



RIPE NCC
RIPE NETWORK COORDINATION CENTER

RIPEstat

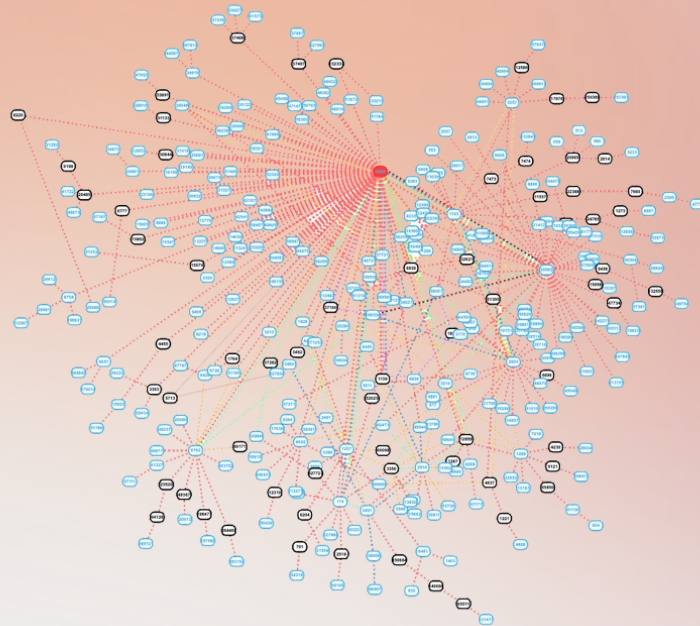
Insight into Internet Infrastructure

What is RIPEstat?



Information service for Internet-related data and analytics

- **RIPEstat offers:**
 - Information on IP address space and Autonomous System Numbers (ASNs)
 - Statistics on specific hostnames and countries
 - Visualisations of Internet routing
- **All in a centralised place**



How RIPEstat Works



RIPEstat pulls data from a variety of sources, including:

- The RIPE Database (for ownership and contact information)
- Routing registries (e.g., RIPE IRR)
- DNS and reverse DNS systems
- Live and historical BGP data (RIPE RIS)
- Regional Internet Registries and IANA

More details at:

<https://stat.ripe.net/data-sources>

What Can RIPEstat Do For You?



Analyse routing
and network health



Check routing security
and RPKI validation



Analyse network outages
and anomalies

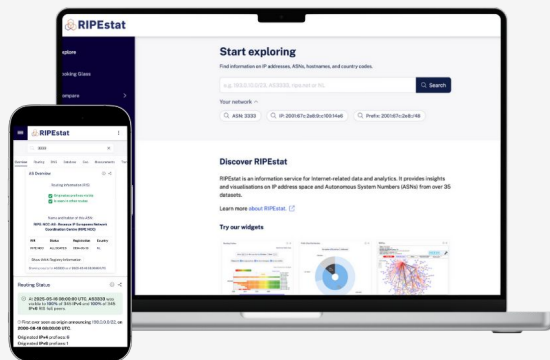


Have a real-time
Looking Glass

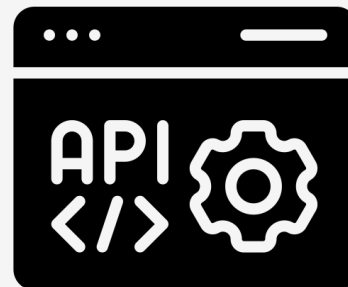
How to Access RIPEstat



User Interface (UI)



