

R I P E

N C C

 Annual Report 2013

RIPE NCC **SERVICE REGION**



2013 in Numbers

76 Countries
9,899 Members
1,139 New Members
2 RIPE Meetings
5 Regional Meetings
2 Roundtable Meetings
1 LEA Meeting
115 Training Courses

40 Webinars
4,450 Active RIPE Atlas Probes
29 RIPE Atlas Anchors Online
1,896 IPv4 /22 Allocations
1,724 IPv6 Allocations
1,887 ASN Assignments
~10.3 Billion RIPE Database Queries
~ 1 Million Unique RIPEstat Users

85 RIPE Labs Articles
35,101 Customer Service Requests
~3,600 RIPE NCC Survey 2013 Responses

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Table of Contents

4.	Report from the Chairman of the Executive Board		
5.	Report from the RIPE NCC Managing Director		
6.	ABOUT THE RIPE NCC		
7.	Introduction		
8.	Organisation and Services Overview		
9.	The RIPE NCC and the RIPE Community		
10.	Note from the Chief Financial Officer		
11.	Organisational Structure		
12.	RIPE NCC Members and the Executive Board		
13.	RIPE NCC General Meetings		
13.	Arbitration		
14.	Articles of Association		
14.	Legal Framework		
15.	RIPE NCC Activity Plan and Budget		
15.	RIPE NCC Survey 2013		
16.	Activity Overview 2013		
17.	THE REGISTRY		
18.	Note from the Chief Operations Officer		
19.	Internet Resource Lifecycle Management		
19.	Requests for Internet Number Resources and Assistance		
20.	IPv4 Allocations in 2013		
20.	IPv4 Transfers 2013		
21.	IPv6 Allocations in 2013		
22.	Autonomous System Number (ASN) Assignments in 2013		
22.	Maintenance of Independent Resources and Contractual Relationship		
23.	Assisted Registry Check (ARC)		
23.	Address Hijacking		
23.	Abuse Reports		
24.	Assignment and Allocation Policies Implemented in 2013		
24.	RIPE Policy Proposal 2007-01		
25.	The Local Internet Registry (LIR) Portal		
25.	Resource Certification (RPKI)		
25.	The RIPE Database		
27.	SERVICES		
28.	Training Services		
30.	Note from the Chief Information Officer		
31.	Measurements, Tools and Statistics		
31.	RIPE Atlas		
33.	RIPEstat		
35.	Test Traffic Measurement Service (TTM)		
35.	Domain Name System Monitoring (DNSMON)		
35.	Routing Information System (RIS)		
36.	Customer Services		
37.	Service Announcements in 2013		
38.	COORDINATION ACTIVITIES		
39.	DNS Services		
39.	K-root and Anycast		
39.	ENUM		
40.	RIPE Labs		
40.	IPv6 Act Now		
40.	IPv6 RIPEness		
40.	Information Security		
41.	Note from the Director of External Relations		
42.	External Relations		
42.	The Internet Governance Forum (IGF)		
43.	The International Telecommunications Union (ITU)		
43.	Montevideo Statement on the Future of Internet Cooperation		
44.	Regional Internet Governance Initiatives		
44.	Arab Internet Governance Forum (IGF)		
44.	EuroDIG		
44.	Organisation For Economic Cooperation And Development (OECD)		
45.	RIPE NCC Roundtable Meetings		
45.	RIPE NCC And Law Enforcement Agencies (LEAs)		
46.	The RIPE Cooperation Working Group		
46.	The Number Resource Organization (NRO)		
46.	The Address Supporting Organization (ASO)		
47.	RIPE NCC AND THE RIPE COMMUNITY		
48.	Note from the Chief Communications Officer		
49.	RIPE		
49.	RIPE Working Groups		
49.	RIPE Task Forces		
50.	RIPE Meetings		
51.	The RIPE Academic Cooperation Initiative		
52.	The RIPE Programme Committee		
52.	RIPE NCC Regional Meetings and Support		
53.	THE RIPE POLICY DEVELOPMENT PROCESS (PDP)		
54.	The RIPE Policy Development Process		
55.	Policy Proposals in 2013		
57.	RIPE NCC FINANCIAL REPORT		
58.	Introduction to the Financial Report from the Treasurer of the RIPE NCC Executive Board		
59.	General Notes on the Financial Report		
60.	RIPE NCC Statement of Income and Expenditure 2013		
61.	Notes to the RIPE NCC Statement of Income and Expenditure 2013		
65.	RIPE NCC Balance Sheet Per 31 December 2013		
66.	Notes To The Balance Sheet As Per 31 December 2013		
70.	RIPE NCC Cash Flow 2013		
71.	Notes To The Cash Flow As Per 31 December 2013		
72.	Independent Auditor's Report		

All items in the Table of Contents are interactive. You can return to the Table of Contents at any time by clicking this icon at the top of each page  Index



REPORT FROM THE CHAIRMAN OF THE EXECUTIVE BOARD

I am delighted to introduce the 2013 RIPE NCC Annual Report that outlines the activities carried out by the organisation during the year. 2013 was a successful year in many ways for the RIPE NCC, and it was also a year in which new challenges arose for the RIPE NCC and its members.

During 2013, one of the main goals of the RIPE NCC Executive Board has been to ensure that the RIPE NCC engages fully with its members and that it does so in a transparent way. The membership continued to grow in 2013, reaching almost 10,000 by the end of the year. Ensuring that the work of the RIPE NCC is useful and clear to both our new and long-standing members is one of the challenges we are working hard to meet.

With this in mind, the RIPE NCC Executive Board listened closely to feedback from members throughout the year, particularly at RIPE NCC General Meetings and in the results of the RIPE NCC Survey 2013. A common request for some years has been to have more transparency into how the RIPE NCC decides on the activities it will pursue and how much these activities cost the membership.

The Executive Board worked with the RIPE NCC to develop its Activity Plan and Budget in 2013 and produce a document that we hope does just that. The Activity Plan and Budget, which was redeveloped in 2012, saw further transparency introduced in 2013, and it now clearly shows the costs of all activities as well as who made important decisions relating to each activity.

2013 was also the first year in which members approved the RIPE NCC Charging Scheme for the following year at the Spring General Meeting rather than at the Autumn General Meeting. We hope this will assist members with their own budgeting for upcoming years. The Charging Scheme saw a reduction in fees for members. Good financial management saw a reduction in costs per member, and this is a trend I hope we can continue.

The Executive Board introduced two resolutions in 2013 that the membership approved. Firstly, the members approved the decision to expand the Executive Board from five members to seven. Secondly, the members approved a resolution that we hope will make it easier and less cumbersome for them to vote electronically in Executive Board elections and for important resolutions to be passed. The fruits of these amendments will be seen in 2014.

The RIPE NCC Executive Board was very active in the Internet governance arena in 2013, representing the membership at a number of events and keeping abreast of issues that may impact the RIPE NCC's work. One noteworthy event that brought these issues to the fore was the revelations of pervasive Internet surveillance by governmental organisations, which energised these discussions. The Executive Board also travelled throughout the RIPE NCC service region to attend regional meetings and other events to hear directly from members about the issues affecting them and learn how the RIPE NCC can help.

Finally, I would like to thank the RIPE NCC membership for its continued support and the constructive feedback it provided to the Executive Board in 2013. The RIPE NCC relies on the input of its members to ensure it serves them effectively in their operations. I trust this will continue in 2014 and I very much look forward to hearing from you in the year ahead.

Nigel Tittley

RIPE NCC Executive Board Chairman



REPORT FROM THE RIPE NCC MANAGING DIRECTOR

2013 was an exciting year for the RIPE NCC, and it was a year that we and our members can be proud of. The membership itself increased by a record number, while we allocated more IPv6 address space than ever before. And while we allocated IPv4 address space from our last /8, we were able to focus on and improve the core services that our members rely on for their operations.

The most important function the RIPE NCC carries out on behalf of members and the community is maintenance and improvement of the Internet Number Registry. As one of the five Regional Internet Registries, it is of the utmost importance that the data contained in the Registry is as accurate and up-to-date as possible. To this end, the RIPE NCC made its audit activities more helpful for members and stepped up its training to educate members on the importance of maintaining accurate data. New RIPE Database software was rolled out to provide a better and more collaborative database experience. The expansion of the RIPE Atlas network and the focus on RIPEstat as a means of providing data also supports the registry function and acts as a powerful tool to give members access to the vast amount of data maintained by the RIPE NCC.

The RIPE NCC's work on the registry function depends on the policies developed by the RIPE community. It is this engagement with the community that brings legitimacy to the RIPE NCC's role as a registry, and I encourage all those who have an interest in the maintenance of a strong registry at the RIPE NCC to become involved with that process.

A key activity in 2013 was the RIPE NCC Survey 2013. With almost 3,000 members responding to the survey, this has given us the biggest source of direct feedback from members and other critical stakeholders the RIPE NCC has ever seen. The RIPE NCC's management team has taken the input received most seriously, as it gives us the means to provide members with the services they want. To maintain transparency, all data and proposed actions from the survey are published. We will communicate the steps we are taking to address the points raised in the survey responses.

In 2013, the RIPE NCC devoted considerable time and resources to its outreach efforts throughout the service region. This service region covers a vast area, and it is important that we address the needs of all members. We held five Regional Meetings in 2013, and we plan to hold more in new locations in the coming years so we can meet our members and hear directly what they expect from us. We believe these outreach efforts are crucial if we are to have a cohesive membership and community that is aware of what we are doing.

It was also a big year in the Internet governance arena with plenty of challenges. We have maintained a strong presence in this area to make sure that the voices of the technical community were heard and that we could influence debate at this level. We have established solid relationships with the governments in our region so we can provide them with the information they need to make informed decisions. The RIPE NCC Roundtable Meetings allow open discussion among governments and representatives from the RIPE NCC and the RIPE community. We continue our commitment to the Internet Governance Forum (IGF) as we believe this is the ideal forum for discussions on Internet governance. In 2014 and beyond, we will continue to be involved in this area on our members' behalf and alert them to any developments they should be aware of.

Finally, I would like to say how proud I am that the work carried out by the RIPE NCC in 2013 was carried out in closer collaboration with our members. The willingness of the membership to engage with the RIPE NCC and provide valuable input into how we operate has been crucial to our progress, and I am counting on this collaboration continuing in 2014 and beyond.

Axel Pawlik

RIPE NCC Managing Director

ABOUT THE RIPE NCC

Introduction

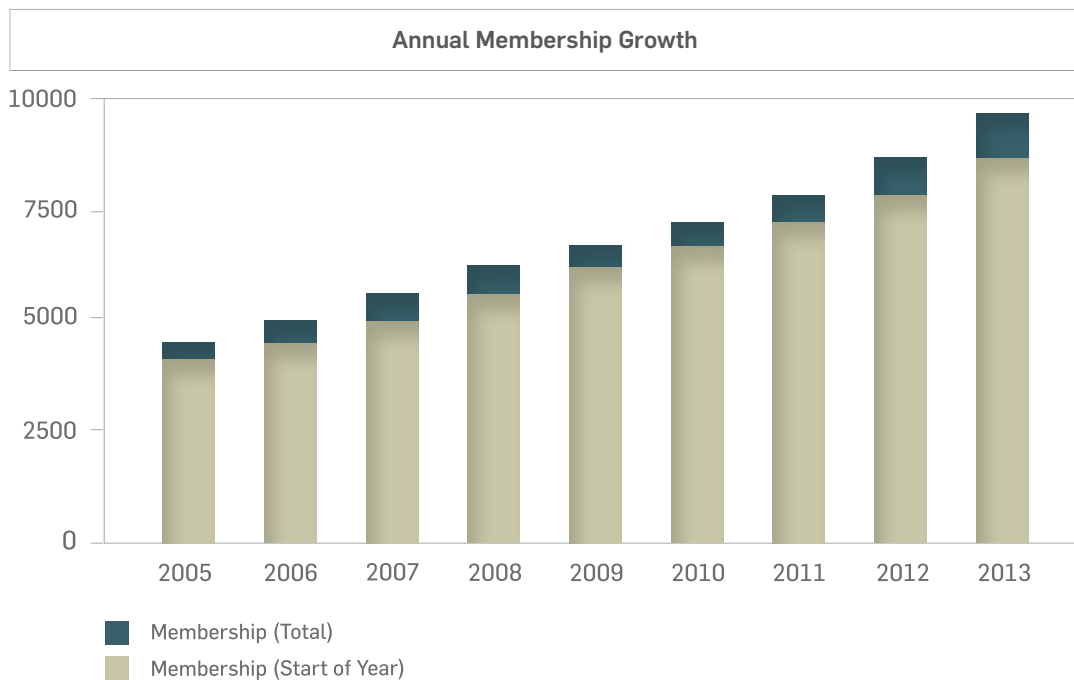
The Réseaux IP Européens Network Coordination Centre (RIPE NCC) is an independent, not-for-profit membership organisation. It supports the operation and development of the Internet through technical coordination and operates one of the world's five Regional Internet Registries (RIRs).

The RIPE NCC's most prominent tasks include:

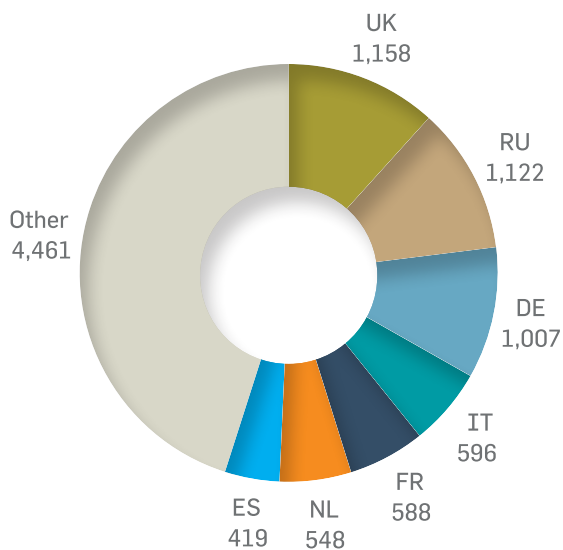
- Registering and distributing Internet number resources
- Operating the RIPE Database
- Operating K-root, one of the world's 13 root name server clusters
- Facilitating RIPE community activities
- Providing high-quality measurement and information services

Most of the RIPE NCC's members are Internet Service Providers (ISPs) and telecommunication organisations. Other members are corporations, academic institutions, legal organisations and government bodies. At the end of 2013, the RIPE NCC supported 9,899 members with operations in the 76 countries in its service region. The RIPE NCC is based in Amsterdam, the Netherlands, and had 131 full-time equivalents (FTEs) in 2013. It is an open and transparent organisation.

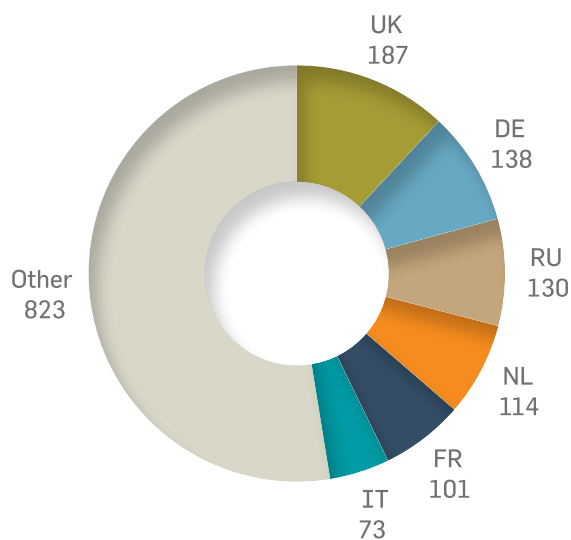
As with the existing four other RIRs, the RIPE NCC operates as a community-driven, bottom-up and self-governing organisation. The policies that govern the way the RIPE NCC operates are proposed, discussed and accepted by the RIPE community (see page 9). The activities performed by the RIPE NCC and the services it provides are approved each year by the RIPE NCC Executive Board following feedback from the members.



Total Membership by Country



New Member Applications by Country



Organisation and Services Overview

As the RIR for Europe, the Middle East and parts of Central Asia, the RIPE NCC provides Internet number resources – IPv4 and IPv6 addresses and Autonomous System (AS) Numbers – to its members. The RIPE NCC maintains registration data for these Internet number resources and ensures that they are distributed in accordance with the policies set by the Internet community. It works to ensure correct registration of the resources it allocates and assigns through education and audit activities.

In addition to providing services related to the allocation and assignment of Internet number resources, the RIPE NCC also supports the operation and development of the Internet for the benefit of the Internet community as a whole. It does this through management of critical Internet resources, provision of education and measurement networks for the community, and outreach and coordination activities.

More specifically, the RIPE NCC's activities include:

The Registry

- Allocation and Assignment of Internet Number Resources
- Registry Maintenance
- LIR Portal
- Resource Certification (RPKI)
- RIPE Database

Services

- Training
- RIPEstat
- RIPE Atlas
- Routing Information Service (RIS)
- RIPE Database Proxy Service

Coordination Activities

- DNS Services and K-root Operations
- RIPE Labs
- Government and LEA Liaison
- Outreach and External Relations
- RIPE Meetings and Regional Meetings
- RIPE Policy and Community Support
- IPv6 Promotion

The RIPE NCC and the RIPE Community

The RIPE NCC and RIPE are separate but highly interdependent entities. RIPE was founded in 1989 and is a collaborative forum open to all parties with an interest in the technical development of the Internet. The RIPE community develops policies for the technical Internet community and ensures the administrative and technical coordination necessary for the operation of the Internet.

The term “RIPE community” is used to describe individuals or organisations, whether members of the RIPE NCC or not, with an interest in the technical coordination of the Internet and the way the Internet is structured and governed. This includes the RIPE NCC membership, government and regulatory bodies, academic institutions, as well as other organisations and individuals with an interest in technical and Internet governance issues.

Valuable input from the Internet industry, governments and regulators comes to the RIPE NCC from the RIPE community. There are no formal requirements for participation. The RIPE NCC provides administrative support to RIPE, the RIPE Working Groups, RIPE Task Forces and RIPE Programme Committees, including the facilitation of RIPE Meetings and the maintenance of the RIPE Document Store and publicly archived mailing lists.

www.ripe.net/ripe



Jochem de Ruig

Chief Financial Officer

The RIPE NCC is a membership association under Dutch law, and as such members share all rights and obligations. It is challenging to retain this democratic company structure allowing all members, nearly 10,000, to participate and engage with the organisation. The RIPE NCC is committed to maintaining and furthering this democratic, transparent and robust corporate governance structure and legal framework that allows all of its services and activities to be carried out from a solid base.

Creating and developing this structure relies in many ways on direct action from the membership. The Executive Board is the body that oversees the RIPE NCC's operations, and its members are nominated and elected by the members to represent their interests. In 2013, the governance structure was further strengthened.

