RIPE NCC
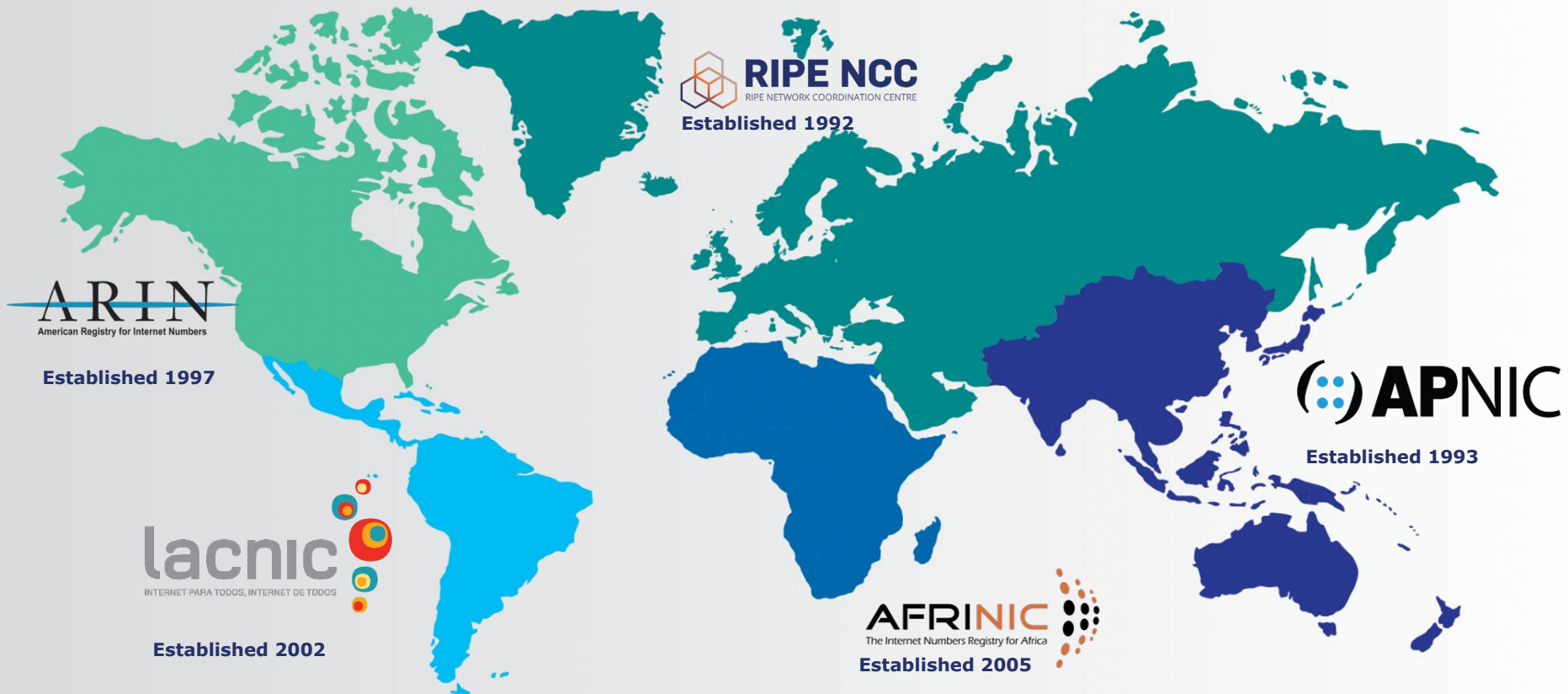
RIPE NCC
RIPE NETWORK COORDINATION CENTER

RIPE NCC
Governance Update

Hans Petter Holen
Managing Director and CEO

European Roundtable | 19 February 2025

RIPE NCC
RIPE NETWORK COORDINATION CENTRE
Established 1992

ARIN
American Registry for Internet Numbers
Established 1997

APNIC
Established 1993

lacnic
INTERNET PARA TODOS, INTERNET DE TODOS
Established 2002

AFRINIC
The Internet Numbers Registry for Africa
Established 2005

ARIN, *serving Canada, many Caribbean and North Atlantic Islands, and the United States*