API



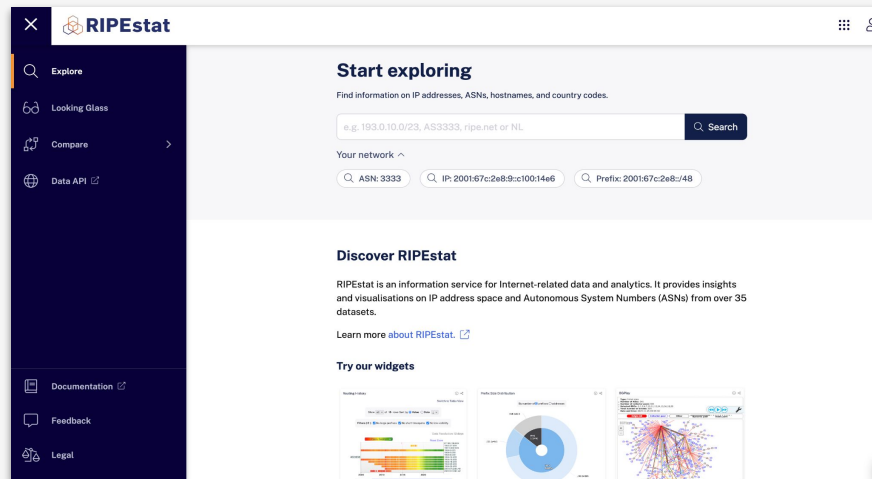


Get started with RIPEstat

Quick Intro



- Search by IP address/prefix (IPv4, IPv6), ASN, country code or fully qualified domain name (FQDN)
- Suggestions are pulled from your network or randomly





Information grouped on the top through tabs

- Find information on:
 - Routing
 - DNS
 - Database
 - Geolocation
 - Measurements
 - Transfers

The screenshot displays the RIPE NCC website interface for AS3333. At the top, a search bar contains '3333'. Below it, a navigation bar includes tabs for Overview, Routing, DNS, Database, Geo, Measurements, and Transfers. The 'Overview' tab is active, showing the 'AS Overview' section. This section includes routing information (RIS) with two green checkmarks: 'Originates prefixes visible' and 'Is seen in other routes'. It also lists the name and holder of the ASN: 'RIPE-NCC-AS - Reseaux IP Europeens Network Coordination Centre (RIPE NCC)'. A table below shows the RIR (RIPE NCC), Status (ALLOCATED), Registration date (1994-05-19), and Country (NL). A button labeled 'Show IANA Registry Information' is present. To the right, the 'Abuse Contact' section shows 'abuse@ripe.net' and a note about reporting abuse. Below that, the 'Maxmind GeoLite' section shows a world map with a point in Europe. At the bottom, the 'Routing Status' section is partially visible.

Search: 3333

Overview Routing DNS Database Geo Measurements Transfers

AS Overview

Routing information (RIS)

- ✓ Originates prefixes visible
- ✓ Is seen in other routes

Name and holder of this ASN:

RIPE-NCC-AS - Reseaux IP Europeens Network Coordination Centre (RIPE NCC)

RIR	Status	Registration	Country
RIPE NCC	ALLOCATED	1994-05-19	NL

Show IANA Registry Information

Showing results for AS3333 as of 2025-05-11 08:00:00 UTC

Abuse Contact

abuse@ripe.net

Showing results for AS3333

Please note that a report sent to the above email address might not reach the correct contact. If an abuse contact appears to be invalid or missing, please report it to the relevant RIR of this resource (RIPE NCC).

Maxmind GeoLite

World map showing location in Europe.

