A more consistent RPKI service for the global Internet community

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RPKI Program Manager - NRO
Agenda

PROGRAM INTRO

PROGRAM TEAM

WHAT DO WE WANT TO ACHIEVE?

LEARN MORE AND GET IN TOUCH
**What’s the NRO?**

**Number Resource Organization**

<table>
<thead>
<tr>
<th>ABOUT</th>
<th>ACCOUNTABILITY</th>
<th>INTERNET GOVERNANCE</th>
<th>TECHNICAL COORDINATION</th>
<th>POLICY</th>
<th>DOCUMENTS</th>
</tr>
</thead>
</table>

**MISSION**

To actively contribute to an open, stable and secure internet, through:

1. Providing and promoting a coordinated Internet number registry system
2. Being an authoritative voice on the multi-stakeholder model and bottom-up policy process in Internet governance
3. Coordinating and supporting joint activities of the RIRs
Why is RPKI important?

- RPKI = Resource Public Key Infrastructure
- Was developed to help secure global routing through resource certificates and ROAs
  - **Resource certificate** = Verifiable digital statement that an Internet number resource has been registered by an RIR to a holder
  - **ROA** = Route Origin Authorization, verifiable digital statement created by the resource holder to state that a given IP prefix will be originated by a specific Autonomous System

- Routers doing **Route Origin Validation** can then verify the BGP announcements they receive and make informed decisions to enhance their routing security.
Why is this program important?

- Current diversity/inconsistency among RIRs
- Differences in RPKI related services being offered - Hosted/delegated, ROAs, AS0, etc
- Integrations (or lack of) between RPKI and IRR services

Sources:
https://manrs.org/resources/common-roa-management-requirements-and-security-standards-for-operators-of-rpki-services-ors/
Are those differences hindering the adoption of RPKI?
NRO Strategic Review Process

- Agreement to work toward providing a robust, coordinated and secure RPKI service

The NRO RPKI Program was created

- Purpose: “To provide a more consistent and uniformly secure, resilient and reliable RPKI service”
- Removing barriers for RPKI adoption currently experienced by network operators who create RPKI objects through multiple RIRs.
The **NRO EC**, as the executive sponsor of the program, with a role of strategic goal prioritisation, approval and funding.

The **NRO RPKI Program Manager**, with a role of operational direction, oversight and support.

The **RPKI Steering Group**, which includes RPKI experts from the five RIRs and has a role of specific direction and advise related to agreed objectives.

Other RIR **RPKI Subject Matter Experts** (SMEs) and consultative groups, with a role of goal delivery and execution.
# RPKI Steering Group

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>RIR</th>
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<tr>
<td>Yogesh Chadee</td>
<td>Head of Value Added Services</td>
<td>AFRINIC</td>
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<td>Anton Strydom</td>
<td>Director, Engineering</td>
<td>APNIC</td>
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<td>Tom Harrison</td>
<td>Product and Delivery Manager - Registry Product</td>
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<td>Mark Kosters</td>
<td>Chief Technology Officer</td>
<td>ARIN</td>
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<td>Brad Gorman</td>
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<td>Carlos Martinez Cagnazzo</td>
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<td>Jorge Cano</td>
<td>Senior Software Architect</td>
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<td>Felipe Victoia Silveira</td>
<td>Chief Technology Officer</td>
<td>RIPE NCC</td>
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<tr>
<td>Tim Bruijnzeels</td>
<td>Principal Engineer RPKI</td>
<td>RIPE NCC</td>
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What do we want to achieve?

• Purpose: “To provide a more consistent and uniformly secure, resilient and reliable RPKI service”

• More specifically, we want to achieve the following outcomes:
  – Definition of what a single global RPKI system looks like.
  – Better understanding and improved transparency of the robustness of the RPKI system
  – Enhanced security consistency of the RPKI system across the different RIRs
  – The technical community is kept informed and engaged throughout the program, and their concerns are addressed in a coordinated way.
Different aspects of consistency

• Consistency across RIRs:
  • In services/features offered
  • In mechanism to manage ROAs (create, read, update and delete)
  • In terms of robustness of the system

• What other aspects of consistency do you think we should consider?
Do you want to know more?

- Visit our webpage:
  - [https://www.nro.net/technical-coordination/security/certification/#rpki_program](https://www.nro.net/technical-coordination/security/certification/#rpki_program)

- Read our blog series:
  - [https://www.arin.net/blog/2024/03/11/improving-rir-alignment-rpki/](https://www.arin.net/blog/2024/03/11/improving-rir-alignment-rpki/)
  - [https://www.arin.net/blog/2024/05/15/nro-rpki-program-series-2/](https://www.arin.net/blog/2024/05/15/nro-rpki-program-series-2/)
We want to hear from you!

• What are the main barriers or obstacles for RPKI adoption that could be solved (or at least improved!) through better coordination and collaboration among the RIRs?

• Do you have ideas of initiatives we should consider?

• Please share them sending an email to rpki_program@nro.net
THANKS FOR YOUR ATTENTION!