

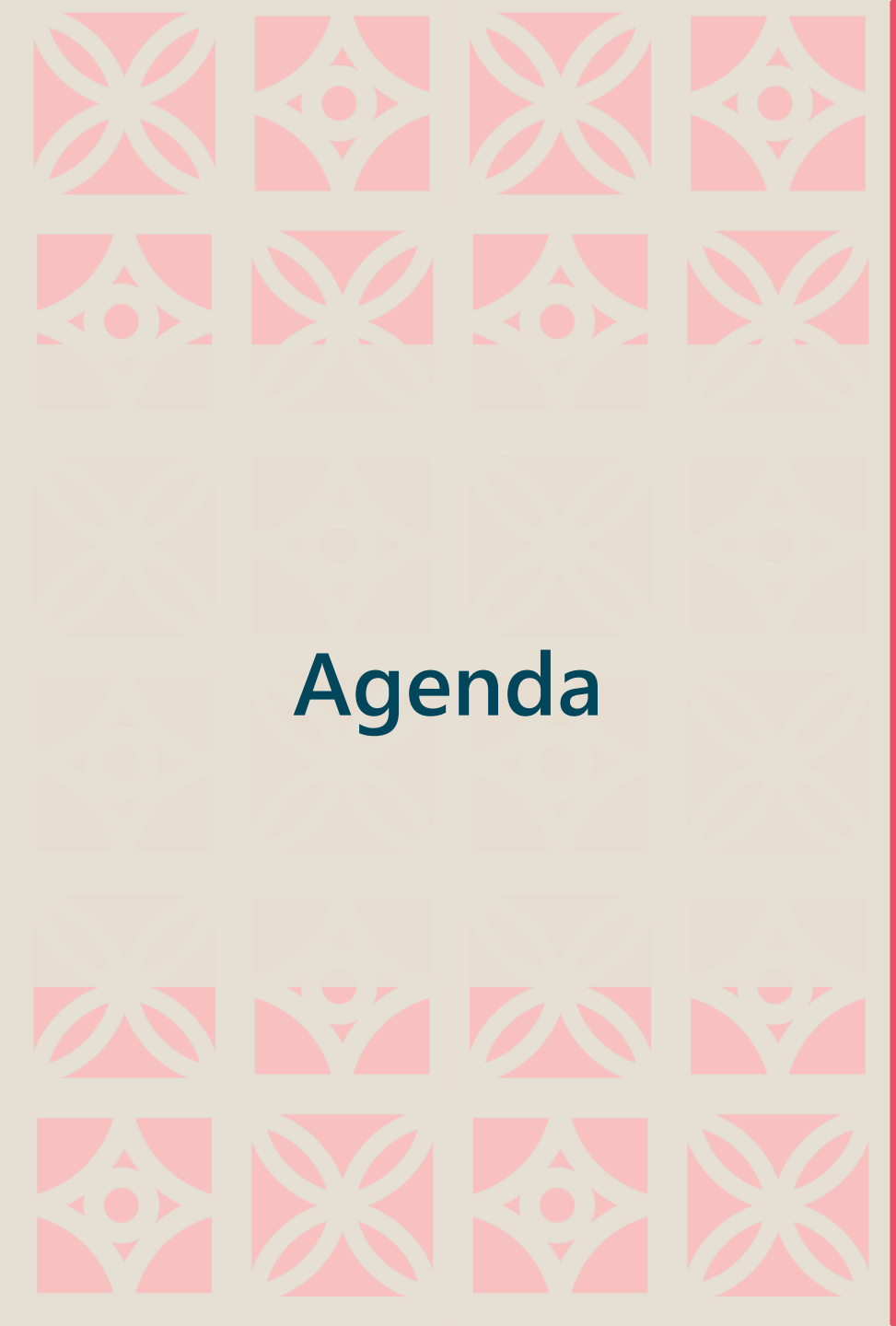


Routing Security Update

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Agenda

- Global Resource Public Key Infrastructure (RPKI) Activity
- RPKI Adoption at ARIN
- New Features and Upcoming Development