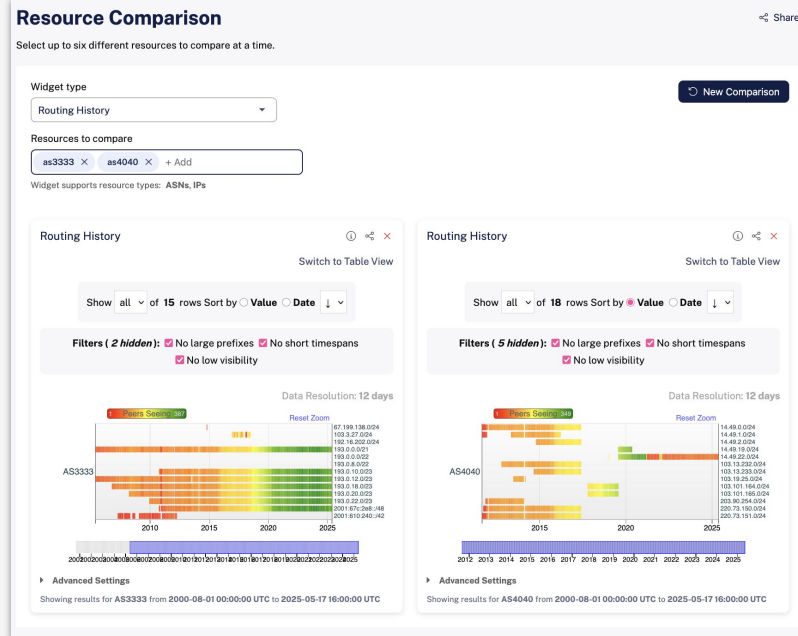
Routing Status

Use Cases: Resource Comparison



Analyse and compare statistics

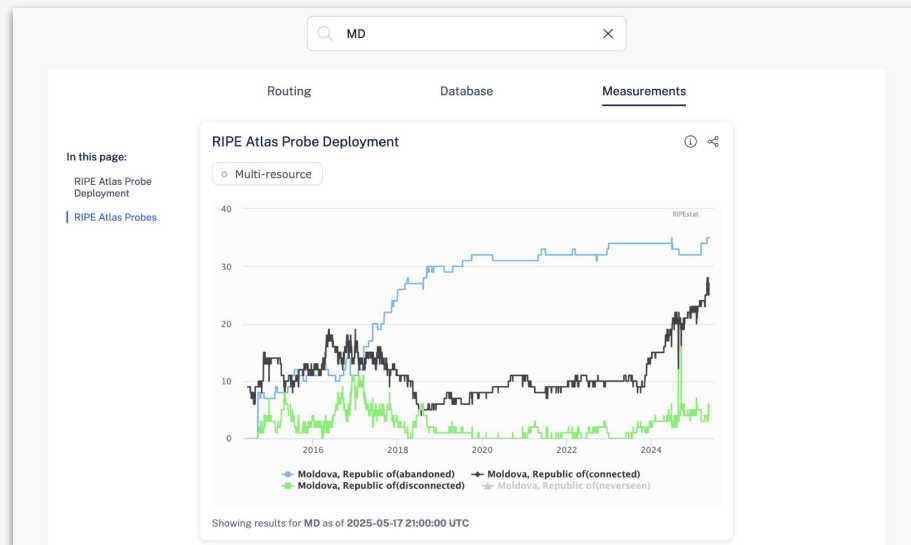
View the same variable (dataset)
for multiple resources at the same time





Country statistics

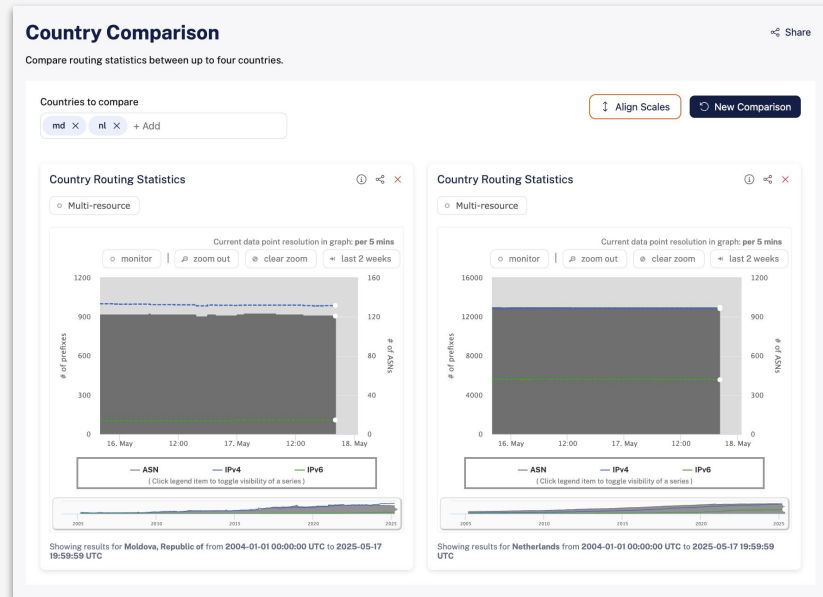
- Routing per country
- RPKI deployment
- ASNs and resource list
- RIPE Atlas probe deployment