LACNIC, *serving Latin America and the Caribbean*
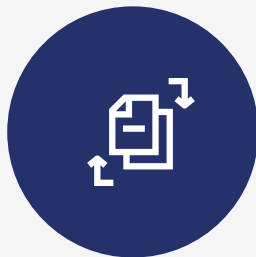
AFRINIC, *serving Africa and the Indian Ocean*

RIPE NCC, *serving Europe, the Middle East, and parts of Central Asia*

APNIC, *serving the Asia Pacific region*

RIR Functions

Allocate Internet Number Resources

- IPv4 and IPv6 addresses
- Autonomous System Numbers (ASNs)

Maintain Registries

- Maintain directory services including Whois and Internet Routing Registries
- Provide reverse DNS

Internet Infrastructure

- Support Internet infrastructure through technical coordination
- Resource Public Key Infrastructure (RPKI)

Community Support

- Community-driven processes for policy development
- Training and capacity-building

Accountability Framework

Who the RIPE NCC is accountable to

- **RIPE community** as its secretariat
  - Facilitating discussions and implementing policies

- **RIPE NCC membership** as a membership-based association under Dutch Law
  - Requires neutrality and impartiality towards all our members

- **Governments** across our service region
  - Complying with Dutch and EU law
  - Understanding the implications of other national legislation that applies to our members in other jurisdictions

- **Global Internet governance system** and Internet technical operations
  - Internet registry system
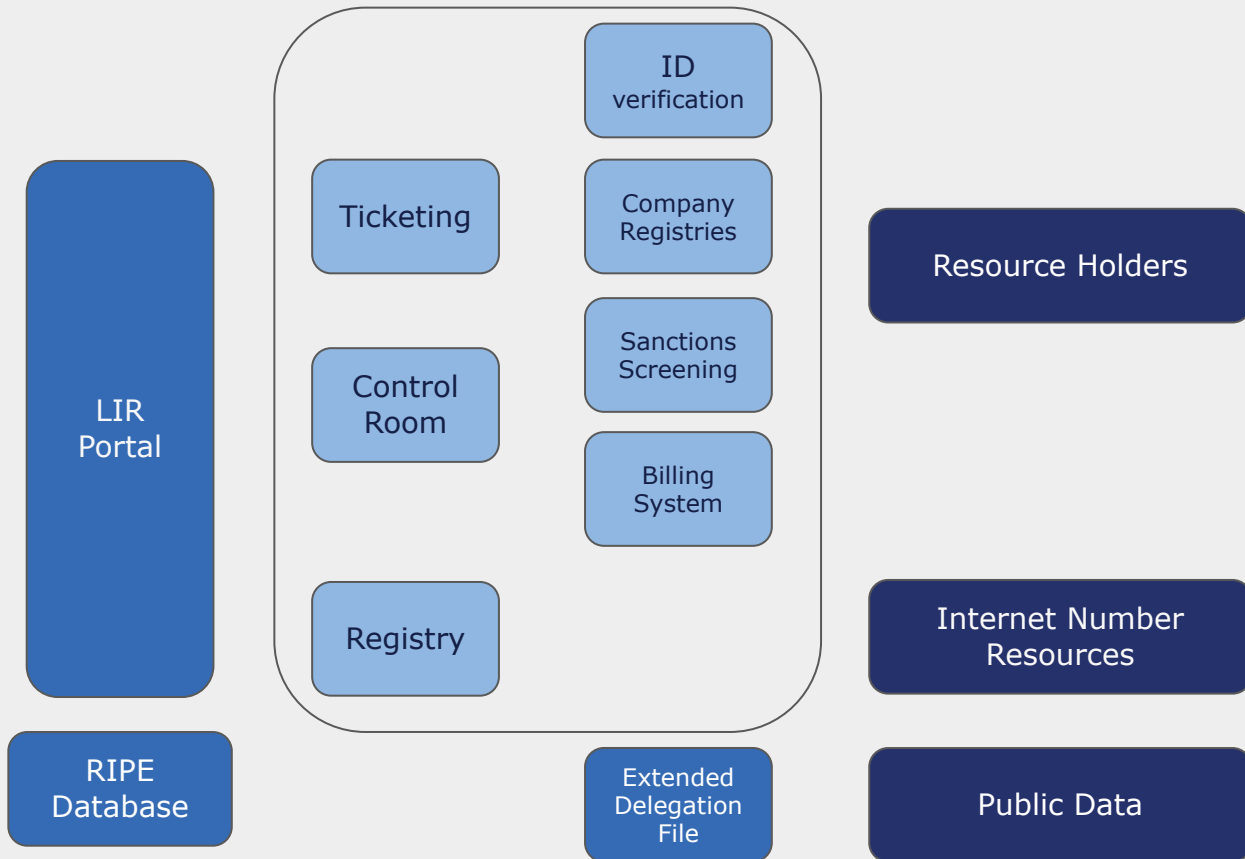
Ensuring a Resilient Registry
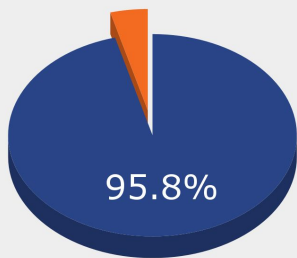
A look inside

