC Root Certificate

Self-signed

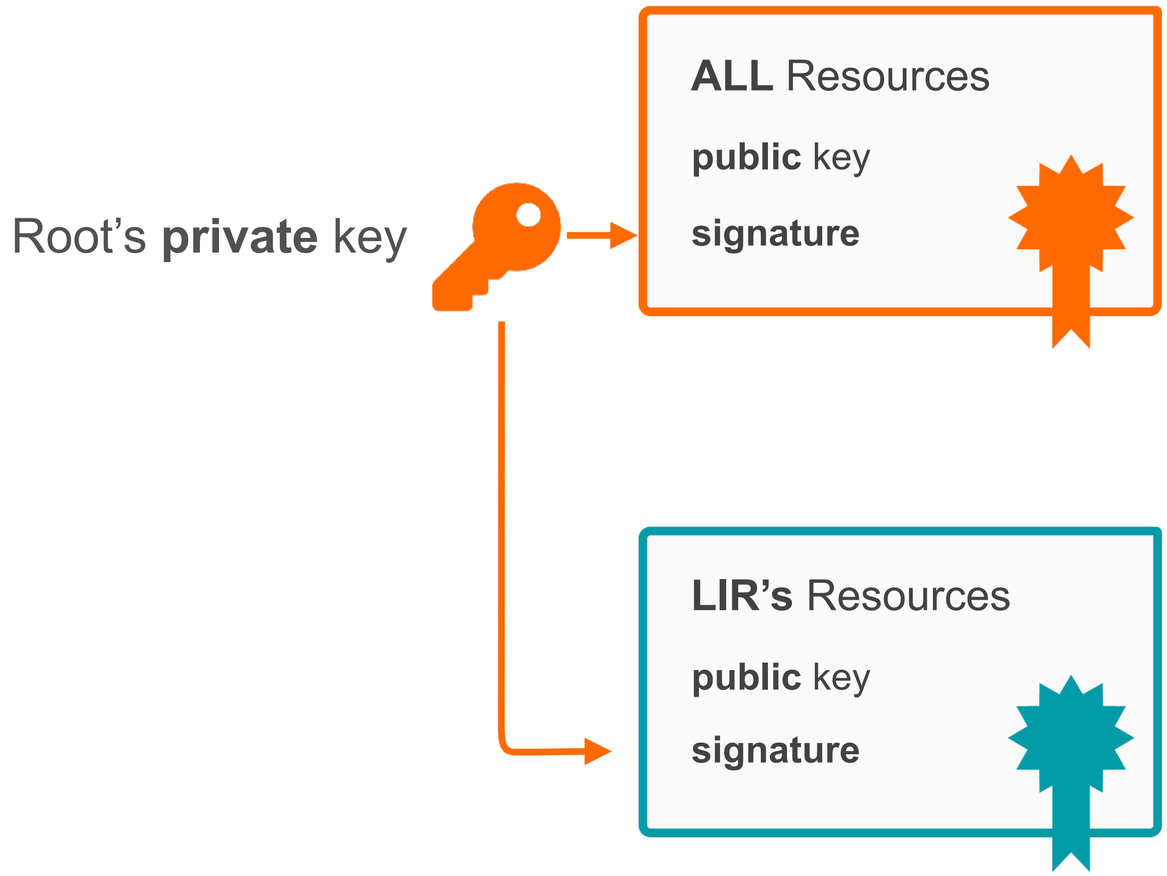
RPKI Chain of Trust



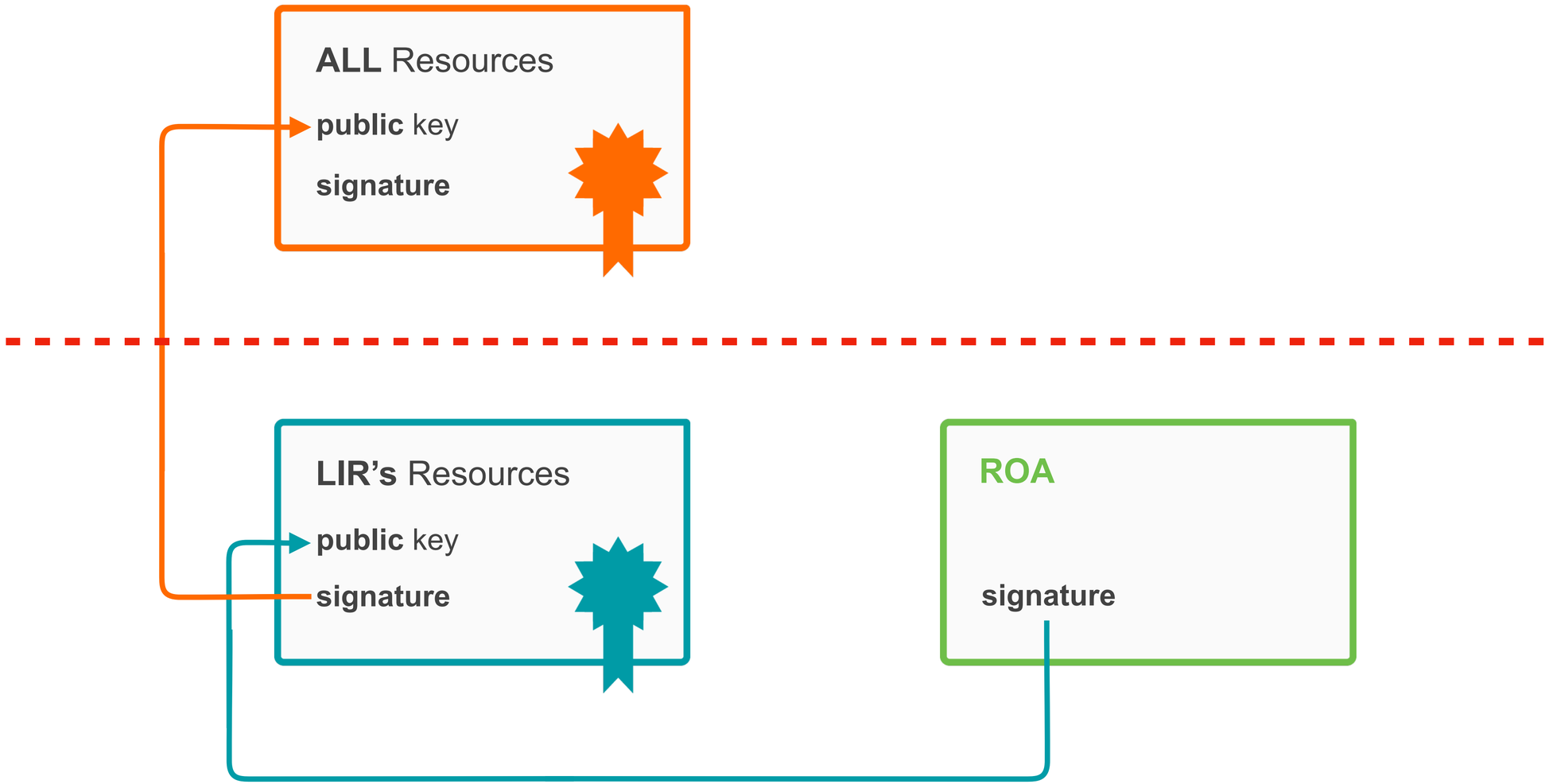
LIR Certificate

Signed by the Root private key

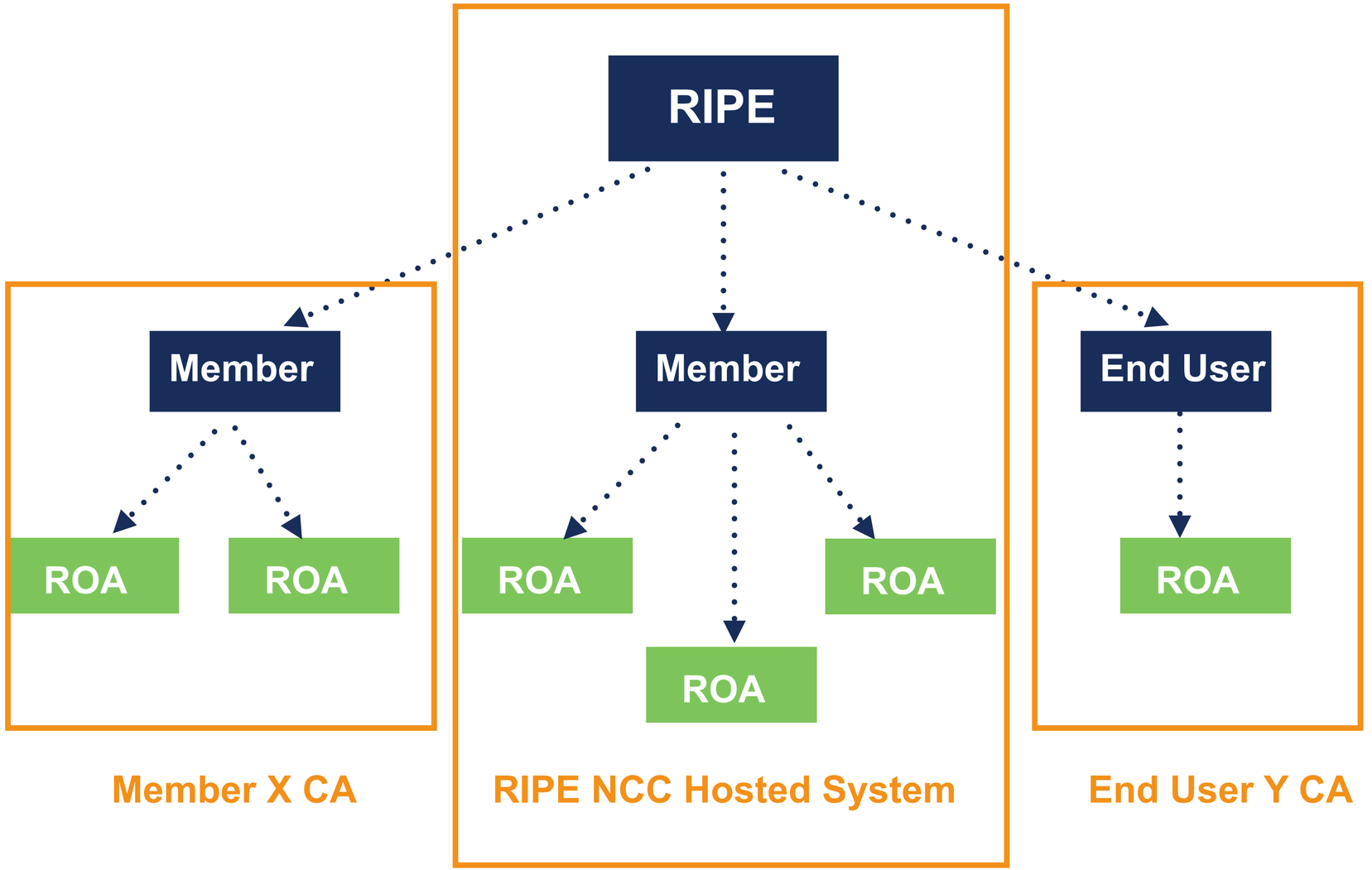
