



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC Update

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Priorities for 2023



- Be resilient in the face of political, legislative and regulatory changes that have the potential to affect our operations
- Secure Internet number resources by developing and operating a resilient, externally auditable and secure Resource Certification Trust Anchor and promote RPKI usage
- Be a centre of excellence for data, measurements and tools that provide insight on the Internet and its operations
- Maintain necessary levels of security and compliance with best practices and applicable regulations
- Maintain a healthy organisational culture with engaged staff aligned with the organisational values
- As in our 2023 Activity Plan: <https://www.ripe.net/publications/docs/ripe-786>



RPKI Update

Why is RPKI Important?



- One of our main focus areas for 2023
- RPKI is a key topic as BGP hijacks are happening on a daily basis
- Work on RPKI from both technical and deployment sides is needed to make Internet routing more secure
- RPKI ensures resource holders are certifiably linked to their resources - and that reliable origin data is available to inform routing decisions

What We're Working On



- Increasing the capacity of our rsync repositories
- Improving the RPKI dashboard
 - We will start by renewing the technologies used, and focus on usability and new features later
- Transparency and compliance work
 - Undertaking an ISAE3000 audit and publishing our findings

Transparency and Compliance



- Important way of demonstrating that we can be trusted to run key RPKI infrastructure
- Changing environment also a factor - greater regulatory attention, a lot more money involved
- Third party audits and compliance with formal standards are a priority in this context
- Developing an audit framework that both encompasses all important IT security elements and can be tailored towards the design principals and RFCs of RPKI
- Also developing RPKI audit framework that can be potentially used by other Trust Anchors. This is now an ISAE3000/SOC 2 Type II audit framework

RPKI Update: Publish in Parent



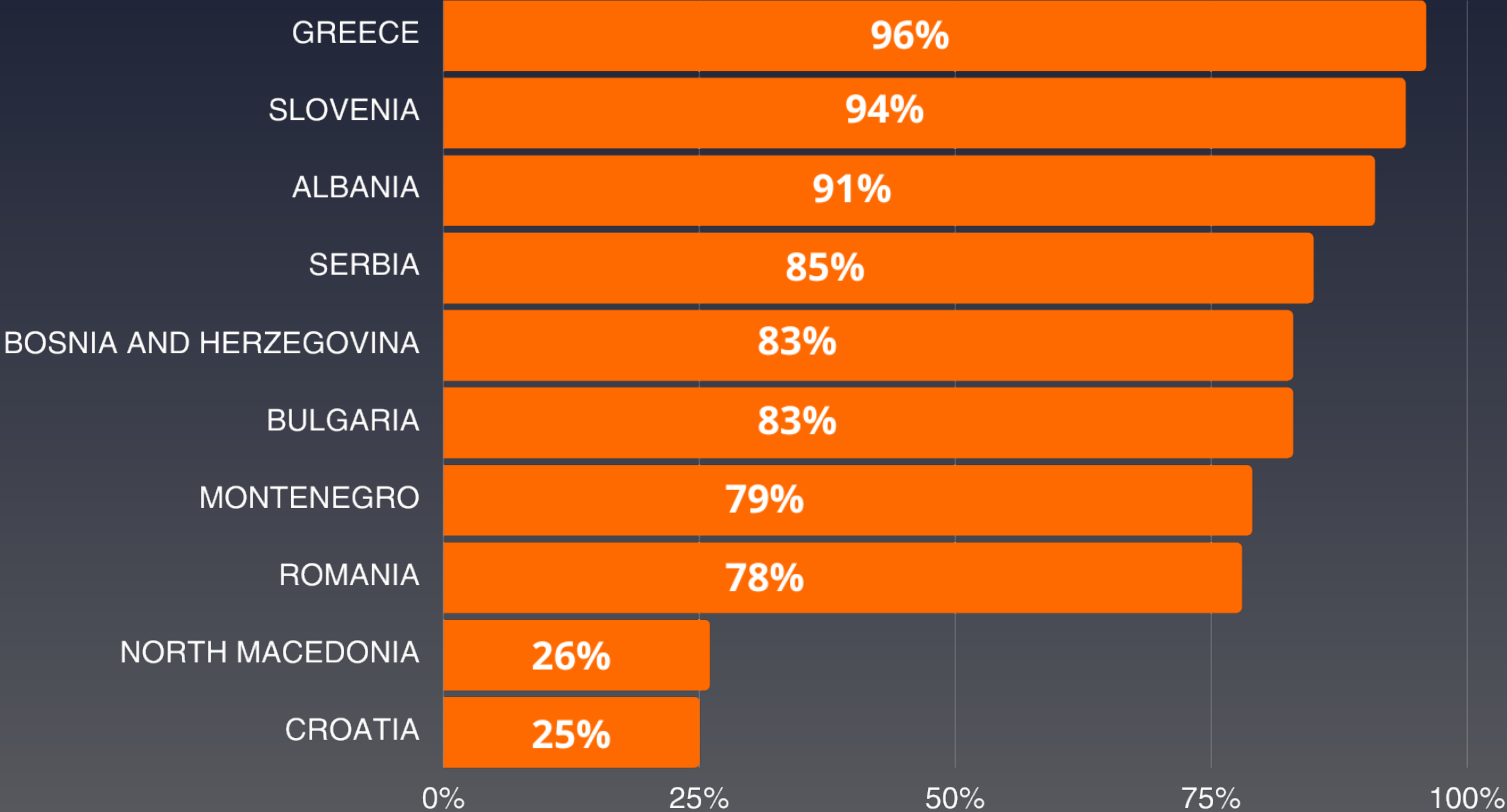
- RPKI Publication as a Service (“Publish in Parent”) is now available to RPKI users to run their CAs in “hybrid RPKI” mode
- It provides more resilience to the RPKI ecosystem
- Hybrid RPKI allows users to retain exclusive control over their private keys while publishing their cryptographical objects in the RIPE NCC’s repository