Complexity in registry support system has increased

Sanctions required new systems for automated checks of company registries

Automated ID verification

LIR Portal

RIPE Database

Ticketing

Control Room

Registry

ID verification

Company Registries

Sanctions Screening

Billing System

Extended Delegation File

Resource Holders

Internet Number Resources

Public Data

Maintaining Registry Data Accuracy

95.8%

● Matched ● Not Matched

99.1%
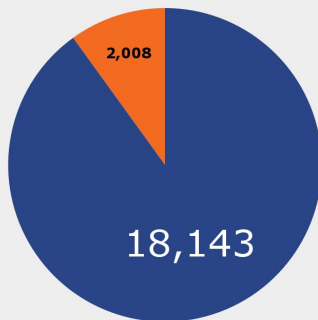
● Matched ● Not Matched

96.6%

● Unique Email Addresses ● Bounces

Matched with business registry

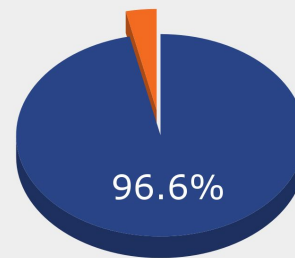Third-party provider with worldwide coverage. Automatic links to national business registers.
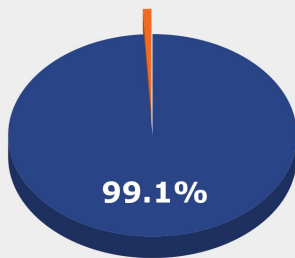
Organisational members

2,008

18,143

● Organisation Members ● Natural persons

Email addresses bounces

We have actively verified Abuse-c emails over the last few years.

We also need to verify:

- Billing
- Organisation
- Registry Contacts

Data Updated on September 2024

Registry Monitoring
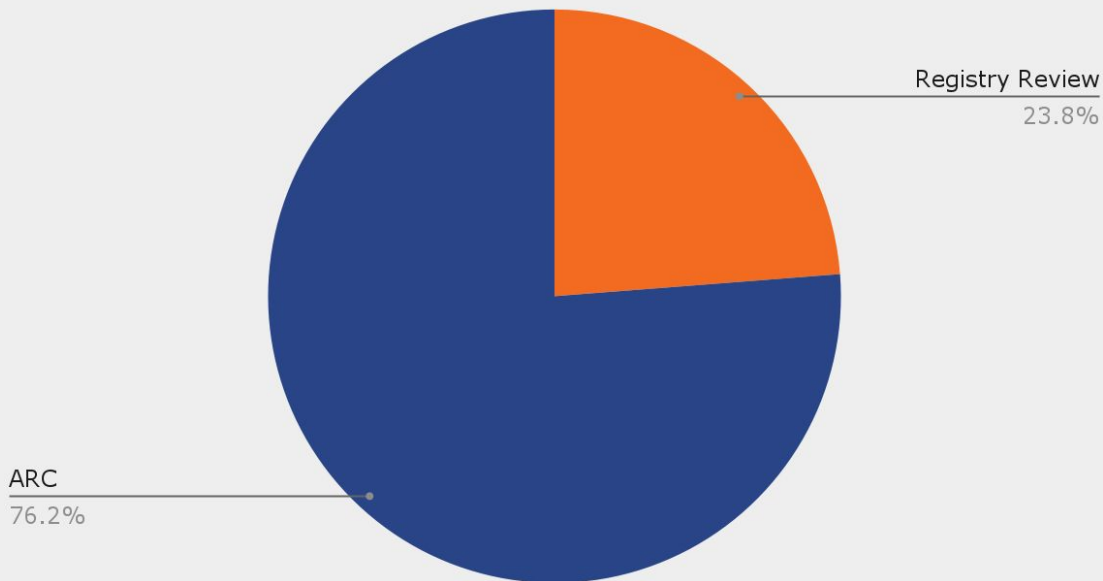
Assisted Registry Checks and Investigations