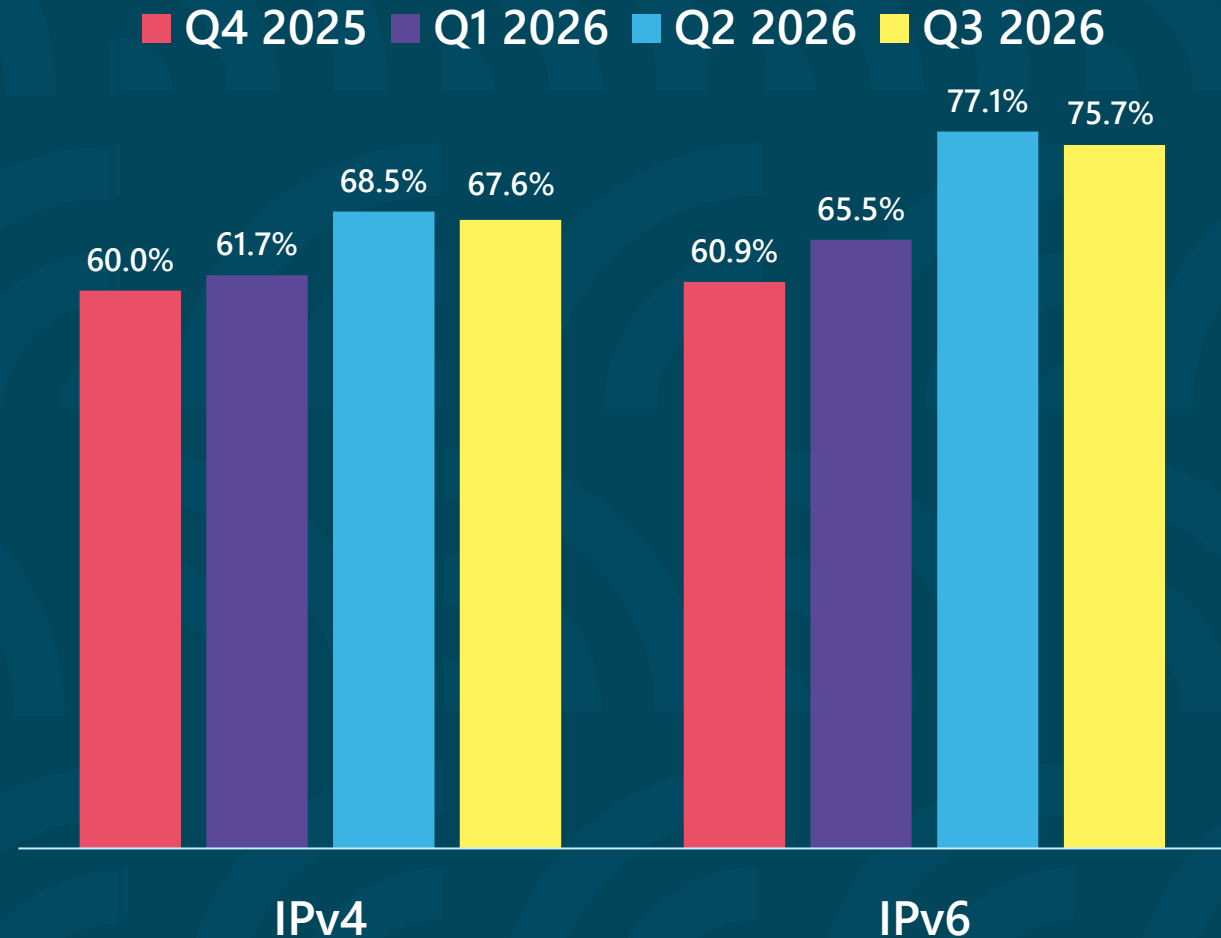
The State of RPKI By the Numbers

Global RPKI Validity

Parity in IPv4 and IPv6 resource coverage in Route Origin Authorizations (ROAs)