IETF RPKI Development

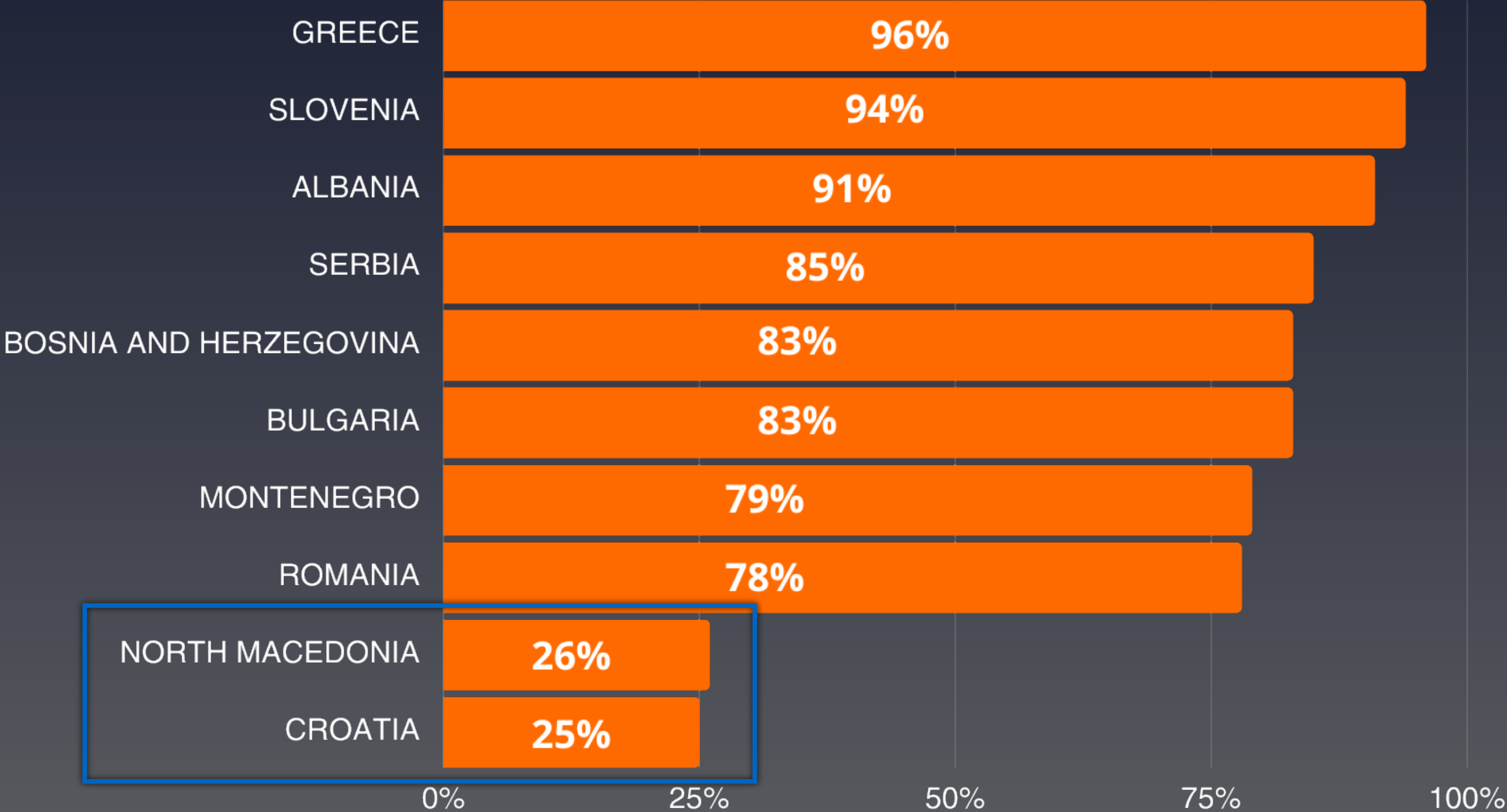


- A Profile for Autonomous System Provider Authorisation (APSA)
 - currently at Last Call stage
- ASPA verification will help prevent route leaks
 - <https://datatracker.ietf.org/doc/draft-ietf-sidrops-aspa-profile/>
- A prototype currently in our API/test environment - will launch soon after it is standardised
- Will later be implemented in LIR Portal/RPKI dashboard

IPv4 ROA Coverage in SEE



IPv4 ROA Coverage in SEE





Charging Scheme 2024