ARC Automation
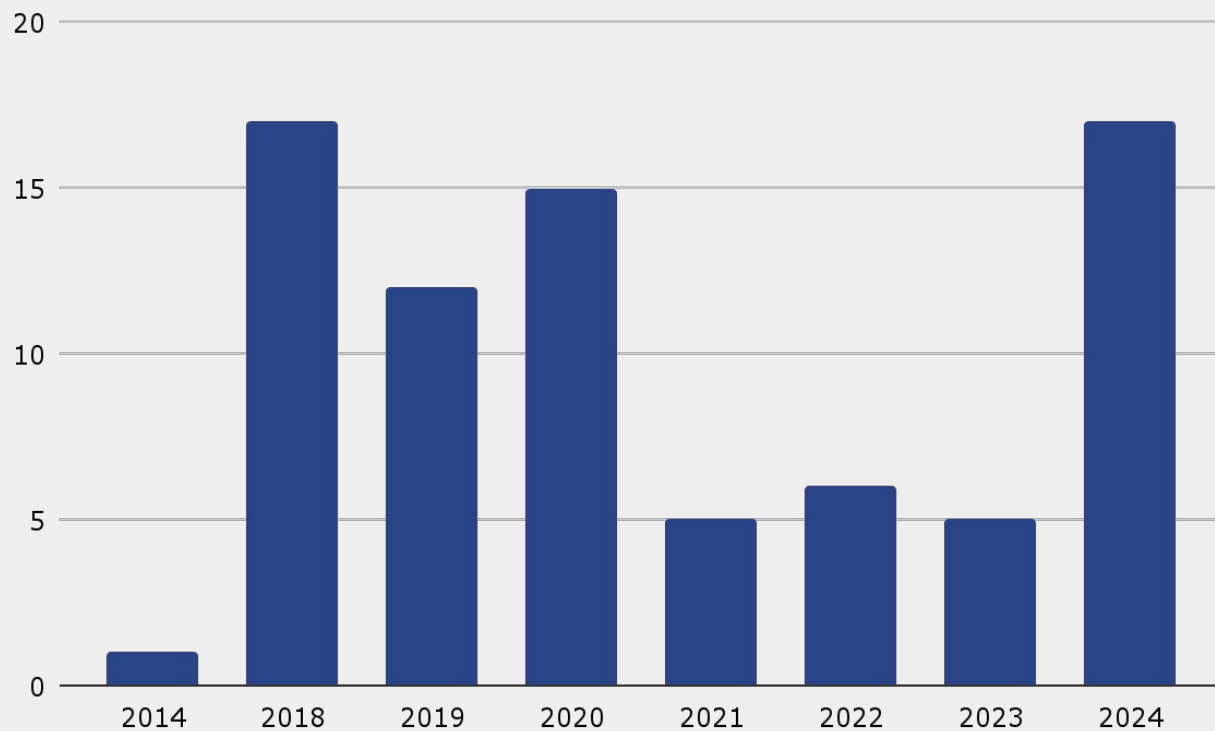
- Internal automation launched
- Self-service next up

Investigations

- Violations of RIPE Policies and procedures
- Report incorrect contact information in the RIPE Database (such as Abuse-c:)

