Feedback from the RIPE NCC Registration Services

Marco Schmidt | RIPE 88 | 22 May 2024

Overview

- IPv4

- IPv6 Stockpiling

- ASN Requests

- RIPE NCC and the PDP

IPv4

IPv4 Waiting List

Legend:
— LIRs waiting
— /24s issued
— Days that first LIR in queue has been waiting

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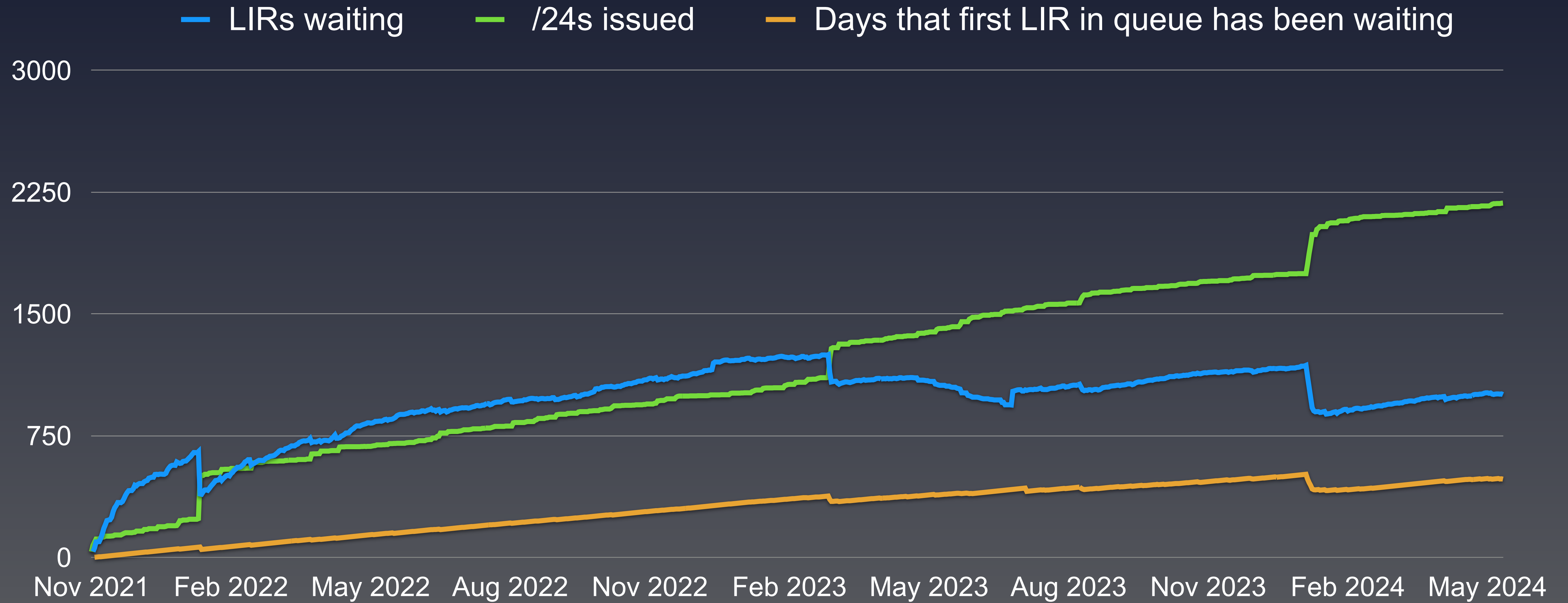
The New Normal

- ~2,200 /24 allocations have been provided since 17 November 2021 (when the waiting list became active again)

- Those currently first in line have been waiting since January 2023

- In the next six months, we will provide around 260 /24 allocations (our current recycled IPv4 pool size)