Use Cases: Country Comparison



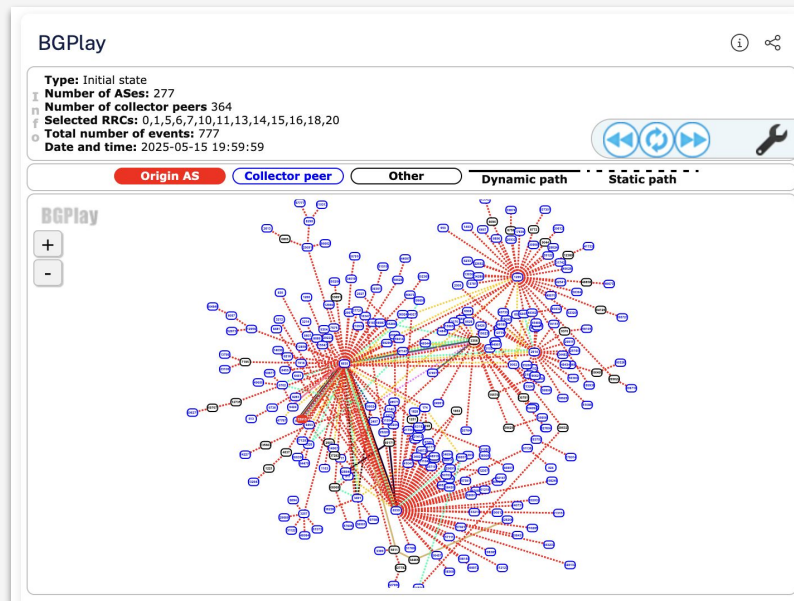
Compare routing statistics of up to four countries



Use Cases: BGPlay



- BGPlay shows the routing history related to a specific set of resources (prefixes, Autonomous Systems, IPs)
- BGPlay visualises changes in BGP announcements for a specific destination over time
- As seen by RIS



Use Cases: Routing Consistency



- Routing Consistency compares:
 - objects in Routing Registries with observed real-world routing (seen by RIS)
 - RPKI validation status where applicable



AS Routing Consistency

Prefixes Imports Exports

Show 25 entries Search:

prefix	In BGP (RIS)	RIPE IRR	Other IRRs	RPKI	VRP
193.0.0.0/21	yes	yes	no	😊	/21
193.0.10.0/23	yes	yes	no	😊	/23
193.0.12.0/23	yes	yes	no	😊	/23
193.0.18.0/23	yes	yes	no	😊	/23
193.0.20.0/23	yes	yes	no	😊	/23
193.0.22.0/23	yes	yes	no	😊	/23
193.230.194.0/24	no	no	no	😊	/24
2001:610:240::/42	no	no	no	😊	/42
2001:67c:2e8::/48	yes	yes	no	😊	/48
2a13:27c0:10::/44	no	no	no	😊	/44
2a13:27c0::/29	no	no	no	😊	/48

Showing 1 to 11 of 11 entries

Use Cases: Consistency Comparison



Compare the consistency of reverse DNS and routing data for a given resource



Consistency Comparison

Compare the consistency of reverse DNS and routing data for a given resource.

