



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTRE



# RIPE NCC SERVICE REGION

## 2015 in Numbers

**76** Countries  
**12,830** Members  
**1,715** New Members  
**2** RIPE Meetings  
**6** Regional Meetings  
**12** Member Lunches

**1** Roundtable Meeting  
**1** LEA Meeting  
**111** Training Courses  
**50** Webinars  
**9,200** Active RIPE Atlas Probes  
**164** RIPE Atlas Anchors Online

**433** Executive Board Election Votes  
**1,500** ARC Reviews Completed  
**3,257** IPv4 /22 Allocations  
**1,937** IPv6 Allocations  
**2,543** ASN Assignments  
**~8.1** Billion RIPE Database Queries

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[www.ripe.net](http://www.ripe.net)

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## Nigel Titley

Chairman of the Executive Board

Allow me to introduce the Annual Report for 2015. This document outlines how the RIPE NCC performed the activities that were laid out in the Activity Plan and Budget, and is a key component of the RIPE NCC's efforts to provide clear and transparent reporting to its members.

2015 proved to be an interesting year for the RIPE NCC, with important Internet governance and IANA stewardship discussions touching on some central issues. We are proud of the way in which our community worked to ensure its voice was heard in the various forums where these discussions were held.

At the RIPE NCC General Meeting (GM) in May, János Zsakó was elected and Dmitry Burkov was re-elected to the board – which brings us up to seven board members. A larger board means we can provide more effective governance of the RIPE NCC and makes it easier for us to attend community meetings to gather your views.

With strong membership growth and a solid financial outlook, we are very confident in the RIPE NCC's position as a stable and efficient organisation. The Executive Board looks forward to continuing its work on your behalf in 2016.



## Axel Pawlik

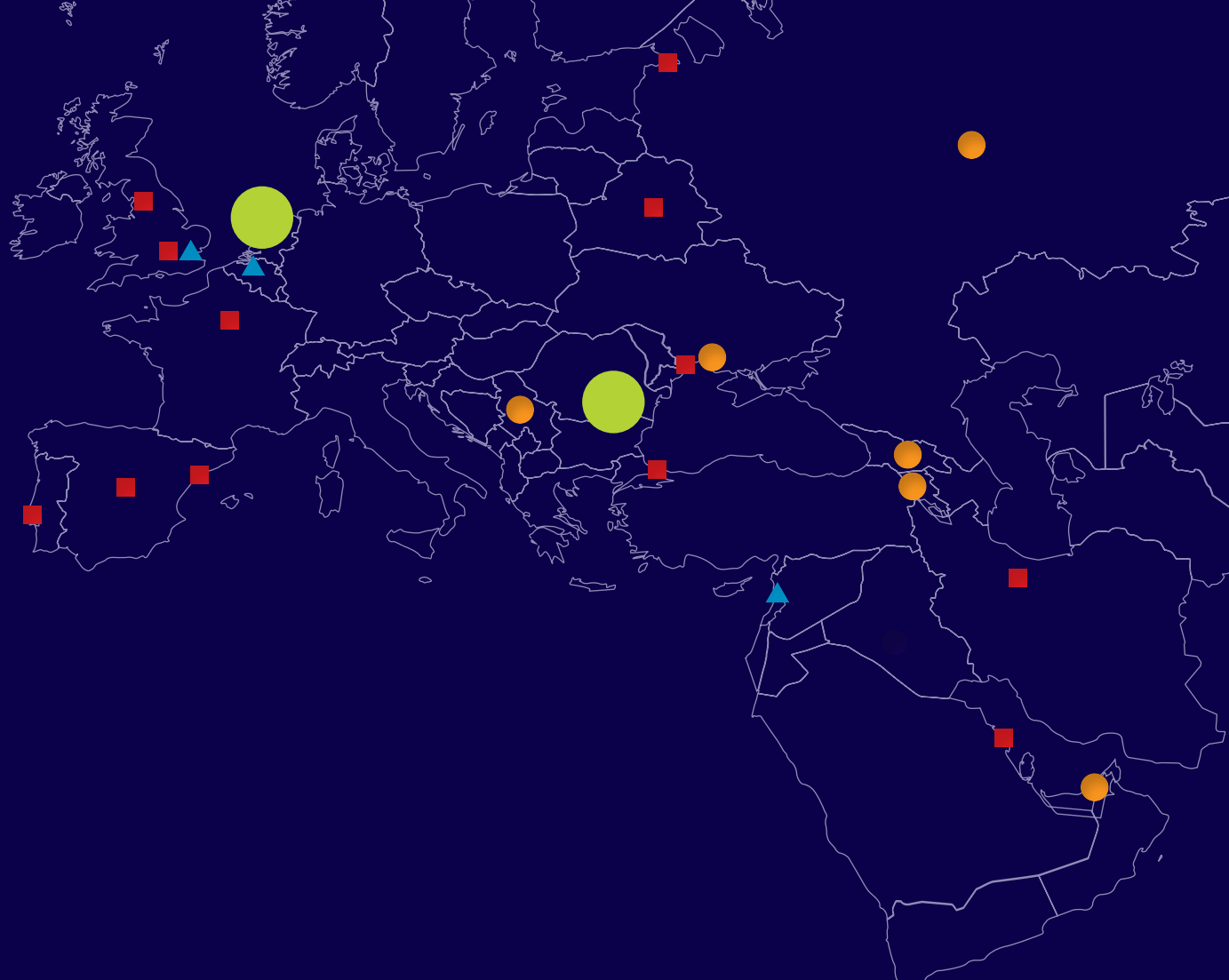
RIPE NCC Managing Director

2015 was yet another busy year for the RIPE NCC. We began actively expanding our K-root server cluster, launched a redesigned [www.ripe.net](http://www.ripe.net), held our largest RIPE Meeting to date at RIPE 70, and unveiled our new visual identity. Add to this the implementation of a complex inter-RIR transfer policy, alongside ongoing RIPE Database and LIR Portal improvements, and it amounts to a lot of activity around the office.

I am pleased with the contribution our staff made to the continuing IANA stewardship transition process, alongside the other RIRs and members of the RIPE community. While the process at times seemed slow, it was important that we ensured the number community's views were accurately represented.

Speaking of the community, we were all saddened by the loss of Rob Blokzijl in late 2015. As RIPE Chair from RIPE 01 until RIPE 68, Rob was a constant source of guidance and support to the community from the very beginning. Though he will be sorely missed, he has left behind a formidable legacy that lives on in much of our work.

## 2015 Meeting Locations and Attendance



### RIPE Meetings

RIPE 70, Netherlands,  
Amsterdam: 678  
RIPE 71, Romania,  
Bucharest: 526

### Outreach Meetings

LEA Meeting, UK,  
London: 90  
Roundtable Meeting,  
Netherlands,  
Amsterdam: 20  
IPv6 Coordination Meeting,  
Beirut, Lebanon: 54

### Regional Meetings

SEE 4, Serbia,  
Belgrade: 235  
ENOG 9, Russia,  
Kazan: 221  
ENOG 10, Ukraine,  
Odessa: 184  
MENOG 15, UAE,  
Dubai: 178  
RIPE NCC Regional  
Meeting, Yerevan,  
Armenia: 111  
RIPE NCC Regional  
Meeting, Tbilisi, Georgia:  
90

### Member Lunches

UK, Manchester: 16  
UK, London: 15  
Russia, St. Petersburg: 20  
Turkey, Istanbul: 17  
Portugal, Lisbon: 7  
Ukraine, Odessa: 14  
France, Paris: 22  
Iran, Tehran: 45  
Saudi Arabia, Alkhobar: 65  
Spain, Madrid: 17  
Spain, Barcelona: 18  
Belarus, Minsk: 14

**Total attendees**  
RIPE Meetings: 1,204

**Total attendees**  
Outreach Meetings: 164

**Total attendees**  
Regional Meetings: 1,019

**Total attendees**  
Member Lunches: 270

## About the RIPE NCC

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).

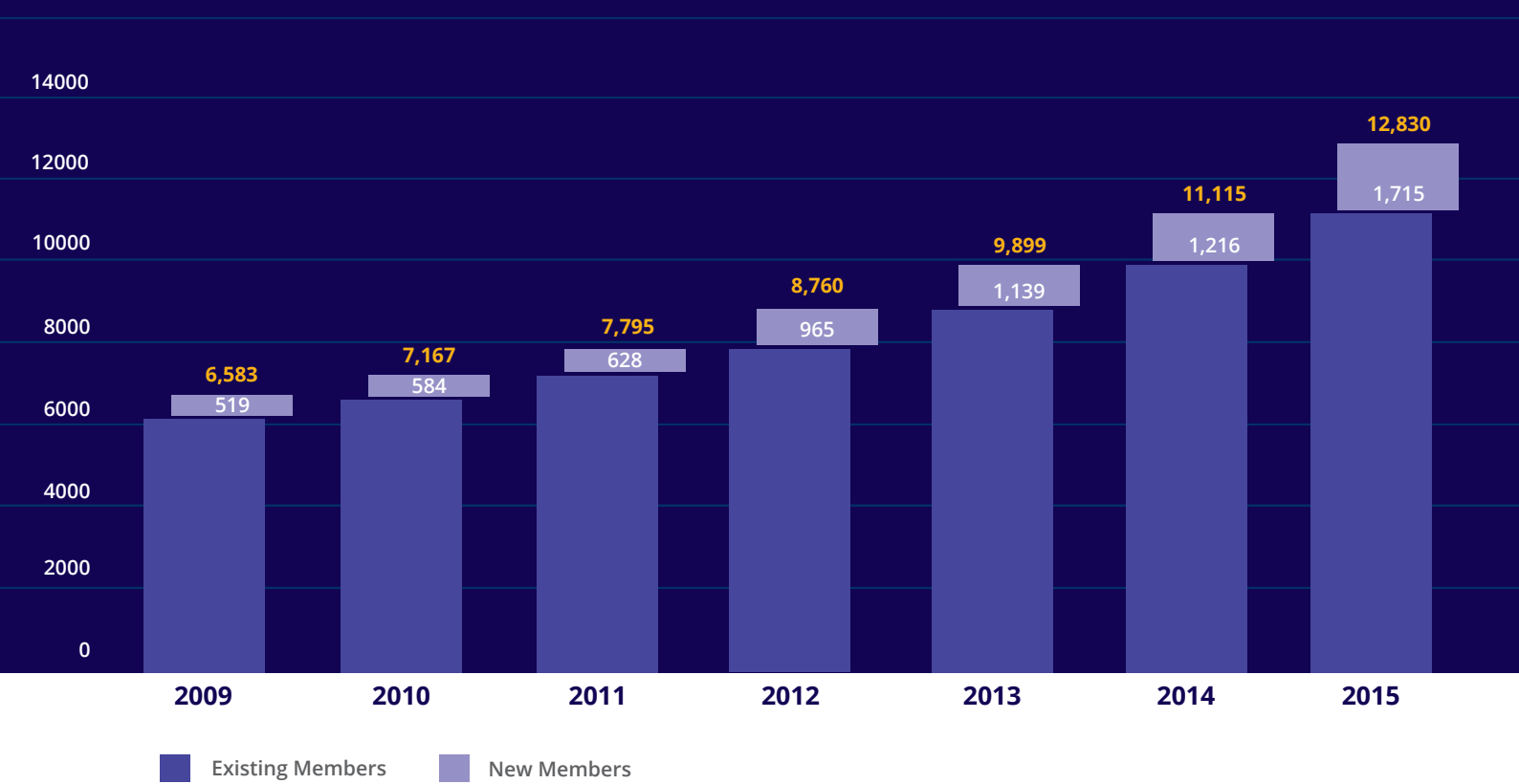
The RIPE NCC's most prominent tasks include:

- 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
- Developing the RIPE Atlas network
- Providing high-quality measurement information services

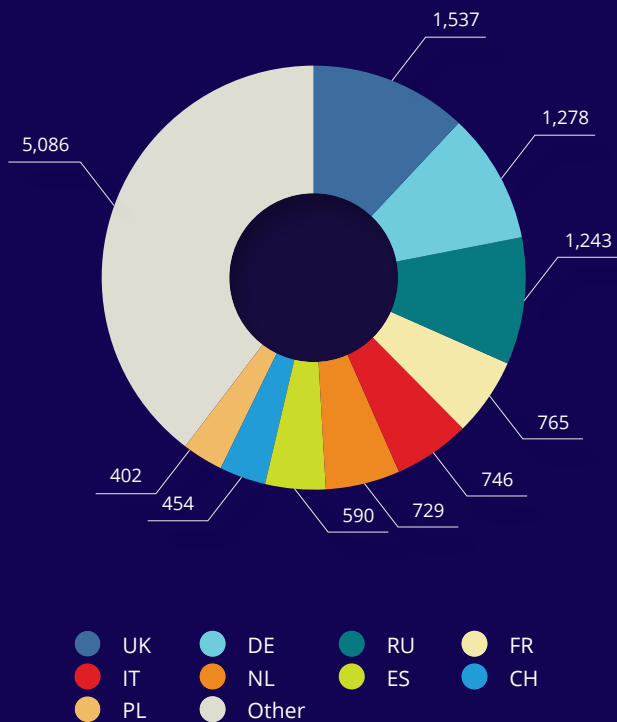
Most of the RIPE NCC's members are Internet service providers (ISPs) and telecommunication organisations. Other members are corporations, academic institutions, legal organisations and government bodies. At the end of 2015, the RIPE NCC supported 12,830 members with operations across the 76 countries in our service region. The RIPE NCC is based in Amsterdam, the Netherlands, and had 133 full-time equivalents (FTEs) in 2015. The RIPE NCC is an open and transparent organisation.