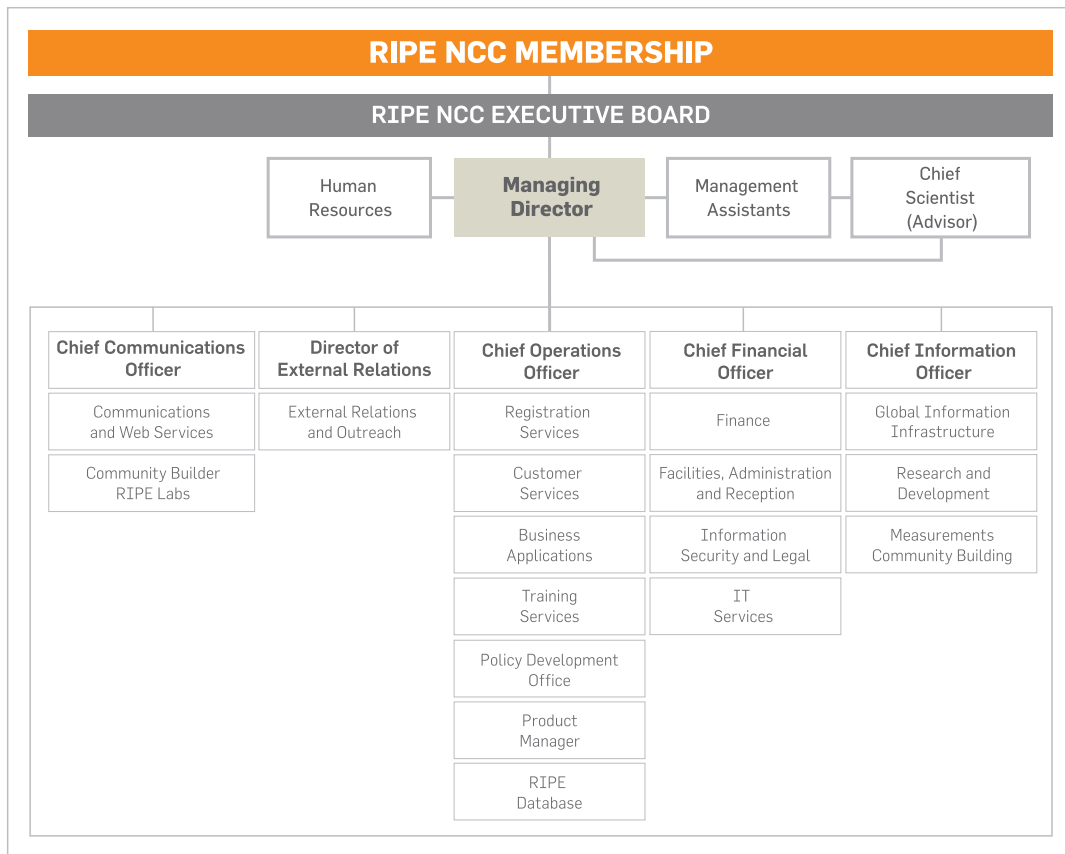
Firstly, the General Meeting adopted a resolution that expands the number of Board seats. Secondly, the voting process was simplified to allow for increased participation and engagement from all members. This is a welcome development, as the RIPE NCC and the Executive Board encourage all members to participate in the voting process. Both these resolutions allow for increased participation and reflect the changing environment in our governance structure. Furthermore, the members also vote each year to approve a charging scheme for the annual membership fee, approve the Financial Report of the RIPE NCC, and ratify appointments to the arbitration panel. A third way the RIPE NCC worked to bring more transparency into its operations in 2013 was by further developing the RIPE NCC Activity Plan and Budget. The goal of this document is to show the RIPE NCC's planned activities and services for the year ahead, along with their estimated costs. Last year, the Activity Plan and Budget added further transparency by noting who had made decisions relating to major changes in RIPE NCC activities. The draft document was published in September and members were able to give their feedback at the General Meeting. The Executive Board used this feedback to provide a finished version at the end of 2013.

In 2013, the RIPE NCC concluded its court case with the Dutch State. The result was inconclusive for the RIPE NCC and has not provided us with guidance for future cases. Having said that, the RIPE NCC continues to maintain a good relationship with the Dutch government and aims to resolve issues before legal action is necessary. Additional steps were taken during the year to document and fortify the legal stance the RIPE NCC has and the full legal framework the RIPE NCC operates in.

In this and all matters relating to the governance of the RIPE NCC, the input of the membership is crucial. I'd like to thank members for their input and guidance throughout 2013, and I encourage all members to keep up to date on matters relating to the governance of the organisation, participate in relevant discussions and exercise their right to vote on RIPE NCC matters.

Organisational Structure

The RIPE NCC organisation consists of members, an Executive Board and RIPE NCC staff. An arbiters panel exists that can be used by RIPE NCC members to resolve disputes with other members or with the RIPE NCC regarding the RIPE NCC's services.



RIPE NCC Members and the Executive Board

The activities of the RIPE NCC are financed by and decided upon by its members, who elect the RIPE NCC Executive Board to represent their interests.

The Executive Board currently consists of five members who:

- Represent the membership
- Provide guidance to the RIPE NCC Senior Management
- Are responsible for the overall financial position of the RIPE NCC and for keeping records that allow the current financial situation to be evaluated at any moment
- Present the RIPE NCC Financial Report and the Charging Scheme for members to vote on
- Approve the RIPE NCC Activity Plan and Budget
- Appoint the RIPE NCC Managing Director
- Call RIPE NCC General Meetings

In 2013, the RIPE NCC membership approved a resolution to expand the number of seats on the RIPE NCC Executive Board to seven.

www.ripe.net/lir-services/ncc/executive-board



Fahad AlShirawi
Member

Dmitry Burkov
ICANN Liaison

Nigel Tittle
Chairman

Christian Kaufmann
Secretary

Remco van Mook
Treasurer

RIPE NCC General Meetings

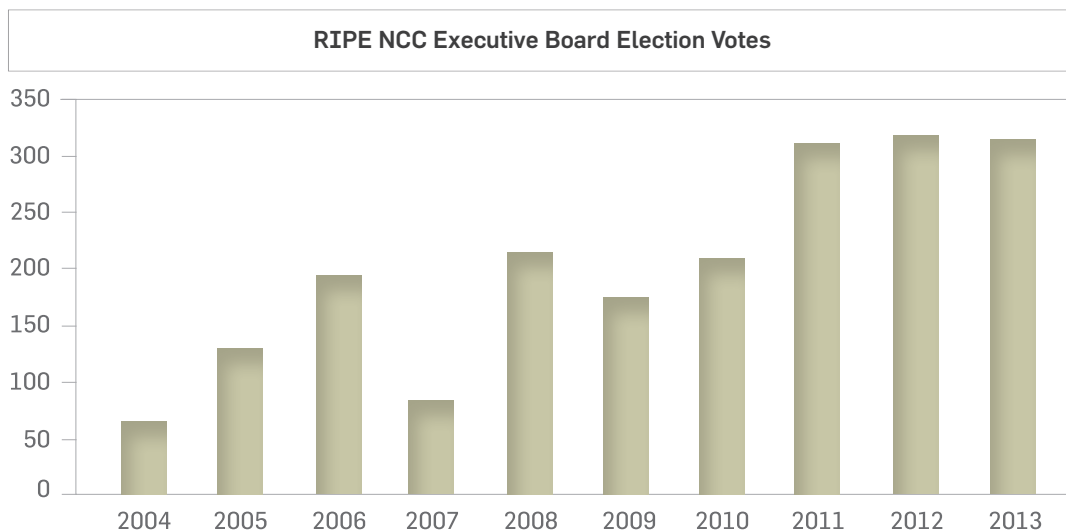
All RIPE NCC members are encouraged to attend the RIPE NCC General Meetings, either in person or remotely. Currently, these meetings are held twice a year. During the General Meetings, members can:

- Vote to accept the audited Financial Report
- Adopt the RIPE NCC Charging Scheme
- Elect Executive Board members
- Approve any resolutions that may be proposed by the Executive Board or the RIPE NCC membership

At General Meetings, members have the opportunity to give feedback directly to the Executive Board on the RIPE NCC's activities and services. In 2013, the RIPE NCC General Meetings took place alongside the RIPE 66 and RIPE 67 Meetings. Executive Board elections were held during the General Meeting on 15 May. The terms of Executive Board members Nigel Titley and Remco van Mook expired, and RIPE NCC members re-elected Nigel and Remco to the available seats. Members also approved a new charging scheme for 2014 that reduced the membership fee by 50 euro. At the General Meeting on 16 October, the membership approved amendments to the RIPE NCC Articles of Association that expanded the number of Executive Board members to a maximum of seven members and simplified the General Meeting registration and voting processes.

All members, including those unable to attend the General Meetings in person, can vote electronically on resolutions and in the Executive Board elections. Members can also follow the General Meeting remotely via webcast and can contribute to discussions through a chat channel. The General Meetings are only open to RIPE NCC members. Minutes from each meeting are, however, available to the public.

www.ripe.net/lir-services/ncc/gm



Arbitration

A neutral and objective arbiters panel exists to resolve any dispute related to services provided by the RIPE NCC. The arbiters are appointed by the RIPE NCC's Executive Board and approved by the RIPE NCC membership.

At the RIPE NCC General Meeting on 16 October 2013, a new conflict arbitration procedure was approved by the RIPE NCC membership.

www.ripe.net/lir-services/ncc/legal/arbitration

Articles of Association

The rights and obligations of the RIPE NCC are outlined in the Articles of Association. In 2013, the RIPE NCC membership approved changes to the Articles of Association to allow expansion of the Executive Board and to simplify the election processes for RIPE NCC General Meetings.

www.ripe.net/ripe/docs/articles-association

Legal Framework

In 2013, the RIPE NCC enhanced the legal framework under which it operates by reinforcing the legal structure surrounding existing RIPE NCC services. It fortified its corporate governance by producing and updating a series of documents that describe RIPE NCC procedures in a clear and transparent way.

In August 2013, the Executive Board approved updates to the RIPE NCC procedural documents "Transfer of Internet Number Resource Records and Change of a Member's Official Legal Name" and "Closure of Member and De-Registration of Internet Number Resources" in order to improve the procedures.

The document "Handling Requests for Information, Orders and Investigations from Law Enforcement Agencies" outlines the procedure the RIPE NCC will follow with regards to requests for information about individual members by law enforcement agencies (LEAs), requests or orders by LEAs for specific action to be taken by the RIPE NCC and possible seizure of the RIPE NCC's equipment or property as part of an LEA's investigation.

The Transparency Report details the nature of LEA requests and the actions that were taken as a result.

The RIPE NCC also created Terms and Conditions for new RIPE NCC services.

The RIPE NCC's Court Case Against the State of the Netherlands

On 13 February 2013, the RIPE NCC received the verdict on the summons it had filed in 2011 against the state of the Netherlands following a police order to temporarily "lock" a set of specific registrations in the RIPE Database. The RIPE NCC filed the summons because it wanted the Dutch court to clarify what the RIPE NCC's obligations are for such orders in the future.

The Dutch court had deemed the RIPE NCC's case "inadmissible" and that it had been dismissed. After conducting an analysis of the decision, the RIPE NCC decided not to appeal the court's decision. It was believed that the investment in time and resources would outweigh the likelihood of a clear result.

www.ripe.net/lir-services/ncc/legal

RIPE NCC Activity Plan and Budget

The activities that the RIPE NCC performs and the services that it provides are defined, discussed and evaluated by RIPE NCC members and by the RIPE community. All proposals, plans and discussions are publicly documented.

The activities that the RIPE NCC proposes to perform in the coming year are detailed in the annual Activity Plan and Budget. Input into the Activity Plan and Budget and feedback on activities is collected from members and the RIPE community via the RIPE Working Groups, RIPE mailing lists, RIPE NCC Regional Meetings, RIPE NCC surveys and at the members-only General Meetings. The RIPE NCC Executive Board approves the Activity Plan.

In 2013, the RIPE NCC presented an Activity Plan and Budget based on recommendations from the membership. The document laid out the RIPE NCC's planned activities and services along with their associated costs for 2014 in a user-friendly and transparent way. The document also identified who made key decisions regarding changes to the RIPE NCC's activities and services (whether this was the Executive Board, RIPE NCC management or the RIPE community).

www.ripe.net/ripe/docs/ripe-598

RIPE NCC Survey 2013

The RIPE NCC Survey 2013 was conducted in May and June by the Oxford Internet Institute (OII) on behalf of the RIPE NCC.

Over 3,600 people from 114 countries participated, including from 75 of the 76 countries in our service region. This was the biggest and most diverse response to any RIPE NCC survey since the organisation's formation. This gave the RIPE NCC a vast amount of feedback it can use to improve its services and develop its strategy for the years ahead.

The report was presented by the RIPE NCC and the OII at the RIPE 67 Meeting in Athens from 14-18 October. The findings from the survey were made public, as was the list of areas for investigation and actions to be taken by the RIPE NCC in light of the feedback received.

www.ripe.net/lir-services/member-support/info/surveys/ripe-ncc-survey-2013/ripe-ncc-survey-2013

Activity Overview 2013

Mainly due to efficiency measures, the RIPE NCC lowered its costs for "The Registry" and "Internal Services", while the number of tickets and overall workload increased. The category "Services" and especially the "Coordination Activities" were up from the budget. For "Services", the increase was in all four subcategories, but the work that took place to improve the stable set-up of RIPEstat and the increased number of training courses (for instance, at the IPv6 Roadshows) were the main contributors to this increase.

In "Coordination Activities", the support and contributions towards the Internet governance structures, conferences and cooperation with them was substantially higher than planned for. Increased efforts in outreach and external relations and the increased attendance at RIPE Meetings were two other contributing factors.

Budget 2013 vs Actuals 2013 (in kEUR)

Name of Service	Budget Operational Expenses 2013	Actuals Operational Expenses 2013	Variation
Certification	233	212	-21
Registry maintenance	2,846	2,440	-406
RIPE Database	393	412	+19
The Registry	3,472	3,064	-408
Other Services	1,065	1,067	+2
RIPE Atlas	798	832	+34
RIPEstat	332	385	+53
Training	892	948	+56
Services	3,087	3,232	+145
DNS Services	190	161	-29
Government, LEA Liaison	372	432	+50
ICANN/IETF/NOG's	939	1,168	+229
IPv6 Support	124	126	+2
K-root Operations	132	143	+11
Measurements / Data collection	206	228	+22
Outreach & External Relations	1,610	1,659	+49
RIPE Labs	332	267	-65
RIPE Meetings	1,157	1,235	+18
RIPE Policy and Community support	125	122	-3
Coordination Activities	5,187	5,541	+354
Finance & Admin	781	794	+13
Housing & IT	2,776	2,703	-73
HR & Management	2,556	2,028	-528
Organisational Activities	231	375	+144
Specialist support	393	262	-131
Internal	6,737	6,162	-575
RIPE NCC	18,483	17,999	-484

These figures are not part of the Financial Report and as such have not been audited by an external third party. These figures are indications based on an internal time registration methodology that is executed on a monthly basis. Therefore, these figures can only serve as indications on the costs relating to these activities.

THE REGISTRY



Andrew de la Haye
Chief Operations Officer

Maintaining a strong Internet Number Registry will always be the first and foremost concern of the RIPE NCC. The RIPE Registry, comprising the public RIPE Database and non-public information held by the RIPE NCC, is crucial for the operations of our members and the wider Internet community.

The registry function allows RIPE NCC members to make assignments and routing decisions safe in the knowledge that the number resources assigned to them are unique and recognised as such by the Internet community. The RIPE Database contains information about allocations and assignments of IP address space, routing registry information, reverse DNS delegations and contact information that allows operators to collaborate to ensure the smooth running of their networks.

This work requires our continued efforts to improve registration records, and our vigilance regarding issues that could negatively impact the accuracy of the registry. 2013 was the first full year that the RIPE NCC was allocating from the last /8 block of IPv4 addresses from IANA, having reached that historic milestone in the previous year. It was therefore appropriate that our priority shifted from evaluating and making new allocations to ensuring the integrity of registry data in response to factors such as address transfers and attempts to hijack IPv4 address blocks. These efforts not only protect members' own resources, but also benefit the wider Internet community by contributing to the reliability of registration records.

Strong registry maintenance requires more than just the diligence of the RIPE NCC. It also requires that our members and community understand the importance of keeping their data up to date. To support this, the RIPE NCC's training staff in 2013 engaged with thousands of our members across our service region.

Similarly, our new Assisted Registry Check, which was introduced in late 2013, will add more value to members and not only check their registry data but also give us an opportunity to explain to them any elements of RIPE Policies or aspects of the RIPE Database that they don't understand. We also use this opportunity to show them how the RIPE NCC's measurement tools can be used to help them with their daily operations.

It was also pleasing to see in 2013 that we could continue to work to implement community-driven initiatives to strengthen registry data. These efforts show that our community continues to view engagement with the RIPE NCC as an effective way of achieving the outcomes it wants. One such initiative was the implementation of the "abuse-c:" attribute in the RIPE Database, which will ensure that all database objects have a clear abuse contact in place. We also continued our work to establish and maintain contractual relationships for independent Internet number resources.

Finally, 2013 was the year that we were able to announce the rollout of our new RIPE Database software. This has been a long time in the making and we have already seen the benefits, with community members able to contribute thanks to the open-source code used, and the new code making it much easier for us to respond to community-driven initiatives and accepted policy proposals.

Internet Resource Lifecycle Management

As a Regional Internet Registry (RIR), the RIPE NCC's most prominent activity is to distribute and register IPv4 and IPv6 addresses and Autonomous System (AS) Numbers in its service region. The goal is to ensure fair distribution of Internet number resources and to maintain accurate registration data. The Internet Assigned Numbers Authority (IANA) allocates blocks of IP addresses to the RIPE NCC and the other four RIRs that exist today. The RIPE NCC then allocates and assigns parts of these IP address blocks to its members and End Users in accordance with policies developed by the RIPE community.

In 2013, the RIPE NCC continued to allocate IPv4 address space according to the last /8 policy – which entitles each member to one final /22 allocation. IPv4 depletion resulted in a growing number of transfers of IPv4 address space within the RIPE NCC service region. It also appears to be directly related to the significant increase in hijackings of IPv4 address space that the RIPE NCC saw in 2013.

Requests for Internet Number Resources and Assistance

In 2013, the RIPE NCC received a total of 12,959 requests for resources and related assistance, a decrease compared to the 16,703 requests received in 2012. While there was a decrease in resource requests, requests for assistance increased from 1,460 to 1,845. These requests do not include those related to establishing or maintaining contractual relationships for independent number resources, audit activities, abuse reports or hijacking – which are all addressed separately in this section.

In 2013, the RIPE NCC continued to contact members by phone when they submit an initial allocation request. This ensures that they understand the process for requesting, registering and maintaining Internet number resources. This is in recognition of the fact that the RIPE NCC's membership has been rapidly growing in recent years, with many new members having less familiarity with the RIPE NCC's processes and the RIR system in general.

The requests for resources and assistance included:

- Provider Aggregatable (PA) assignments
- Provider Independent (PI) IPv6 assignments
- IPv4 and IPv6 allocations, and IPv6 extensions
- Autonomous System Number (ASN) assignments
- Anycast assignments
- Assignments for Internet Exchange Points (IXPs)
- Temporary assignments
- Issues related to existing resources and members (assistance)
- Issues related to legacy resources

In 2013, the RIPE NCC made 6,174 allocations and assignments of Internet number resources. These consisted of:

- IPv4 /22 allocations: 1,896
- IPv6 allocations: 1,724
- IPv6 allocation extensions: 184
- IPv6 PI assignments: 418
- IPv6 Anycast assignments: 4
- ASN assignments: 1,328 (16-bit) and 559 (32-bit)
- IXP assignments: 13 (IPv4) and 14 (IPv6)
- Temporary assignments: 27 (IPv4) and 7 (IPv6)

A more in-depth overview of how to request allocations and assignments is available.

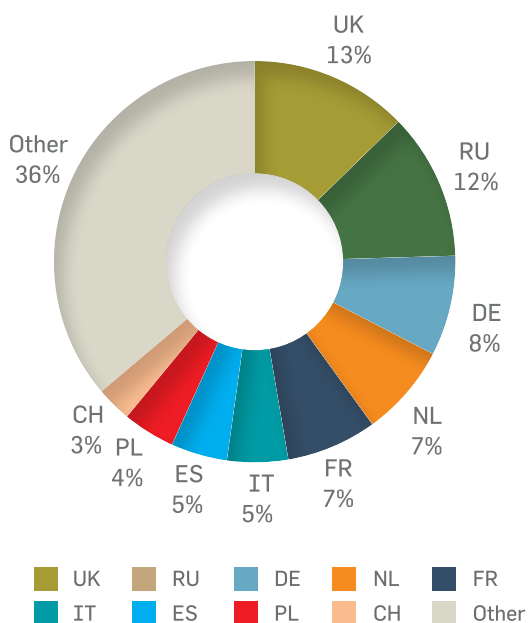
www.ripe.net/lir-services/resource-management/number-resources

IPv4 Allocations in 2013

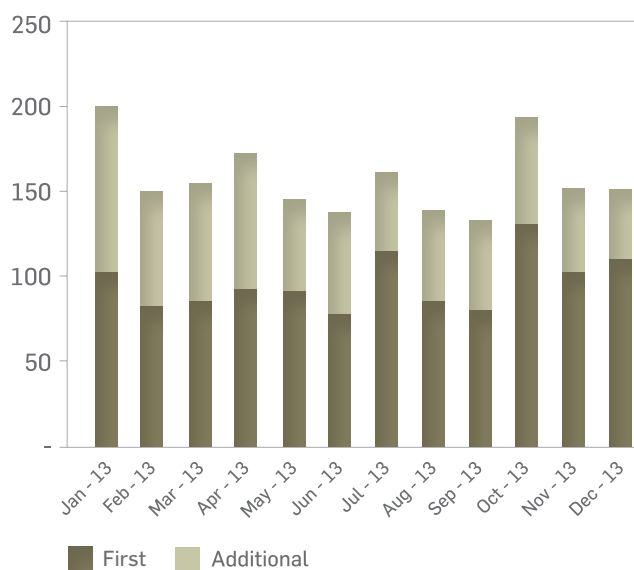
The RIPE NCC allocated 1,941,504 IPv4 addresses in 2013. This represents a 94.8% decrease in the total number of IPv4 addresses allocated when compared to the previous year. This significant decrease is due to the fact that the RIPE NCC is now issuing address space according to the last /8 policy. This means that each LIR can only receive one final /22 allocation.