Background



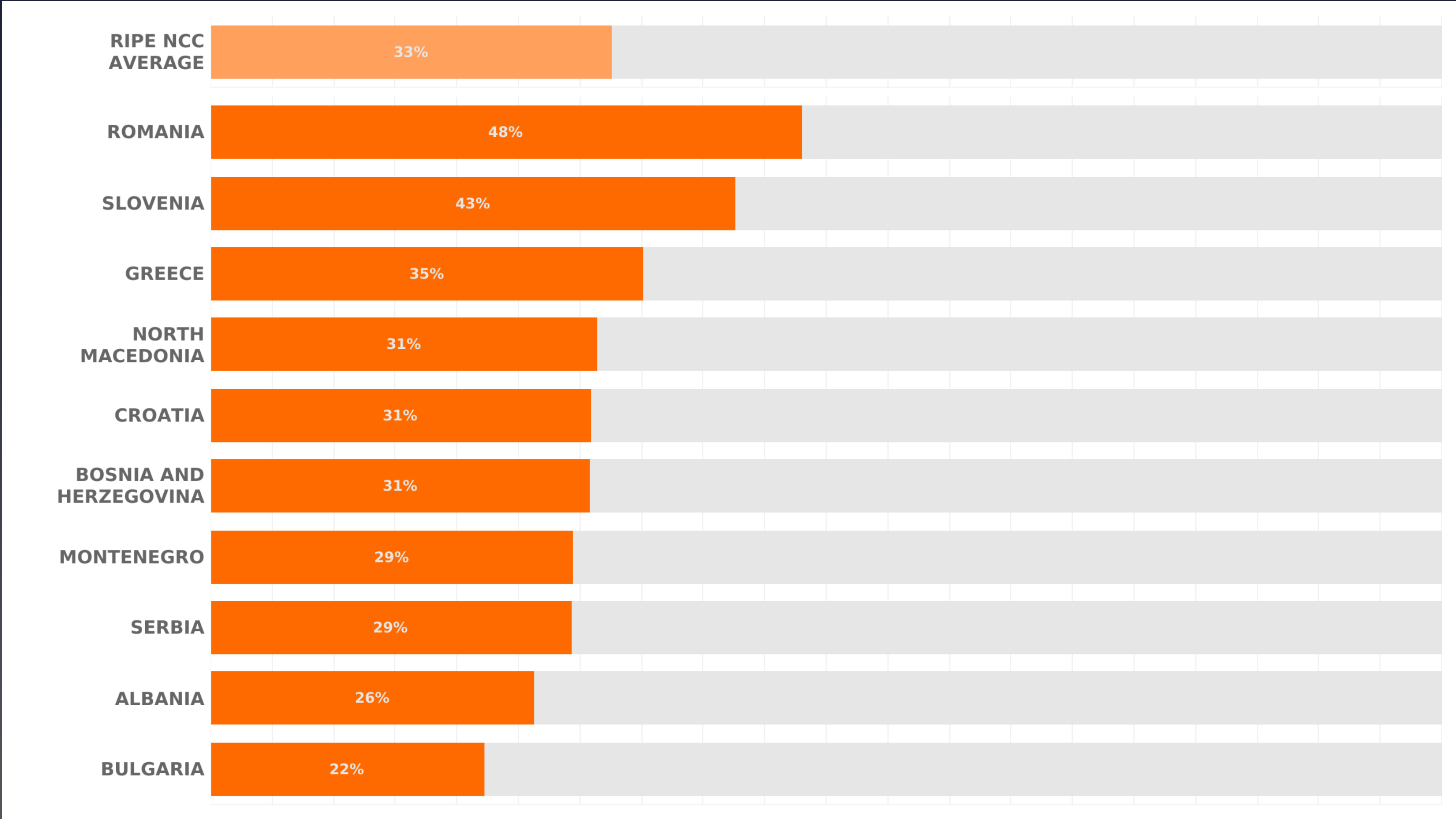
- Current model has been in place for over 10 years
 - Review by Charging Scheme Task Force in 2012
 - “One LIR-one fee” model approved approved by GM
- Time to look at our charging model to make sure:
 - We remain financially stable for the years to come
 - We are charging members appropriately and fairly
- Consultation launched in March
 - <https://www.ripe.net/participate/mail/member-and-community-consultations/charging-scheme-2024-consultation>