As with the other four 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. 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.

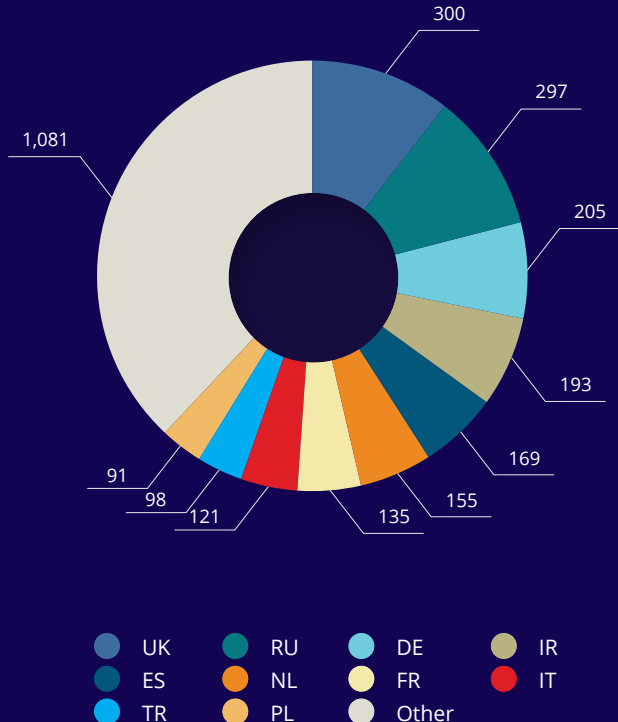
Annual Membership Growth



Members by Country



New Member Applications by Country



## 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 the RIPE Programme Committee, including the facilitation of RIPE Meetings and maintenance of the RIPE Document Store and publicly archived mailing lists.





## Jochem de Ruig

### Chief Financial Officer

Last year, we welcomed 1,715 additional members to the RIPE NCC, resulting in a total of 12,830 by the end of the year. This was our strongest growth in new members yet, and when combined with costs that remained on-budget, this resulted in a substantial surplus.

We have continued to strive for administrative efficiencies wherever we can find them. In 2015, we asked members to move from a quarterly billing cycle to an annual one, which greatly reduced overhead. We have also concluded a 10-year lease on a new location in Amsterdam that will give us an excellent office environment with stable rental fees.

In 2015, an updated tax ruling made the RIPE NCC liable for corporate income tax, but gave the option for any excess contributions to be returned to the membership. At RIPE 71 in November, the General Meeting voted to return these excess contributions in the form of a discounted membership fee for 2016. This provides an excellent mechanism to neutralise the mismatch between the setting of the fees and the expense budget.



Christian Kaufmann, Nigel Tittley, Maria Häll, Remco van Mook, Salam Yamout, Dmitry Burkov and János Zsákó

## RIPE NCC Members and the Executive Board

The activities of the RIPE NCC are financed and guided by its members, who elect the RIPE NCC Executive Board to represent their interests. In 2015, the Executive Board expanded from six to seven members.

The Executive Board exists to:

- Represent the interests of the membership
- Provide guidance to the RIPE NCC Managing Director

- Be 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 time
- 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
- Provide financial and legal representation to the RIPE NCC as an organisation



## RIPE NCC General Meetings

All RIPE NCC members are encouraged to attend RIPE NCC General Meetings, either in person or remotely. These meetings are held twice each year.

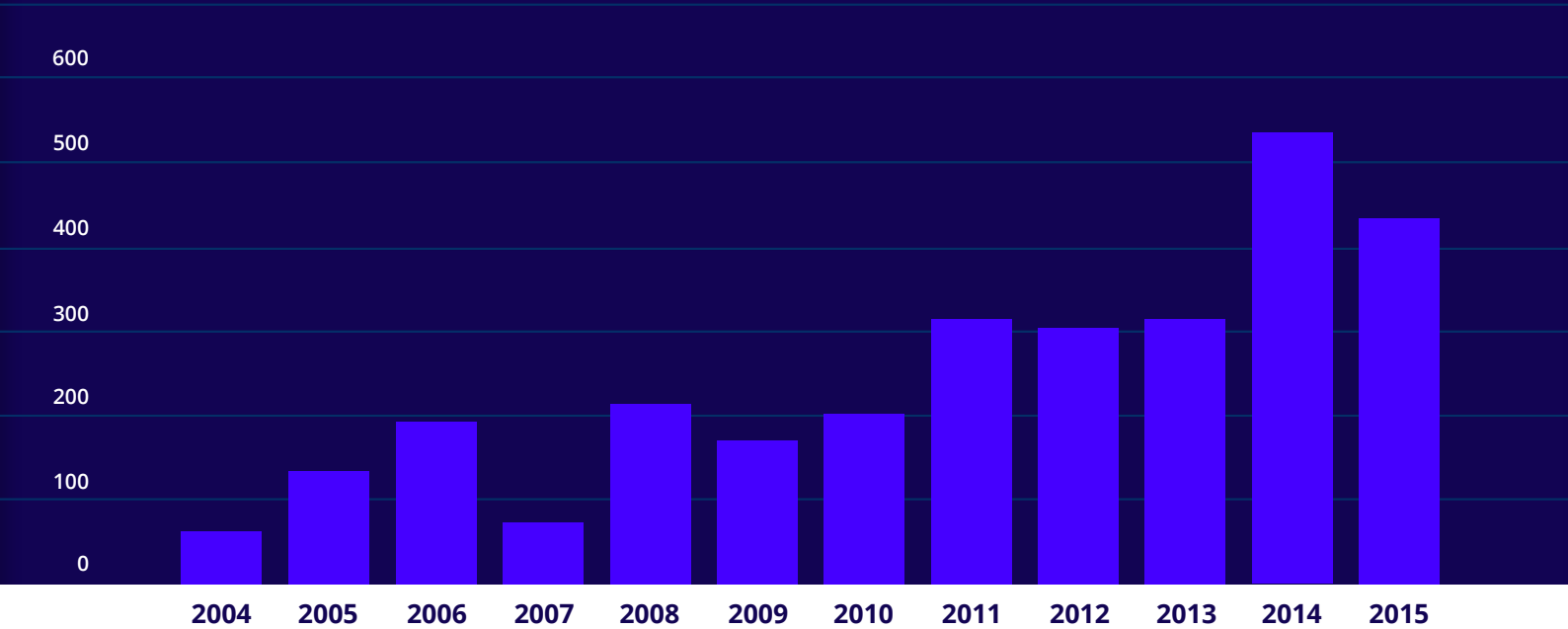
At General Meetings, members have the opportunity to give feedback directly to the Executive Board on the RIPE NCC's activities and services. In 2015, RIPE NCC General Meetings took place alongside RIPE 70 in Amsterdam and RIPE 71 in Bucharest.

At the May General Meeting, the membership adopted a new charging scheme which lowered the membership fee by EUR 200. A separate resolution to institute a separate

EUR 50 charge per ASN was rejected by the membership. An election was also held for two seats on the RIPE NCC Executive Board. There were four candidates and the seats were taken by Dmitry Burkov and János Zsakó, bringing the board up to seven members.

At the November General Meeting, members voted to return the excess contribution paid in 2015 by redistributing the surplus to the membership in 2016. The membership also voted to approve the RIPE NCC Conflict Arbitration Procedure. The Chairman of the RIPE NCC Executive Board also announced a board resolution to temporarily suspend the creation of multiple LIR accounts.

RIPE NCC Executive Board Election Votes



## Arbitration

A neutral and objective Arbiters Panel exists to settle disputes and evaluate requests for Internet number resources by the RIPE NCC. Arbiters are appointed by the RIPE NCC Executive Board and approved by the RIPE NCC General Meeting. At the General Meeting in November, an updated conflict arbitration procedure was approved by the RIPE NCC membership.

In 2015, there were three arbitration requests to settle disputes regarding the registration of Internet number resources.

The first case was initiated by a member following the RIPE NCC's decision to terminate its Standard Service Agreement following the repeated provision of incorrect information. After reviewing the information supplied by both parties, the Arbiter supported the RIPE NCC's decision to terminate the agreement.

The second case was initiated by a member that claimed the RIPE NCC was acting in violation of RIPE NCC procedural documents when it approved a resource transfer, and asked that the transfer be reversed. After reviewing the information submitted by both parties, the Arbiter declared that the RIPE NCC had acted in conformity with RIPE NCC procedural documents.

The third case was still ongoing at the end of 2015, and related to a conflict between two members regarding the registration of Internet number resources.

In 2015, the Arbiters Panel also approved a request by the RIPE NCC for an IPv6 PI assignment and an ASN assignment for its resiliency node in Stockholm.

[www.ripe.net/about-us/legal/arbitration](http://www.ripe.net/about-us/legal/arbitration)

## Articles of Association

The rights and obligations of the RIPE NCC are detailed in the Articles of Association (AoA).

[www.ripe.net/publications/docs/ripe-602](http://www.ripe.net/publications/docs/ripe-602)

## Legal Framework

In 2015, the RIPE NCC fortified its corporate governance by producing and updating a series of documents that describe RIPE NCC procedures in a clear and transparent way.

The following RIPE NCC procedural document was created:

- "Inter-RIR Transfer of Internet Number Resources"

The following RIPE NCC procedural documents were updated:

- "Independent Internet Number Resources – Contractual Relationship Changes Between Sponsoring LIR and End User"
- "Transfer of Internet Number Resources and Change of a Member's Official Legal Name"
- "Due Diligence for the Quality of the RIPE NCC Registration Data"

The RIPE NCC also amended the RIPE NCC Listing Service Terms and Conditions and created a number of template agreements relating to the transfer of Internet number resources.

The RIPE NCC was involved in four intellectual property rights infringement cases before a Russian court as a defendant. In three cases, the accusations against the RIPE NCC were dropped, while in the fourth case the court ruled against the RIPE NCC. The judgements involved a minor fine. However, as this is a matter of principle, the RIPE NCC has filed an appeal.

[www.ripe.net/about-us/legal](http://www.ripe.net/about-us/legal)

## Governance Matrix and Accountability Document

The RIPE NCC maintains two documents in coordination with the other RIRs that demonstrate their transparency and accountability:

- The RIR Governance Matrix provides a structured view of various aspects of RIR governance, with links to source documents on the relevant RIR's website
- The RIR Accountability Questions and Answers document responds to questions of accountability as they relate to the RIRs

[www.nro.net/about-the-nro/rir-governance-matrix](http://www.nro.net/about-the-nro/rir-governance-matrix)

[www.nro.net/about-the-nro/rir-accountability](http://www.nro.net/about-the-nro/rir-accountability)

## Law Enforcement Agency Requests

The RIPE NCC receives information requests from Law Enforcement Agencies (LEAs) and tries to facilitate the provision of any required publicly available information. The RIPE NCC does not provide any confidential or private information to LEAs without a court order or other legally enforceable order or request under Dutch law.