The majority of /22s issued in 2013 went to new LIRs (1,161 from a total of 1,896 allocations). This is a new trend, because prior to depletion most IP address space was issued as additional allocations to existing members.

IPv4 Allocations per Country in 2013



IPv4 /22s Issued as First vs Additional Allocations



IPv4 Transfers 2013

According to section 5.5 of "IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region", members may transfer IPv4 address space, provided it remains within

the RIPE NCC service region and meets policy requirements. In 2013, the RIPE NCC processed 154 IPv4 transfers containing a total of 1,977,347 IP addresses. This number does not include transfers that were due to a change in company structure, such as a merger or acquisition.

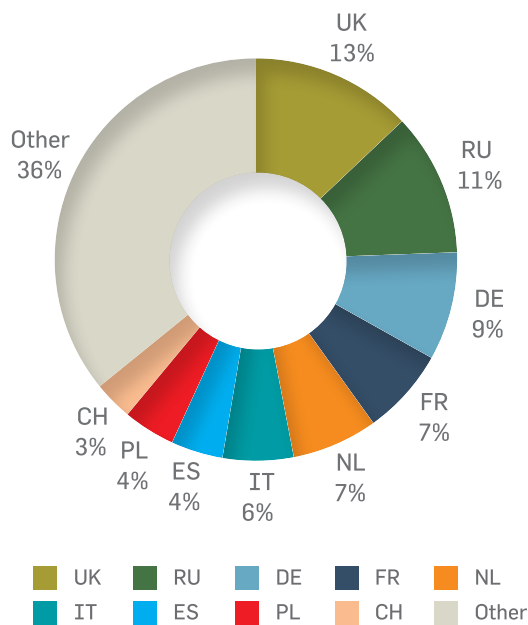
IPv4 Transfers Processed in 2013



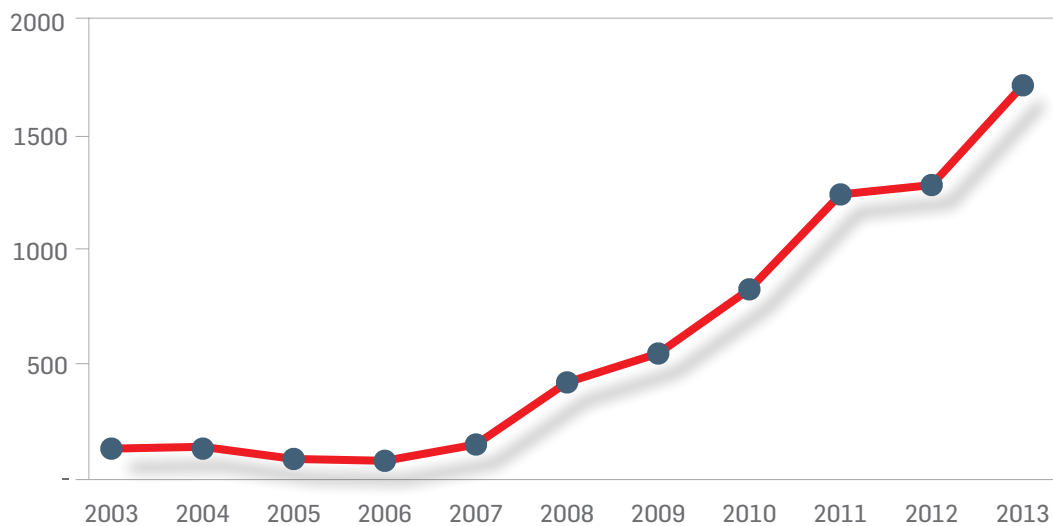
IPv6 Allocations in 2013

The RIPE NCC made 1,724 IPv6 allocations in 2013. By the end of the year, 6,503 LIRs held an IPv6 allocation, which corresponded to 66% of the RIPE NCC membership. This compared to 55.6% at the end of 2012.

IPv6 Allocations per Country in 2013



Total Number of IPv6 Allocations Made by the RIPE NCC per Year



Autonomous System Number (ASN) Assignments in 2013

The RIPE NCC assigned 1,887 Autonomous System Numbers (ASNs) in 2013, a 24.5% decrease compared to the 2,500 assigned in 2012.

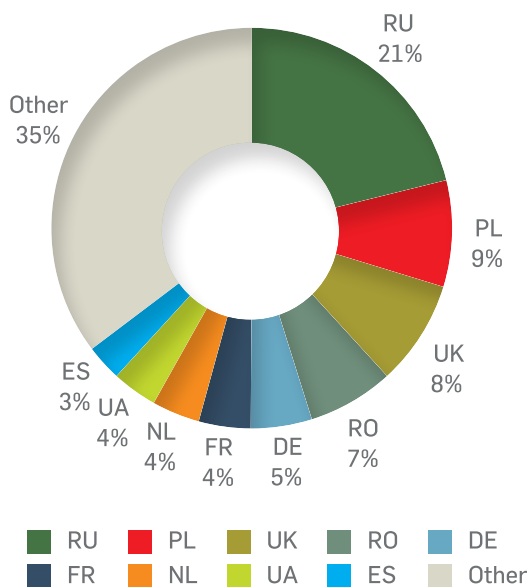
The IANA allocated 1,024 ASNs to the RIPE NCC in 2013, of which 512 were 16-bit and 512 were 32-bit.

32-bit ASNs

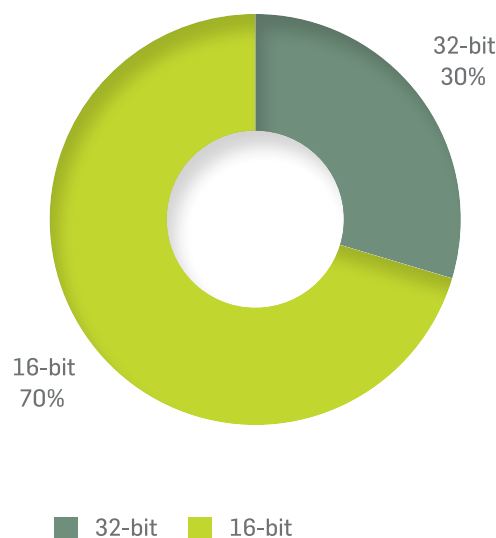
The RIPE NCC has assigned 32-bit (or four-byte) ASNs by default since 2009. This has encouraged adoption of the new format throughout the region.

In 2013, 29.6% of the ASNs assigned in the RIPE NCC service region were 32-bit, compared to 43% in 2012. This decrease was due to a temporary shortage of 32-bit ASNs, so the RIPE NCC distributed 16-bit ASNs instead.

ASNs Assigned per Country in 2013



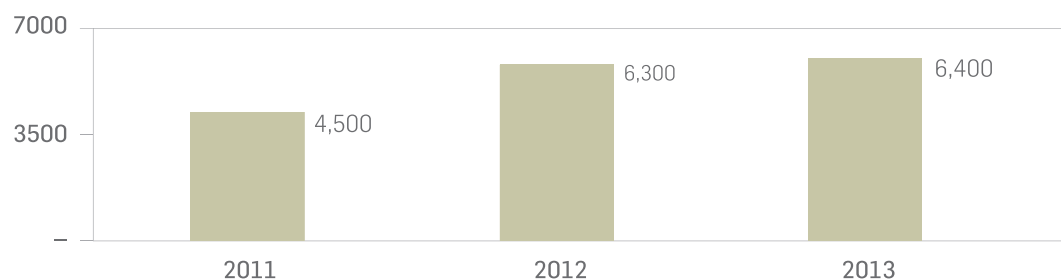
32-bit and 16-bit ASN Assignments in 2013



Maintenance of Independent Resources and Contractual Relationship

According to ripe-452, "Contractual Requirements for Provider Independent Resource Holders in the RIPE NCC Service Region", a contractual relationship must exist between an End User and a sponsoring LIR or the RIPE NCC. Since this policy was accepted, the RIPE NCC has been processing changes to these contractual relationships. These include changes to the sponsoring LIR, returned address space and name changes due to takeovers.

Contractual Relationship Changes Processed in 2013



Assisted Registry Check (ARC)

The RIPE NCC has conducted audits of LIR contact data and resource records since 1996, when it was asked to do so by the RIPE community. In 2012, the RIPE NCC temporarily suspended its audit activity to ensure correct management as it approached the last /8.

In 2013, the RIPE NCC conducted an in-depth review of its audit activities, based on feedback collected from the RIPE community. The review looked at the impact IPv4 exhaustion and the corresponding increase in IPv4 transfers would have on the maintenance of registry data. In September 2013, the RIPE NCC launched the Assisted Registry Check (ARC), which represents an improvement to the RIPE NCC's previous audit activities.

The ARC review was designed to make the process both more efficient and less time-consuming for RIPE NCC members.

In late 2013, a test group of 50 RIPE NCC members were randomly selected to participate in the first round of ARC reviews, which were still in progress by the end of the year. Initial feedback showed that the participants were very positive about the new process.

www.ripe.net/lir-services/resource-management/assisted-registry-check

Registry Consistency	Resource Consistency	Route and rDNS Consistency
Legal Name and Status of LIR	IPv4 Resources	Routing Registry vs BGP Announcements
Postal Address	IPv6 Resources	Lame Reverse Delegations
Telephone and Fax Numbers	Independent Resources	Network Reachability
Registry Contacts		

Address Hijacking

In 2013, the RIPE NCC saw a notable increase in the number of IP address hijackings taking place in its service region. Over the course of the year, there were a number of incidents where hijackers attempted to impersonate resource holders – either to gain control of their resources in the RIPE Database or to sell them to third parties who were unaware that they were not the legitimate holder. The hijackers mostly targeted unannounced resources.

In 2013, the RIPE NCC found 196 cases of suspected address hijacking. Of these, 65 cases were resolved and the appropriate actions were taken. The remaining 131 cases were still under investigation at the end of 2013.

Abuse Reports

In 2012, the RIPE NCC launched the RIPE NCC Report Form, which makes it easier to file a complaint and ensures that all the information needed to follow up is included in the report. The report form can be found at:

www.ripe.net/contact

The RIPE NCC received 382 reports via the report form in 2013. 205 of these were relevant to the RIPE NCC, while the remainder concerned issues such as spamming or hacking.

Of the reports that were investigated:

- 140 reported incorrect data in the RIPE Database. 64 of these required further investigation by the RIPE NCC.
- 58 reports concerned policy violations, untruthful information or were related to bankruptcy. Of these reports, 25 were found not to be policy violations, 18 could not be followed up due to lack of information and 15 resulted in further inquiries.
- Seven reports did not fall under the scope of normal abuse reports, but they were investigated nonetheless.

Assignment and Allocation Policies Implemented in 2013

All the policies that govern how the RIPE NCC allocates and assigns Internet number resources are proposed, discussed and accepted or rejected by the RIPE community. Once a RIPE Policy is accepted, the RIPE NCC implements it into its operations and procedures.

In 2013, the RIPE NCC implemented five assignment and allocation policies:

- 2012-05: Transparency in Address Block Transfers
- 2012-06: Revert "Run Out Fairly"
- 2012-09: Modification of The Time Limits For Temporary Internet Assignments
- 2012-10: Extension of IPv6 /32 to /29 on a per-allocation vs per-LIR basis
- 2013-02: Removal of requirement for certification of reallocated IPv4 addresses

RIPE Policy Proposal 2007-01

In 2013, the RIPE NCC continued its work to implement RIPE Policy Proposal 2007-01, "Direct Internet Resource Assignments to End Users from the RIPE NCC". This proposal became ripe-452, "Contractual Requirements for Provider Independent Resource Holders in the RIPE NCC Service Region." The policy states that a contractual relationship must exist between an End User and a sponsoring LIR or the RIPE NCC. It also states that a contractual relationship must be retroactively put in place for End Users of independent Internet number resources that were previously assigned.

Phase 1 of the implementation required LIRs to provide an assignment agreement between the LIR and the End User with every assignment request.

In Phase 2, LIRs could mark resources as:

- My Infrastructure
- My End User, if the resource holder would sign an agreement with the LIR
- Not My End User, if the resource holder would not sign an agreement with the LIR

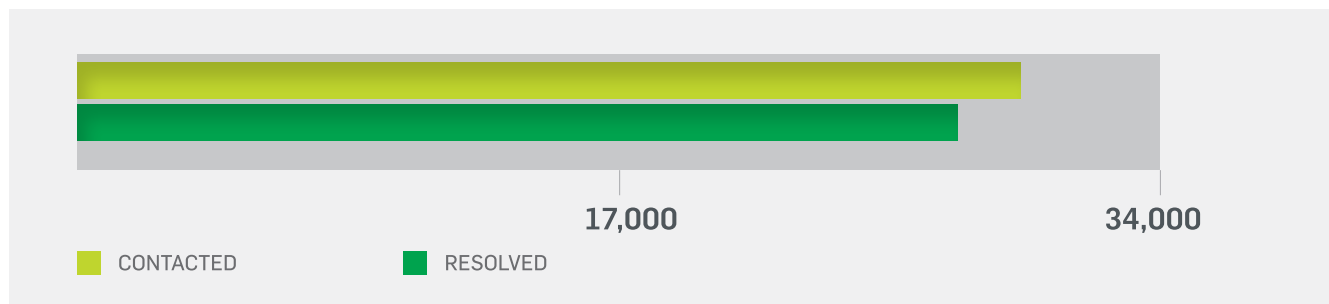
In Phase 3 of the policy implementation, the RIPE NCC started to directly contact the End Users of independent Internet number resources who did not sign an agreement with a sponsoring LIR during Phase 2. This involved contacting around 19,500 resource holders and asking them for a response.

In 2013, 6,830 resources were resolved and marked as:

- Approved;
- Approved as LIR infrastructure; or
- The resources were returned to the RIPE NCC

By the end of December 2013, the RIPE NCC had approximately 6,150 resources left to be completed.

2007-01 Policy Implementation: Number of Resources Contacted vs Resolved at Year End 2013



The Local Internet Registry (LIR) Portal

The LIR Portal is the secure area for RIPE NCC members to manage everything related to their membership and the number resources they hold. The RIPE NCC works continuously to develop the LIR Portal and improve usability for its members.

<https://lirportal.ripe.net/>

Resource Certification (RPKI)

In 2013, work continued in the LIR Portal on expanding the Resource Certification (RPKI) system. The service continued to grow at a steady pace. By the end of the year, almost 20% of the membership had requested a resource certificate to certify their IP address blocks. The result of this has been that, using their certificates, most members have created Route Origin Authorisations (ROAs) for their BGP route announcements. In the RIPE NCC service region, nearly 5,500 IPv4 prefixes covering more than six /8 blocks are matched by a ROA. IPv6 is also continuing to grow strong, with 850 prefixes covering more than 9,800 /32 blocks.

In April 2013, the RIPE community put a policy proposal forward to expand the Resource Certification service to also include resources held by non-RIPE NCC members. This refers to Provider Independent End User address space, as well as legacy resources. The proposal reached consensus in October 2013 and the RIPE NCC spent the rest of the year working on its implementation.

Another area of expansion was the RPKI Validator toolset. Many features were added over the course of 2013, all implemented based on feedback from operators. This included the ability to export all validated data in JSON format, exposing an API and including health monitoring functionality of the application itself, as well as the repositories that it queries. These additional features, combined with their ease of use, make the RPKI Validator a comprehensive and robust toolset for operators to use in their BGP workflows.

www.ripe.net/lir-services/resource-management/certification

The RIPE Database

The RIPE Database is operated and maintained by the RIPE NCC. It contains IPv4 and IPv6 allocations and Autonomous System Number (ASN) assignments originally allocated by the RIPE NCC, as well as the related information about the organisations, contacts and reverse Domain Name System (rDNS) delegations.

The RIPE Database is open for anyone to query and RIPE NCC members use it to provide information about their Internet number resource allocations and assignments. In 2013, about 10.3 billion queries were served.

The RIPE Database includes the RIPE Routing Registry (RR), which is a part of the global Internet Routing Registry (IRR). The IRR is a registry that consists of several databases. Network operators use the registry to share information about their network with other operators, such as routing policies and routing announcements. The registry ensures the stability and consistency of global Internet routing between network operators.

www.ripe.net/data-tools/db

RIPE Database Redevelopment Project

The beginning of 2013 marked the completion of the Database Redevelopment Project. The redevelopment started in 2012 and was carried out in gradual steps where parts of the database were replaced and the old software was running in parallel with the new. In 2012, the query function was replaced and the update function followed in the beginning of 2013. After this, nothing of the old code remained and throughout 2013 the benefits of the project were seen in the ease of implementing new features as well as on an operational level.

The new RIPE Database software is open source and available for anyone to use. With this model, the RIPE NCC encourages developers in the community to contribute. Over the course of 2013, there was an increased interest in this as well as actual contributions in the form of new features implemented by the community.

APNIC uses the same code base for its database service, and the collaboration between the RIPE NCC and APNIC proved to be advantageous. In 2013, the two RIRs made joint efforts to improve the code as well as implementing and planning new features. As a result of this collaborative effort, the RIPE NCC developed a working implementation of an RDAP service in time for the IETF 87 Meeting in Berlin in July 2013.

In 2013, a number of new features were added to the RIPE Database. Here are some of the highlights:

- Tagging: allows internally set metadata to be added to database objects that can be viewed with appropriate query options.
- Pending Route Creation: allows a **route** object to be submitted with only one of the two hierarchical authorisations. The other party can later submit the same object with the missing authorisation.
- Dry Run: an update for a single object can be submitted with the dry-run option set and everything will be checked and reported without actually updating the database.
- Reclaim Functionality: allows resource holders to override authorisation to delete any operational objects related to their resources.
- Diff Output: was added by default in notifications for any object modification.
- "Abuse-c:" the abuse contact attribute was implemented for all member resources. The implementation for End User resources was started in late 2013.
- REST API: upgraded the API from a beta service to a fully functioning service.
- Release Management: after discussions with the community, a new process was agreed for the structured release of new software features.
- RDAP: a working implementation of the IETF's proposed Registration Data Access Protocol was developed for the RIPE Database in conjunction with APNIC.
- Global Resource Service (GRS): this was revised to provide mirrors of all RIRs operational data in RIPE RPSL format. Daily imported data is based on each RIR's delegated stats. A new query flag, '—resource', searches the GRS data collection to return a unique resource.
- New Query Options: provide access to historical data and allow filtering on (in)valid syntax.
- Documentation: a major review of both query and update reference manuals was undertaken.