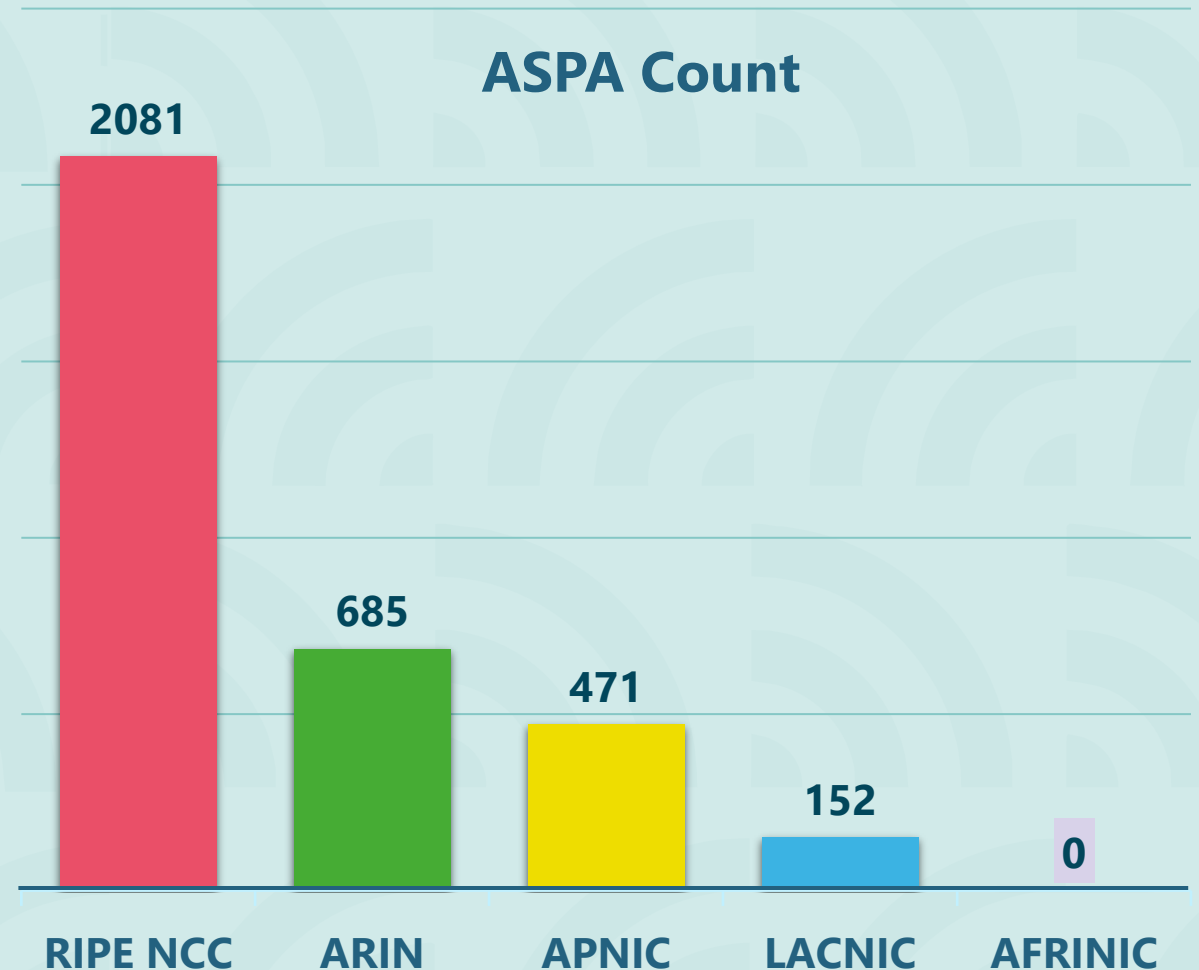
- RPKI community credits continued education and outreach
- Service provider requirements

Data collected from NIST RPKI monitor on 2 October
<https://rpki-monitor.antd.nist.gov/ROV>



ASPA's are in the RPKI Repositories

- Total of 3,389 Autonomous System Provider Authorizations (ASPA's) created
- Final stage of RFC ratification
- All five Regional Internet Registries will support ASPA creation by the end of 2026



Three RPKI Services Available

1

Hosted RPKI

Suggested for organizations that would prefer ease of use and the least responsibility.

ARIN runs the certificate authority, maintains and publishes the RPKI repository to the global networking community.

ARIN also develops RPKI tools for use by hosted RPKI customers.

2

Delegated RPKI

Suggested for organizations that want cryptographic control of RPKI certificates; the organization should have a deeper understanding of routing security and RPKI along with a technical staff and resources to run and support the high availability repository.