Registry Monitoring 2024 (Jan-Sep)

Registry Review
23.8%
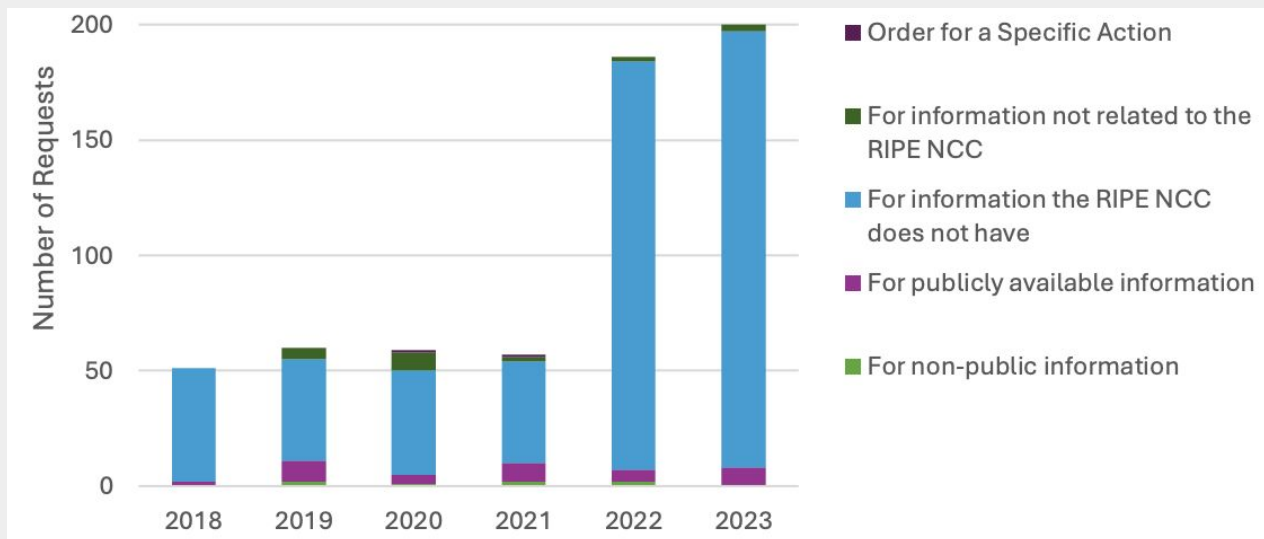
ARC
76.2%

RIPE NCC-Initiated Reports to Police

Cooperation with Law Enforcement Authorities

- Exchange technical expertise on Internet security (2016 MoU)
- Yearly transparency reports:
  - RIPE NCC Report: Law Enforcement Agency Requests 2023
  - In 2023 - 200 information requests from LEAs
  - No binding requests for confidential or non-publicly available information from Dutch LEAs

Status Sanctions Investigations: 27 December 2024

Type of Resource Holder

Inter-RIR
0.4%

End User
48.4%
803

Member
51.3%
851

Status of Cases

Category	Value
Total Alerts	1,660
Not Started	-128
Investigation	-26
Not Sanctioned	-1,487
On Hold	-6
Sanctioned	-13