SERVICES

Training Services

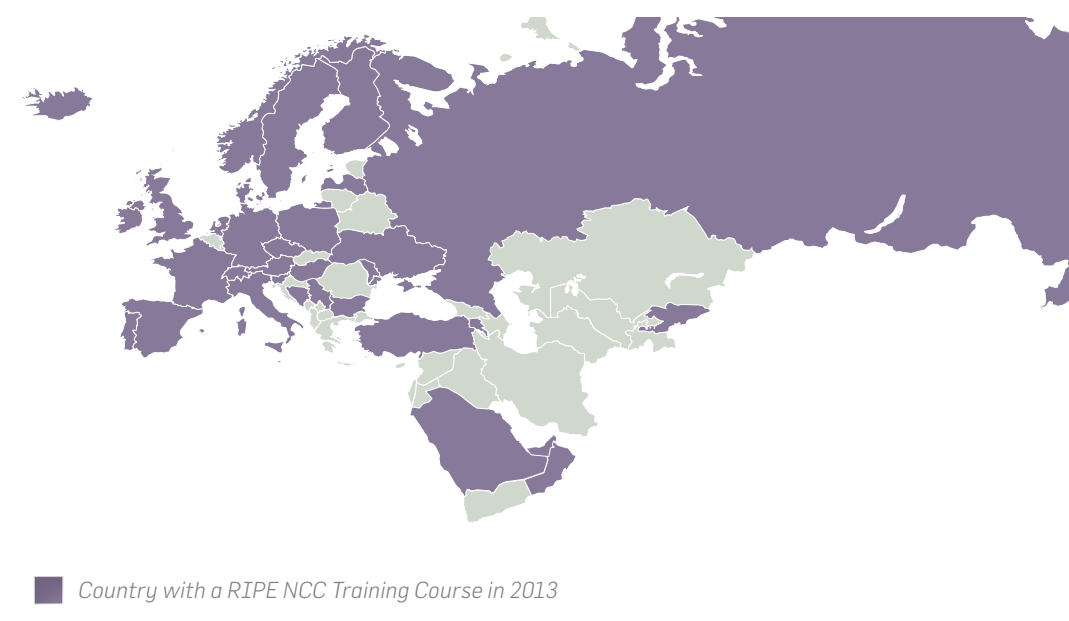
The RIPE NCC provides training services to:

- Assist its members with the correct registration and administration of Internet number resources
- Teach other technical skills that will improve their operational work
- Improve their understanding of RIPE NCC procedures and tools

Through face-to-face and online training courses, it is possible for members to interact with RIPE NCC staff, connect with each other, and share experiences and best current practices. At the same time, the RIPE NCC gets the opportunity to collect feedback on its services and tools.

Training Courses

In 2013, the RIPE NCC ran 115 training courses in 31 different countries, with a total of 2,347 participants.



The RIPE NCC currently offers four face-to-face training courses:

- IPv6 for LIRs: explains how to obtain IPv6 address space, best practices for deployment, and IPv6 Internet addressing policies. There were 859 attendees in 43 courses in 2013.
- LIR Training Course: covers how to request Internet number resources and how to interact with the RIPE NCC. There were 756 attendees in 36 courses in 2013.
- Routing Security: explains the features of the Routing Policy Specification Language (RPSL), the Routing Registry (RR) and Routing Security (RPKI) for experienced network operators. There were 228 attendees in 12 courses in 2013.
- RIPE Database: this new course was launched in April 2013 and provides a practical hands-on introduction to using the RIPE Database. There were 504 attendees in 24 courses in 2013.

Feedback from attendees collected in 2013 indicated that the training courses met their expectations and that they valued the opportunity to meet with RIPE NCC staff in person.

IPv6 Roadshows

In 2013, the RIPE NCC ran six IPv6 Roadshows in the Middle East. Run as a joint initiative between the Middle East Network Operators Group (MENO), the RIPE NCC and APNIC, these events gave network operators an opportunity to gain hands-on experience dealing with IPv6.

RIPE NCC E-Learning

In addition to face-to-face courses, the RIPE NCC offers its members the opportunity to learn online, either by participating in a webinar or by accessing other online learning resources. This is especially useful for members who are unable to attend face-to-face courses or who want to have a quick refresher on a specific topic.

Webinars

In 2013, the RIPE NCC provided the following webinars:

- Introduction to the RIPE Database: 12 times
- RIPE Database – Advanced Topics: 11 times
- Resource Certification (RPKI): 11 times
- IPv6 in the RIPE Database (new in 2013): 6 times

Each webinar can be attended by up to 23 people. In 2013, the RIPE NCC hosted a total of 40 webinars, each with full attendance. Feedback from the participants indicated that they appreciated being able to interact with the trainers and each other remotely, without having to travel. It also indicated that they were satisfied with the relevance of the webinars to their work.

Online Learning Resources

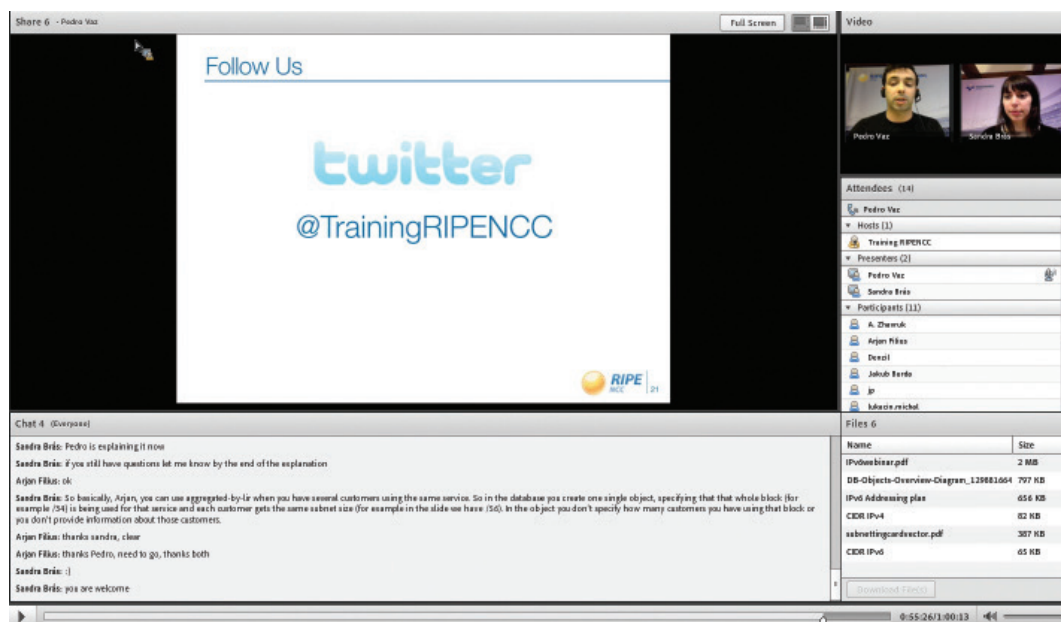
In addition to the online videos already offered, the RIPE NCC published the following videos in 2013:

IPv6 Transition Mechanism Videos

- 6in4: 1,865 views
- Nat64: 680 views
- DS-Lite: 693 views
- 6RD: 851 views

RIPE Database Modules Videos

- Create a Role Object: 1,548 views
- Set Up Abuse Contact Information: 1,658 views



The screenshot shows a webinar interface. The main content area displays a slide with the Twitter logo and the handle @TrainingRIPENCC. The RIPE NCC logo is visible in the bottom right corner of the slide. On the right side, there is a video feed showing two presenters, Pedro Vaz and Sandra Brás. Below the video feed is a list of attendees, including Pedro Vaz, Hosts (1), Training RIPENCC, Presenters (2) (Pedro Vaz and Sandra Brás), and Participants (11) (A. Zhenuk, Arjan Filas, Denzil, Jakob Berdo, JP, and lakota.reichel). At the bottom right, there is a list of files for download, including IPv6webinar.pdf (2 MB), DB-Objects-Overview-Diagram_129881664 (797 KB), IPv6 Addressing plan (656 KB), CIDR IPv4 (82 KB), subnettingcardvector.pdf (387 KB), and CIDR IPv6 (65 KB). A chat window at the bottom left shows a conversation between Sandra Brás and Arjan Filas regarding IPv6 aggregation.



Kaveh Ranjbar
Chief Information Officer

The RIPE NCC provides a range of technical services for a wide variety of users, and in 2013 we worked to develop a way to focus our services to allow the membership and community to access them easily and get the best value possible to allow them to carry out their operations efficiently.

The first part of this plan is to establish RIPE Atlas as the main data collection system for the RIPE NCC. The aim of this concentration on RIPE Atlas is to spend less time on administering a large number of data collection tools and instead concentrate on providing better data for users and more interesting and useful analyses.

As part of this process, we launched RIPE Atlas anchors as a full production service in October 2013. These anchors are more powerful than the standard RIPE Atlas probes and can perform more measurements as well as acting as cooperating regional targets. As the anchor network grows, the functionality that was provided by services such as Test Traffic Measurements (TTM) and DNSMON will be incorporated so that the RIPE Atlas network can perform most of the data retrieval carried out by the RIPE NCC.

With RIPEstat, we want to have a centralised data retrieval point, where users can access our different data sets using a consistent set of interfaces, including streamlined data APIs, web interfaces and command-line interfaces. In 2013, we relied heavily on member and community feedback to improve the RIPEstat web interface to make it easier to use and enable the provisioning of all our data sets in a way that's consistent with the rest of the RIPE NCC's services. For example, the popular Routing Information System (RIS) web interfaces were integrated into RIPEstat. As a result, the functionality is retained and users will not have to access separate interfaces to retrieve the data they want.

Of course, we also run K-root, one of the 13 root name server clusters on the Internet, and provide an authoritative DNS cluster that serves as the authoritative name server for reverse lookups of the RIPE NCC's allocated and assigned address space. We continued to improve these services in 2013, and we will continue to do so on behalf of the community in the coming years.

The plans that we devised for our technical services in 2013 were arrived at following close consultation with our members. The RIPE NCC Survey 2013 not only showed a good increase in awareness and usage of our services since 2011, but it also gave us excellent insight into what our members want from our services. As we move into 2014, we will continue to consult with members whenever we can in an effort to provide valued services that members can use in their daily operations.

Measurements, Tools and Statistics

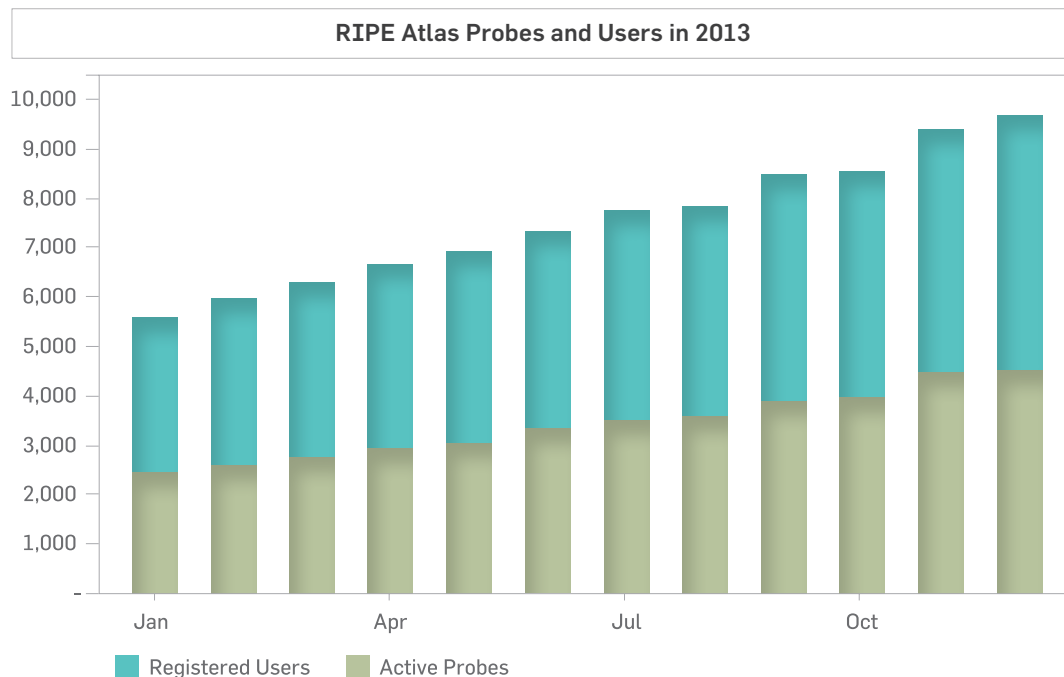
RIPE Atlas

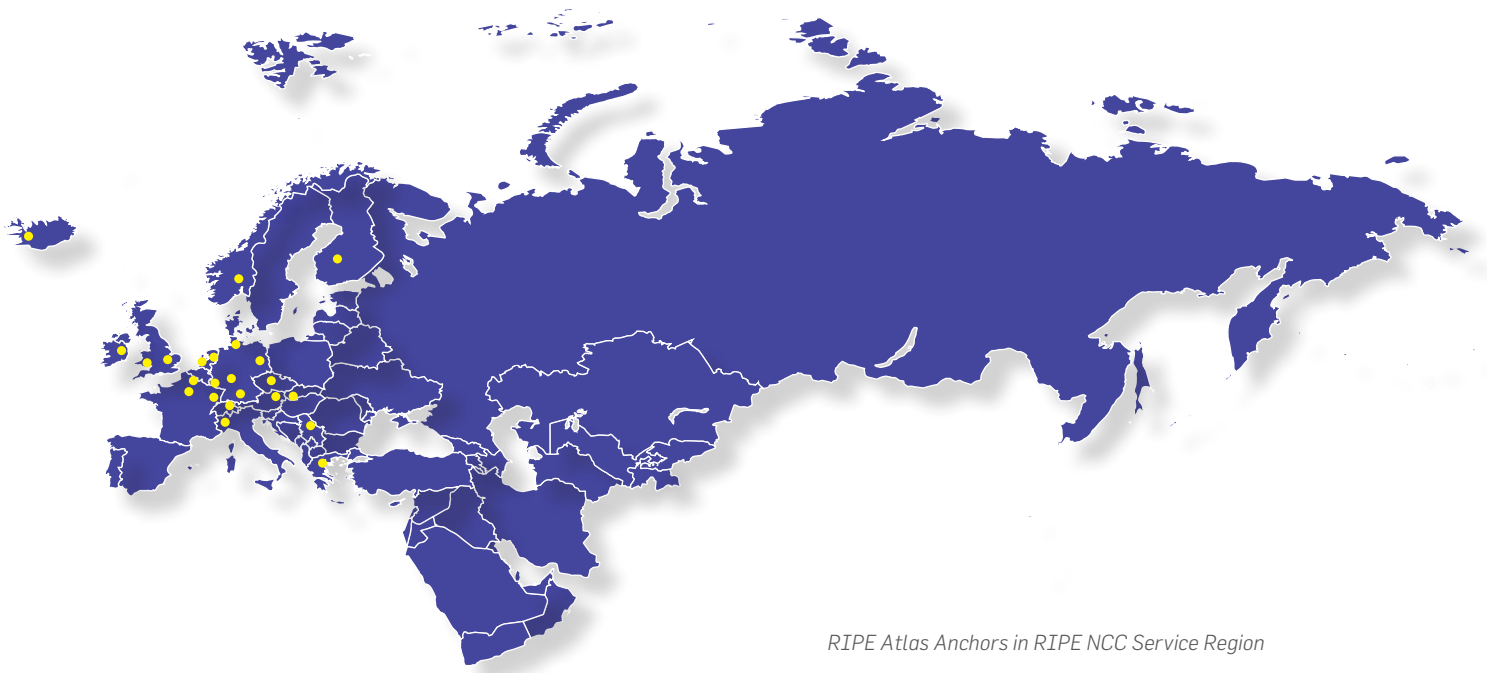
RIPE Atlas is a global network of probes that perform active measurements about the reachability and connectivity of the Internet, including ping, traceroute, DNS and SSL certificate measurements. RIPE Atlas probes are hosted by volunteers around the world, who benefit from being able to perform customised measurements about their own networks. The collected data is available to anyone, and is used to create visualisations and analyses that describe the health of the Internet in real time.

The RIPE Atlas network expanded from 2,300 active probes at the end of 2012 to 4,550 by the end of 2013, and the number of RIPE Atlas users grew from 5,500 to 9,700, more than 35% of whom were RIPE NCC members. New features developed specially for members included Quick Look measurements, which provide a virtually instantaneous snapshot of how the RIPE Atlas network sees an IPv4 or IPv6 address or hostname anywhere in the world. RIPE Atlas sponsors provided 143k EUR in support in 2013.

New tools and visualisations developed in 2013 include a dashboard view of a user's probes, credits and measurements, one-off measurements that allow users greater flexibility in collecting timely data about their own networks, and the Seismograph, an interactive tool that provides a consolidated view of ping measurements over time. New Internet maps were developed showing the percentage of probes per country, the locations of anchors and other targets, and probes distributed by sponsors and ambassadors. In addition, several maps can now be filtered to display results for a specific ASN, hostname or region.

www.atlas.ripe.net/





RIPE Atlas Anchors in RIPE NCC Service Region

The RIPE NCC carried out various analyses using RIPE Atlas data in 2013, including the effect of Typhoon Haiyan on the Internet, packet fragmentation, and Internet disruptions in Sudan. Members of the community also contributed a number of analyses using RIPE Atlas data focusing on a wide range of topics, including difference in IP addresses, resolving IPv6-only domain names, and finding the most popular instances of a DNS anycast name server.

In 2013, RIPE Atlas anchors became a full production service. Anchors are enhanced RIPE Atlas probes with more measurement capacity, as well as regional measurement targets within the greater RIPE Atlas network. By the end of 2013, there were 29 RIPE Atlas anchors online. The goal is to deploy an additional 70 anchors in 2014.

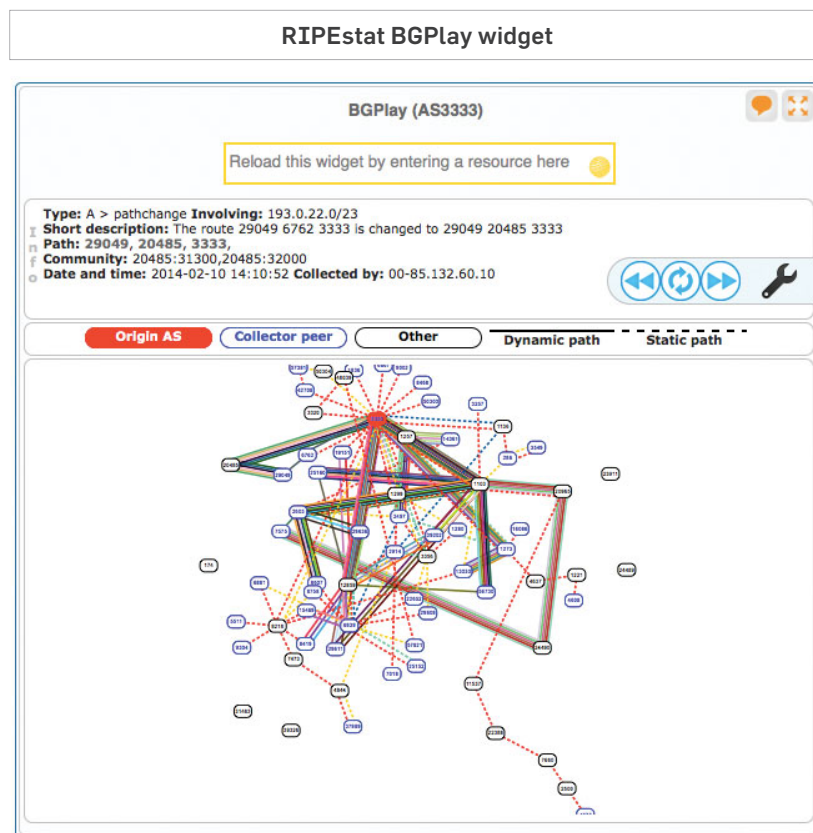
In 2014, RIPE Atlas will continue to be developed in close cooperation with its users and the wider Internet community. Based on feedback received through meetings, RIPE Labs articles, several mailing lists and social media, current plans include the further improvement of data visualisation of user-defined measurements, integrating more measurement targets from third party sources, and developing system checks that users can employ to help monitor their own networks. In addition, RIPE Atlas will move towards a distribution model that relies more heavily on our ambassadors in order to help keep up with the growing demand for probes and increase the reach of the RIPE Atlas network.

RIPEstat

RIPEstat is a web-based interface that provides everything you ever wanted to know about IP address space and Autonomous System Numbers (ASNs) in one place. It presents registration and routing data, DNS data, geographical information, abuse contacts and more in the form of widgets that can be embedded on any webpage. RIPEstat also provides an API to access the raw data for use in advanced applications.

RIPEstat experienced significant growth over the course of the year, with the number of unique RIPEstat users expanding from 122,000 in 2012 to more than 1,000,000 in 2013.

During 2013, the RIPE NCC continued developing RIPEstat and increased the number of widgets from 38 to 48 while making significant improvements to others. Particularly noteworthy was the integration of an all-new version of the popular BGPlay tool, developed in partnership with Roma Tre University, which allows users to visualise changes in BGP routes associated with an Internet number resource (IP prefix or AS) or a group of resources over time. In addition, the Country Routing Statistics widget allows users to see the development of a country's Internet number resources over time and compare this to other countries. In response to user feedback, several other RIPEstat widgets also now allow users to compare different resources within the same widget and monitor results in real time.