What We Have Been Hearing...



- A lot of support for a category-based model
- No strong support to charge for transfers, tickets or other items individually
- No support for having sponsored or Independent resources contribute to categories
- We will publish draft charging schemes with different options for members to review
- Need to strike a balance between complexity and fairness
- Make sure to vote and have your say used!

GM Participation from SEE Region



Active Members Who Have Registered to Vote in GM in at least one RIPE NCC General Meeting since 2012 | % per country



Country Codes in the RIPE Database

Country Codes in RIPE DB



- The country code attribute is found in both resource and organisation objects in the RIPE DB
- In resource objects, the country code is maintained by resource holders
- In organisation objects, this is maintained by the RIPE NCC
 - Based on official documentation (e.g. company registration papers)
- In both objects, these must be official ISO 3166 country codes

```
 Highlight RIPE NCC managed values
organisation:  ORG-RIEN1-RIPE
org-name:      Reseaux IP Europeens Network Coordination Centre (RIPE NCC)
country:       NL
org-type:      LIR
descr:         RIPE NCC Operations
address:       P.O. Box 10096
address:       1001 EB
address:       Amsterdam
address:       NETHERLANDS
```



“Areas Under Dispute”

- We work to provide services to network operators in areas under dispute and we do not want to deny resources for political reasons
- In areas under dispute, resource holders can submit proof of establishment from their preferred national authority
 - <https://www.ripe.net/publications/docs/ripe-770#32>
- This doesn't change the country code unless this relates to a new legal entity having been created in that jurisdiction
- We are focused on supporting our members and maintaining a chain of custody for resources; we do not want to take a position on territorial claims

Kosovo in the RIPE Database



- In the case of Kosovo, there is no official ISO 3166 country code
- This has been a pain point for many years now
- Ongoing discussion in the RIPE Database Working Group
 - One suggestion is to use XK for Kosovo
 - This can be hard to square with our status as a neutral organisation
- Also being discussed by the RIPE NCC Executive Board
- A community effort towards ISO-3166 might be the best way forward



RIPE Atlas

RIPE Atlas Coverage in SEE



RIPE Atlas probe coverage

Showing ASNs covering at least 2% of the country's population

- ASN is not covered (please apply!)
- ASN has at least 2 probes



RIPE Atlas in SEE: Most Wanted ASNs



- Montenegro
 - MTEL-AS (AS43940) - 44% of users
 - INTERNET-CG (AS8585) - 36.7% of users
- North Macedonia
 - blizoo (AS43612) - 33% of users
- Bosnia and Herzegovina
 - TELEKOM-SRPSKE-AS (AS25144) - 26.8% of users
- Croatia
 - VIPNET-AS (AS12819) - 16.9% of users



Check out our new tool
and give us feedback!

<https://forum.ripe.net/t/ripe-atlas-network-coverage/418>

Why Host a Probe in Your Network?



- Probes are the vantage points from RIPE Atlas that can see and measure the impact of Internet events – outages, shutdown
- Wider coverage creates a more complete picture of network performance in real time
- You can learn how reachable your network is from “outside”
- RIPE Atlas software probes also available
 - <https://atlas.ripe.net/docs/howtos/software-probes.html>



Questions