https://www.ripe.net/publications/docs/ripe-837/
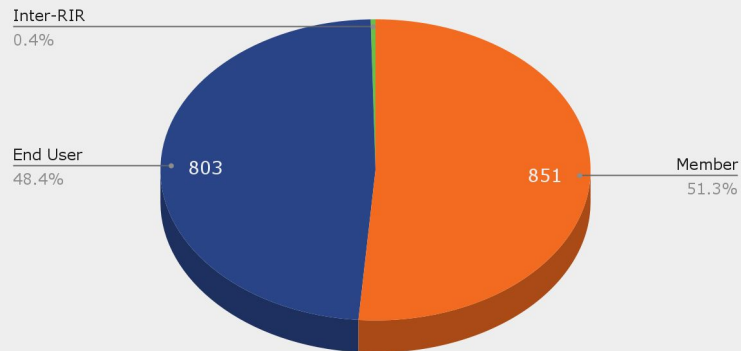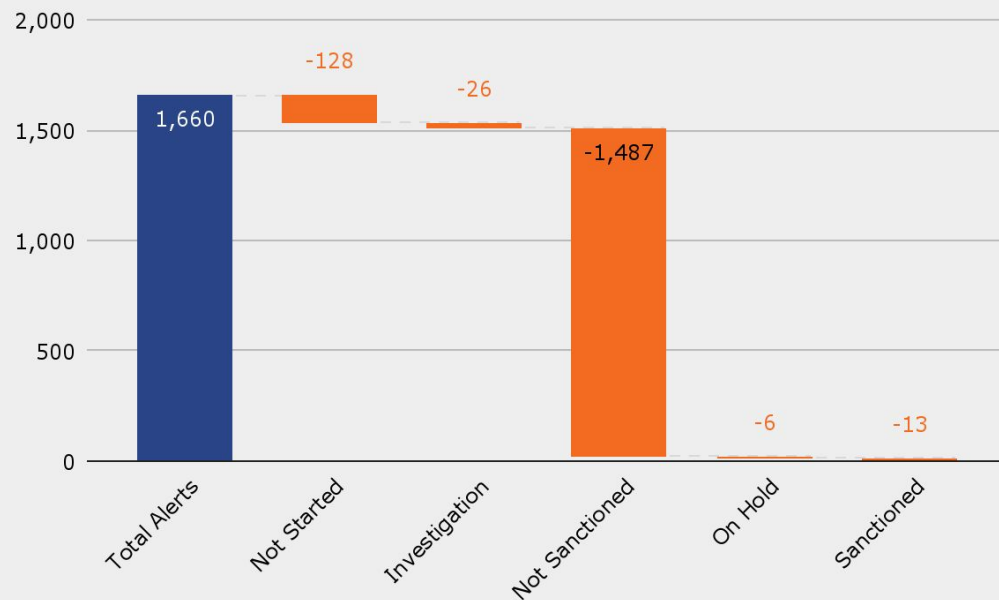
Evolving Legislative Landscape

| Currently applicable to RIPE NCC services	Incoming and being reviewed if applicable
General Data Protection Regulation (GDPR)	High Common Level of Cybersecurity across the Union (NIS2)
Protection of privacy in electronic communications (ePrivacy)	Critical Entities Resilience Directive (CER)
Digital Services Act (DSA)	E-evidence Package
Radio Equipment Directive	Data Act
Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)	Updates to RoHS2 and WEEE
Waste from Electrical and Electronic Equipment (WEEE)	Updates to the Regulation on the European Digital Identity Framework (eIDAS)
EU Sanctions Regulations	Cyber Resilience Act (CRA)

Information Security, Risk & Compliance

Commitment to security and integrity

- Acquired SOC 2 / ISAE 3000 Type I attestation for RPKI. Type 2 by end 2025

- Aligning our processes and ways of working with the ISO 27001:2022 security standard
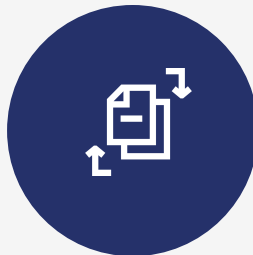
Adherence to regulations

- Authoritative DNS services fall under NIS2

- RIPE NCC services are in the supply chain of our members who fall under NIS2, DORA

Robust risk management

- Risk management in place to understand, prioritise and act on key risks

- Risk appetite tailored to our members' needs and operational sensitivity

Relevant developments in the Internet governance landscape

Internet Coordination Policy (ICP-2)

The Internet Numbers Registry System

- RIPE NCC (1991), APNIC (1992) and ARIN (1997) were established before ICANN

- RFC 1466 (IETF, 1993) describes the RIR system:

  - Well-established organisation

  - Mutual recognition and the operations of the RIRs

  - Stable, reliable, and provides timely service

  - Implements the rules set by the community

  - Coordinates with the IANA in distributing resources

- Later refined in RFC 2050 (IETF, 1996) and RFC 2070 (IETF 2013)

Internet Coordination Policy (ICP-2) Principles Review

Process to strengthen implementation

- Need to strengthen the accountability of the RIR system by:

  - Ensuring that existing obligations are respected through the creation of Implementation Procedures for the existing ICP-2 document

- Implementation Procedures approved by ICANN and the NRO in 2024

Internet Coordination Policy (ICP-2) Principles Review

Next steps

- Core principles: RIRs must be stable, independent, non-profit, membership-based neutral, community-led organisations, etc.