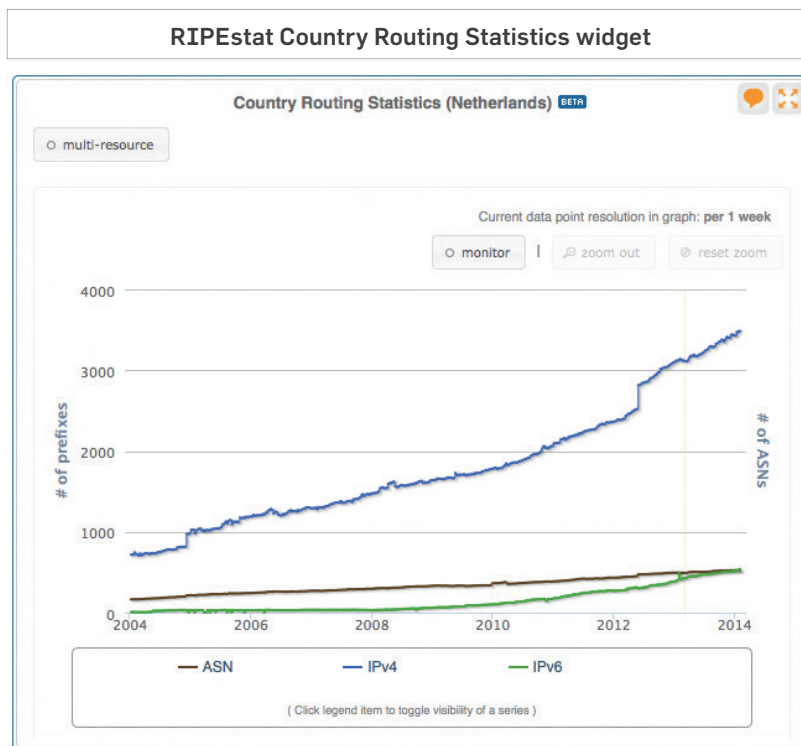
As part of the RIPE NCC's plans to make RIPEstat the main interface for accessing RIPE NCC global data, the RIS web interfaces were consolidated into RIPEstat and users can now access RIS data exclusively via RIPEstat. In addition, the RIPE NCC began integrating RIPE Atlas data into RIPEstat, which users can now access via the RIPE Atlas Probes and RIPE Atlas Measurement Targets widgets.

The RIPEstat website was completely revamped in 2013 and now includes more information about the different available interfaces and data sources, an expanded FAQ, more data analyses of major network events, and a matrix of all available widgets along with an explanation of which resources they support.

RIPEstat also began supporting a wider range of query types in 2013, including hostnames and country codes, and added helpful suggestions for users querying by keyword. Continued improvement of the user interface also meant users could create their own customised views and settings that include the widgets and resources most relevant to them.

During 2013, the RIPEstat team focused on community engagement by writing regular RIPE Labs articles, updating the RIPEstat Roadmap, and hosting workshops and tutorials at several meetings throughout the RIPE NCC service region. Based on the feedback we received through these channels, RIPEstat plans to make further improvements to the user interface in 2014, integrate RIPEstat further into the LIR Portal and RIPE Database, make more data sets available, and develop videos to help users get the most out of this service.

stat.ripe.net



Test Traffic Measurement Service (TTM)

The RIPE NCC TTM service began in 2000 as a service to enable users to continuously monitor the connectivity of their networks to other points on the Internet using a neutral and reliable measurement system. TTM test-boxes are deployed at participating hosts and measurement traffic is sent between them.

In 2013, the RIPE NCC continued to replicate TTM functionality within RIPE Atlas and, specifically, using RIPE Atlas anchors. Twenty-nine anchors were active by the end of 2013. As RIPE Atlas continues to grow, we anticipate that the TTM will be fully discontinued, with most functionality replicated within RIPE Atlas and RIPE Atlas anchors, by the second quarter of 2014.

Domain Name System Monitoring (DNSMON)

DNSMON provides an objective overview of DNS root servers and participating Top-Level Domain (TLD) name servers. The measurements show the quality of the DNS and enable users to distinguish between server-side and client-side problems. By the end of 2013, 29 TLDs were using DNSMON.

In 2013, RIPE Atlas anchors were implemented, which allow the migration of DNSMON from a TTM-based service to a RIPE Atlas-based service. The work on this migration started in the last quarter of 2013 and the migration itself is expected to complete by the second quarter of 2014.

www.atlas.ripe.net/dnsmon/

Routing Information System (RIS)

RIS keeps track of changes in the global Internet routing system by collecting and storing Border Gateway Protocol (BGP) routing information using 13 Remote Route Collectors (RRCs) located at major Internet exchanges around the world.

RIS holds a complete routing history of the Internet for the past decade, visualised in various forms using RIPEstat. The data is also available as a raw data download.

In 2013, some older RIS interfaces and tools were replaced by improved RIPEstat counterparts – those replaced were the RIS Dashboard, ASInUse, PrefixInUse, and the RISwhois web interface.

www.ripe.net/data-tools/stats/ris

Customer Services

The Customer Services Team is the RIPE NCC's first point of contact with its members, RIPE Database users, RIPE Atlas users, and users of the RIPE NCC's other public services. The team manages the complete life cycle of RIPE NCC memberships, from queries about joining the RIPE NCC, overseeing the application process and processing administrative changes, right through to closing memberships.

In 2013, the RIPE NCC made improvements to its customer services with the goals of maintaining a strong registry, providing enhanced customer value and building a stronger stakeholder community.

Customers can contact the RIPE NCC's Customer Services Team through an online web form, phone, email and also via the popular Live Chat service that was first piloted in 2011 after it was specifically requested by members.

Due Diligence

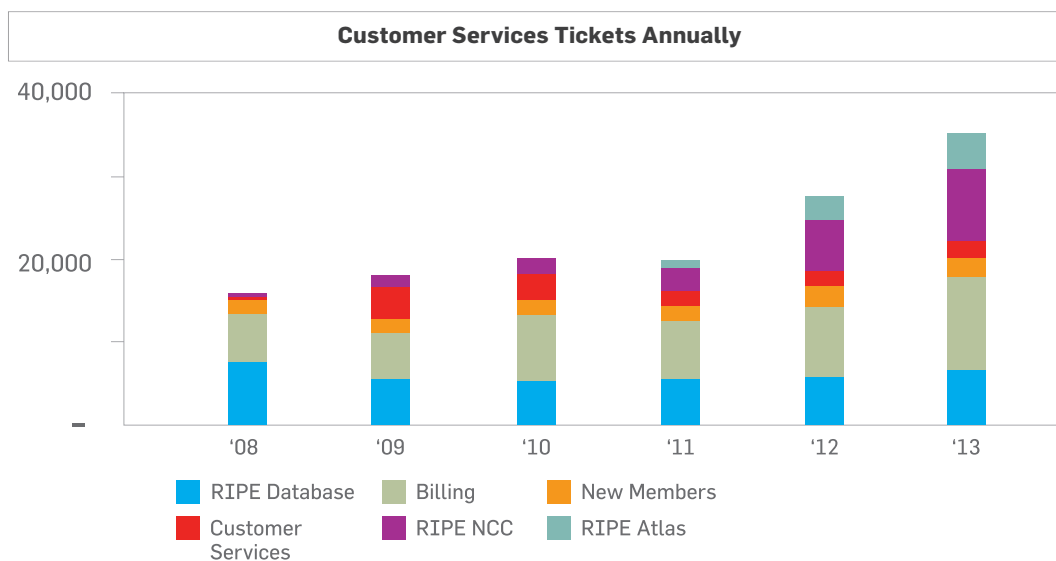
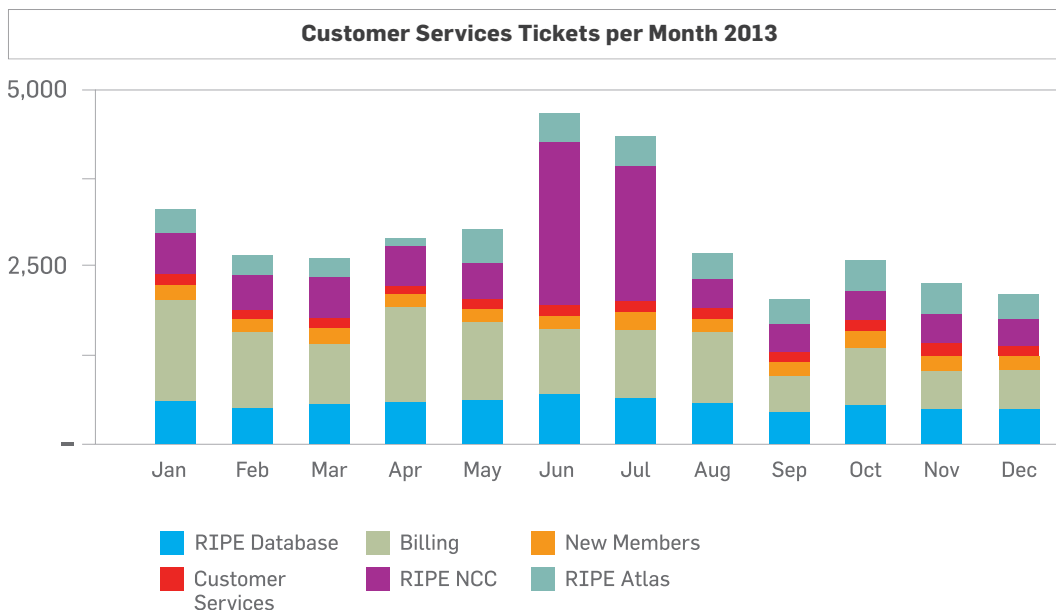
With the exhaustion of the unallocated IPv4 address pool, there is an increased potential for conflicts over address space. It is therefore vital that people are able to rely on the information in the RIPE Registry. By exercising due diligence with regards to the identification of legal and natural persons as well as taking swift action when informed of potential violations, the RIPE NCC is better placed to ensure that registry information concerning its members is comprehensive, correct and current.

Customer Feedback

The RIPE NCC offers everyone who receives support from the Customer Services Team the opportunity to report on the level of service they received by email or via Live Chat. These surveys run on a continuous basis and have given the RIPE NCC excellent feedback on how to improve its customer services. By the end of the 2013, 152 people had provided feedback and 82% of those who responded to the email survey reported that they were satisfied with the level of service received. The average star rating for support received over Live Chat remained at nearly 5 stars out of 5 throughout 2013.

Ticketed Requests

In 2013, the Customer Services Team handled a total of 35,101 tickets, an increase of 27% compared to the 27,671 tickets handled in 2012. The number of new LIR applications processed also increased by 23% and there was a 30% increase in billing tickets. There was also a 35% increase in general enquiries (these were mostly abuse complaints).



Service Announcements in 2013

The RIPE NCC reports issues with its services on the Services Announcements page of its website. In 2013, a total of 35 service announcements were made. These announcements include scheduled maintenance on RIPE NCC technical services.

www.ripe.net/lir-services/service-announcements

COORDINATION ACTIVITIES

DNS Services

As part of its technical support for allocated address space, the RIPE NCC provides primary and secondary Domain Name System (DNS) services for reverse domains. Reverse zones are used to translate IP addresses into names.

For example, a reverse zone maps the address 193.0.14.129 to the name k.root-servers.net.

For the reverse zones maintained by the RIPE NCC, full DNS Security (DNSSEC) support, including zone signing and support for secure delegations, is provided. A secondary DNS service for some country code Top-Level Domains (ccTLDs) is also provided. The RIPE NCC also runs the Tier-0 registry and the DNS service for the e164.arpa domain to support ENUM.

Reverse Delegation

The RIPE NCC provides reverse domain delegations for IPv4 and IPv6 address space that it allocates and assigns. This continues to be one of the primary DNS activities. RIPE NCC members maintain their own reverse delegations by updating their information in the RIPE Database, the authoritative source for reverse zones in the RIPE NCC service region.

The RIPE NCC anycasted cluster for DNS services worked smoothly throughout 2013. The cluster was operational at two sites in London and Amsterdam. Zones served from these clusters included reverse delegations for RIPE NCC member allocations, ccTLD secondary services and RIPE NCC authoritative zones.

By the end of 2013, the RIPE NCC had provisioned delegation signer records for its DNSSEC-enabled zones to all but three zones. Those remaining zones have no DNSSEC support yet. However, this means that 95% of the zones maintained by the RIPE NCC have full DNSSEC support.

Secondary DNS

The secondary DNS service ensures the reliability and robustness of the general DNS infrastructure. The RIPE NCC provides a secondary DNS service for other Regional Internet Registries' reverse zones and for some ccTLD organisations, mainly in developing countries or those who have difficulty obtaining and paying for commercial DNS services. At the end of 2013, a stable secondary DNS service was provided to 75 ccTLDs, four of which were internationalised domain name (IDN) ccTLD domains for Syria, Jordan, Kazakhstan and Qatar.

K-root and Anycast

The RIPE NCC operates K-root, one of the Internet's 13 root name server clusters. Root name servers are a crucial part of the Internet DNS infrastructure. The RIPE NCC has operated the K-root server since 1997, when the first server was installed at the London Internet Exchange (LINX). Currently, K-root consists of 17 nodes, all of which are operated by the RIPE NCC. K-root operations were stable and operated effectively throughout 2013.

k.root-servers.org/

ENUM

The RIPE NCC provides Domain Name System (DNS) operations for the e164.arpa zone (ENUM) in accordance with the instructions from the Internet Architecture Board (IAB).

www.ripe.net/data-tools/dns/enum/iab-instructions

ENUM is an Internet standard defined in RFC 3761 for mapping E.164 telephone numbers into domain names and storing these in the DNS. The RIPE NCC delegates domains for E.164 country codes to entities (Tier-1 registries) requesting them after approval is given by the ITU Telecommunication Standardization Sector – Telecommunication Standardization Bureau (ITU-T TSB). The ITU-T TSB handles delegation requests following the ITU-T Study Group 2 (ITU-T SG2) interim procedures.

www.itu.int/en/ITU-T/inr/enum/Pages/procedures.aspx

RIPE Labs

The RIPE Labs website is a way for the RIPE NCC to share ideas and prototypes with the community and draw on feedback from network operators, developers and industry experts. It has also proven to be an effective means of sharing statistics and information generated by the RIPE NCC.

In 2013, the fifth year of RIPE Labs, the RIPE NCC published 85 articles, a quarter of which were contributed by community members (non-RIPE NCC staff). This is an increase from last year and was a goal for RIPE Labs in 2013. The number of visitors increased slightly to over 115,000 unique visitors in 2013.

The Statistics Dashboard that was launched at the end of 2012 was by far the most visited page on RIPE Labs. Topics related to RIPE Atlas and the RIPE Database were also very popular, and a number of RIPE Atlas use cases were published by RIPE community members.

RIPE Labs is now well known in the community and is often referenced in presentations and at conferences. Over the course of the year, additional feedback mechanisms, such as a “like/dislike” feature at the bottom of the articles, were added to the website.

In 2013, we also introduced the RIPE NCC Roadmap on RIPE Labs that shows the current developments and required features for various RIPE NCC services such as RIPE Atlas, DNSMON and RPKI.

The underlying premise of RIPE Labs is one of engagement, collaboration and openness. The RIPE NCC is actively looking to grow this platform over the coming years and invites the RIPE community to get involved. RIPE Labs can host research, content or tools that other organisations or individuals would like to share with the wider community. The RIPE NCC also welcomes feedback on the site, and welcomes requests for specific information.

<https://labs.ripe.net>

IPv6 Act Now

The IPv6 Act Now website is a comprehensive source of IPv6-related information, providing resources tailored to a variety of different audiences including business, government and technical communities. The site highlights the latest developments in IPv6 deployment, news items, statistics, events, training opportunities and interviews with key players in the Internet community.

In 2013, the IPv6 Act Now site continued to highlight IPv6-

related news items and provide useful statistics to the community, including the growth in IPv6-enabled Autonomous Systems over time, global IPv6 allocations and assignments, and IPv6 RIPEness data.

www.ipv6actnow.org

IPv6 RIPEness

The RIPE NCC uses a rating system called IPv6 RIPEness to measure the level of IPv6 adoption by LIRs.

One star is awarded for each of the following criteria (in no particular order):

- The LIR has received an IPv6 allocation or PI assignment
- The IPv6 prefix is visible in the Routing Information System
- A **route6** object for the IPv6 prefix is registered in the RIPE Database
- Reverse DNS is set up for the IPv6 prefix

Based on suggestions from the RIPE community, IPv6 RIPEness expanded in 2013 to include a fifth star in order to indicate whether LIRs provide IPv6 services to their customers. LIRs are given a fifth star if the RIPE NCC measures a certain threshold of IPv6 (2%) being used in their networks.

By the end of 2013, the number of LIRs that qualified for a fifth star was approximately 8% of the total membership, while nearly 21% had obtained four stars and 67% had obtained at least one star. In 2014, the threshold for the fifth star will be raised, in accordance with feedback received from the membership.

ipv6ripeness.ripe.net

Information Security

In 2013, the RIPE NCC upgraded its network intrusion detection systems and is now able to properly inspect all of its IPv6 network traffic. The organisation also started to roll out a new (and better) anti-virus solution for all of its desktops and laptops.

A new community outreach project was started in 2013. The goal of the project was to engage more with the security and hacker communities and this work will continue in 2014.



Paul Rendek
Director of External Relations

At a time when the RIPE NCC membership, the RIPE community, the public and private sectors are all negotiating changes in the Internet landscape, the need for the RIPE NCC to engage effectively with all Internet stakeholder groups has never been greater. For the past two years, the External Relations team has worked to coordinate these efforts, building and maintaining relationships with a wide range of stakeholder groups and contributing to global Internet governance forums and discussions.

In 2013, the RIPE NCC Executive Board and management recognised the need to build on the organisation's existing External Relations Team by adding new areas of expertise. This resulted in the addition of two new External Relations Officers, expanding the team's technical capacity and knowledge of the Russian/CIS region, particularly its public sector. Over 2014, the team will expand further again, building on the RIPE NCC's local knowledge in the Arab and Russian/CIS regions.

The results of this expansion are already apparent: RIPE NCC Roundtable Meetings welcomed new public sector participants from across the service region. RIPE NCC staff and RIPE community members have contributed to work being done in venues such as the OECD, have taken an active role in the administration of global and regional Internet governance events (including the global IGF and Arab IGF), and responded to requests for expert input from partners in government and the public sector.

By building on these relationships and working closely with colleagues from across the Internet industry spectrum (including the RIRs, IETF, ISOC and ICANN), the RIPE NCC has established a position from which it can influence policy-makers whose decisions can have far-reaching implications for the Internet and its users.

External Relations

RIPE NCC External Relations coordinates the RIPE NCC's engagement with external stakeholders, including members, the RIPE community, technical groups, government, regulators, intergovernmental organisations, law enforcement agencies and civil society.

RIPE NCC's main goals in this area are to:

- Support and represent the interests of the RIPE NCC's membership and the RIPE community
- Communicate the RIPE NCC's role in Internet number resource administration, technical coordination and provision of data and analytical services
- Ensure that the RIPE NCC and the RIPE community continue to play an effective role in the further formalisation of Internet administration, particularly technical coordination and the development of policy related to Internet number resource distribution
- Support the development of Internet governance built on bottom-up, community-driven processes and open structures
- Promote the RIPE Policy Development Process and encourage wider participation in policy development
- Promote RIPE Labs and develop and encourage participation in RIPE Labs among the Internet community

The External Relations Team expanded in 2013, with the addition of Marco Hogewoning as External Relations Officer - Technical Advisor in February, and Maxim Burtikov as an External Relations Officer (Eastern Europe and Central Asia) in October. Maxim is the first RIPE NCC staff member to be based in Moscow, a decision that reflects the need for the RIPE NCC to expand its engagement with all Internet stakeholders, including governments and regulators, in Russia and the surrounding countries.

The Internet Governance Forum (IGF)

The IGF provides an important opportunity for the many different stakeholders in the Internet community to come together and discuss Internet governance issues. While not a decision-making body, IGF workshops and discussions help to inform decision-making processes in other forums.

Following some uncertainty regarding organisation, the eighth IGF was held in Bali, Indonesia from 22-25 October, and attracted more than 2,000 participants from 111 different countries to take part, either physically or remotely. The RIPE NCC participated on its own behalf and in cooperation with the other Regional Internet Registries, and took part in a number of workshops and sessions on issues including IPv4 address trading, regional Internet governance initiatives and multi-stakeholder security.