3

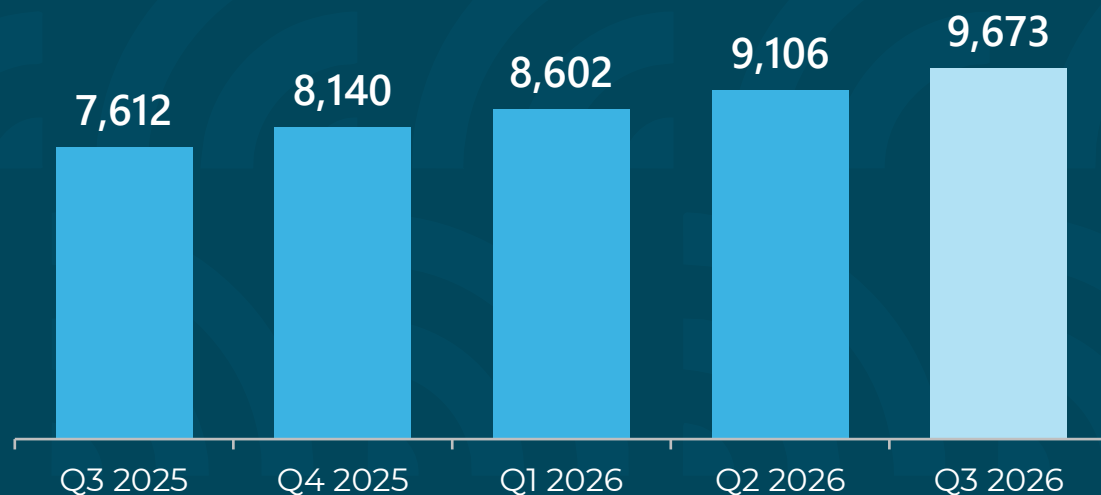
Repository Publication Service

Suggested for organizations that wish to retain cryptographic control, but do not want to maintain the high availability RPKI repository and publication requirements.

RPKI Adoption Is Growing. There's More Work to Do.

9,673

orgs registered for RPKI, **up 27% in a year**



~1 in 7

Hosted orgs have **not created a single ROA**

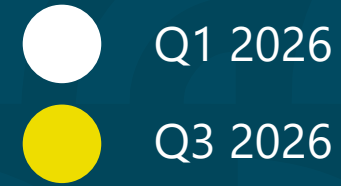


Registered is not the same as protected.