- Feedback period: nearly 300 responses from across RIR communities

- Q2: Publish early first look and engage through Webinars

- Q3: Publish second version and engage at RIR & ICANN meetings

- Q4: Final version

- For details see: https://aso.icann.org/icp-2-review/

UN Processes

RIPE NCC Contribution to the ITU WSIS+20 Review

- Reaffirm the foundational principles of an **open**, **inclusive**, and **secure** Internet

- Recognise the essential role of **community-driven** technical governance

- Continue **capacity-building** efforts for upscaling network connectivity

- Re-focus on **closing the digital divide**, and preparing for tomorrow's technologies

- Ensure the Internet continues to serve as a catalyst for **innovation**, **growth** and **empowerment** for everyone and fulfilment across the Sustainable Development Goals (UN SDGs)

UN Processes

Integrate WSIS mechanism with the GDC implementation

○ Leverage the IGF multistakeholder National, Regional and Youth initiatives (NRIs) to collect information on and monitor progress on Sustainable Development Goals (SDGs)
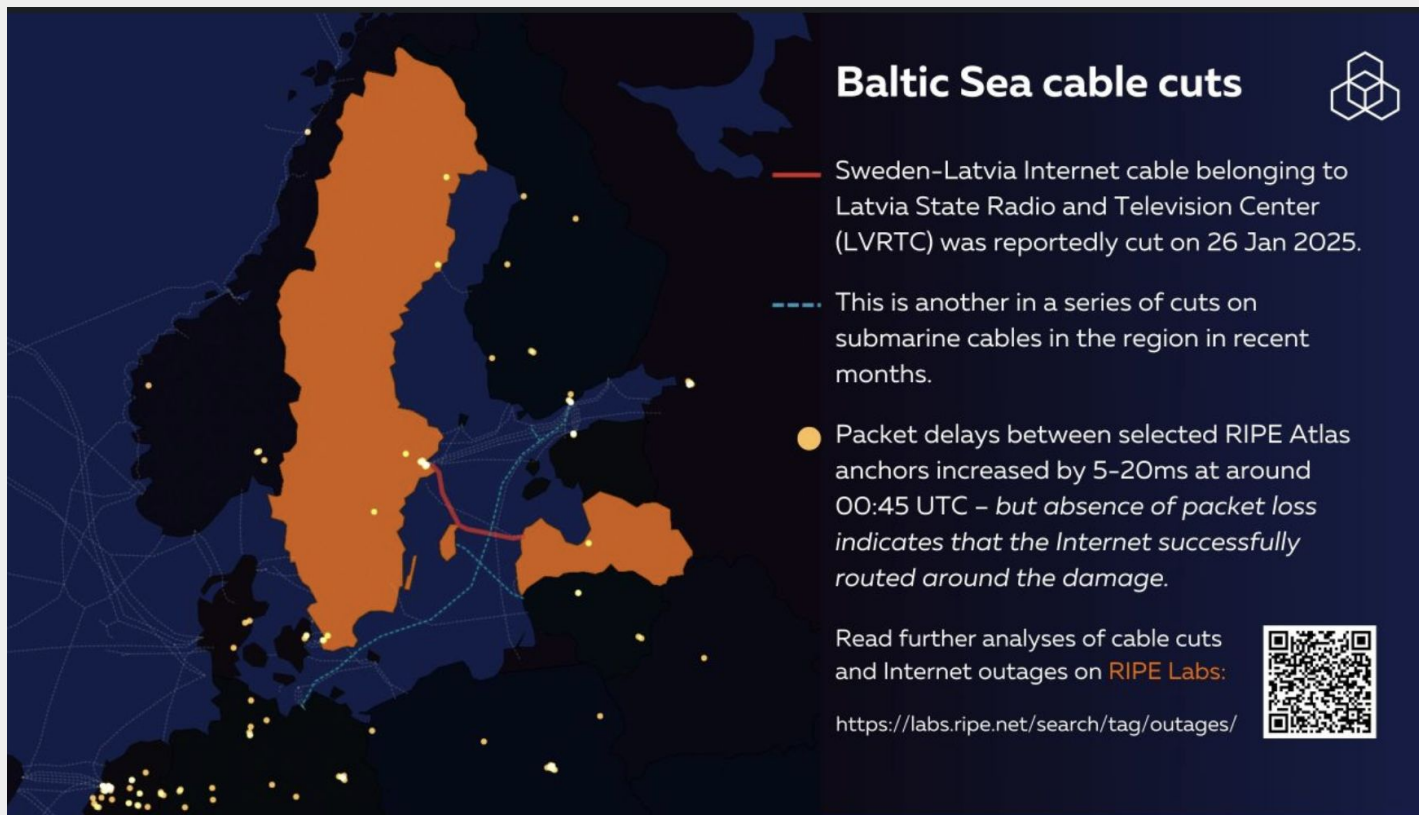
Reiterate the need to preserve the interoperability, availability and integrity of the global Internet