For the first time, the RIPE NCC also funded the attendance of two RIPE community members, Nick Hilliard (Ireland) and Merike Kaeo (Estonia), both of whom contributed to various workshops over the course of the week. The RIPE NCC plans to expand on this initiative at future IGF events to facilitate broader community involvement in Internet governance discussions.

The RIPE NCC believes strongly in the need for a strong and continuing IGF, and has stressed the importance of all stakeholders contributing to establish a sound financial base for the IGF. The five RIRs, as the Number Resource Organization, contributed 100,000 USD towards an IGF administrative fund in 2013, and the RIPE NCC made a further one-off contribution of 50,000 USD in response to an emergency request for funds to ensure the 2013 event went ahead as planned.

Paul Rendek, RIPE NCC Director of External Relations, continued in his role as a member of the IGF Multi-stakeholder Advisory Group (MAG), helping to shape the content and format of the 2013 IGF agenda and to direct the event's future.

www.nro.net/news/igf-2013-in-bali-a-success

intgovforum.org

The International Telecommunications Union (ITU)

The RIPE NCC continued to engage ITU Member States in discussions regarding Internet governance and the respective roles of the Regional Internet Registries (RIRs) and the ITU. As a member of both the Standardization (ITU-T) and Development (ITU-D) sectors of the ITU, the RIPE NCC participated in a number of major ITU events in 2013, including:

- The Fifth World Telecommunications Policy Forum (WTPF)
- Regional preparatory meetings for the World Telecommunication Development Conference (WTDC) 2014

The RIPE NCC also continued its participation in regional ITU coordination forums, including the European Conference of Postal and Telecommunications Administrations' ITU Working Group (CEPT Com-ITU) and regional meetings of the Arab Group. This involvement provides valuable opportunities to engage with governments at a key stage in the formation of their positions on issues relevant to the RIPE NCC and RIPE community ahead of events including the ITU Plenipotentiary, which will take place in 2014.

Montevideo Statement on the Future of Internet Cooperation

In October 2013, the RIPE NCC participated in a meeting in Montevideo, Uruguay, of organisations responsible for coordination of the Internet technical infrastructure globally. The group, sometimes referred to as I* organisations, includes the five Regional Internet Registries (RIRs), the Internet Society (ISOC), the Internet Engineering Task Force (IETF), the Internet Architecture Board (IAB), ICANN and the World Wide Web Consortium (W3C).

The Montevideo Statement included four clear messages:

- The importance of globally coherent Internet operations, the dangers of Internet fragmentation at a national level, and concern at how state monitoring and surveillance activities have undermined public trust and confidence in the Internet.
- The need for continuing efforts to address Internet governance challenges through multi-stakeholder cooperation.
- A call for acceleration of the globalization of ICANN and the IANA functions.
- A call for all stakeholders to prioritize the adoption of IPv6.

The statement received significant attention upon its release and will serve as a valuable input for ongoing Internet governance discussions in 2014.

www.nro.net/news/montevideo-statement-on-the-future-of-internet-cooperation

Regional Internet Governance Initiatives

The RIPE NCC sees regional Internet governance structures and processes as fundamental to the success of global Internet governance efforts. In 2013, the RIPE NCC supported various regional initiatives across its service region, while working to facilitate the input of these regional forums into global processes such as the Internet Governance Forum.

Arab Internet Governance Forum (IGF)

The Arab IGF staged its second annual event in 2013, from 30 September to 2 October in Algiers, Algeria. The RIPE NCC again played an important role in the event, co-hosting a meeting of the Arab IGF Multi-stakeholder Advisory Group (MAG). Paul Rendek again contributed as part of the MAG. RIPE NCC staff also provided technical support for remote participation during the event in Algiers.

As part of an initiative to facilitate communication between the different parts of its service region and encourage youth participation, the RIPE NCC sponsored the travel and participation of two youth delegates to the Arab IGF, one from the Netherlands and one from Georgia.

EuroDIG

The European Dialogue on Internet Governance (EuroDIG) held its sixth annual event in Lisbon, Portugal on 20-21 June, attracting more than 600 people from across the continent.

RIPE NCC contributions included coordinating a panel session on technical Internet governance issues (including IPv6 and DNSSEC adoption) and organising an education session for participants with little technical background.

The RIPE NCC sponsored the travel and participation of two youth delegates from the Arab region, who contributed some useful perspective in various workshops and plenary sessions.

Organisation For Economic Cooperation And Development (OECD)

The RIPE NCC has contributed to the work of the OECD's committee for Information, Computer and Communication Policy (ICCP) since 2007, and views the OECD as one of the most important forums for multi-disciplinary study and discussion of Internet governance-related issues. The RIPE NCC contributes to this work on its own behalf and together with a range of industry partners via the OECD Internet Technical Advisory Committee (ITAC).

In 2013, the RIPE NCC contributed to OECD studies on IPv6 adoption and Internet Exchange Points (IXPs), as well as coordinating ITAC participation in the Working Party on Communication, Infrastructures and Services Policy (WP CISP).

Information about ITAC and its contributions to OECD work can be found online at:

www.internetac.org

RIPE NCC Roundtable Meetings

The RIPE NCC has been holding Roundtable Meetings for Governments and Regulators since 2005, with the aim of enhancing cooperation between the Internet technical community in the RIPE NCC service region and governments, regulators and LEAs. Attendance at these meetings is by invitation only, and discussions cover issues including IPv6 adoption, IPv4 exhaustion and trading, Internet security, RIPE NCC goals and priorities in international forums such as the ITU, and RIPE NCC data and analytical tools for policy-makers.

Two Roundtable Meetings were held in 2013:

- 19 March, Brussels: The first Roundtable Meeting of the year was again held in Brussels, attracting staff from the European Commission and other European Union institutions, and government representatives from across the RIPE NCC service region.
- 10 September, Amsterdam: This included the first contribution to a RIPE NCC Roundtable Meeting by the Internet Architecture Board (IAB), as the former IAB Chair Olaf Kolkman discussed the structure and working methods of the Internet Engineering Task Force (IETF) and related bodies, with a particular focus on some of the security issues that were in the spotlight in 2013.

www.ripe.net/meetings/roundtable

RIPE NCC And Law Enforcement Agencies (LEAs)

In March 2013, the RIPE NCC hosted the annual Roundtable for LEAs, which was again organised in close cooperation with the UK Serious Organised Crime Agency (SOCA) and the other RIRs. Held adjacent with the e-Crime congress, the event attracted more than 60 representatives from LEAs all over the world to discuss ongoing developments regarding the Internet and IP addressing.

During 2013, the RIPE NCC built on existing relationships with national authorities in the region and cross-border groups including Interpol and Europol. Activities in this area included face-to-face meetings, presentations at law enforcement events and dedicated multi-day training sessions conducted in Europe and the Middle East. The RIPE NCC also liaised with European Cybercrime Center (EC3) in sessions specifically dedicated to the use of Carrier Grade NAT (CGN) and other IP address sharing techniques.

As part of our efforts to build more effective communication between LEAs and the technical community, the RIPE NCC also supported the participation in 2013 of LEA representatives at RIPE Meetings and Internet governance events including EuroDIG and the IGF.

The RIPE Cooperation Working Group

The RIPE Cooperation Working Group was established in 2008 and provides valuable dialogue with the RIPE community about issues that affect governments, regulators and law enforcement agencies.

2013 saw the working group select two new co-chairs to replace outgoing co-chair Patrik Fältström: Alain Van Gaever and Meredith Whittaker bring experience from the public and private sectors, as well as expertise in both the technical and political spaces. They join continuing co-chair Maria Häll to ensure that the working group can effectively fulfill its role as a powerful resource for informing participants in the many public policy discussions that have an impact on the Internet.

The Cooperation Working Group met twice in 2013 to discuss issues such as European Union regulatory developments, the ITU World Telecommunications Policy Forum, and Internet interconnection issues.

www.ripe.net/ripe/groups/wg/coop

The Number Resource Organization (NRO)

The NRO serves as a coordinating mechanism for the Regional Internet Registries (RIRs) to act collectively on matters relating to the interests of the RIRs. It offers a single contact point that enables global partners and other interested parties to reach the RIRs collectively, and it ensures that a global, uniform view supported by all five RIRs can be presented when necessary. The directors of each RIR make up the NRO Executive Council (EC). The EC positions of Chairman, Secretary, Treasurer and Member rotate between the RIRs on a yearly basis. Paul Wilson (APNIC) served as Chairman of the NRO in 2013.

www.nro.net

The Address Supporting Organization (ASO)

The ASO is one of the three supporting organisations required by the ICANN bylaws. The ASO reviews recommendations on global IP address policy and advises the ICANN Board on these matters. The ASO Address Council (AC) appoints two directors to the ICANN Board of Directors. ASO AC members are appointed from each of the five RIR regions. The local Internet community in each region selects two members and the Executive Board of each RIR appoints one member to the NRO Number Council and these individuals carry out the role of the ASO AC.

In 2013, the representatives from the RIPE NCC's service region, and their three-year terms, were:

Wilfried Woeber*: 1 Jan 2012-31 Dec 2014
Dmitry Kohmanyuk: 1 Jan 2013-31 Dec 2015
Hans-Petter Holen: 1 Jan 2011-31 Dec 2013

* Wilfried Woeber holds the position selected by the RIPE NCC Executive Board.

At the RIPE 67 Meeting in October 2013, Filiz Yilmaz was elected to the seat being vacated by Hans Petter Holen. Her three-year term begins on 1 January 2014.

www.aso.icann.org

**RIPE NCC AND THE
RIPE COMMUNITY**



Serge Radovcic
Chief Communications Officer

One of the main priorities for the RIPE NCC in 2013 was to increase engagement with its members. Better understanding of membership needs is imperative for the RIPE NCC to develop a forward-looking strategy that will benefit all concerned.

Of course, the best way to engage with members is to meet them in person and listen to what they have to say. The RIPE Meetings and the RIPE NCC General Meetings that take place alongside them twice a year are two of our chief mechanisms for getting to hear exactly what our members want from us and how they would like us to provide our services. Increasing opportunities for members to attend these meetings, both in person and remotely, was a strong focus in 2013, as was trying to ensure the meetings themselves gave excellent value in terms of content and networking opportunities. And we were pleased to see that RIPE Meeting attendance hit an all-time high at the Dublin meeting in May.

As our region is so vast and attending RIPE Meetings is not always possible for some members, we also organised several regional meetings in 2013 in the Middle East, the ENOG region and in South East Europe. This allows us to hear from members that we might not otherwise meet. It also allows the networking communities in these regions to come together and share their expertise for the benefit of all. We also opened our Dubai office in 2013 to allow us to be closer to our members in the Middle East, and we hired staff in Moscow help us better engage in that region.

We also launched the RIPE NCC Survey 2013 in May, and I was delighted to see that almost 3,000 members gave us feedback on all the RIPE NCC's services and activities. This feedback is invaluable as it allows us to take immediate action on issues that can be solved to the benefit of our members, and it lets us plan for the years ahead knowing what our membership wants from us. We feel it's also important to show that we fully take on board the feedback from our surveys, which is why we publish the list of key findings and actions and, later, the results of those actions.

Some of the engagement carried out by the RIPE NCC is not with members but on behalf of members. We talk to governments, law enforcement agencies and other technical communities to ensure that the interests of the members are heard whenever possible. We also launched the RIPE Academic Cooperation Initiative (RACI) in 2013 to create stronger links between the RIPE and academic communities.

I would like to thank RIPE NCC members for being so willing to engage with us in 2013 and I look forward to continuing our mutually beneficial relationship throughout 2014.

RIPE

RIPE (Réseaux IP Européens) is a collaborative forum open to all parties with an interest in wide area IP networks and the technical development of the Internet. It has existed since 1989. The RIPE community's objective is to ensure the administrative and technical coordination necessary to enable the smooth and stable operation of the Internet.

The RIPE NCC and RIPE are two highly interdependent but separate entities. The RIPE NCC provides administrative support to RIPE and the RIPE Working Groups, such as the facilitation of RIPE Meetings and the maintenance and development of the RIPE Document Store and publicly archived mailing lists.

The RIPE community is the collective term for individuals or organisations, whether members of the RIPE NCC or not, with an interest in the technical coordination of the Internet and the way the Internet is managed, structured or governed. It provides the RIPE NCC with crucial input from the Internet industry, the public, governments and regulators. There are no membership requirements for participation in RIPE. All activities are performed on a voluntary basis, except those performed by the RIPE NCC, and decisions are formed by consensus using the RIPE Policy Development Process (PDP) (see page 54). All of RIPE's activities are documented, archived and available to the public.

RIPE Working Groups

In order to discuss technical or service issues and policy proposals, the RIPE community formed a number of RIPE Working Groups. The working groups use mailing lists that are open to anyone and publicly archived to facilitate discussion. RIPE Working Groups meet twice a year in dedicated sessions during RIPE Meetings. Working Groups can be formed or disbanded as necessary by the RIPE community.

Active RIPE Working Groups

- Address Policy Working Group
- Anti-Abuse Working Group
- Cooperation Working Group
- Database Working Group
- DNS Working Group
- EIX Working Group (closed at RIPE 67)
- IPv6 Working Group
- MAT Working Group
- Open Source Working Group
- RIPE NCC Services Working Group
- Routing Working Group

RIPE Task Forces

Task forces are groups of individuals who have a collective interest in performing specific tasks for the good of the RIPE community. Task forces designate a coordinator, who is responsible for making sure that progress is made and that results are achieved within the time frame that the task force has agreed.

The outcome of a task force's work is usually a report with recommendations. The recommendations are discussed by the RIPE community and implemented when agreement is reached.

The following task forces were active during 2013:

- RIPE Task Force
- RIPE Working Group Chair Task Force

RIPE Meetings

The RIPE NCC supports and facilitates RIPE Meetings as its secretariat. Held twice a year, these five-day events are open to everyone, although registration is required. RIPE Meetings bring together key industry players, network operators, governments, regulators and individuals to discuss the technical, administrative and policy issues surrounding IP networking. Relevant tutorials, trainings and demonstrations are also provided.

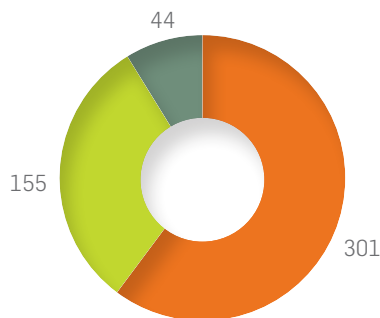
The RIPE NCC facilitates remote participation and feedback mechanisms during RIPE Meetings for those who are unable to take part in person. All sessions are webcast and audiocast, and remote participants can contribute to discussions during the meeting sessions using Internet Relay Chat (IRC). Live transcripts of the sessions are also provided for attendees.

In 2013, the RIPE 66 Meeting was held in Dublin in May and the RIPE 67 Meeting was held in Athens in October.

The RIPE 66 Meeting was the biggest RIPE Meeting so far in terms of attendance, with 524 attendees including 155 newcomers. The meeting was also notable for the formation of the Open Source Working Group.

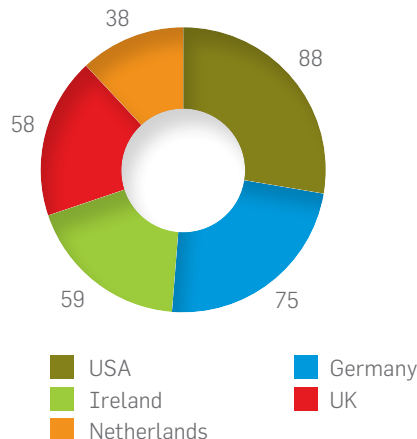
RIPE 67 saw the dissolution of the EIX Working Group and the creation of a Connect BoF in its place. At the end of the meeting, RIPE Chair Rob Blokzijl announced that he would be stepping down at the end of the RIPE 68 Meeting after 25 years of chairing the RIPE Meetings. He also appointed Hans Petter Holen as RIPE Deputy Chair and announced that Hans Petter would become RIPE Chair at the end of the RIPE 68 Meeting in Warsaw.

RIPE 66 - Dublin

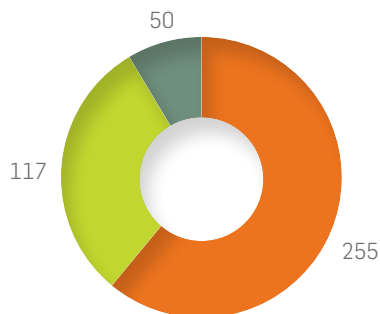


■ Returning Attendees
■ Newcomers
■ RIPE NCC Staff
 Remote visits – ~4,350

Attending Countries - Top 5

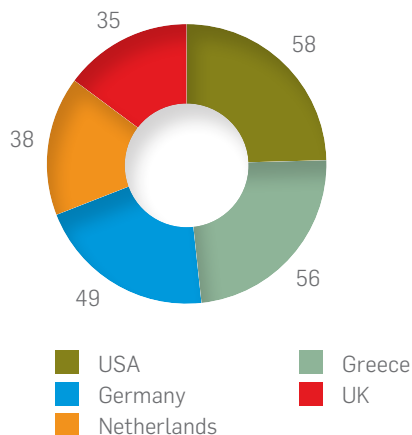


RIPE 67 - Athens



■ Returning Attendees
■ Newcomers
■ RIPE NCC Staff
 Remote visits – ~3,150

Attending Countries - Top 5



The RIPE Academic Cooperation Initiative

The RIPE Academic Cooperation Initiative (RACI) aims to integrate members of the academic community within the RIPE community by inviting students and researchers to present their Internet-related research at the twice-yearly RIPE Meetings organised by the RIPE NCC. The RIPE community has strong ties with the academic community ever since the beginning of the Internet in Europe, and the goal of RACI is to strengthen those ties while promoting the work of talented researchers and academics in Europe, Central Asia and the Middle East.

RACI gives students and researchers the opportunity to present their work in front of some of the leading technical figures in the Internet world, receive feedback on their research from experts and have their work published on the RIPE Labs website for community feedback.

RACI provides complimentary tickets to the RIPE Meetings, which entitle the successful applicants to attend all RIPE Meeting sessions, lunches, and social events at the meeting venue. This is an outstanding opportunity for students and researchers to present their research and network with some of the key figures in the Internet world.

www.ripe.net/ripe/raci/ripe-academic-cooperation-initiative-raci

The RIPE Programme Committee

The RIPE Programme Committee (PC) is responsible for ensuring that the RIPE Meeting programme consists of interesting, relevant and inspiring content. Comprised of volunteers from different parts of the RIPE community, the RIPE PC plans and develops the programme for each RIPE Meeting.

The PC members for RIPE 67 were:

- Filiz Yilmaz, Chair
- Brian Nisbet, RIPE Working Group Chair Representative
- Osama I. Al-Dosary, MENOG Representative
- Andrei Robachevsky, ENOG Representative
- Will Hargrave
- Mike Hughes
- Elisa Jasinska
- Shane Kerr
- Benno Overeinder
- Andreas Polyraakis
- Job Snijders
- Jan Žorž

RIPE NCC Regional Meetings and Support

The RIPE NCC aims to increase regional participation in community-driven processes from the full range of Internet stakeholders, including RIPE NCC members, governments and law enforcement agencies (LEAs). The RIPE NCC works with these different stakeholders to encourage capacity building and training in regional areas, focusing on the practical details of IPv6 deployment and crucial issues related to Internet governance.

The RIPE NCC service region is made up of 76 diverse countries at varying stages of Internet development. With the significant growth of the IT and Internet industries in the Middle East, Russia and South Eastern Europe (and the resulting increase in RIPE NCC members), the RIPE NCC is focused on increasing the participation of Internet stakeholders from these areas of its service region. By working with the different communities in these areas, the RIPE NCC is encouraging increased regional participation, both in the activities of the RIPE NCC and the RIPE Policy Development Process (PDP). The aim is to strengthen the RIPE community by enabling regional communities to participate more fully in policy development and to ensure that regional concerns, issues and needs are represented.

The RIPE NCC has provided extensive support in the establishment of regional Network Operator Groups (NOGs). Building on the formation of the Middle East Network Operators Group (MENOG) in 2007 and the Eurasian Network Operators Group (ENOG) in 2011, the RIPE NCC will continue to supply the technical and administrative expertise required to develop existing NOGs and assist in the creation of any new groups required by the Internet community.