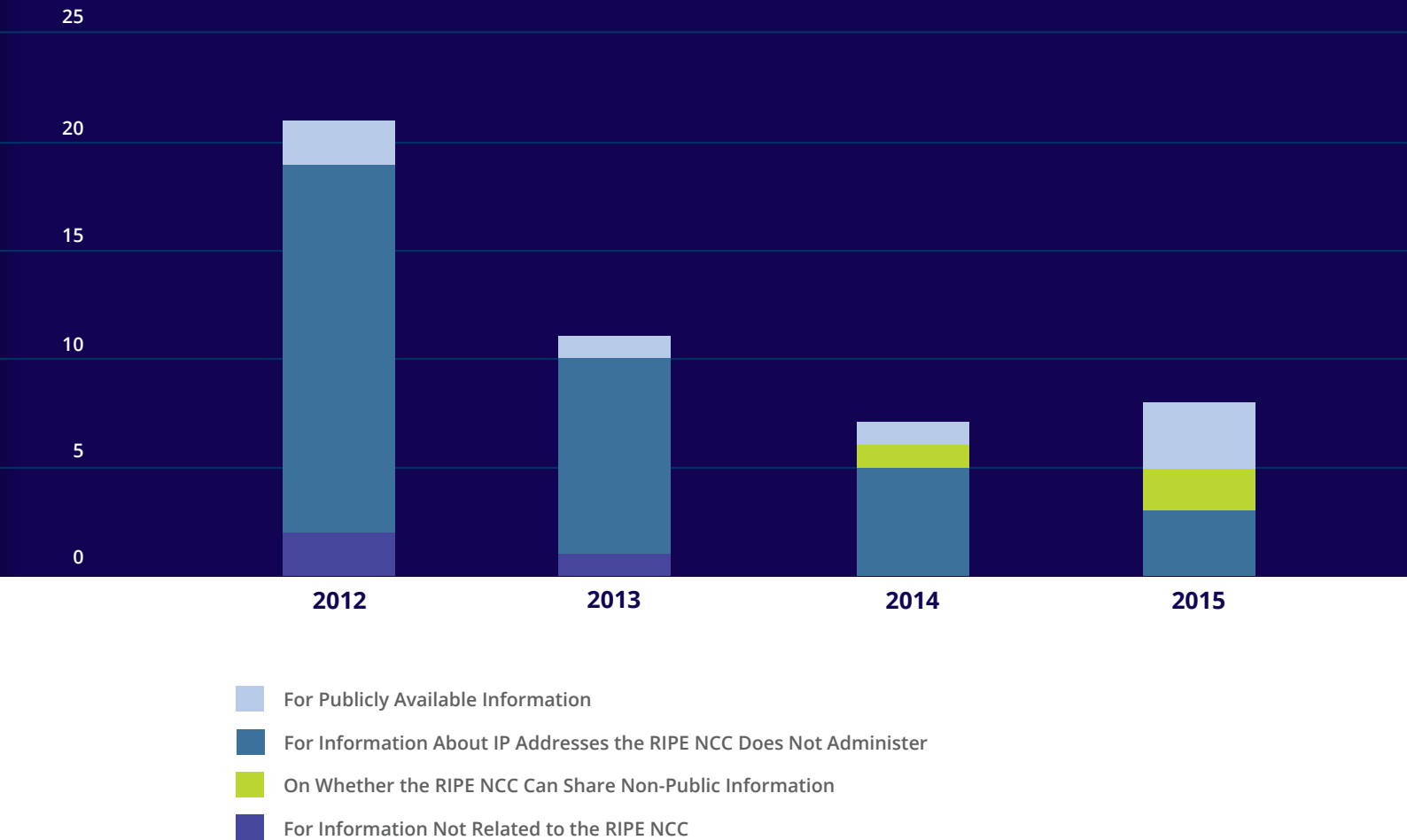
In 2015, the RIPE NCC received eight information requests from LEAs. None of these requests were accompanied by a Dutch court order; four were accompanied by non-Dutch subpoenas. Based on experience, LEAs now appear to understand the RIPE NCC's role as a Regional Internet

Registry, the information it possesses, and what it will and will not share. LEAs seem to acknowledge the RIPE NCC's procedures and will try to confirm with the RIPE NCC before making an official request.

More detail about these requests is available in the 2015 report on Law Enforcement Agency requests:

[www.ripe.net/publications/docs/ripe-664](http://www.ripe.net/publications/docs/ripe-664)

### Law Enforcement Agency Requests



## 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 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 and feedback on activities is collected from members and the RIPE community via 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 and Budget.

In 2014, 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 2015 in a user-friendly and transparent way.

<https://www.ripe.net/publications/docs/ripe-630>

## Activity Overview 2015

Total activity costs were below budget. Between the main categories there was a shift of resources from The Registry towards Coordination Activities and Services.

The lower than budgeted costs relating to The Registry are due to ongoing process improvements and less software development than expected. This was despite an increased workload due to strong membership growth. The rise in transfer requests was offset by the completion of the 2007-01 project. The maturity of the Resource Certification system resulted in little development needed in 2015. A significant budget was allocated for an overhaul of the LIR Portal infrastructure, however the implementation of a number of complex policy proposals meant that most of this work was deferred. Developments to the RIPE Database proved to be below the budgeted costs.

Costs for Services were higher than expected. This came from additional customer services activity, which is reported under Other Costs. An influx of new members resulted in higher postage costs for documentation, and more resources were needed to ensure timely processing of membership applications and corresponding due diligence. Costs for RIPEstat were lower than expected, due to less development work and resources being shifted to RIPE Atlas.

Coordination Activities costs were over budget, mostly due to Outreach and External Relations as well as costs relating to Internet coordination (including ICANN/IETF/NOGs). The increase was the result of more work and travel around the IANA stewardship transition as well as increased outreach to strengthen the RIPE NCC's presence throughout our service region. The contribution to ICANN and the IETF increased due to a stronger USD against the EUR. RIPE Meeting costs were lower than expected. This was mostly due to the fact that RIPE 71 was held in Romania, which proved to be more cost-effective than expected.

Internal costs remained on budget, which was the result of efficiencies and cost control during 2015. In IT there was an increase in co-location facilities and the overall IT infrastructure was expanded. Facilities increased due to the efforts spent on preparation for the new office location.

## BUDGET 2015 VS ACTUALS 2015 (IN kEUR)

	Budget Operational Expenses 2015	Actual Operational Expenses 2015	Variation
Registry Maintenance	3,072	2,862	(210)
RIPE Database	842	579	(263)
Certification	306	181	(125)
LIR Portal	331	162	(169)
<b>The Registry</b>	<b>4,551</b>	<b>3,784</b>	<b>(767)</b>
Training	1,019	1,004	(15)
RIPEstat	636	461	(175)
RIPE Atlas	1,072	1,140	68
Other Services	397	856	459
<b>Services</b>	<b>3,124</b>	<b>3,461</b>	<b>337</b>
DNS and K-root Operations	414	438	24
Data Analysis and Scientific Support	313	234	(79)
RIPE Labs	247	235	(12)
External Relations	1,552	1,950	398
Member Outreach	1,266	1,225	(41)
IPv6 Support	161	178	17
RIPE Meetings	1,414	1,196	(218)
RIPE Policy and Community Support	234	214	(20)
ICANN / IETF / NOGs	1,034	1,281	247
<b>Coordination Activities</b>	<b>6,635</b>	<b>6,951</b>	<b>316</b>
IT	1,912	2,064	152
Facilities (Rent and Utilities)	1,156	1,290	134
Management and HR	2,118	1,997	(121)
Finance and Administration	823	740	(83)
Specialist Support	238	261	23
Organisational Activities	350	226	(124)
<b>Internal</b>	<b>6,597</b>	<b>6,578</b>	<b>(19)</b>
<b>RIPE NCC</b>	<b>20,907</b>	<b>20,774</b>	<b>(133)</b>

*Note: Operational expenses do not include depreciation and bad debts.*

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



## Andrew de la Haye

Chief Operations Officer

In 2015 we implemented a number of community-developed policy proposals relating to the transfer of Internet number resources. By the end of the year, it was possible to transfer IPv4, IPv6 addresses and AS Numbers – both within our service region, and with networks located in other RIR service regions with reciprocal policies.

At the same time, we have been working to provide a more personal service to our members. We have done this in a number of ways, such as increased phone contact, more Assisted Registry Check to help members to update their registry data, and by expanding our successful Live Chat service. We are continuing to build on these efforts.

We have continued to monitor and act in response to an increase in address hijacking. We investigated a number of reports where attempts were made to take control of a network's resources and this has already led to the closure of one LIR for supplying false information to the RIPE NCC. We continue to watch this situation closely, but also ask members to ensure their registry information is up-to-date, particularly the registered contacts that are listed in the LIR Portal.

## Management of Internet Number Resources

As a Regional Internet Registry (RIR), the RIPE NCC's core activity is to distribute and register IPv4 and IPv6 addresses and Autonomous System (AS) Numbers in its service region. The RIPE NCC allocates and assigns Internet number resources to its members and End Users in accordance with policies developed by the RIPE community.

In 2015, the RIPE NCC continued to allocate IPv4 address space according to the last /8 policy, which allows each LIR to request one /22 allocation (1,024 addresses) from the last /8. The exhaustion of the regular IPv4 address pool has resulted in the number of IPv4 transfers within the RIPE NCC service region growing considerably.

Since 2013 we have observed an increase in hijackings of IPv4 address registration records. This also seems to be caused by IPv4 exhaustion.

## Requests for Internet Number Resources and Assistance

In 2015, the RIPE NCC received a total of 15,466 requests for resources and related assistance, a 9% increase compared to the 14,133 requests received in 2014. While there were fewer resource requests compared to 2014, requests for assistance grew from 3,848 to 5,935 in 2015. This was mostly due to an increase in resource transfers, mergers and acquisitions.

Given the rapid growth of the RIPE NCC membership, many new members are less familiar with RIPE NCC processes and with the RIR system in general. The RIPE NCC has therefore continued to contact members by phone whenever an initial allocation request is submitted. This practice ensures that members understand the process for requesting, registering and maintaining Internet number resources.

## IANA Allocations From Recovered IPv4 Pool

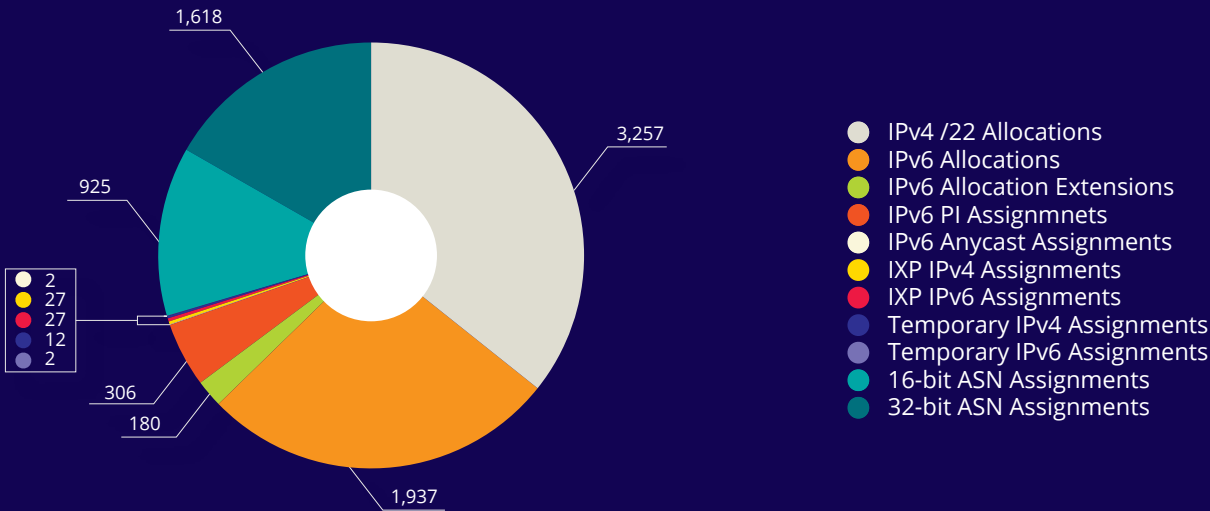
In 2015, the IANA allocated 786,432 IPv4 addresses to the RIPE NCC from its pool of recovered IPv4 addresses according to "Global Policy for Post Exhaustion IPv4 Allocation Mechanisms by the IANA".

In 2015, the RIPE NCC made 8,293 allocations and assignments of Internet number resources. These consisted of:

- IPv4 /22 allocations: 3,257
- IPv6 allocations: 1,937
- IPv6 allocation extensions: 180
- IPv6 PI assignments: 306
- IPv6 Anycast assignments: 2
- IXP assignments: 27 (IPv4) and 27 (IPv6)
- Temporary assignments: 12 (IPv4) and 2 (IPv6)
- ASN assignments: 925 (16-bit) and 1,618 (32-bit)

[www.ripe.net/manage-ips-and-asns](http://www.ripe.net/manage-ips-and-asns)

Split of Allocations and Assignments

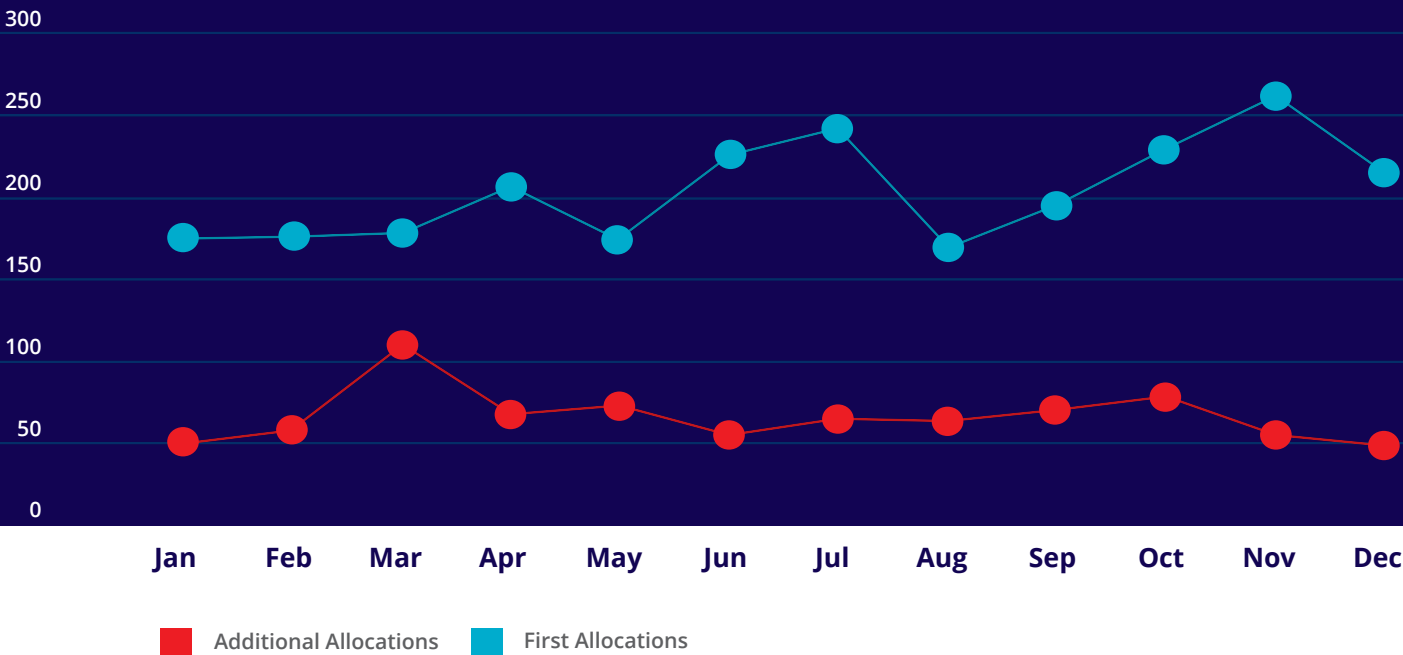


IPv4 Allocations

The RIPE NCC made 3,257 /22 IPv4 allocations in 2015 (3,335,168 addresses), a 31% increase compared to the previous year. The majority of /22s issued in 2015 went to new LIRs (2,463 from a total of 3,257 allocations).