- Estimated waiting time when joining the waiting list: 16-18 months

IPv6 Stockpiling
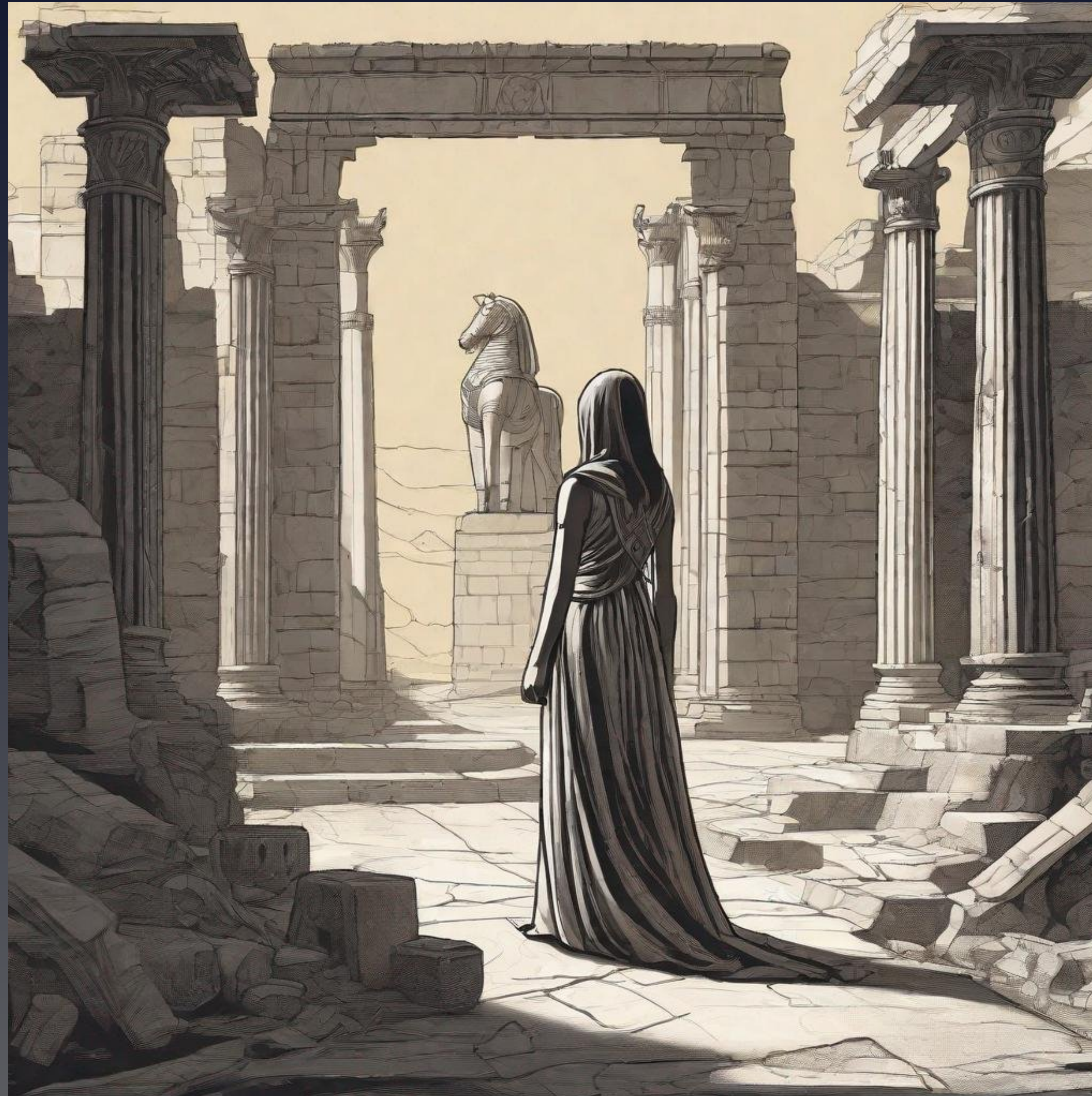
IPv6 Stockpiling

- Increasing recurrence of reported issue

- Highly targeted accumulation approach

- Few members collected hundreds of IPv6 allocations through transfers

  - 14 members controlling now 9% of RIPE NCC's allocated IPv6 space

- Allocations primarily used for stockpiling or renting large blocks to third parties