ASN or prefix to compare

as3333

AS Routing Consistency

Prefixes Imports Exports

Show 25 entries

Search:

prefix	In BGP (RIS)	RIPE IRR	Other IRRs	RPKI	VRP	
193.0.0.0/21	yes	yes	no	no	no	/21
193.0.10.0/23	yes	yes	no	no	no	/23
193.0.12.0/23	yes	yes	no	no	no	/23
193.0.18.0/23	yes	yes	no	no	no	/23
193.0.20.0/23	yes	yes	no	no	no	/23
193.0.22.0/23	yes	yes	no	no	no	/23
193.230.194.0/24	no	no	no	no	no	/24
2001:610:240::/42	no	no	no	no	no	/42
2001:67c:2e8::/48	yes	yes	no	no	no	/48
2a13:27c0:10::/44	no	no	no	no	no	/44
2a13:27c0::/29	no	no	no	no	no	/48

Showing 1 to 11 of 11 entries

Showing results for AS3333 as of 2025-05-17 00:00:00 UTC

Reverse DNS Consistency

IPv4 IPv6

Show 25 entries

Search:

Prefix	Reverse DNS domain	In RIPE Registry	DNS Check	Checked
193.0.0.0/21	0.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:35Z
193.0.0.0/21	1.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:34Z
193.0.0.0/21	2.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:34Z
193.0.0.0/21	3.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:34Z
193.0.0.0/21	4.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:35Z
193.0.0.0/21	5.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:35Z
193.0.0.0/21	6.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:34Z
193.0.0.0/21	7.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:35Z
193.0.10.0/23	10.0.193.in-addr.arpa	Yes	WARNING	2025-05-17T03:00:34Z



New feature!

- Real-time data as seen by RIS
- Filter anywhere in AS Path
- Include/exclude filters
- See communities

<https://stat.ripe.net/lg>



Looking Glass

Share

193.0.20.0/23

Filter anywhere in AS Path ⓘ

Include

+ Add

Exclude

1103

+ Add

256 filtered peers (of 380) announcing **193.0.20.0/23** originated by **3333** and seen by **23 RRCs**

AS Path	3333
Communities	-
Large Communities	-
Extended Communities	-
Origin	IGP
Next Hop	193.0.0.56 from 193.0.0.56
RRC	RRC00
Last Updated	2025-03-21T09:48:17Z

AS Path	1140 3333
Communities	65535:65281
Large Communities	-
Extended Communities	-
Origin	IGP
Next Hop	80.249.208.49 from 80.249.208.49
RRC	RRC03
Last Updated	2025-05-15T21:54:50Z



- Iterative improvements to user interface
 - Improve the Looking Glass
 - Improve BGPlay/Upstream visibility
- Data quality improvements
- Working on RIS improvements that will positively impact RIPEstat's service quality

View our quarterly planning for RIPEstat:

<https://www.ripe.net/quarterly-planning/>



Questions & Comments



stat@ripe.net



RIPE NCC
RIPE NETWORK COORDINATION CENTER

Thank you



New feature!

- As seen by RIS
- Filter anywhere in AS Path
- Include/exclude filters
- See communities

Looking Glass

1.1.1.0/24

Filter anywhere in AS Path

+ Include + Add

+ Exclude + Add

403 peers announcing 1.1.1.0/24

AS Path

Communities

Large Communities

Extended Communities

Origin

Next Hop

RRC

Last Updated

AS Path

Communities

Large Communities

Extended Communities

Origin

Next Hop

RRC

Last Updated

Looking Glass

193.0.20.0/23

Filter anywhere in AS Path

+ Include + Add

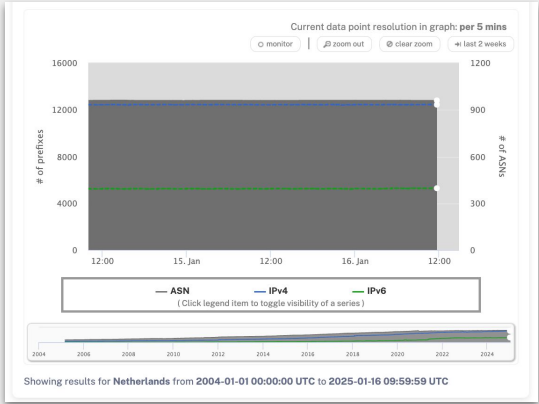
+ Exclude 1103 + Add

256 filtered peers (of 380) announcing 193.0.20.0/23 originated by 3333 and seen by 23 RRCs