This is an ongoing trend that has emerged following the exhaustion of the RIPE NCC's regular IPv4 address pool. Prior to this, most IPv4 address space was issued as additional allocations to existing members.

IPv4 /22s Issued as First vs Additional Allocations





## IPv6 Allocations

The RIPE NCC made 1,937 IPv6 allocations in 2015. By the end of the year, 9,689 LIRs held an IPv6 allocation, which corresponded to 76% of the RIPE NCC membership, compared to 73% at the end of 2014.

## Autonomous System Number (ASN) Assignments

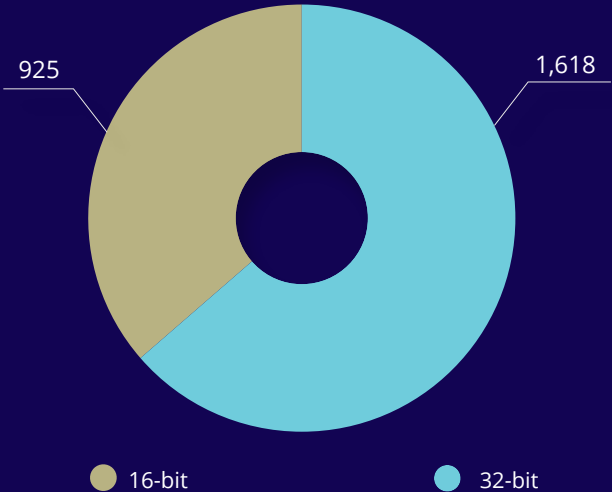
The RIPE NCC assigned 2,543 Autonomous System Numbers (ASNs) in 2015, a 24% increase compared to the 2,053 assigned in 2014. The IANA allocated 2,048 32-bit ASNs to the RIPE NCC in 2015.

## 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.

In 2015, 63.6% of the ASNs assigned in the RIPE NCC service region were 32-bit, compared to 56.6% in 2014.

### 32-bit and 16-bit ASN Assignments



## Resource Transfers

### Intra-RIR IPv4 Transfers

In 2015, the RIPE NCC processed 2,701 IPv4 transfers, containing a total of 8,668,928 addresses. Of these, 2,390 were PA allocations (8,356,096 addresses) and 311 were PI assignments (312,832 addresses). This does not include transfers that were due to a change in company structure, such as a merger or acquisition.

It is interesting to note that while the number of transfers in 2015 was three times larger than 2014, there was an overall decrease in the number of IP addresses transferred. This indicates that more transfers of smaller blocks were taking place.

### IPv6 Transfers

From 22 July 2015, the RIPE NCC started to process transfers of IPv6 addresses according to section 8 of "IPv6 Address Allocation and Assignment Policy".

In 2015, the RIPE NCC processed 55 IPv6 transfers. Of these, 48 were allocations (216 /32s) and seven were PI assignments (eight /48s). This does not include transfers that were due to a change in company structure, such as a merger or acquisition.

### ASN Transfers

From 22 July 2015, the RIPE NCC started to process transfers of ASNs according to section 4.0 of “Autonomous System (AS) Number Assignment Policies”.

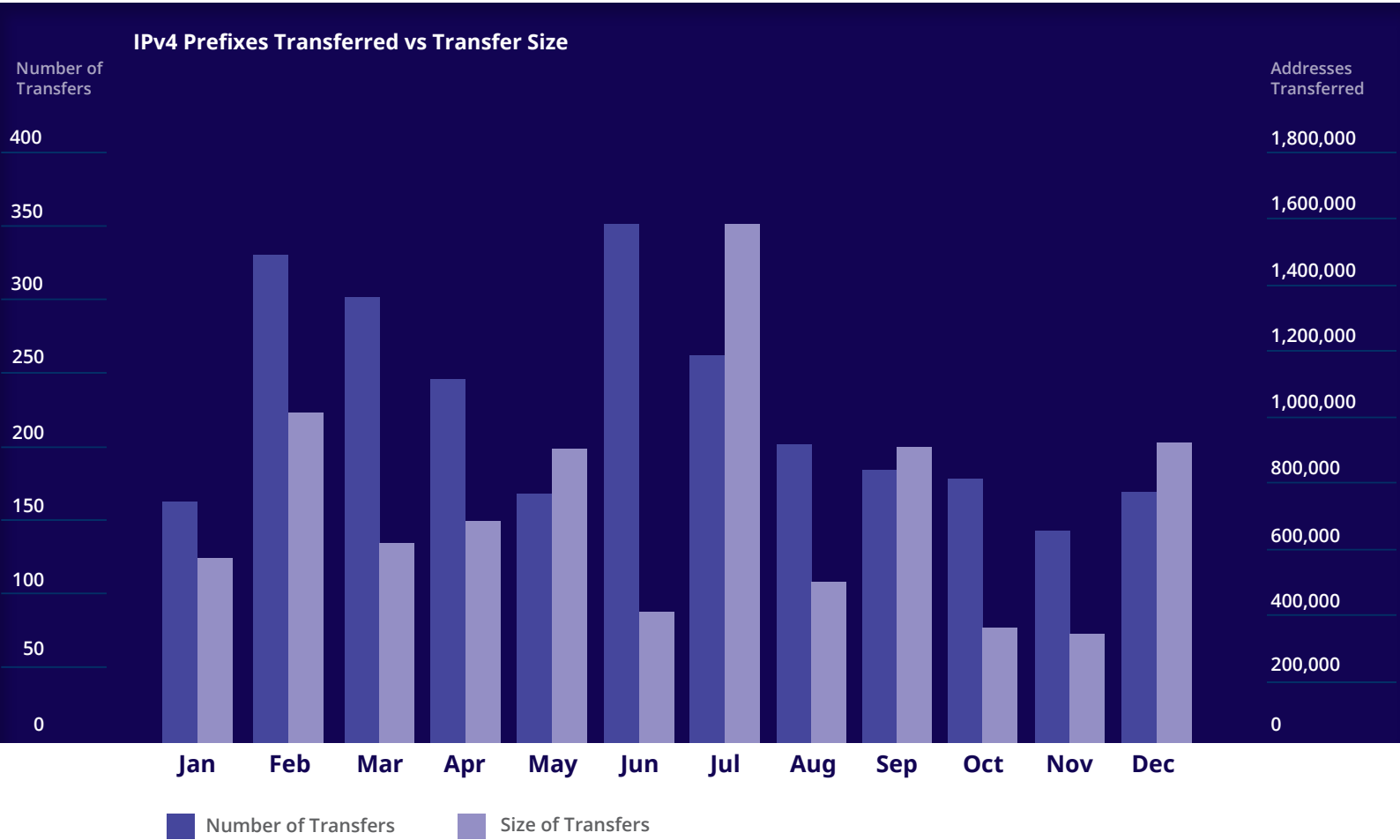
In 2015, the RIPE NCC processed 104 ASN transfers. This does not include transfers that were due to a change in company structure, such as a merger or acquisition.

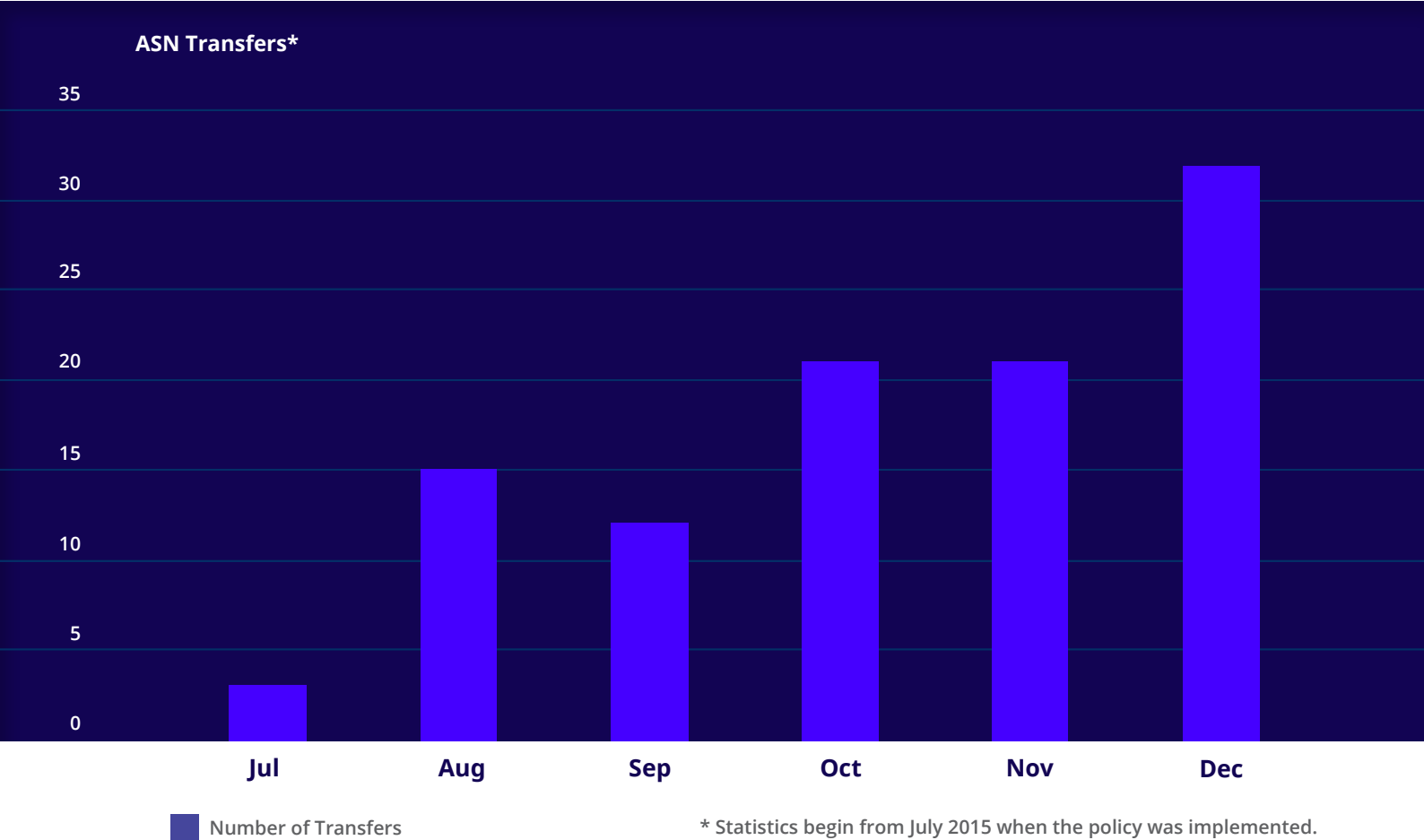
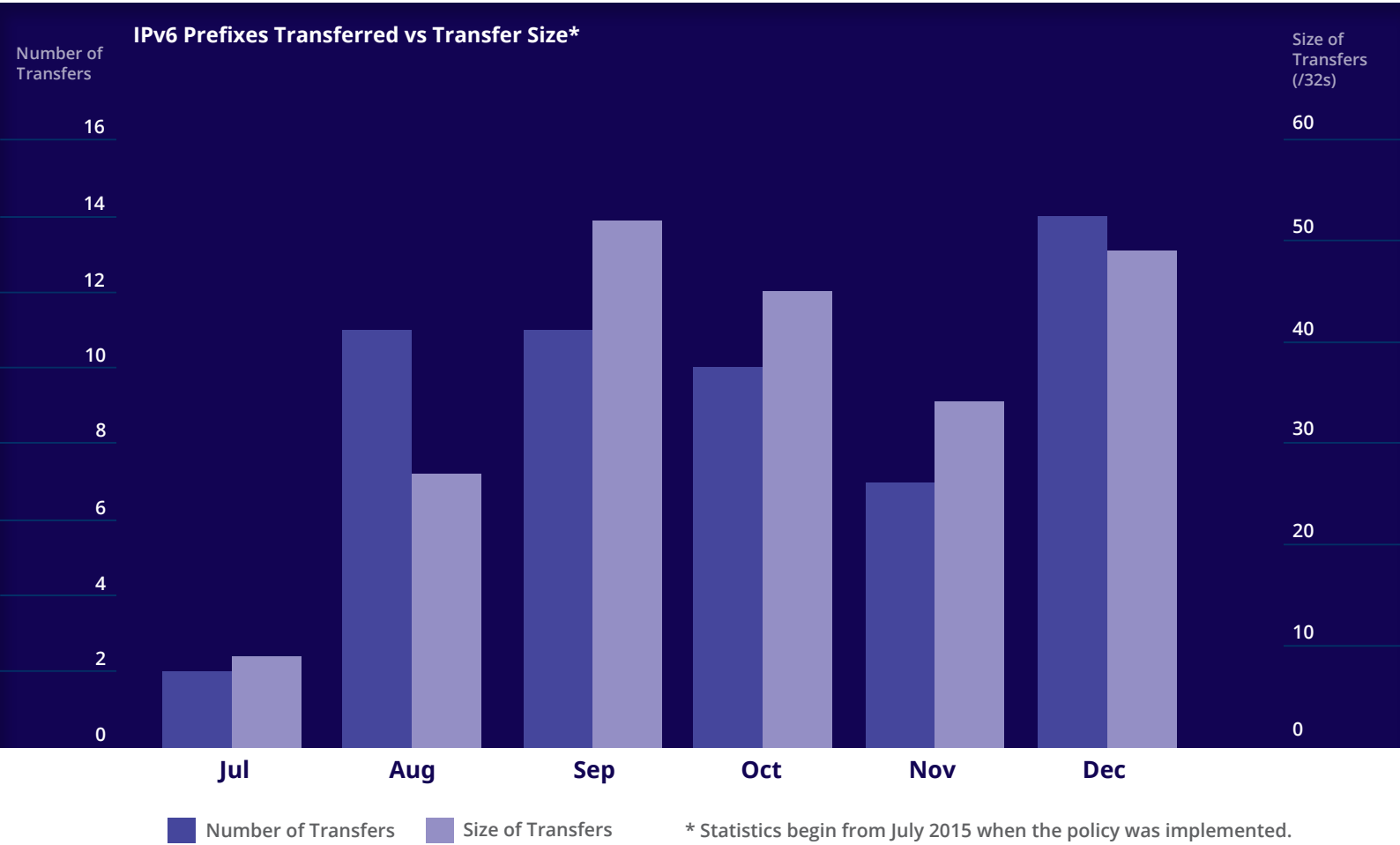
### Inter-RIR Transfers