Significant Impact

RIPE NCC Allocated IPv6 space - selected countries
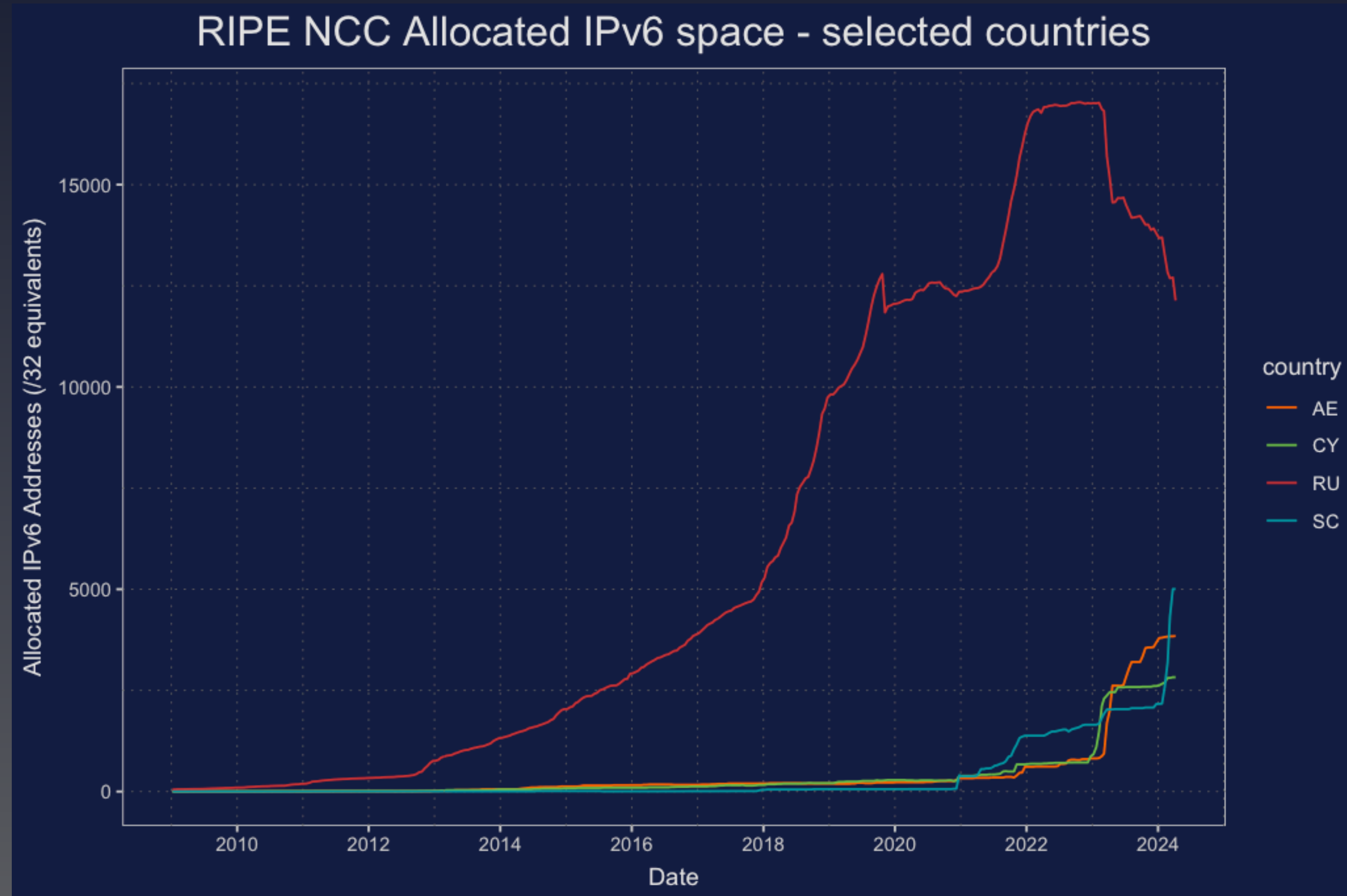
Multiple Issues

- Lack of oversight on IPv6 usage compliance with RIPE policies

- Increased workload and costs

- Hindrance to membership growth

- Emergence of a secondary market for renting large IPv6 blocks

- Risks for organisations deploying networks on rented IPv6 addresses

- Potential for malicious activities using rented IPv6 blocks, leading to reputational damage

https://labs.ripe.net/author/marco_schmidt/ipv6-stockpiling-a-trojan-horse-in-our-midst/

Way forward

- Our policy application for IPv6 needs to evolve

- Now that IPv6 is established, we should move away from promoting its growth at any cost and instead prioritise enforcing policy requirements for IPv6 transfers

  - *"Transferred resources are no different from allocations or assignments made directly by the RIPE NCC and so must be used by the receiving party in accordance with the respective policy documents."*

  - *Subsequent allocation will be provided when an LIR:*
    a) Satisfies the evaluation threshold of past address utilisation […] or
    b) Can justify new needs (which can't be satisfied within the previous allocation), according to the initial allocation size criteria as described in section 5.1.2.