The main goals of the RIPE NCC's work in this area are to:

- Encourage the cooperation of operators from countries in specific regions, enabling them to exchange information and discuss the issues that affect them
- Enable the RIPE NCC to further support Local Internet Registries (LIRs) in a given region and to continuously evaluate and address the changing needs of RIPE NCC members
- Identify, discuss and solve the specific issues affecting operators in a given region by facilitating increased awareness of the latest developments in the Internet industry
- Encourage broader involvement in the RIPE PDP
- Broaden the legitimacy of RIPE and the RIPE NCC so as to promote technical community solidarity across the entire RIPE NCC service region

In 2013, the following RIPE NCC Regional Meetings took place:

- MENOG 12, 6 March, Dubai, UAE
- MENOG 13, 15 - 24 September, Kuwait
- ENOG 5, 27-28 May, St. Petersburg, Russia
- ENOG 6, 1 - 2 October, Kiev, Ukraine
- Second South East Europe (SEE 2) Regional Meeting, 22 - 23 April, Skopje, Macedonia

**THE RIPE POLICY
DEVELOPMENT
PROCESS (PDP)**

The RIPE Policy Development Process (PDP)

The RIPE community develops and sets policies for the technical coordination of the Internet and the distribution of Internet number resources. The RIPE Policy Development Process (PDP) is the means by which this is achieved, with its long-established, bottom-up process of discussion and consensus-based decision making. The RIPE PDP is open to anyone who would like to suggest a new policy or a change to an existing policy.

In order to be accepted, a policy proposal must pass through the Discussion, Review and Last Call phases of the PDP. After a proposal has made its way through all three phases, and if the relevant RIPE Working Group Chair determines there is consensus in the RIPE community, it completes the PDP and "consensus" is declared. The RIPE NCC then implements the policy into its working procedures.

The RIPE NCC has no role in accepting or rejecting policies. Instead, it provides administrative support to the PDP. Part of this involves publishing an impact analysis when a proposal enters the Review Phase, which helps the RIPE community to understand the likely effects the proposal would have if it were to be implemented.

The RIPE Policy Development Process (PDP)

Phase	Action	Weeks
	Policy Proposal is Made	0
Discussion Phase (9 weeks)	Initial Discussion of Proposal (at least 4 weeks)	1
		2
		3
		4
	Proceed to Documentation?	5
Review Phase (5 weeks)	Document is Drafted and Published Together with the Impact Analysis for the Proposal	6
		7
		8
		9
	Comment and Review (no more than 4 weeks)	10
Concluding Phase (5 weeks)	Is There Consensus?	11
		12
		13
		14
	Last Call (exactly 4 weeks)	15
Announce Decision	Is There Consensus?	16
		17
		18
		19

Policy Proposals in 2013

In 2013, six new policy proposals were entered into the PDP. Four of these came from the Address Policy Working Group and one each from the RIPE NCC Services and the Anti-Abuse Working Groups. This shows that the RIPE community continues to view the PDP as the appropriate way to define sets of rules and guidelines beyond address policy.

Submitted Policy Proposals

2013-01 Openness about Policy Violations

Proposed to require the RIPE NCC to publish statistics on complaints concerning Internet number resources (such as violation of RIPE Policies or providing untruthful information to the RIPE NCC). It also required the RIPE NCC to publish a separate list of reclaimed resources.

2013-02 Removal of Requirement for Certification of Reallocated IPv4 Addresses

Proposed to remove text that required transferred resources to be certified to conclusively establish holdership, thereby allowing default RIPE policies and RIPE NCC procedures regarding certification to be applied to reallocated IPv4 address space.

2013-03 Post Depletion Adjustment of Procedures to Match Policy Objectives, and Clean-up of Obsolete Policy Text

Proposed to remove the requirement for LIRs to complete a forecast-based documentation of need when requesting IPv4 address space from the RIPE NCC. It also proposed to remove this requirement from End Users seeking assignments from LIRs and for LIRs requesting approval for IPv4 transfers.

2013-04 Resource Certification for non-RIPE NCC Members

Proposed to allow the RIPE NCC to issue resource certificates for non-members, such as Provider Independent End Users and legacy address space holders in the RIPE NCC service region.

2013-05 No Restrictions on End User Assignments in Intra-RIR Transfers

Proposed to update the intra-RIR IPv4 transfer policy by removing the restriction on End User assignments.

2013-06 PA/PI Unification IPv6 Address Space

Proposed to unify three RIPE documents (ripe-589, ripe-451 and ripe-233) to create one document for all IPv6 address space. It also proposed to remove the difference between PI and PA, and sub-allocation and assignment.

Concluded Policy Proposals

2012-05 Transparency in Address Space Transfers

This proposal aimed to increase transparency concerning transfers of IPv4 address space by requiring the RIPE NCC to publish a record of all transfers conducted under the policy.

2012-06 Revert “Run out Fairly”

This proposal reverted the changes made by 2009-03, “Run Out Fairly”.

2012-09 Modification of The Limits for Temporary Internet Assignments

This proposal changed the time limits to allow more flexibility for End Users of temporary Internet number assignments. The time limits for the various assignment purposes were also aligned to be the same.

2012-10: Extension of IPv6 /32 to /29 on a per-allocation vs per-LIR basis

This proposal allowed LIRs with one or more IPv6 allocations to request an extension of each of these allocations up to a /29 without providing further documentation.

2013-02: Removal of requirement for certification of reallocated IPv4 addresses.

See Submitted Policy Proposals.

2013-04: Resource Certification for non-RIPE NCC Members

See Submitted Policy Proposals.

2013-05: No Restrictions on End User Assignments in Intra-RIR Transfers

See Submitted Policy Proposals.

Withdrawn Proposals

2012-03 Intra-RIR transfer policy proposal

Following the introduction of the proposal 2013-03, “Post Depletion Adjustment of Procedures to Match Policy Objectives, and Clean-up of Obsolete Policy Text”, the proposer decided to withdraw the proposal. This was because they were against needs justification, and had initially proposed a 24-month allocation period out of a desire for compatibility with the policies of the other RIRs.

2012-04 PI Assignments from the last /8

The proposer decided to withdraw the proposal after the introduction of 2013-03, “Post Depletion Reality Adjustment and Clean-up of Obsolete Policy Text”, as they believed it was unlikely that the RIPE community would reach consensus on PI assignments from the last /8 without a requirements-based assignment mechanism.

2013-01 Openness about Policy Violations

After considering the objections raised when 2013-01 was first proposed, combined with a very low level of subsequent feedback, the proposers decided the proposal was unlikely to reach consensus.

2013-06 PA/PI Unification IPv6 Address Space

This proposal was withdrawn after it became clear during the Discussion Phase that the RIPE community did not see the need for such a complex change.

FINANCIAL REPORT



INTRODUCTION TO THE FINANCIAL REPORT FROM THE TREASURER OF THE RIPE NCC EXECUTIVE BOARD

In 2013, the RIPE NCC operated under changed circumstances in which all IPv4 allocations were made from its final /8 of address space. The membership grew considerably and the RIPE NCC had a positive financial year, operating well within budget and reducing the costs per member over the year.

This changing IPv4 environment meant that the RIPE NCC increased its focus on maintaining the integrity of the registry and the data contained in it, causing a shift in the resources spent within the RIPE NCC towards reviewing membership accounts, assisting members with ensuring their data is up to date and cleaning up incorrect data wherever possible. The establishment of the Assisted Registry Check for members was an example of this redistribution of resources and effort.

In external relations and regional outreach, we increased our efforts and contributions in 2013. This included increased regional presence, responding to requests from members in various parts of the service region to be more responsive to local needs. The establishment of a RIPE NCC office in Dubai and the engagement of an External Relations Officer based in Moscow in 2013 is an example of how the RIPE NCC plans to address the needs of all its members. Additionally, costs were made to support the Internet Governance Forum (IGF). The RIPE NCC sees the IGF as the foremost venue for multistakeholder discussion on critical issues for the Internet in general and for RIPE NCC members in particular. The RIPE NCC and the Executive Board actively participated at the IGF and at a number of other forums to represent the interests of members.

2013 also saw the expansion of the RIPE NCC's measurements and statistics services. The number of people actively using RIPE Atlas grew to more than 9,700. There was also investment in the RIPEstat infrastructure to consolidate how measurements are presented to users. This work was supported by the fact that there was a great increase in the use of RIPEstat over 2013. These encouraging figures for both RIPE Atlas and RIPEstat show that

the investment in technical improvements and promotion of the services reaped benefits over the year.

In this time of changing focus and priorities, the RIPE NCC maintained good control of its costs in 2013. Although costs were increased on 2012, they were 3% below budget. The membership growth was higher than the increase in costs, which saw the cost per member fall by 6% over the year.

The easing of the financial crisis in Europe influenced the value of government bonds in 2013 as the market value of the RIPE NCC's portfolio decreased. This was mainly due to devaluation of a number of foreign currencies, but overall the market eased and showed increased stability.

The Executive Board also discussed the level of the RIPE NCC reserves in 2013 following discussion on the matter at both RIPE NCC General Meetings held during the year. The board decided not to issue a rebate to members in 2014 but instead to continue the trend of reducing the annual membership fees in order to lower the reserve levels if needed. The board will continue to monitor the situation and will review the charging scheme in such a way that benefits the membership the most. The RIPE NCC is also maintaining contact with the Dutch tax authorities regarding the set-up and levels of the RIPE NCC reserves. The discussions have not been concluded and will carry on in 2014.

I am happy to be able to report on a stable and ever-improving financial situation at the RIPE NCC. We will work to continue this trend and I am confident you will support us in helping to make this happen in 2014 and beyond.

Remco van Mook

RIPE NCC Executive Board Treasurer

GENERAL NOTES ON THE FINANCIAL REPORT

All amounts are expressed in kEUR. Foreign currencies are converted at the daily exchange rate at the date of transaction or valuation. The balance sheet has been prepared in accordance with the historical cost convention.

The accounting principles applied by the RIPE NCC are in accordance with Dutch law and the Dutch accounting standards on recognition and measurement. The comparative figures are reclassified where necessary in order to easily compare with the financial statements of 2012.

RIPE NCC STATEMENT OF INCOME AND EXPENDITURE 2013

(in kEUR)	Actual	Budget	Actual	Variance		Variance	
Income	2013	2013	2012	2013 vs B2013		2013 vs 2012	
Member Fees	17,995	17,742	17,669	253	1%	326	2%
Member Sign-up Fees	2,627	2,100	2,330	527	25%	297	13%
RIPE Meetings	258	250	203	8	3%	55	27%
Other Income*	212	100	158	112	112%	54	34%
Total Income	21,092	20,192	20,360	900	4%	732	4%
Expenditures							
Personnel	11,385	11,448	10,528	(63)	-1%	857	8%
Housing	758	776	741	(18)	-2%	17	2%
Office Costs	1,394	1,576	1,346	(182)	-12%	48	4%
Marketing/ER	613	648	582	(35)	-5%	31	5%
Contributions	568	407	394	161	40%	174	44%
IT Infrastructure	935	1,097	982	(162)	-15%	(47)	-5%
Travel	1,206	1,262	1,058	(56)	-4%	148	14%
Consultancy	987	1,116	892	(129)	-12%	95	11%
Bank Charges	153	153	137	-	-	16	12%
Subtotal Operational Expenses	17,999	18,483	16,660	(484)	-3%	1,339	8%
Surplus Before Miscellaneous Costs & Depreciation	3,093	1,709	3,700	1,384	81%	(607)	-16%
Bad Debts	113	150	64	(37)	-25%	(49)	77%
Depreciation	1,579	1,747	1,717	(168)	-10%	(138)	-8%
Total Miscellaneous Costs & Depreciation	1,692	1,897	1,781	(205)	-11%	(89)	-5%
Total Expenses	19,691	20,380	18,441	(689)	-3%	1,250	7%
Surplus/Deficit Before Interest Income	1,401	(188)	1,919	1,589	-845%	(518)	-27%
Interest Income	468	600	513	(132)	-22%	(45)	-9%
Revaluation Government Bonds*	(661)	-	(74)	(661)	N/A	(587)	-793%
Result on Financial Assets	(193)	600	439	(793)	-132%	(632)	-144%
Surplus	1,208	412	2,358	796	193%	(1,150)	-49%

*In 2013, the figures of 2012 were restated. The revaluation of Government Bonds is reported separately under the result of Financial Assets. In 2012, this was reported under Other Income.

NOTES TO THE RIPE NCC STATEMENT OF INCOME AND EXPENDITURE 2013

The financial year 2013 resulted in a surplus of 1,208 kEUR, substantially above the forecasted figure of 412 kEUR. This surplus will accumulate in the RIPE NCC's Clearing House.

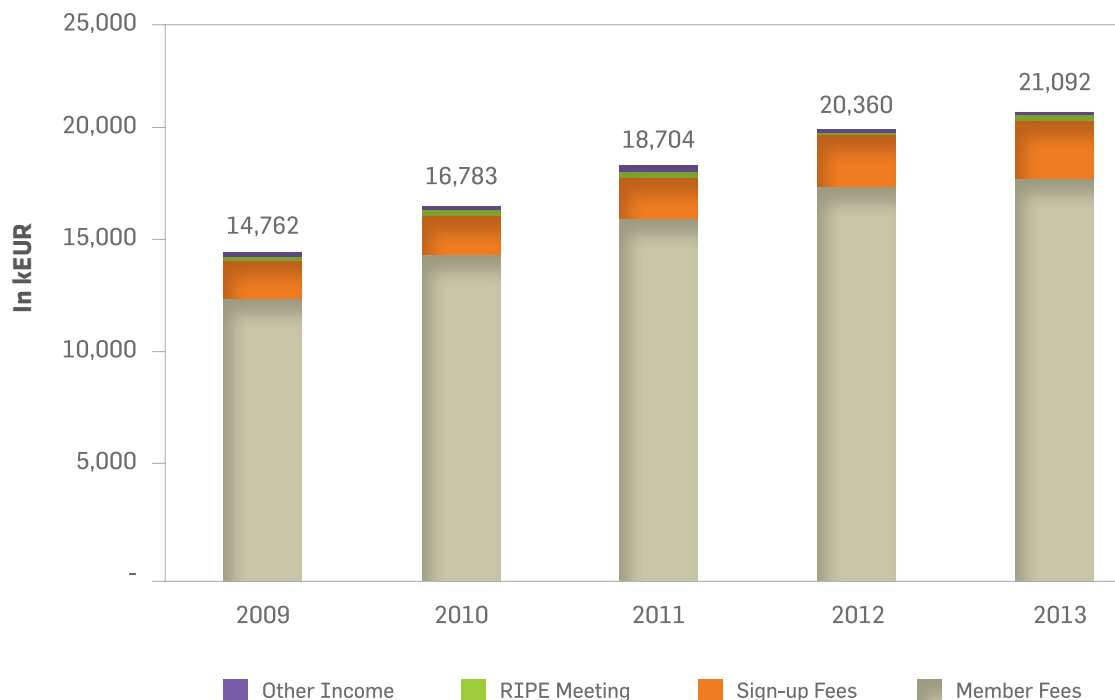
In 2013, the surplus of 1,208 kEUR resulted in a decrease of the RIPE NCC's capital/expense ratio to 115% of total expenses, compared to a percentage of 116% at the end of 2012. This is above the target level of 100% set by the RIPE NCC's Executive Board and the RIPE NCC management. Reserves are targeted at a minimum of one year's total expenses to ensure the financial stability and operational continuity of the RIPE NCC.

Income and expenses are attributed to the period to which they relate.

INCOME

Income relates to the proceeds from delivery of services after deducting taxes on sales.

By 31 December 2013, the total income reached 21,092 kEUR, which was 4% above both budget and revenue for 2012. This higher-than-expected revenue resulted from the trend that started in 2012 in the run-up to the exhaustion of the IPv4 free address pool, corresponding to an increase in new members. The increase in new members is the largest contributing factor to the higher-than-expected income, accounting for more than 60% of the increase compared to the budgeted income.

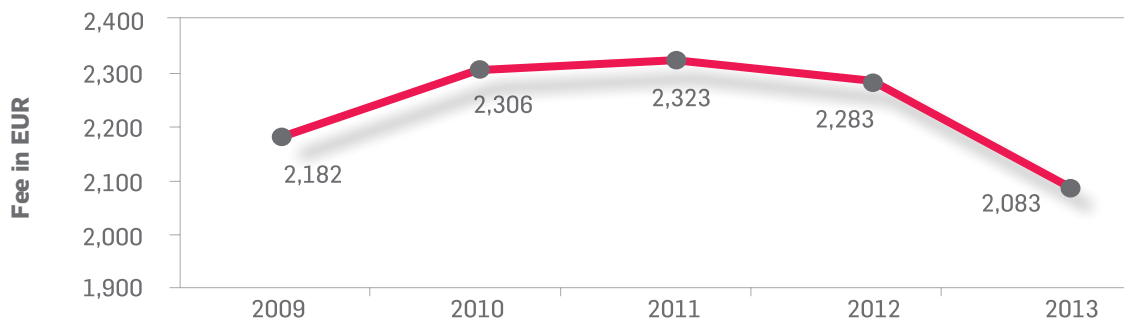


In 2013, the number of members increased to 9,899, a growth of 13% or 1,139 members for the year. The total number of members includes closures of and mergers between members. The total number of membership applications received was 1,400. This number excludes applicants that started the application process but never completed it.

The chart below shows the total number of RIPE NCC members and the increase in membership per year.



In 2013, a new charging scheme marked a simplification in the RIPE NCC membership fee structure by applying the same base fee of EUR 1,800 per individual member. The Membership Income, comprised of the membership fees and sign-up fees, amounted to 20,622 kEUR. The average fee per member, the Membership Income divided by the number of members at the end of the year, dropped significantly by 9% to 2,083 EUR.



RIPE Meeting income grew by 3% following an increase in the number of attendees by 24% compared to the meetings in 2012, achieving a total of 721 paying attendees at the two RIPE Meetings combined.

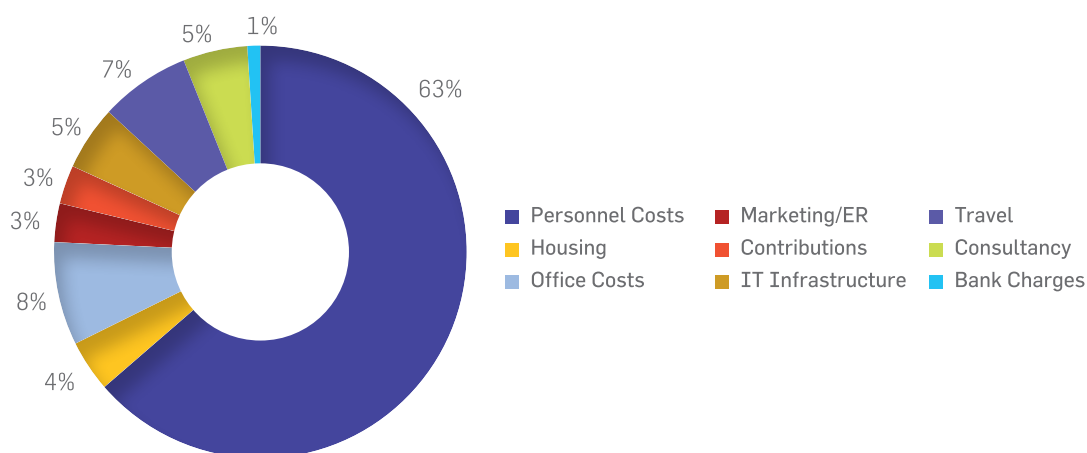
Other Income was 112% above budget, caused by an increase in sponsorship income for RIPE Atlas reaching 143 kEUR and the fact that Middle East Network Operator Group (MENOG) administration was incorporated in the RIPE NCC financial administration. In 2013, the RIPE NCC Executive Board tasked the RIPE NCC management to report the MENOG funds in the RIPE NCC financial administration. This amounted to Other Income of 59 kEUR. This formal incorporation does not change the intention to allocate the funds towards MENOG. The income for DNSMON and Test Traffic Measurements (TTM) was zero because these services were not charged for in 2013.

EXPENDITURE

In 2013, the RIPE NCC maintained its expense control while expanding its service portfolio and its efforts in regional outreach, resulting in a total expenditure of 3% below budget, or 689 kEUR, and 7% above the total expenditure levels in 2012.