The RIPE NCC started processing inter-RIR transfers from 1 October 2015, when “Policy for Inter-RIR Transfers of Internet Resources” was implemented.

In 2015, the RIPE NCC processed 11 IPv4 inter-RIR transfers, containing a total of 2,167,808 addresses. Of these, three were PA allocations (70,656 addresses) and eight were legacy resources (2,097,152 addresses). All 11 transfers came from ARIN to the RIPE NCC.

There were no inter-RIR IPv6 or ASN transfers submitted in 2015.

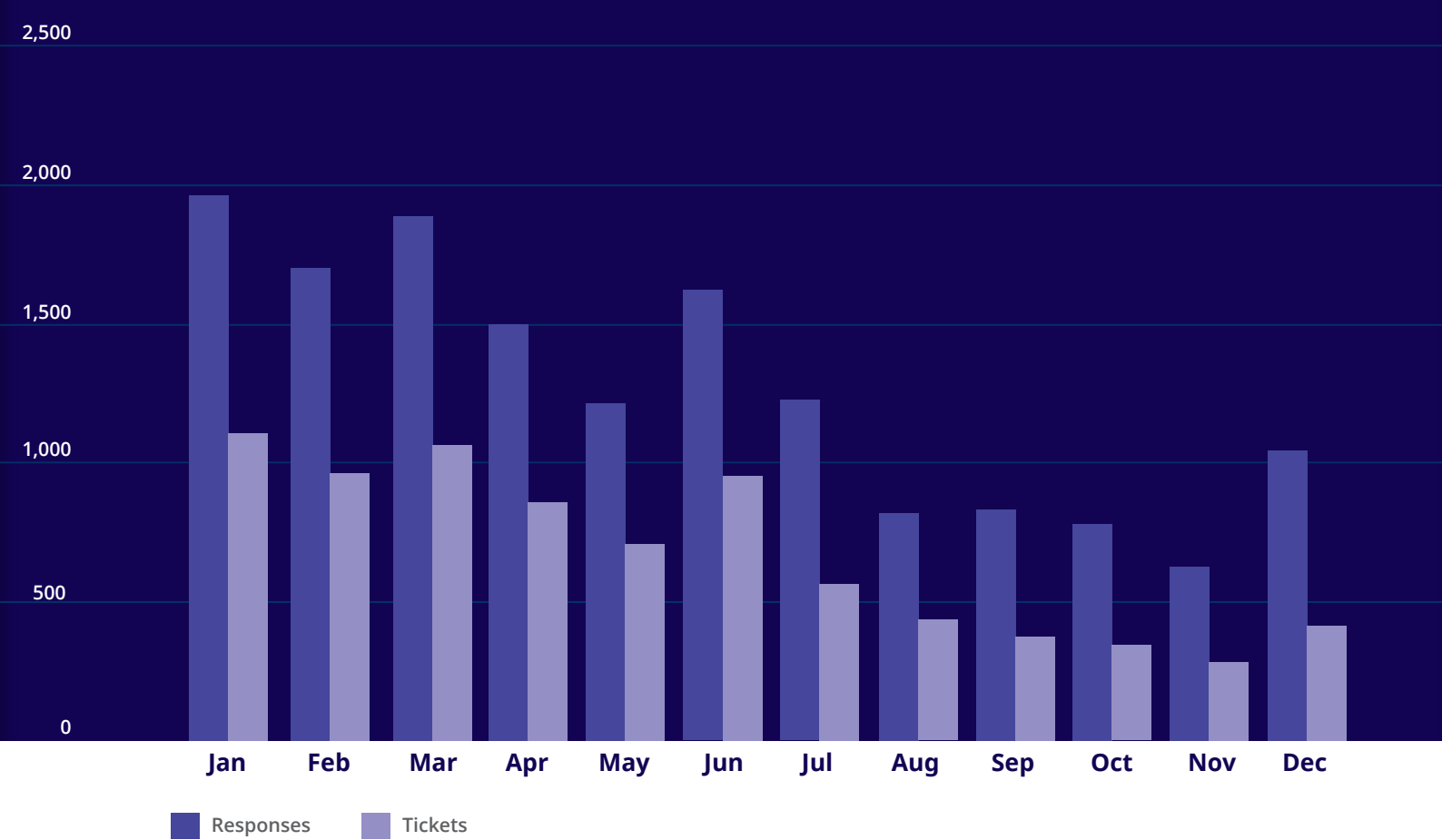




## Maintenance of Independent Resources and Contractual Relationship

According to “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



## Assisted Registry Check

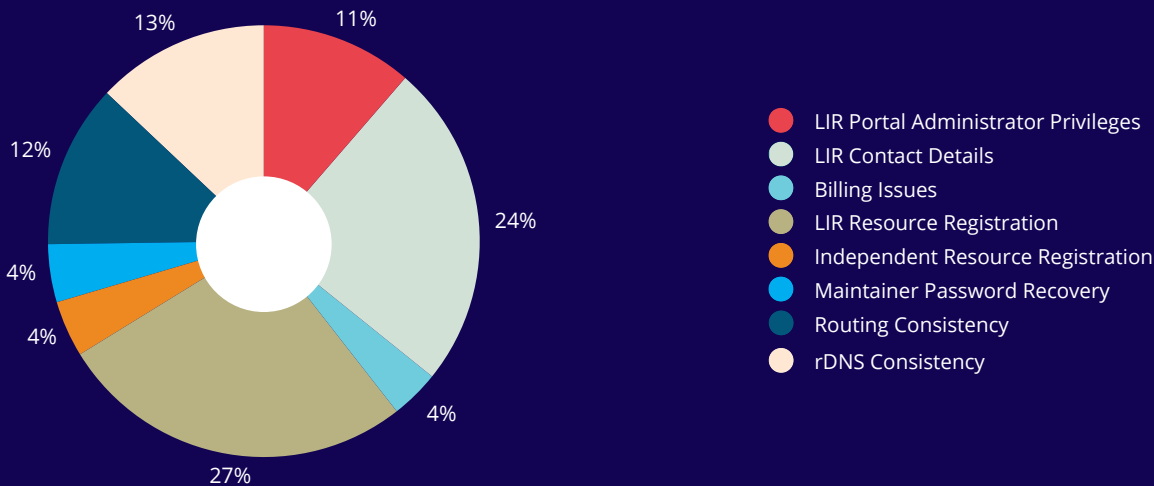
The Assisted Registry Check (ARC) provides LIRs with personalised support from the RIPE NCC. This can include help creating RIPE Database objects to improve contact data, removing inconsistent resource records, and offering clarification on RIPE Policies.

In 2015, almost 1,650 ARC tickets were opened and more than 1,500 registry checks were completed. On average, LIRs spent less than 15 minutes of their time discussing the ARC during the telephone call and tickets were resolved shortly after.

The RIPE NCC offers ARC reviews to members attending RIPE Meetings. During RIPE 70 and RIPE 71, ARCs were completed for 65 LIR accounts. Members found that the face-to-face format enabled them to efficiently complete ARCs for several registries in a single appointment.

[www.ripe.net/manage-ips-and-asns/resource-management/assisted-registry-check](http://www.ripe.net/manage-ips-and-asns/resource-management/assisted-registry-check)

### ARC Review Actions Taken in 2015



### Areas Covered by ARC Review

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

During 2015, the RIPE NCC saw further attempts to gain control of Internet number resources under false pretences. In particular, there were more cases of Provider Independent resources (IP addresses and Autonomous System Numbers) becoming targets of hijacking. Following investigations, the RIPE NCC took action against a small number of LIRs for the submission of falsified documents, and closed one LIR in late 2014 for repeatedly violating the Standard Service Agreement in this way. This LIR contested the closure via the RIPE NCC Conflict Arbitration Procedure in early 2015, which concluded with the Arbiter upholding the RIPE NCC’s decision.

2015 saw several complaints that resources had been transferred away from LIRs without their consent. LIRs are urged to diligently maintain their list of official contacts via the LIR Portal in order to prevent such cases.

In 2015, the RIPE NCC found five cases of confirmed hijacking by LIRs, mainly via falsified Independent Assignment Requests and Maintenance Agreements. These five cases involved eight ASNs and two PI resources.

In addition to the above hijacking cases, in 2015 the RIPE NCC received seven submissions of fake Independent Assignment Request and Maintenance Agreements. There were also four disputed resource transfers, involving 17 PA allocations and one PI assignment.

### Hijacking Investigations in 2015\*

Resource	Ongoing	Resolved	Total
Legacy	0	1	1
PI	34	99	133
Total	34	100	134

\*Most of these investigations began prior to 2015.

## Abuse Reports

The abuse report form yielded 319 reports in 2015. We investigated all 319 abuse reports and concluded the following:

- 162 of these regarded activities outside of the RIPE NCC’s jurisdiction, such as spamming or hacking.
- 157 concerned issues within the RIPE NCC’s jurisdiction.

Of the 319 reports:

- 131 were reported as incorrect data in the RIPE Database. 67 of these required further investigation by the RIPE NCC.
- 180 cases were reported as policy violations, untruthful information or were related to bankruptcy. 143 of these cases turned out not to be policy violations, seven could not be followed up due to lack of information and five resulted in further inquiries. 25 did indeed concern policy violations, untruthful information, or bankruptcy.
- Eight cases were not classified as abuse reports but were investigated nonetheless.

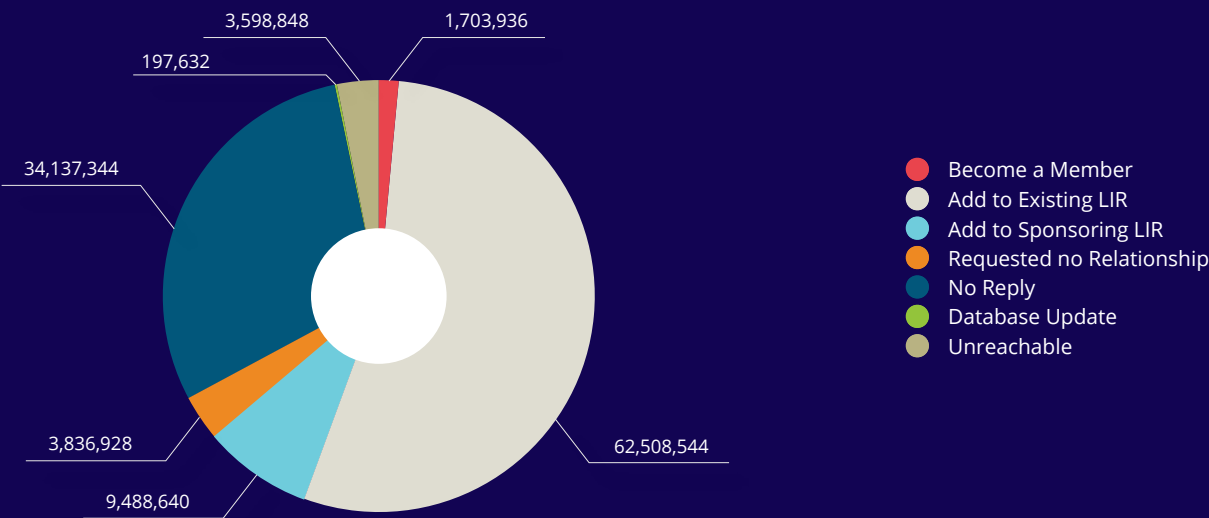
[www.ripe.net/report-form](http://www.ripe.net/report-form)

## RIPE NCC Services to Legacy Internet Resource Holders

In 2014, the RIPE community reached consensus on “RIPE NCC Services to Legacy Internet Resource Holders” and the proposed implementation plan was approved at the RIPE NCC General Meeting during RIPE 68. The RIPE NCC began to implement the proposal in September 2014.