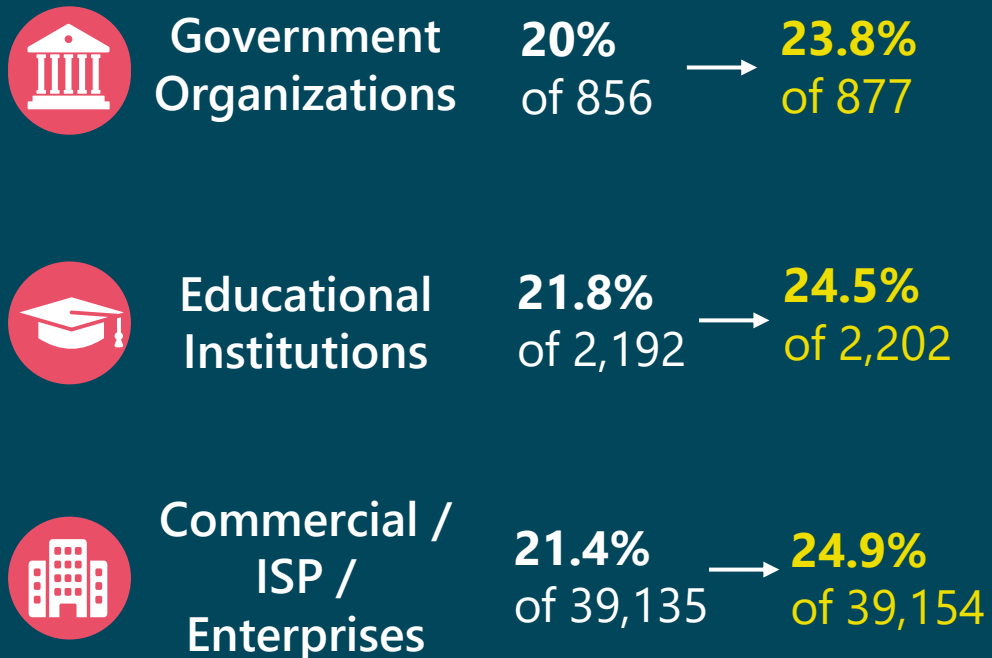
Data as of 30 September 2026

RPKI Adoption – Entity Type

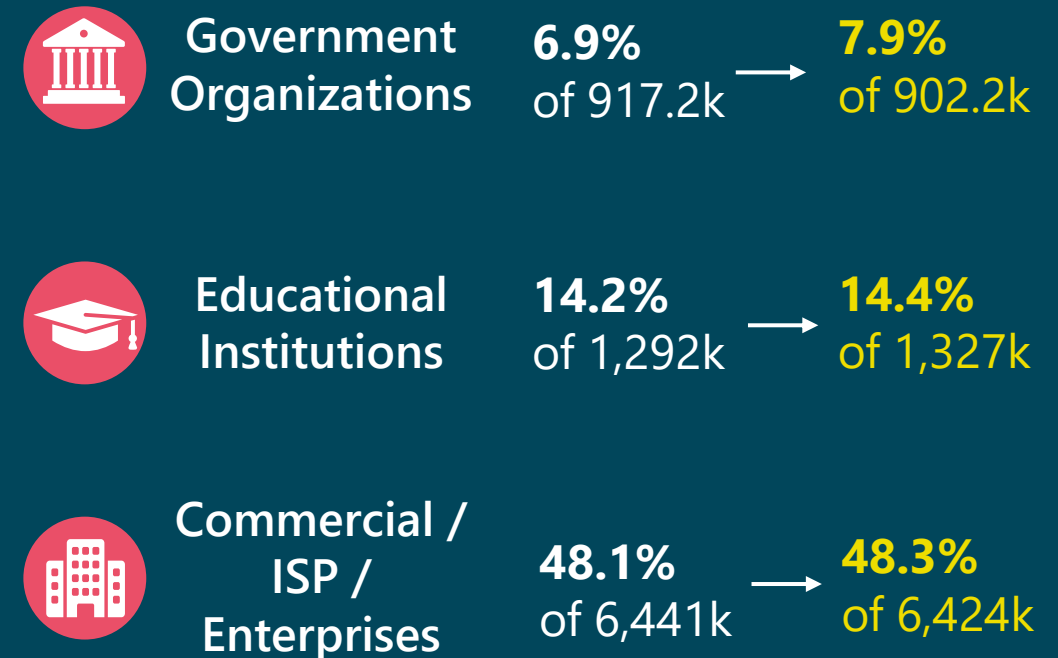
Comparing **Q3 2026** and **Q1 2026**



Percent of RPKI Registrations



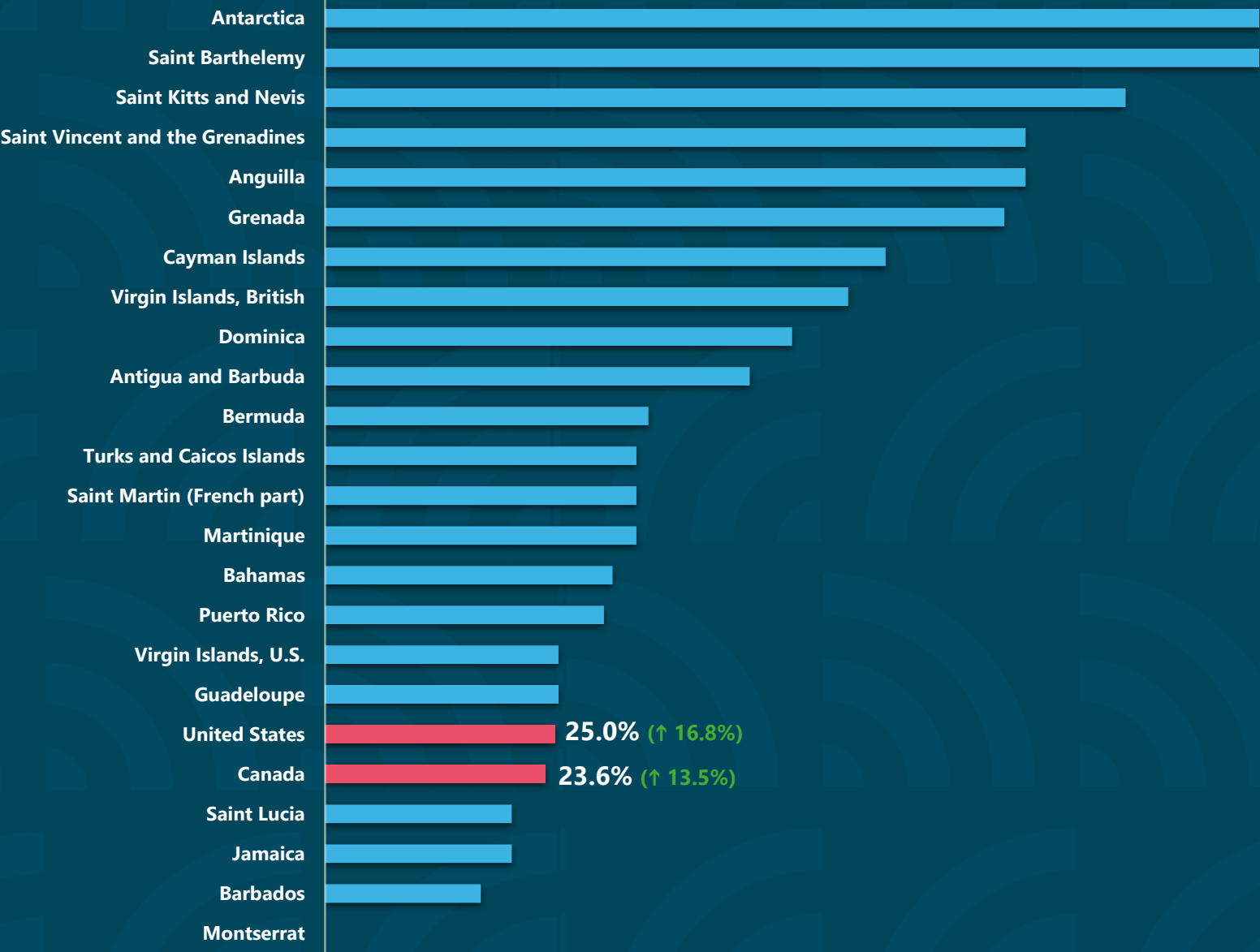
Percent of Prefixes (/24s) in ROAs:



In-region RPKI Registrations

(change vs. ARIN 57)

% of Orgs Using RPKI

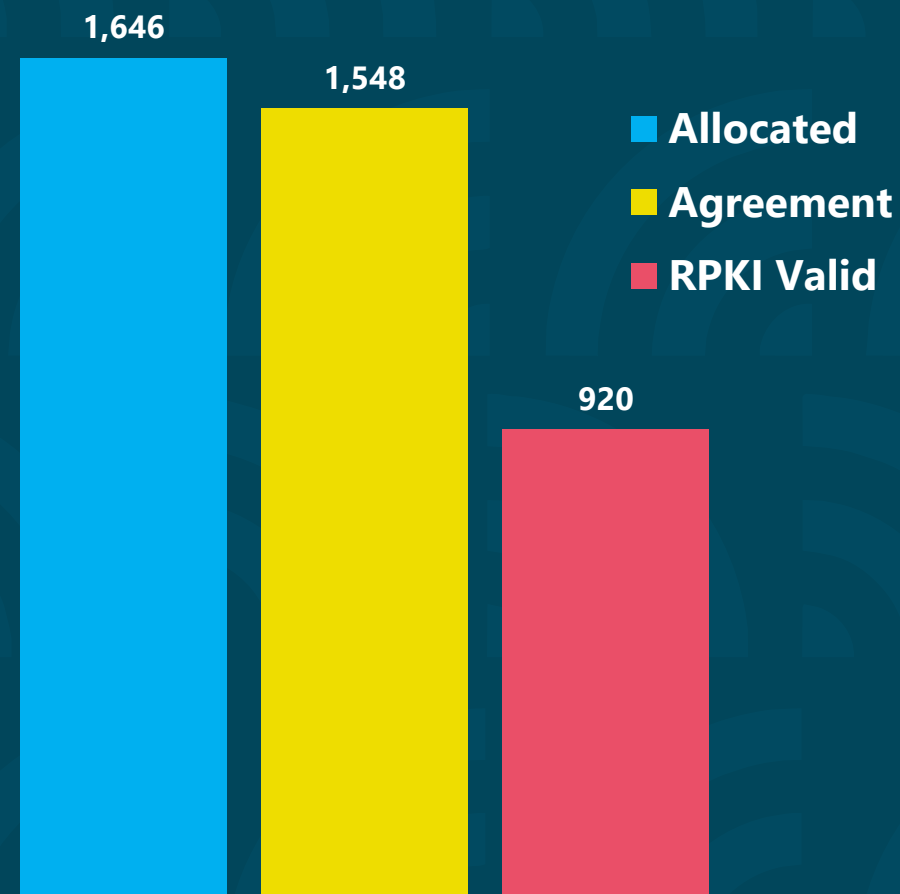


RPKI Adoption – Resource Coverage

94% of ARIN-allocated IPv4 blocks are eligible for RPKI (covered under an ARIN Agreement)