Operational expenses

Operational expenses in 2013 were below the budget but above the 2012 level. The chart below shows the categorisation of operational expenses.

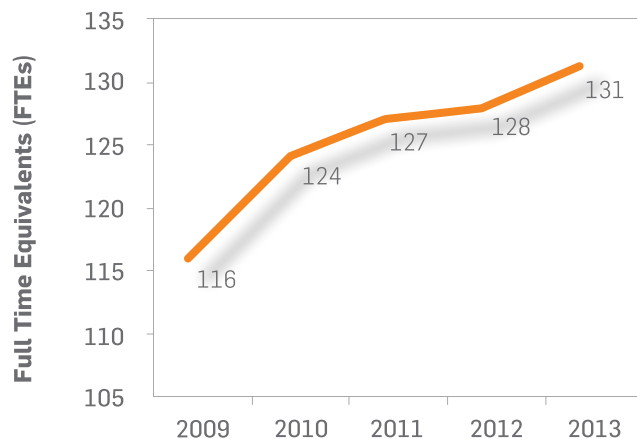


Personnel expenses

Personnel expenses were 1% below budget and increased by 8% compared to 2012. This increase was caused by higher salaries, increased social wage taxes, higher pension contributions due to an ageing workforce and a lower amount of employee cost that were taken as an asset for Software Development.

Personnel (in kEUR)	Actual 2013	Budget 2013	Actual 2012	Variance 2013 vs B2013	Variance 2013 vs 2012
Salary Components - Personnel	7,925	7,949	7,525	(24) -0%	400 5%
Secondary Benefits - Personnel	1,911	1,673	1,757	238 14%	154 9%
Miscellaneous - Personnel	1,549	1,826	1,246	(277) -15%	303 24%
Total Personnel	11,385	11,448	10,528	(63) -1%	857 8%

There were 131 full-time equivalents (FTEs) employed during 2013, below the budgeted figure of 135. The number of FTEs is calculated based on actual number of hours worked.



Other operational costs

Housing and Office costs were below budget and above the levels of the previous year due to a cost increase of the following items: insurance, equipment rental for RIPE Meetings, postage and temporary staff.

Marketing and External Relations costs are below budget and just above the levels of 2012. While efforts in this category have expanded substantially, there has been careful expenditure throughout 2013, which is reflected in the figures for 2013.

Contributions relate to donations made to international organisations and industry partners such as the Internet Society (ISOC) and the International Telecommunications Union (ITU). This increased by 44% in comparison to the previous year mainly due to a higher contribution to ICANN (Internet Cooperation of Assigned Names and Numbers) and the NRO (Number Resource Organization), which amounted to 434 kEUR in 2013. To support the continuation of the Internet Governance Forum (IGF) an additional contribution of 37 kEUR (50,000 USD) was made.

IT Infrastructure costs remain under the 2012 levels as well as the 2013 budget. In 2013, the RIPE NCC invested considerable resources in the set-up of a new co-location and resiliency node hosted by Netnod in Stockholm, Sweden, to improve the RIPE NCC infrastructure and robustness of RIPE NCC critical services. Despite the high effort spent, the costs affected only the last quarter of 2013, assuring a cost level below the budgeted amount.

Travel costs remained within the budget set for 2013. Following an increase in the number of trips, travel costs were above the levels of 2012, caused by the fact that both RIPE Meetings took place outside the Netherlands while in 2012 one RIPE Meeting took place in Amsterdam.

Consultancy was below budget but 11% above 2012 levels mainly because of the engagement of IT consultants working on software development that could not be taken as an asset and consultancy costs incurred to enhance our regional presence in the RIPE NCC service region.

The amount of Bad Debts was low in 2013: 113 kEUR. Bad Debts include the actual income written off from closures and a financial accrual-based on 1% of the year-end amount of debtors.

Depreciation expenses were below budget due to lower investments made over 2013 than originally planned for. The investments were lower for hardware and software. In addition there was a decrease in software development that is taken as an asset.

Despite the interest income received on the cash reserves and the government bonds, the devaluation of government bonds held in foreign currency resulted in an overall negative financial asset result for 2013. In 2013, the average interest received on the cash reserves and financial assets was 1.9%, compared to 2.2% in 2012.

RIPE NCC BALANCE SHEET PER 31 DECEMBER 2013

(in kEUR)	2013	2012
ASSETS		
FIXED ASSETS		
Computers	1,210	1,014
Infrastructure	176	293
Office Equipment	102	76
Total Fixed Assets	1,488	1,383
INTANGIBLE FIXED ASSETS		
Software Development	700	1,223
Total Intangible Fixed Assets	700	1,223
FINANCIAL ASSETS		
Fixed Term Deposits	-	3000
Government Bonds	7,157	5,797
Total Financial Assets	7,157	8,797
CURRENT ASSETS		
Accounts Receivable	565	370
Value Added Tax (VAT)	158	223
Miscellaneous Receivables	1,030	1,242
Total Current Assets	1,753	1,835
Cash on Hand	14,681	10,947
TOTAL ASSETS	25,779	24,185
LIABILITIES		
CAPITAL		
Reserves	477	477
Clearing House	20,927	18,568
Surplus	1,208	2,358
Total Capital	22,612	21,403
CURRENT LIABILITIES		
Creditors	1,062	889
Wage Taxes & Social Securities	535	498
Unearned Revenues	428	328
Miscellaneous Payables	1,142	1,067
Total Current Liabilities	3,167	2,782
TOTAL LIABILITIES	25,779	24,185

NOTES TO THE BALANCE SHEET AS PER 31 DECEMBER 2013

The balance sheet at year-end 2013 reflects the low level of capital expenditure in 2013 compared to 2012. In accordance with the RIPE NCC Treasury Statute, in 2013 further investments were made in government bonds to ensure financial stability by reducing exposure to the banking sector.

FIXED ASSETS AND INTANGIBLE FIXED ASSETS

Assets are valued at historical costs and are depreciated on a straight-line basis, starting from the month after acquisition.

Fixed Assets are depreciated for the actual period of economic use. Hardware & Software consists of hardware and purchased activated software. Hardware is written off over three years and software is written off over two years. Infrastructure is written off after three years and office equipment after five years. All items under EUR 500 are expensed.

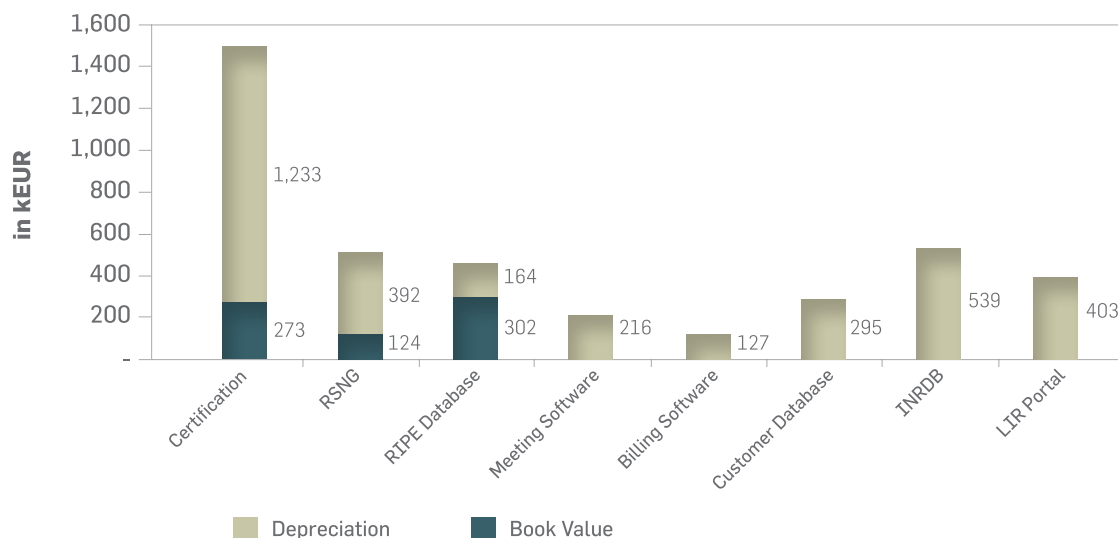
Intangible Fixed Assets consist solely of in-house software development. Software Development costs are capitalised insofar as they are incurred in respect of potentially valuable projects and are stated as costs. These costs comprise the costs of direct labour and, for certain projects, outsourced consultancy costs. Upon termination of the development phase, the costs are capitalised and are written off over their expected useful life. This period is set at three years.

The Capital Expenditure for 2013 was 1,161 kEUR, which corresponds to a decrease of 18% in capitalised costs compared to 2012 and a decrease of 36% compared to the budget set for 2013. This is mainly a result of lower-than-expected software development capitalisation.

Fixed Assets (in kEUR)	Hardware & Software	Infrastructure	Office Equipment	Software Development
Book Value 1 January 2013	1,014	293	76	1,223
Purchases	800	54	56	251
Depreciation	604	171	30	774
Book Value 31 December 2013	1,210	176	102	700

In 2013, the expenses for Personnel and Consultancy costs associated with new features for the RIPE Database, as well as the further development of Internet Number Resource Certification (RPKI), were taken as an asset for a total amount of 251 kEUR. At the end of 2013, there was no addition for consultancy costs for projects that are expected to be an asset in the future.

Below is an overview of the projects taken as intangible assets.



FINANCIAL ASSETS

Government bonds, listed and unlisted, are stated as financial assets and are individually valued at fair value. Changes in the fair value are directly recognised in the statement of income and expenditure.

In 2013, the RIPE NCC Executive Board, in close cooperation with the RIPE NCC management, maintained its efforts to adhere to the Treasury Statute, assuring further solidity of the RIPE NCC's financial reserves. Due to the low return on longer-term deposits, the RIPE NCC currently only holds deposits with a maturity of less than one year. The current deposits are presented under Cash on Hand in the Balance Sheet.

In 2013, the RIPE NCC's asset portfolio was further diversified, with the purchase of government bonds from Canada and the European Investment Bank for a purchase value of 2,007 kEUR.

By 31 December 2013, the RIPE NCC held the following government bonds (values in kEUR):

Government Bond	Currency	Expiration Date	Value per 31 Dec 2013
Germany	EUR	4 - Jul - 14	923
The Netherlands	EUR	15 - Jul - 14	937
France	EUR	25 - Apr - 16	960
European Investment Bank	EUR	15 - Oct - 17	975
Australia	AUD	21 - Jul - 17	825
Norway	NOK	15 - May - 15	833
Canada	CAD	1 - Feb - 15	826
Canada	CAD	1 - Mar - 16	878

The overall combined performance of the bonds over 2013 saw a 3% reduction in the value of the portfolio caused by the devaluation of the bonds held in foreign currency.

CURRENT ASSETS

Accounts Receivable

Accounts Receivable is 565 kEUR and consists of those invoices outstanding at 31 December 2013. The main item in this category is the member invoices for the annual service fee 2014. This amounted to 500 kEUR.

Other items included in Accounts Receivable are outstanding invoices to miscellaneous debtors for the value of 68 kEUR. A provision for bad debts is set at 1% of the Accounts Receivable for existing members regarding the outstanding invoices pertaining to 2013. An amount for payments that could not be identified and attributed to any specific member amounted to 2 kEUR at year-end 2013. A restatement of 277 kEUR was made from Accounts Receivable to Accounts Payable for amounts prepaid by debtors at 31 December 2013.

Value Added Tax (VAT)

The low level of outstanding invoices for the annual service fee 2014 is reflected in the VAT of 158 kEUR receivable from the Dutch tax authorities.

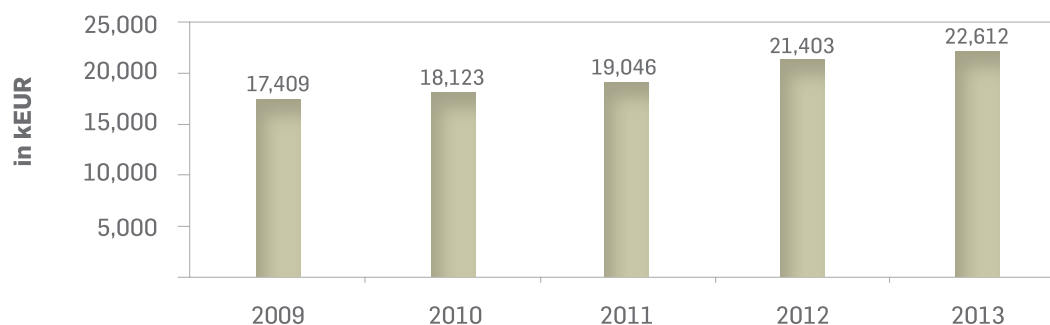
Miscellaneous Receivables

Miscellaneous Receivables decreased compared to 2012. It includes prepayments for office rent, equipment, RIPE Meetings, IT service contracts, pensions, health, public transportation year cards and contributions for 2014. In 2013, as in previous years, the RIPE NCC had a pension system of defined contribution with a pensionable age of 65 years, in accordance with Dutch legislation. Interest Receivable increased at year-end 2013 to 278 kEUR, showing a decrease of 19% compared to 2012 reflecting the decreased interest rates on financial assets. Other receivables include credit card payments to be received, deposits and payments in transit.

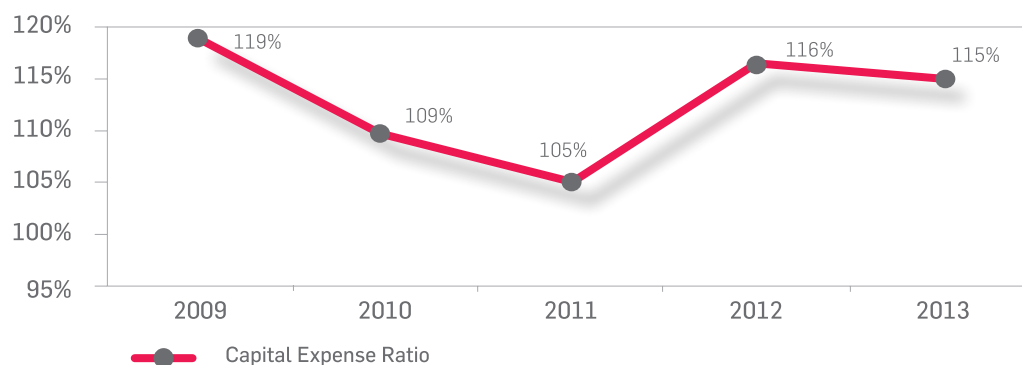
Miscellaneous Receivable (in kEUR)	2013	2012
Prepayments	642	795
Interest Receivable	278	341
Other Receivables	110	106
Total Miscellaneous Receivables	1,030	1,242

CAPITAL

The RIPE NCC has a tax-free ruling with the Dutch tax authorities – the “Clearing House”. A reserve of up to three times the total amount of membership fees received in a year can be accumulated without paying corporate income tax. Excess amounts have to be redistributed to RIPE NCC members. At the end of 2013, the Capital had increased to 22,612 kEUR, which corresponds to 1.07 times the membership fee level for the pertaining year.



The RIPE NCC management uses the Capital Expense ratio as a key indicator to weigh the extent of the capital in relation to the expenses.



CURRENT LIABILITIES

Creditors

The amount payable to creditors at the end of 2013 increased compared to 2012 due to a number of substantial purchases made in the last months of 2013. A restatement of 29 kEUR was made from Accounts Payable to Accounts Receivable for outstanding credit notes at 31 December 2013.

Wage Taxes and Social Securities

By year-end 2013, the wage taxes and social securities showed an increase following higher social security taxes, a higher average employee salary and an increase in number of staff employed in comparison to year-end 2012.

Miscellaneous Payables

Miscellaneous Payables include the accrued holiday allowance and the accrued vacation days for employees. This amount is based on the number of outstanding vacation days at 31 December 2013 valued on the December 2013 salary levels. The total value of the accrued vacation days is 381 kEUR.

Additionally, at year-end 2013, six months of the contribution for the ICANN fiscal year 2013/2014 were outstanding. Other payables are accruals and receivable discounts on rental agreements.

ITEMS NOT SHOWN IN BALANCE SHEET

The RIPE NCC rents office space in two connected buildings and has separate rental agreements for these. The expiration date for these office space rental agreements is 31 December 2014 and 31 December 2016. For these rental agreements, two bank guarantees have been issued for an amount of 175 kEUR. The amount due in rent for both rental agreements will total 684 kEUR in 2014. The total obligation for these rental agreements amounts to 1,517 kEUR over the remaining contract period. Additional lease agreements add a total obligation of 84 kEUR towards third parties for the next four years.

At 31 December 2013, the RIPE NCC had no other financial liability or obligation towards any industry partner that is not reflected in the Balance Sheet. There was no capital or financial interest in any other organisation that had an impact on this financial statement.

RIPE NCC Cash Flow 2013

(in kEUR)		2013	2012
Operational Cash Balance	1 January	10,947	17,625
Cash Inflow			
New Member Fees and Sign-up Fees		3,030	2,647
Members Fees		17,922	15,203
RIPE Meetings		292	245
Interest Received		547	453
Sale - Financial Assets		3,000	-
Other*		769	685
Total Inflow		25,560	19,233
Cash Outflow			
Salary		5,829	5,343
Wage Tax and Social Security		4,048	3,858
Pension and Health		896	979
RIPE Meetings and Regional Meetings		202	525
ICANN		323	202
Purchase - Financial Assets		2,007	6,922
Creditors		8,509	8,087
Total Outflow		21,814	25,916
Total Cash Inflow Balance		3,746	(6,684)
Unrealised Exchange Rate Income		(13)	6
Operational Cash Balance	31 December	14,680	10,947
Financial Assets			
Financial Assets Cash Balance	1 January	8,797	1,990
Government Bonds 01 January		5,797	1,990
Net Cash Used for Governments Bonds		2,007	3,922
Revaluations of Government Bonds		(647)	(115)
Government Bonds 31 December		7,157	5,797
Other Financial Assets 01 January		3,000	-
Net Cash Used for Other Financial Assets		(3,000)	3,000
Revaluations of Other Financial Assets		-	-
Other Financial Assets 31 December		-	3,000
Financial Assets Cash Balance	31 December	7,157	8,797
TOTAL START CASH BALANCE	1 January	19,744	19,615
TOTAL END CASH BALANCE	31 December	21,837	19,744

* In 2013, a restatement was made in relation to the 2012 figures. Other cash inflow under 2012 figures includes income related to DNSMON and TTM services invoiced in 2012. These services were not invoiced in 2013.

NOTES TO THE CASH FLOW AS PER 31 DECEMBER 2013

All amounts in the Cash Flow overview are expressed in kEUR. Foreign currencies are converted at the daily exchange rate on the date of transaction or valuation.

The Operational Cash Inflow by year-end 2013 is marked by an influx of cash following an increased number of members as well as the entry of 3,000 kEUR following the expiration of several long-term deposits previously held and listed in 2012 under Financial Assets. The Other Cash Inflow is a result of RIPE Atlas sponsorships and other miscellaneous income.

The Operational Cash Outflow is marked by a lower purchase of government bonds compared to 2012. This lower level reflects the purchase in 2013 of two different government bonds for the value of 2,007 kEUR compared to the investments made in 2012 in four government bonds for the value of 6,922 kEUR.

At the end of 2013, the Cash Flow resulted in an increase of 2,093 kEUR, putting the total amount at year-end at 21,837 kEUR.

INDEPENDENT AUDITOR'S REPORT

To: Réseaux IP Européens Network Coordination Centre

We have audited the accompanying Financial report 2013 as set out on pages 58 to 71 of Réseaux IP Européens Network Coordination Centre, Amsterdam, which comprise the statement of income and expenditure for the year 2013, the balance sheet as at 31 December 2013 and the notes, comprising a summary of the accounting policies.

Management's responsibility

Management is responsible for the preparation of the Financial report in accordance with the accounting policies selected and disclosed by the entity, as set out in the notes of the Financial report. Furthermore, management is responsible for such internal control as it determines is necessary to enable the preparation of the Financial report that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on the Financial report based on our audit. We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. This requires that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Financial report. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the Financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Financial report is prepared, in all material respects, in accordance with the accounting policies selected and disclosed by the entity, as set out in the notes of the Financial report.

Wognum, 11 April 2014

BDO Audit & Assurance B.V.
on its behalf,

H.C.J. Bot RA

RIPE Network Coordination Centre

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