In 2015, the RIPE NCC contacted all holders of these legacy Internet resources to ask them if they would like to establish a relationship with the RIPE NCC according to the options outlined in the policy.

### Legacy IP Addresses Affected by Options in the Policy



## 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.

In 2015, we streamlined the membership sign-up process to make it easier for new members to provide all the details necessary for completing a membership application. A web interface was introduced to replace the email-based resource request forms that were phased out in 2015, and work was started on a large-scale project to streamline the process of making registry changes – including submitting name changes, requesting various resource transfers, and cancelling memberships.

## Resource Certification (RPKI)

During 2015, the RIPE NCC focussed on the growth and scalability of the RPKI infrastructure. RPKI uptake grew steadily throughout the year. The adoption of RPKI by major IXPs as part of their core services was a significant landmark in the adoption of the service.



## 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 within the RIPE NCC service region, as well as related information about 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 2015, around 8.1 billion queries were served.

Key improvements requested by the community in 2015 include:

- Deprecation of the “changed:” and “referral-by:” attributes
- Improved abuse contact information
- Support for inter-RIR transfers

Significant work was also done on improving the security of the RIPE Database and the web interface. Old MD5 passwords were removed that remained unchanged since it was made impossible to find the password hashes in November 2011, and users were required to use RIPE NCC Access, single sign-on (SSO) accounts on maintainers when updating objects. By the end of 2015 there were 9,152 maintainers using SSO accounts – up from 1,034 the previous year.

# TRAINING COURSE LOCATIONS IN 2015



## TRAINING COURSES



TOTAL  
TRAINEES  
**2,031**

TOTAL  
COUNTRIES  
VISITED  
**34**

LIR TRAINING COURSE:  
**608** trainees in **34** courses  
IPv6 FOR LIRS:  
**668** trainees in **30** courses  
ROUTING SECURITY:  
**147** trainees in **9** courses  
RIPE DATABASE:  
**409** trainees in **26** courses  
ADVANCED IPv6:  
**110** trainees in **7** courses  
DNSSEC:  
**60** trainees in **4** courses  
IPv6 FOR ISPS (ROADSHOW):  
**29** trainees in **1** course



## WEBINARS



TOTAL  
TRAINEES  
**1,150**

INTRODUCTION TO THE RIPE  
DATABASE: **7** times  
RIPE DATABASE – ADVANCED  
TOPICS: **11** times  
RESOURCE CERTIFICATION  
(RPKI): **8** times  
IPv6 IN THE RIPE DATABASE:  
**8** times  
IPv6 ADDRESSING  
PLAN: **8** times  
WEBINAR FOR  
NEW LIRS: **8** times



## RIPE NCC ACADEMY



REGISTERED  
USERS  
**2,035**

CERTIFICATES  
OBTAINED  
**451**

## Training Services

The RIPE NCC provides training services to its members in order to:

- Assist 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

Online and face-to-face training courses offer members an opportunity to interact with RIPE NCC staff, connect with other members, and share experiences and best current practices. The RIPE NCC also uses training courses as a valuable source of feedback on its services and tools.

## IPv6 Roadshows

In 2015, the RIPE NCC ran five IPv6 Roadshows in the Middle East. Run as a joint initiative between the Middle East Network Operators Group (MENOG), the RIPE NCC and APNIC, these events gave network operators an opportunity to gain hands-on experience dealing with IPv6.

## Webinars

RIPE NCC members can also undertake training via online webinars. These are essentially shortened training courses that can be completed from home or the office. Each webinar can be attended by up to 23 people.

## RIPE NCC Academy

As a virtual learning environment, the RIPE NCC Academy allows members to access online training courses offered by the RIPE NCC through an interactive portal. Members can test and certify their knowledge and interact with RIPE NCC trainers and each other, to share experiences and best current practices.

Go to our website for more information on the training courses we offer, where they are run and how you can join in.

[www.ripe.net/support/training](http://www.ripe.net/support/training)

### IPv6 Roadshows in 2015





## Kaveh Ranjbar

Chief Information Officer

One of the RIPE NCC's goals is to empower the technical community by providing a wide range of tools and services. In this respect, 2015 was a year of consolidation and improvement.

We responded to requests from the community for improvement to both RIPE Atlas and RIPEstat, introducing new visualisations, monitoring functionalities and types of measurements. Over the course of the year, RIPE Atlas collected around 100 billion measurement results, while RIPEstat saw more than 4.4 million unique visitors.

Out in the field, we replaced and upgraded our RIS backend and started adding new RIS collectors and upgrading the firmware on existing collectors. We also expanded our K-root cluster, adding hosted nodes in numerous geographical locations.

Throughout the year, we collaborated with multiple researchers on a number of papers for publication. An innovative project called Open IP Map, which we prototyped in 2015, will graduate to a full service in 2016.

## 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 their own customised measurements using the entire RIPE Atlas network. The collected data is available to anyone, and is used to create visualisations and analyses that describe the Internet in real time.

### RIPE Atlas at a Glance

#### GROWTH AND STATUS



ACTIVE PROBES INCREASED FROM  
**7,500 TO 9,200**



RIPE ATLAS ANCHORS GREW FROM  
**100 TO 164**



ACTIVE USERS  
**10,000** LAST YEAR



MEASUREMENT RESULTS  
**3,500** PER SECOND

#### COVERAGE



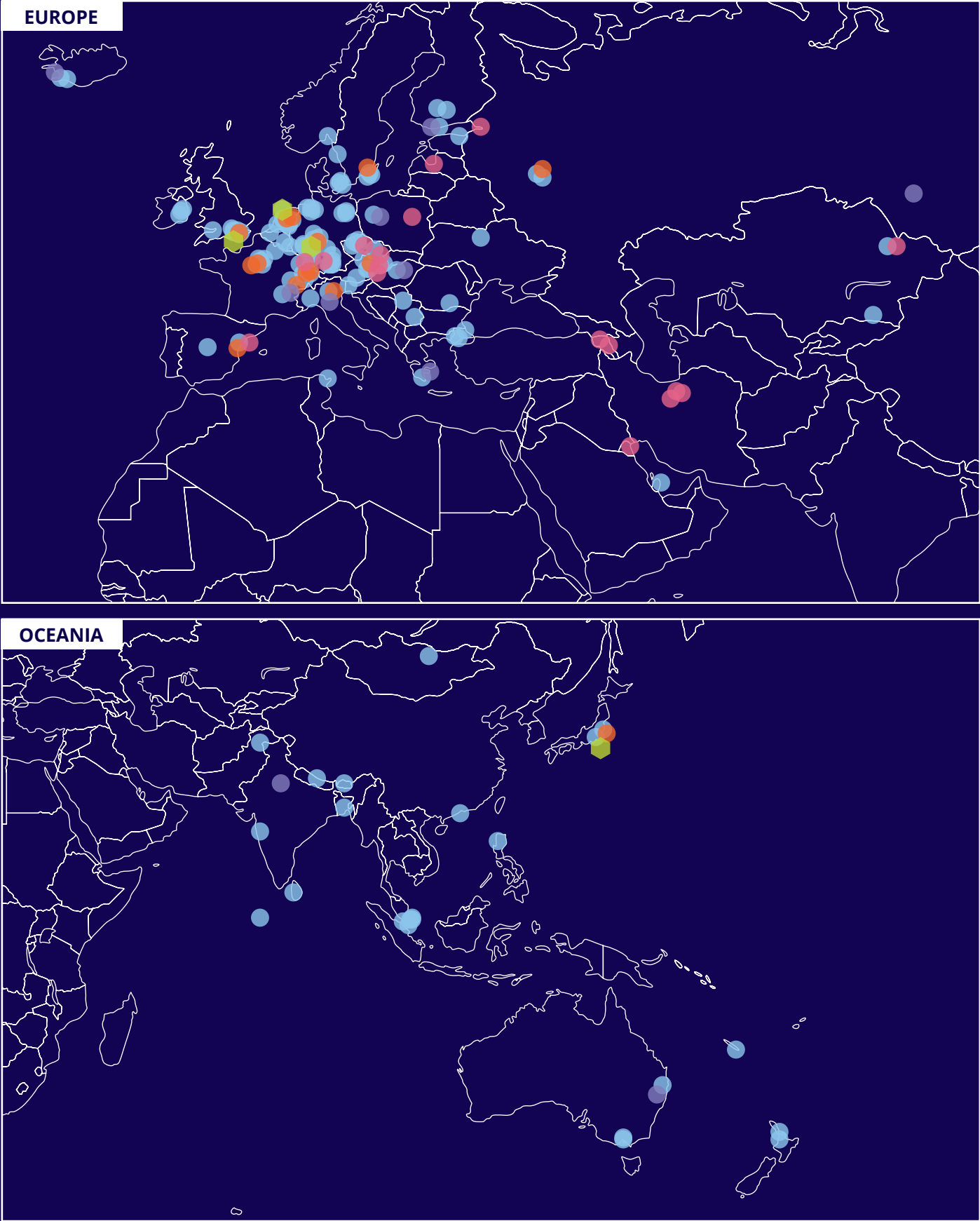
COUNTRIES COVERED  
**181**



ORIGINATING ASNs COVERED  
**3,333 (IPv4) = 6.33%**  
**1,212 (IPv6) = 11.22%**

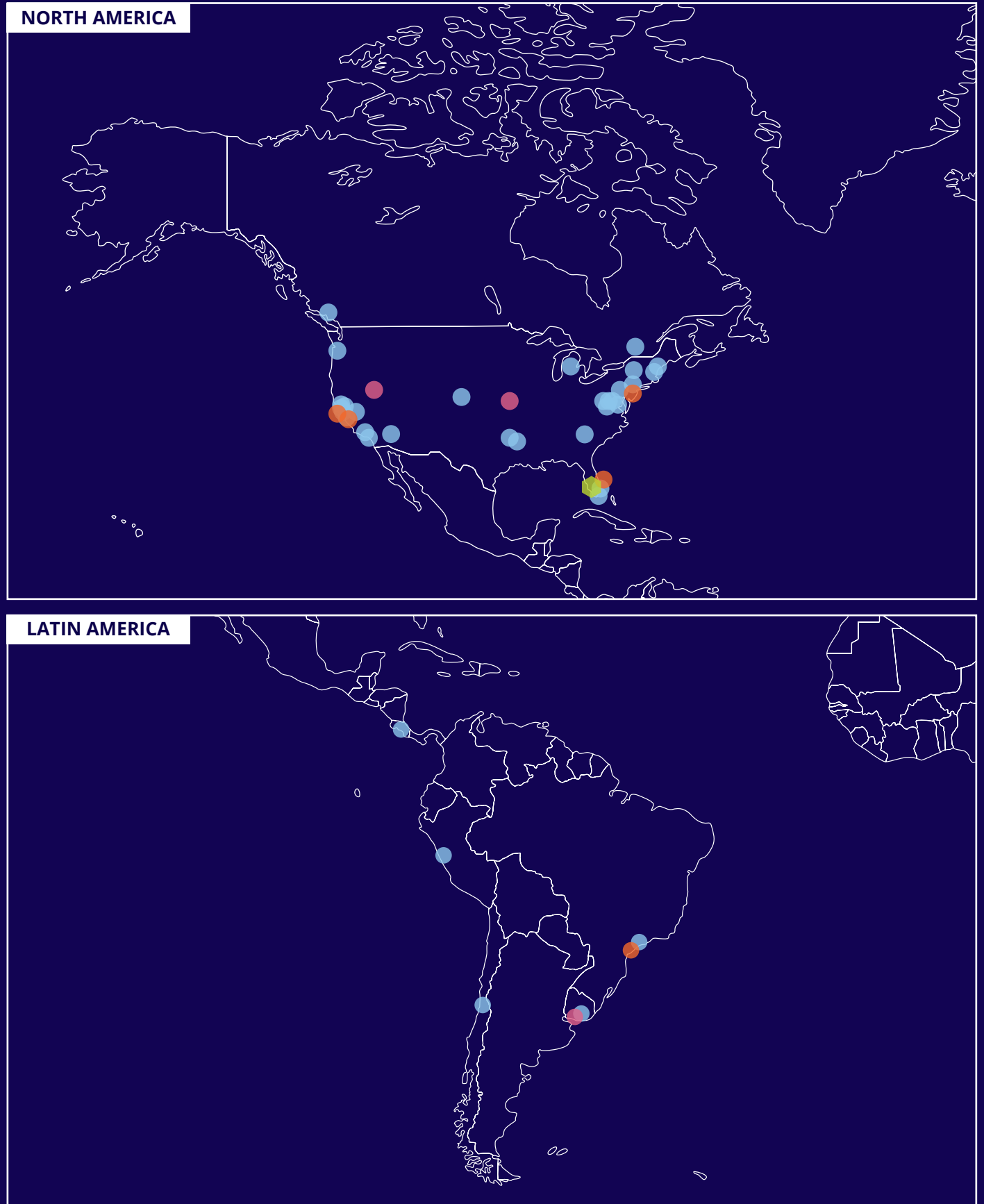
# DISTRIBUTION OF RIPE ATLAS ANCHORS, K-ROOT NODES AND RIS COLLECTORS

- RIPE ATLAS ANCHOR LOCATIONS
- K-ROOT CORE NODES
- K-ROOT HOSTED NODES
- K-ROOT HOSTED NODES ADDED IN 2015
- ROUTING INFORMATION SERVICES (RIS) COLLECTORS