59.4% of ARIN-registered IPv4 blocks in Internet announcements are RPKI Valid

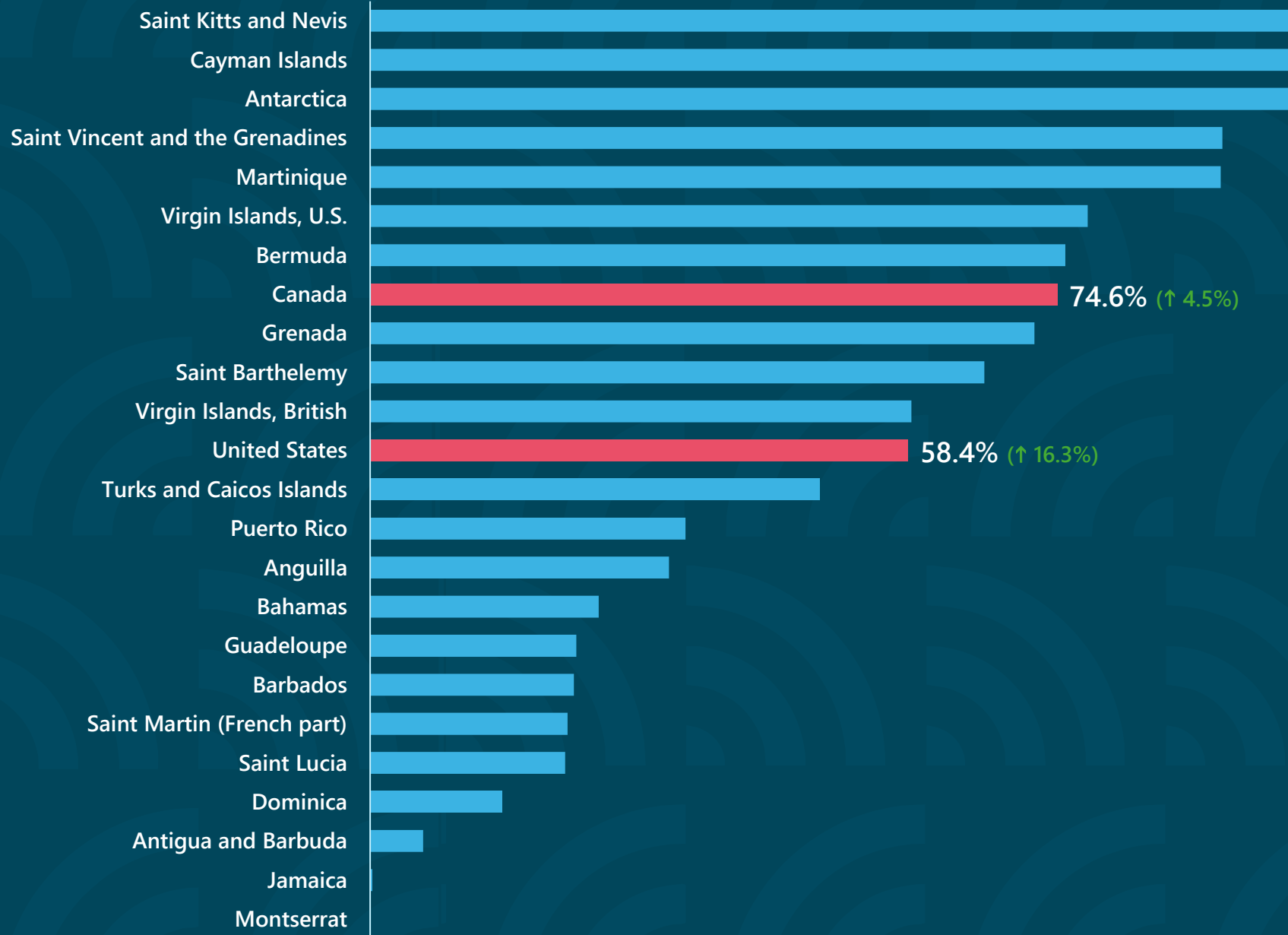
IPv4 Addresses (Millions)



In-region IP Resource Coverage

(change vs. ARIN 57)

% IP Resources in ROAs



What the Data Tells Us



- RPKI participation at ARIN continues to grow, but **signing up for RPKI services does not equal protection.**
- The benefits of RPKI are dependent on resource holders making statements on their intended use by creating ROAs. There is plenty of room to improve resource coverage in the ARIN region.
- Routing security is a global issue to address. It has been proven that RPKI adoption leads to a more secure and resilient Internet.
We all need to do our part to keep moving forward.