RPKI Chain of Trust



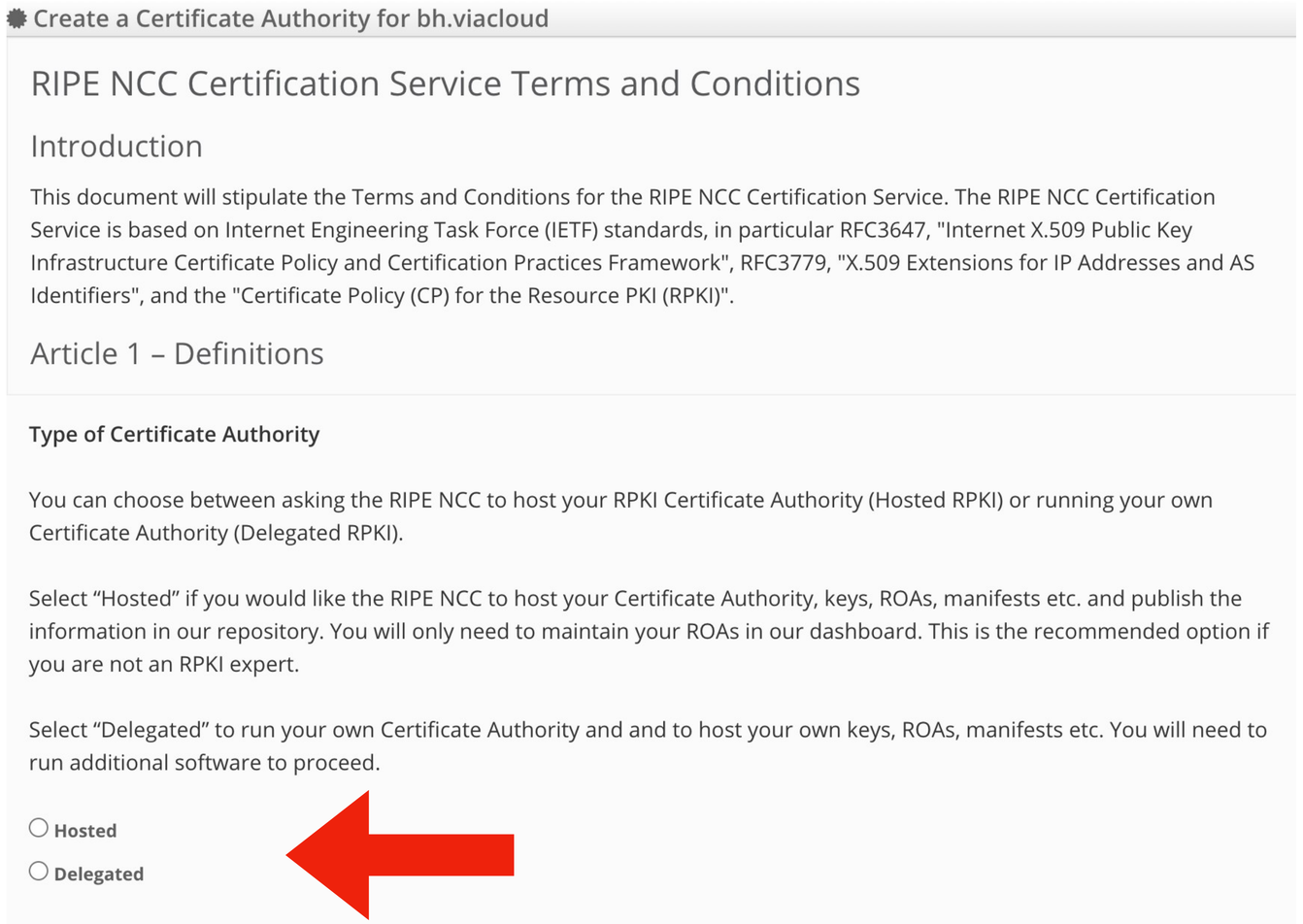
RPKI Chain of Trust



Hosted or Delegated RPKI



First Login to the RPKI Dashboard



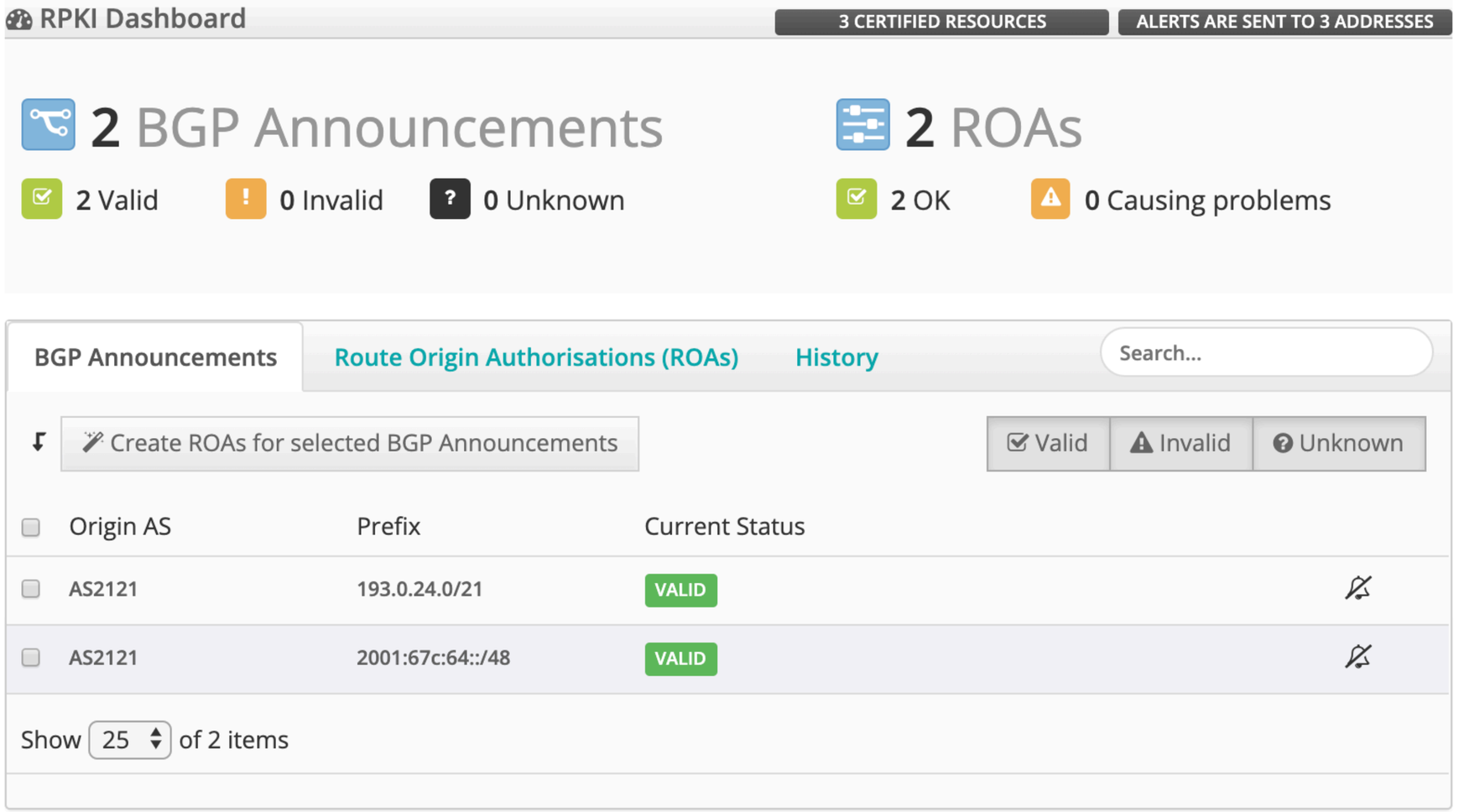
Hosted RPKI

- RIR hosts your Certification Authority and signs all ROAs
- Automated signing and key rollovers
- Not running your own repository
- Allows you to focus on creating and publishing ROAs
- If you have your IPs and AS numbers in one RIR
- If you don’t have sub-allocations

Delegated RPKI

- Run your own Certification Authority software
  - Dragon research Labs, RPKI toolkit
  - NLNetLabs, Krill
- Setup connection with RIPE NCC CA
- Generate your certificate and get it signed by the parent CA
- Run your own repository