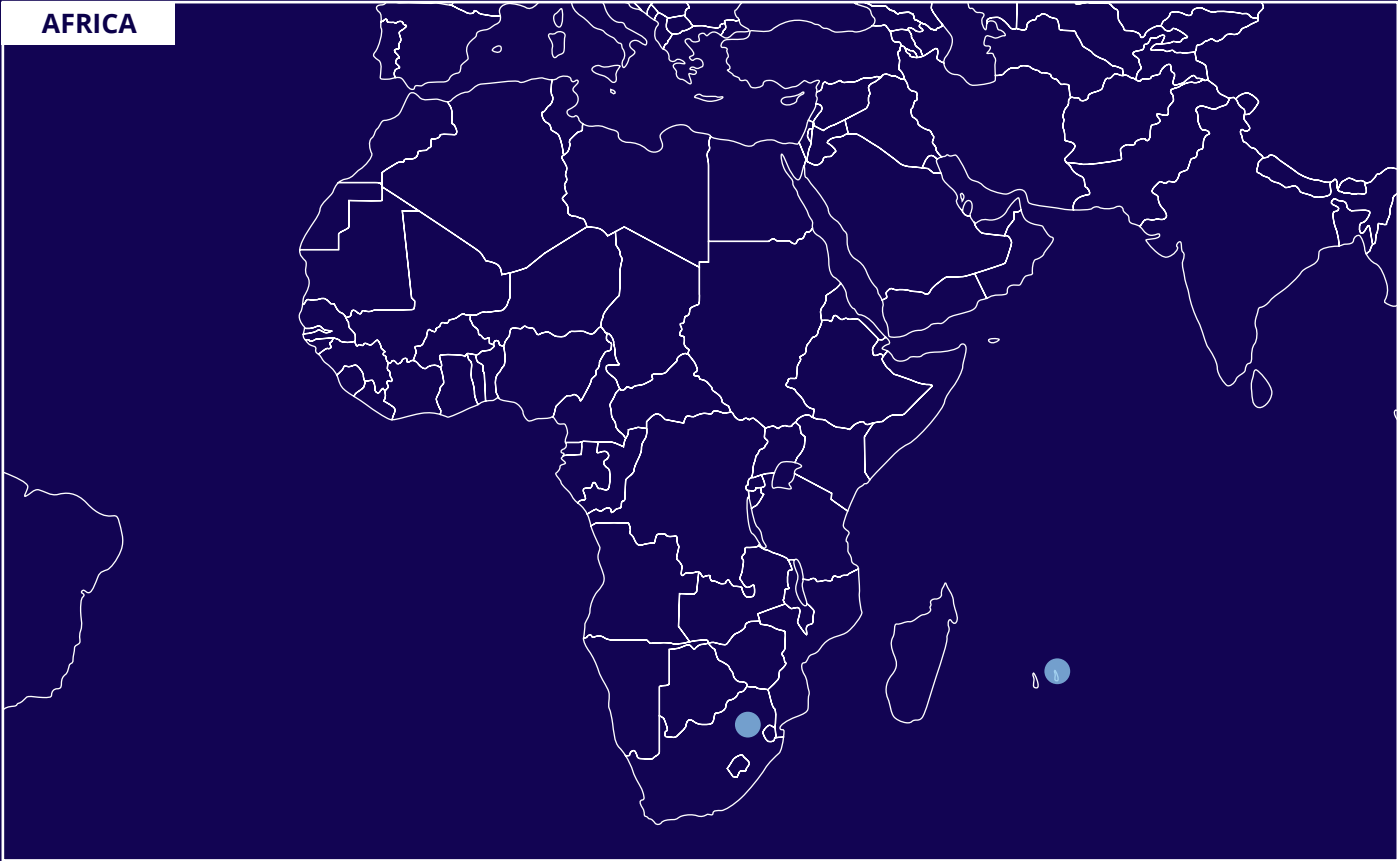
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- K-ROOT HOSTED NODES ADDED IN 2015
- ROUTING INFORMATION SERVICES (RIS) COLLECTORS



## RIS

AMOUNT OF BGP EVENTS PER DAY PER RIS ROUTE COLLECTOR

110BILLION  
EVENTS FOR 2015

5BILLION  
FOR RISNG

105BILLION  
FOR OLD-STYLE RIS

70BILLION  
ENTRIES ARE IN  
DUMP FILES

## K-ROOT

QUERIES PER SECOND  
(AT PEAK TIMES)

50,000

NUMBER OF NODES PROVIDING  
K-ROOT SERVICE OVER IPv6

33



K-ROOT NOW RUNS ON

13  
BIND  
SERVERS

18  
NSD  
SERVERS

13  
KNOT DNS  
SERVERS



## DNS Services

The RIPE NCC anycasted DNS service is run from a cluster of servers in Amsterdam, London and Stockholm. Zones served from these clusters include the RIPE NCC authoritative zones, reverse delegations for RIPE NCC member allocations, country code Top-Level Domain (ccTLD) secondary services and secondary DNS service for other Regional Internet Registries' reverse zones. During 2015, stable secondary DNS service was provided to 74 ccTLDs, six of which were internationalised domain name (IDN) ccTLD domains for Armenia, Iran, Jordan, Kazakhstan, Qatar and Syria.

In addition, the RIPE NCC also runs the Tier-0 registry and the DNS service for the e164.arpa domain to support ENUM.

## K-root and Anycast

Early in 2015, we announced our intention to expand the presence of the K-root anycast service. Since then, we have been working with a variety of hosts to set up K-root nodes in several locations, mostly in the RIPE NCC service region.

K-root operations were stable and operated effectively throughout 2015.

## RIPEstat

RIPEstat is a web-based interface that provides everything you ever wanted to know about IP address space and routing data, DNS data, geographical information, abuse contacts and more in the form of widgets that can be embedded on any web page. RIPEstat also provides an API to access the raw data for use in advanced applications.

### RIPEstat at a Glance

#### RIPESTAT DATA API



DATA API INTERFACES

**100+**



MONTHLY DATA API REQUESTS

**65.3**MILLION



UNIQUE VISITORS

**4.1**MILLION

#### RIPESTAT WEBSITE\*



UNIQUE VISITORS

**300K** (UP BY 20%)



YEARLY PAGE VIEWS

**840K**

*(Based on unique IP address, excluding bots, robots, etc.)*

#### PEAK USAGE



REQUESTS PER HOUR

**450K**

#### USAGE FROM OUR REGION



USERS FROM THE RIPE NCC SERVICE REGION

**83%**

#### TOP FIVE COUNTRIES USING RIPESTAT

**01**

RUSSIA

**02**

CZECH REPUBLIC

**03**

POLAND

**04**

UNITED STATES

**05**

UKRAINE

#### TOP EXTERNALLY EMBEDDED WIDGETS

**01**

BGPLAY

**02**

LOOKING GLASS

**03**

ROUTING HISTORY

**04**

ASN NEIGHBOURS HISTORY

**05**

ROUTING STATUS

## Information Security

In 2015, an external security company conducted security assessments of several RIPE NCC services, including the LIR Portal and RIPE Atlas. Some small issues were found, and all were fixed.

The RIPE NCC CSIRT (Computer Security Incident Response Team) matured its incident response capacity, and received 42 security reports in 2015. Of these, 14 contained security issues that were mitigated. The other 28 reports did not require action. There were no major security incidents in 2015.

The RIPE NCC continues to interact frequently with the security community, and has become a member of NaWas (the Dutch National anti-DDoS Scrubbing Center) in order to be better protected against DDoS attacks.

## RIPE Labs

The RIPE Labs website is built around engagement, collaboration and openness. 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, as well as requests for specific information. Content is also now being exchanged with the other RIRs on a more structured basis.

In 2015, the Statistics Dashboard was again by far the most visited page on RIPE Labs. The data repository also draws many visitors, as well as articles related to IPv6, routing and the DNS.

Former RACI fellows regularly use RIPE Labs to publish new research and the RIPE NCC will work to intensify this collaboration in the future.

<https://labs.ripe.net>

### RIPE Labs in 2015



ARTICLES PUBLISHED

100



ARTICLES FROM  
COMMUNITY MEMBERS

1/3



ARTICLES FROM  
RIPE NCC STAFF

2/3



UNIQUE VISITORS  
IN 2015

110,000



PAGE VIEWS IN 2015

215,000

#### TOP 3 POPULAR TOPICS:

01

IPV6

02

ROUTING

03

DNS



## Paul Rendek

### Director of External Relations

The transition of the IANA stewardship has again been a major focus for the RIPE NCC's external relations efforts. This is a critical point in Internet governance and we have worked hard to support the RIPE community in its engagement and contribute throughout the process as one of the five Regional Internet Registries.

We have also continued our efforts to expand outreach to RIPE NCC members and other stakeholders. These activities include member lunches, roundtable meetings for governments and regulators, and LEA engagements.

Security is an issue of increasing importance to all Internet stakeholders, and this is reflected in the RIPE NCC's external strategy. As part of these efforts, we further developed our ability to engage with law enforcement and the European Union institutions with the addition of Richard Leaning, formerly of Europol, as a consultant in the External Relations team.

## External Relations

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

- 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

## Member Engagement and Outreach

Our expanded presence in our service region allowed us to provide support on a more concentrated scale in 2015. Over the course of the year, we held 12 member lunches in various locations in our service region, attracting a total of 270 attendees. We continued to support smaller events and informal gatherings, allowing us learn more about specific regional issues and developments.

## Internet Governance / IANA Transition and ICANN Accountability

RIPE NCC staff participated in the Consolidated RIR IANA Stewardship Proposal (CRISP) and the ICANN Accountability Cross Community Working Group (CCWG) teams. The RIPE NCC worked in coordination with the other RIRs on the drafting of the Service Level Agreement for the IANA Numbering Services and the Internet Number Community Review Charter, as part of the implementation of the CRISP proposal for the IANA transition.

The RIPE NCC also participated on the drafting team for the Charter of the CCWG as an ASO representative and continues its engagement with the CCWG as a member representing the ASO.

[www.nro.net/nro-and-internet-governance/iana-oversight/documents](http://www.nro.net/nro-and-internet-governance/iana-oversight/documents)

The IANA stewardship transition is ongoing work, though we expect that it will reach a conclusion in 2016. Further detail, including a timeline of the entire process, is available on our website.

The RIPE NCC has also contributed to various Internet governance discussions via the Internet Governance Forum (IGF), regional and national Internet governance events (such as EuroDIG) and events including the 10-year review of the United Nations' World Summit on the Information Society (WSIS).

### RIPE Academic Cooperation Initiative

Since 2013, the RIPE NCC has been coordinating the RIPE Academic Cooperation Initiative (RACI) as a means of encouraging greater engagement by academics and researchers in the RIPE community, by providing free meeting tickets and financial assistance for travel and accommodation. RACI participants have contributed to each RIPE Meeting since the initiative was launched, in both plenary and working group sessions, and, in 2015, contributed for the first time to a MENOG event. There were 15 RACI participants in 2015.

### The Number Resource Organization (NRO)

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.

RIPE NCC Managing Director Axel Pawlik served as Chairman of the NRO in 2015.

### The Address Supporting Organization (ASO)

The ASO is one of the three supporting organisations required by the ICANN bylaws. ASO Address Council (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 (NRO NC) and these individuals carry out the role of the ASO AC.

In 2015, the representatives from the RIPE NCC’s service region, and their three-year terms, were:

- Dmitry Kohmanyuk: 1 Jan 2013 - 31 Dec 2015
- Wilfried Woeber: 1 Jan 2015 - 31 Dec 2017
- Filiz Yilmaz: 1 Jan 2014 - 31 Dec 2016

At the RIPE 71 Meeting in November 2015, attendees voted Nurani Nimpuno onto the NRO NC, to fill the vacant seat left by Dmitry Kohmanyuk. Nurani’s three-year term started on 1 January 2016.