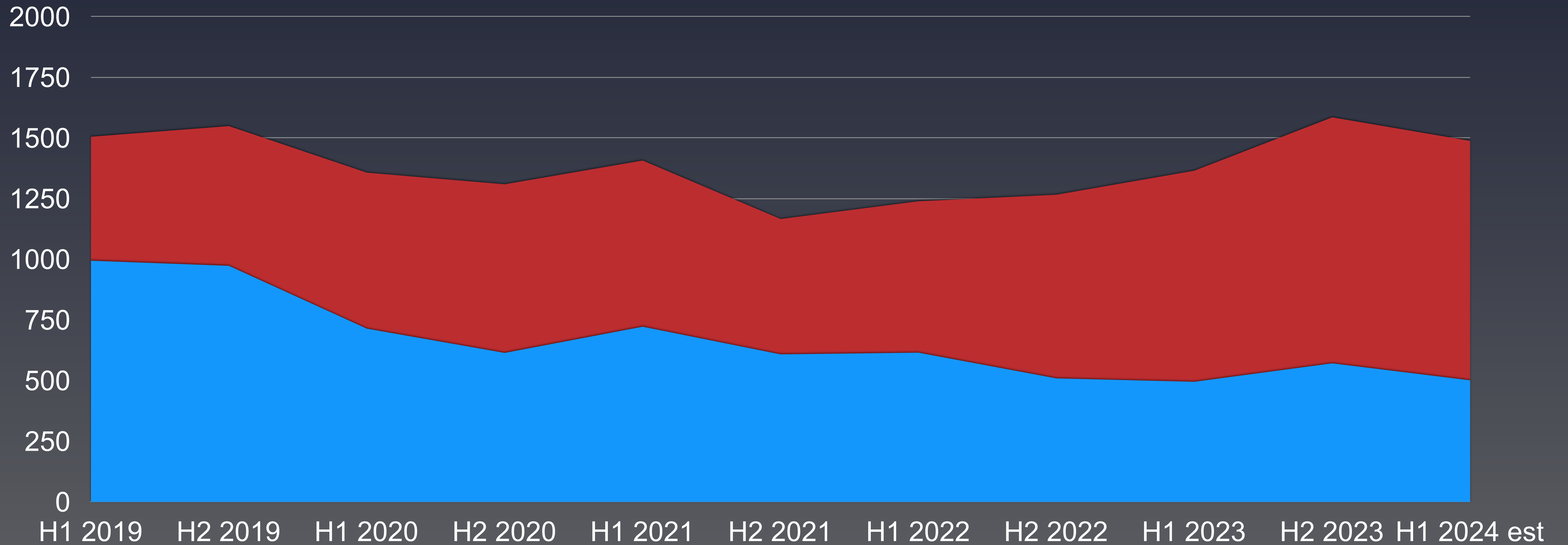# ASN Requests

16-bit vs 32-bit

- Since January 2024, RIPE NCC has begun operating with an undifferentiated ASN pool, issuing only 6-digit (32-bit) ASNs.

- Few complaints, none related to technical issues

- Full policy compliance achieved

Development ASN Requests

ASNs for LIRs   ASNs for End Users

2000
1750
1500
1250
1000
750
500
250
0

H1 2019 H2 2019 H1 2020 H2 2020 H1 2021 H2 2021 H1 2022 H2 2022 H1 2023 H2 2023 H1 2024 est

More Details

- Same total number of AS number assignments, but higher workload for End User requests

  - Evaluation of documents

  - Adding to our screening and monitor tools

  - Additional efforts to ensure policy compliance

- Around 15% of ASN requests for End Users is abandoned

- Increase of ASNs requests for natural persons from ~310 in 2019 to ~650 in 2023 (mostly end users)

- End Users are based around the world

Very Active ASN Dealer Market

RIPE ASN
€10,- per

€99.99 EUR
RIPE ASN Registrati
One-time purchas

RIPE ASN
£45 one-off

RIPE ASN Reseller Plan

Resell Autonomous System

Numbers

5 ASNs included

Outcome of this Activity

- Providers often fail to include our policy requirements, like multihoming and service region, in their offers

- However, the submitted requests typically match these requirements

- Some members submit multiple End User ASN requests daily

- Approximately one-third of the ASNs either never become visible or disappear quickly (issued 2021-2023)

https://ripe88.ripe.net/wp-content/uploads/presentations/28-RIPE88-ASNs-v4.pdf

https://labs.ripe.net/author/james-kennedy/reflections-on-six-months-as-chief-registry-officer/

Conclusion

- Current combination of RIPE policies and rules for RIPE NCC membership encourage carefree AS Number requests

- Fees are within the authority of the membership

- RIPE Community can consider a review of the AS Number policies

  - Review policy requirements

  - Stronger mandate for the RIPE NCC to ensure policy compliance

  - Other ideas to discourage the observed behaviour

RIPE NCC and the PDP

Food for Thought

- The RIPE NCC highlights a potential issue with RIPE policies

- If the RIPE Community agrees, ideally, a community member starts a policy proposal

but

- Being a proposer demands time, effort, enthusiasm, and occasionally a thick skin

- Should the RIPE NCC be allowed to start a policy proposal?

Summary

Feedback Welcome

- Registration Services will diligently enforce policy requirements for IPv6 transfers

- How can AS number requests and usage be made more responsible?

- Should the RIPE NCC take a more active role in the PDP?

Comments
&
Questions

mschmidt@ripe.net