○ Safeguard open standards and the integrity of unique Internet identifiers
○ Recognise the role of governance structure like the IETF, ICANN and the RIRs
○ Strengthen the technical community's role by improving information-sharing and communication between technical community, governments and other stakeholders

Strengthening Collaboration with UN Bodies

Joint Declaration between the RIPE NCC and ITU

- Capacity-building initiatives, including training programmes on IPv6 deployment and secure Internet operations

- Joint advocacy for a sustainable and inclusive Internet ecosystem aligned with the 2030 Agenda for Sustainable Development Goals

- Promoting Internet resilience and connectivity in underserved regions, particularly in the least developed countries.

Research into Internet Cable Cuts and Routing Resilience

Baltic Sea cable cuts

— Sweden-Latvia Internet cable belonging to Latvia State Radio and Television Center (LVRTC) was reportedly cut on 26 Jan 2025.

--- This is another in a series of cuts on submarine cables in the region in recent months.

● Packet delays between selected RIPE Atlas anchors increased by 5-20ms at around 00:45 UTC – *but absence of packet loss indicates that the Internet successfully routed around the damage.*

Read further analyses of cable cuts and Internet outages on RIPE Labs:

https://labs.ripe.net/search/tag/outages/

Research into Internet Cable Cuts and Routing Resilience


Does the Internet Route Around Damage? - Edition 2023

Emile Aben • 28 Nov 2023 • 5 min read

On 22-23 November 2023, the Amsterdam Internet Exchange (AMS-IX) had an outage on their Amsterdam peering platform. As this is generally considered one of the largest IXPs on the planet, we looked into this event from the perspective of RIPE Atlas to see what it had to tell us about the robustness ...
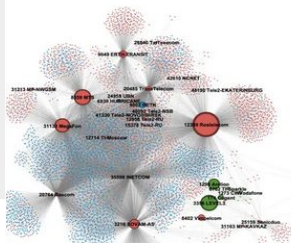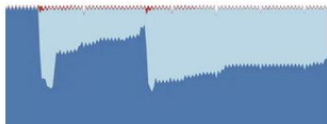
How Is Russia Connected To The Wider Internet?

Emile Aben • 22 Mar 2022 • 11 min read

Speculation about Russia disconnecting or being disconnected from the wider Internet abounds. In this article, we look at the connectivity of the Russian Internet to the wider Internet and how this evolved around the Russian invasion into Ukraine and sanctions related around that.
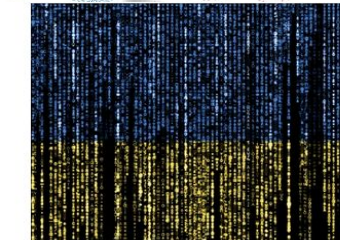
The Resilience of the Internet in Ukraine

Emile Aben • 10 Mar 2022 • 11 min read

We look at the structure of the Internet in Ukraine and how it may be helping the country stay connected.

Questions & Comments **?**

✉ **hph@ripe.net**