RPKI Dashboard



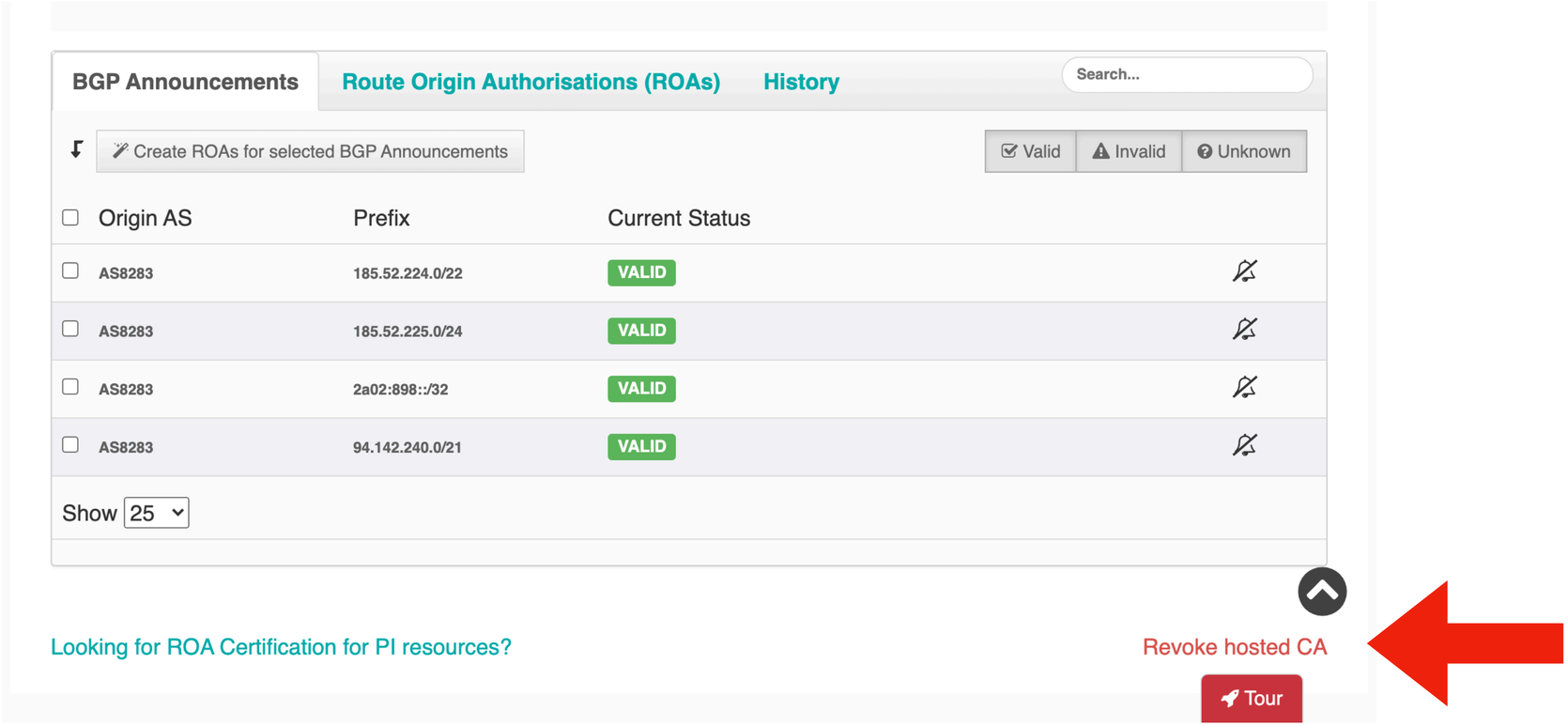
Certifying PI Resources

Sign in with your RIPE NCC Access Account

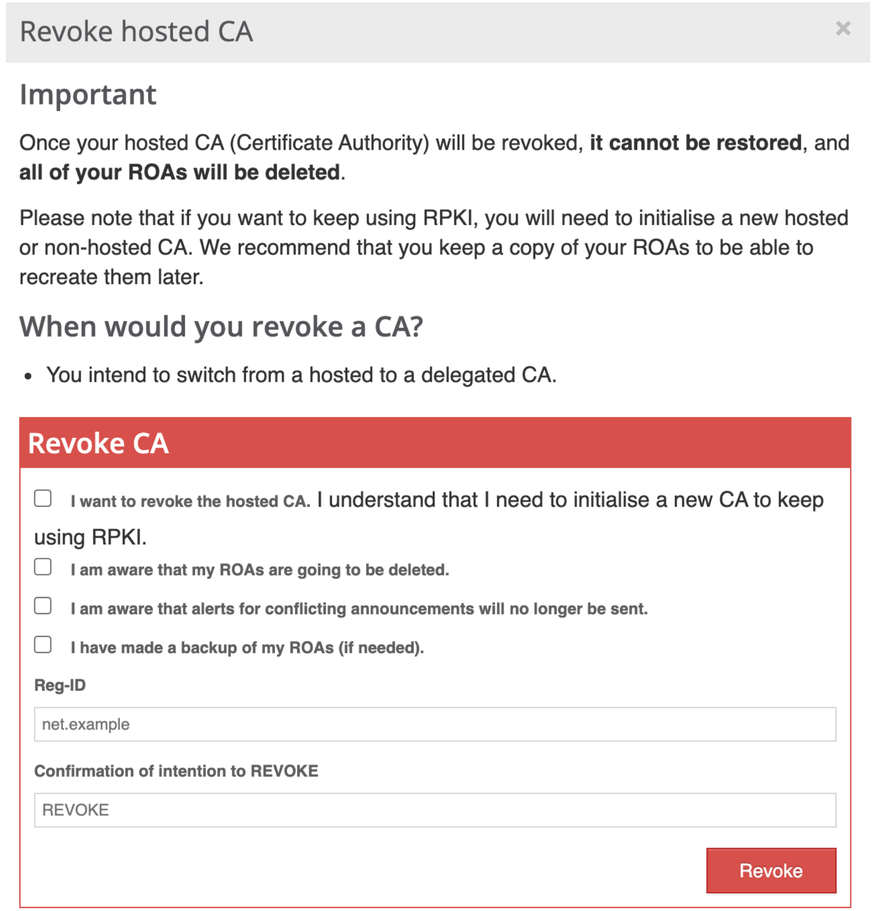
- Requested and managed by PI End User or by Sponsoring LIR
  - Complete the wizard successfully
  - Login to https://my.ripe.net, request a certificate
  - Manage your ROAs

“I want to revoke my CA”

- There is a button!



“Are you really, really sure?”



Questions

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