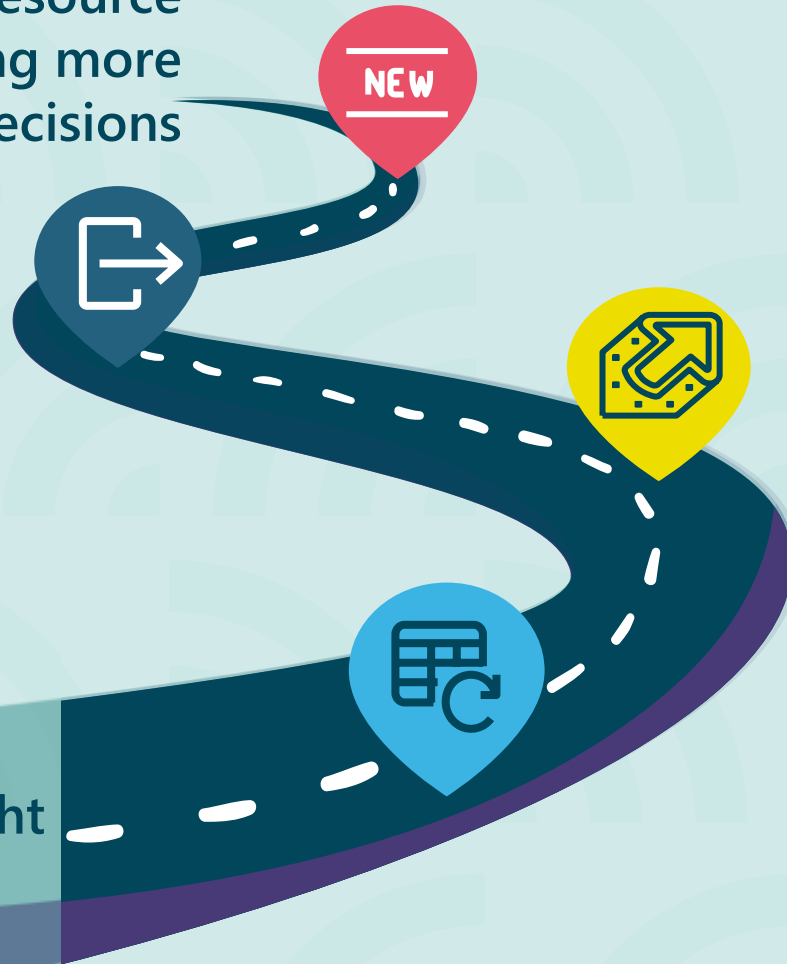


New Releases and Upcoming Development

RPKI "BGP Insight"

Coming
Soon!

Leads to resource
holders making more
informed RPKI decisions



We're giving more insight
to ARIN organizations
regarding their RPKI
configurations.

Impact to a route announcement

What might happen if proposed
changes are made?

Explain why Invalid or Not Found

Present paths to reach Valid state

RPKI validity check

Using the last BGP data pull

Internet route announcements

IP prefixes on your resource certificate
as seen in the global BGP table

Deep Dive: RPKI Training Workshop

- Instructor-led training focused on ARIN's Hosted RPKI
- Incorporates educational and hands-on components
- Aiming to add a Deep Dive workshop into every ARIN Public Policy and Members Meeting schedule.

*For more information regarding Deep Dive training,
please send an email to training@arin.net*

Enhancements to Existing Features & Services



- Adding new capabilities to the Reg-RWS RESTful API
- Updating the RPKI changelog to include ASPA information
- Developing more ways to manage your RPKI configurations
- Expanding inter-RIR collaboration intended to deliver RPKI feature parity



**Got an idea for a new feature
or functionality? Speak up!**



**Help us shape the future of
routing security at ARIN!**

Contact us at routing.security@arin.net

QUESTIONS AND COMMENTS?

Thank You