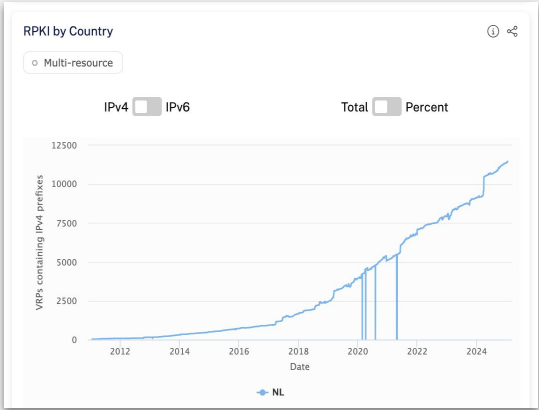
AS Path	3333
Communities	-
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Next Hop	193.0.0.56 from 193.0.0.56
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Last Updated	2025-03-21T09:48:17Z

AS Path	1140 3333
Communities	65535:65281
Large Communities	-
Extended Communities	-
Origin	IGP
Next Hop	80.249.208.49 from 80.249.208.49
RRC	RRC03
Last Updated	2025-05-15T21:54:50Z

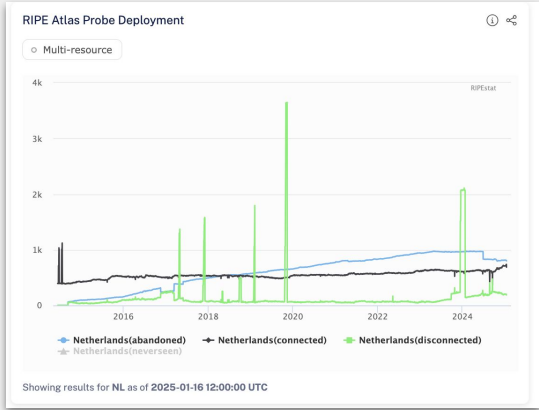
Use Cases: Country Stats - Netherlands



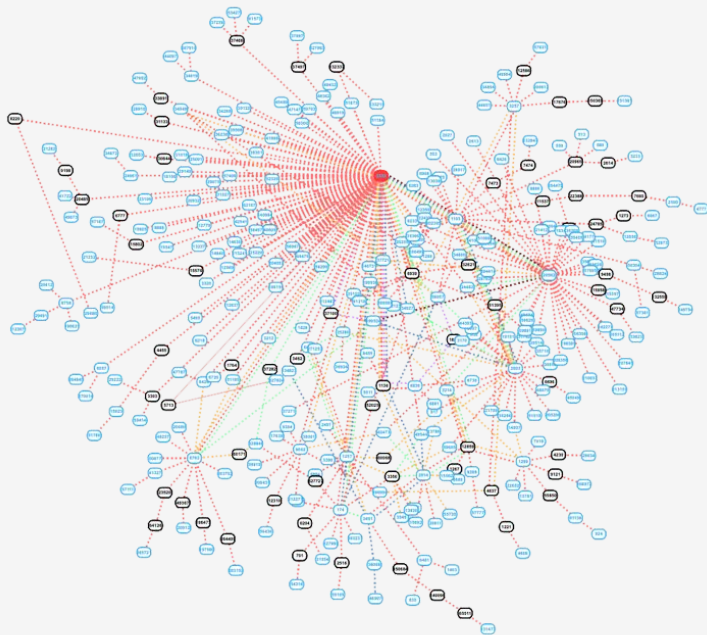
Country Routing Statistics



RPKI by Country



RIPE Atlas Probe Deployment



- BGPlay shows the routing history related to a specific set of resources (prefixes, Autonomous Systems, IPs)
- BGPlay visualises changes in BGP announcements for a specific destination over time
- As seen by Routing Information Service (RIS)