### Attendance at RIPE NCC Events in 2015



TRAINING COURSES  
**2,031**



MEMBER LUNCHES  
**270**



OUTREACH MEETINGS  
**164**



TECHNICAL MEETINGS  
**2,223**

**TOTAL**  
**4,688**



## Serge Radovcic

Chief Communications Officer

Our commitment to transparency and accountability means we constantly work to improve the communication we have with our members and the Internet community as a whole. A key part of this involves fine-tuning our messaging to ensure we deliver an appropriate level of information to our community without overwhelming them.

In 2015 we put a new face on the RIPE NCC through a radically renovated website, following an extensive analysis we conducted in 2014. The overhaul of [www.ripe.net](http://www.ripe.net) is more than just a new look: we have restructured thousands of pages of content resulting in a slightly smaller site that is easier to navigate and find what you are looking for.

2015 was also the year that we launched a new visual identity for the RIPE NCC – including a new logo that better reflects our core values, the community we represent, and the services we offer.

## 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). 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.

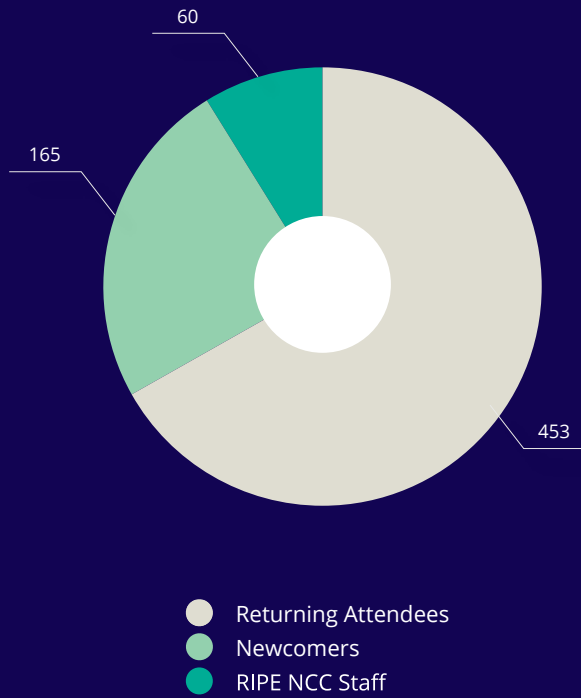
## RIPE Meetings

The RIPE NCC supports and facilitates RIPE Meetings. 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.

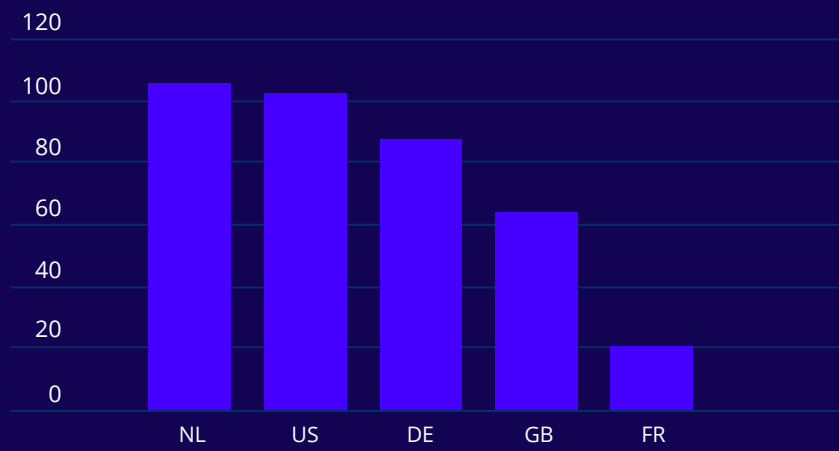
The RIPE NCC facilitates remote participation and feedback mechanisms during RIPE Meetings for those who are unable to take part in person. All sessions are webcast, and remote participants can contribute to discussions during the meeting sessions using Internet Relay Chat (IRC). Live transcripts of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

In 2015, RIPE 70 was held in Amsterdam in May and RIPE 71 was held in Bucharest in November. RIPE 70 was the largest meeting to date, with a total of 678 attendees.

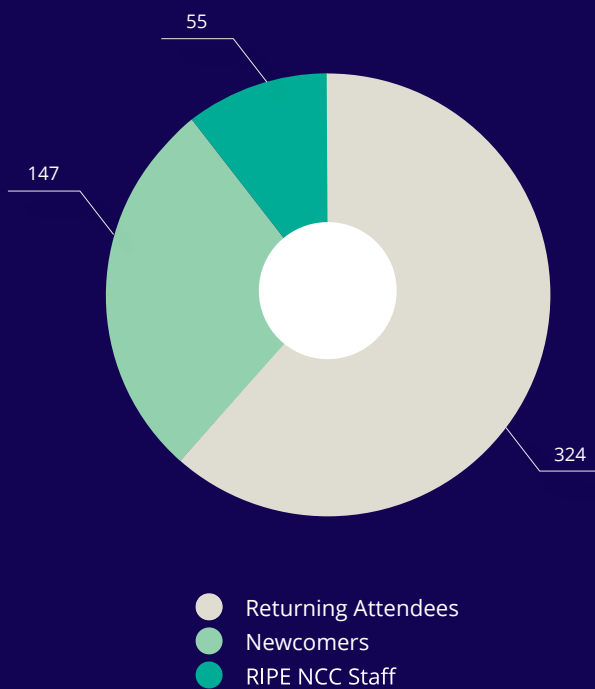
RIPE 70 Attendees (678 total)



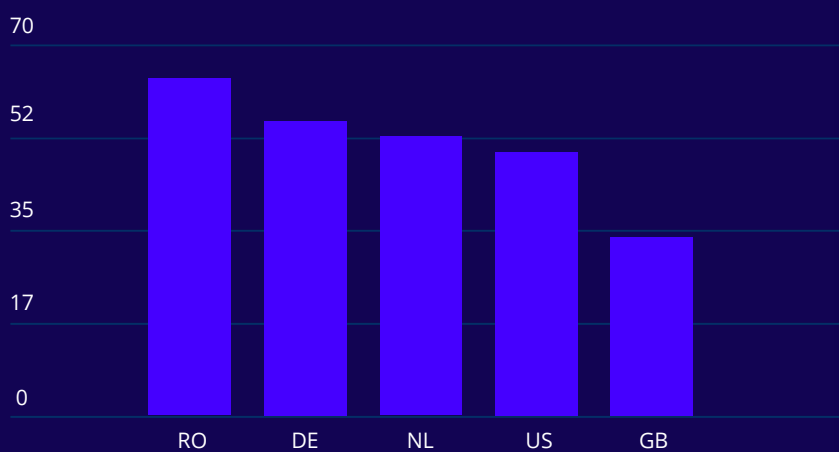
RIPE 70 Attendees - Top 5 Countries



RIPE 71 Attendees (526 total)



RIPE 71 Attendees - Top 5 Countries





## 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 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 RIPE NCC has also expanded its programme of support for smaller, community-based NOGs, providing sponsorship and expertise to national events across the RIPE NCC service region.

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
- Identify, discuss and solve the specific issues affecting operators in a given region
- Encourage broader involvement in the RIPE Policy Development Process

THE RIPE POLICY DEVELOPMENT  
PROCESS (PDP)

The RIPE PDP is a bottom-up process of discussion and consensus-based decision making. It 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
	Document is Drafted and Published Together with the Impact Analysis for the Proposal	6
		7
		8
		9
Review Phase (5 weeks)	Comment and Review (no more than 4 weeks)	10
		11
		12
		13
	Is There Consensus?	14
Concluding Phase (5 weeks)	Last Call (exactly 4 weeks)	15
		16
		17
		18
	Is There Consensus?	19
	Announce Decision	

## Policy Proposals Submitted in 2015

### Submitted Policy Proposals in 2015

In 2015, five new policy proposals were entered into the PDP. All these proposals came from the RIPE Address Policy Working Group.

#### 2015-01 Alignment of Transfer Requirements for IPv4 Allocations

Proposed to apply a 24-month holding period before IPv4 allocations made by the RIPE NCC could be transferred.

#### 2015-02 Keep IPv6 PI When Requesting IPv6 Allocation

Proposed to remove the requirement that LIRs should return their IPv6 Provider Independent (PI) assignment when requesting an IPv6 allocation.

#### 2015-03 Assessment Criteria for IPv6 Initial Allocation Size

Proposed to add new criteria for the evaluation of large IPv6 allocation requests. These new criteria are hierarchical and geographical structure and segmentation for security and planned longevity. The current requirements: number of users and extent of infrastructure, are retained.

#### 2015-04 RIPE Resource Transfer Policies

Proposed to create a single transfer policy, replacing text in several RIPE Policies. The proposal also introduces a 24-month holding period for IPv4 addresses and 16-bit ASNs after any change of holdership.

#### 2015-05 Revision of Last /8 Allocation Criteria

Proposed to allow LIRs to request an additional /22 IPv4 allocation from the RIPE NCC every 18 months. This would only be possible if the LIR has not transferred any IPv4 address space before.

## Concluded Policy Proposals

#### 2014-04 Removing IPv6 Requirement for Receiving Space from the Final /8

To receive an IPv4 allocation from the RIPE NCC, currently Local Internet Registries (LIRs) must have allocated IPv6 address space in the RIPE NCC service region. 2014-04 removed this requirement.

#### 2014-05 Policy for Inter-RIR Transfers of Internet Resources

This proposal allowed the global transfer of Internet number resources under the condition that they can be transferred within the RIPE NCC service region and between other RIR service regions.

#### 2014-06 Publication of Sponsoring LIR for Legacy Internet Resource Holders

This proposal required the RIPE NCC to publish the link

between legacy Internet resource holders and their sponsoring Local Internet Registry (LIR).

#### 2014-07 Language Clarification in "IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region"

#### 2014-08 Language Clarification in "Contractual Requirements for Provider Independent Resource Holders in the RIPE NCC Service Region"

#### 2014-10 Language Clarification in "IPv6 Addresses for Internet Root Servers In The RIPE Region"

#### 2014-11 Language Clarification in "Allocating/Assigning Resources to the RIPE NCC"

These proposals clarified the language in several RIPE documents by changing instances of "should" to "must" where this was creating unwanted ambiguity.

#### 2014-12 Allow IPv6 Transfers

This proposal allowed the transfer of IPv6 allocations and IPv6 Provider Independent (PI) assignments within the RIPE NCC service region.

#### 2014-13 Allow AS Number Transfers

This proposal allowed the transfer of Autonomous System (AS) numbers.

#### 2015-01 Alignment of Transfer Requirements for IPv4 Allocations

See Submitted Policy Proposals.

#### 2015-02 Keep IPv6 PI When Requesting IPv6 Allocation

See Submitted Policy Proposals.

#### 2015-03 Assessment Criteria for IPv6 Initial Allocation Size

See Submitted Policy Proposals.

## Withdrawn Proposals

#### 2014-03 Remove Multihoming Requirement for AS Number Assignments

Proposed to ease the requirements for Autonomous System (AS) Number requests. The proposers decided to withdraw the proposal due to the inability to find an acceptable solution which satisfied all parties.



## Remco van Mook

RIPE NCC Executive Board Treasurer

The financial year 2015 included a number of highlights, most notably the growth of the membership and the additional income that resulted from this growth. The RIPE NCC membership grew by 1,715 to a total of 12,830 members – an unprecedented 15% increase over a 12-month period. The resulting additional income generated a substantial surplus.

At the RIPE NCC General Meeting in November, the membership approved the redistribution of the excess contributions paid. This means in other words that the full surplus will be returned to the membership, leading to a discount of, on average, 25% of the 2016 membership fee. This mechanism eases the difficulty of setting a fee structure in anticipation of the coming year's financial performance, as any excess accumulated throughout the year can be redistributed amongst the membership in the following year.

Following the revised agreement concluded in 2014 with the Dutch tax authorities, 2015 is the first year the RIPE NCC files for corporate income tax. The built-up Clearing House reserves and any capital gains from these reserves will remain non-taxable. The applicability of corporate income tax requires several structural changes to the financial report.

In 2015, we worked on maintaining the RIPE NCC's transparency and fiscal responsibility. Rigorous expense control ensured that operational expenses remained within budget. We also achieved further stability of the financial reserves by maintaining a low risk strategy: the government bonds portfolio was expanded in 2015 and spread across 11 government bonds and diversified over five different currencies.

In 2015, the RIPE NCC concluded a new rental agreement for office space. This new rental agreement is financially sound and provides for housing cost stability for the coming years.

Though the RIPE NCC's activities and relating financial obligations continue to evolve, the organisation remains as strongly positioned as ever. I am fully confident in its capacity to provide excellent services and meet future challenges and growth head-on. As we continue to adapt to the changing financial landscape, our focus remains on prudence towards our reserves and accountability to our members.

## Statement of Income and Expenditure 2015 (in kEUR)

INCOME	Actual 2015	Budget 2015	Actual 2014	Variance 2015 vs B2015		Variance 2015 vs 2014	
Member Fees	21,408	20,319	20,104	1,089	5%	1,304	6%
Member Sign-up Fees	4,904	2,500	3,348	2,404	96%	1,556	46%
RIPE Meetings	214	300	273	(86)	-29%	(59)	-22%
Sponsorship Income	268	100	268	168	168%	-	0%
Other Income	84	50	173	34	68%	(89)	-51%
<b>Subtotal Income</b>	<b>26,878</b>	<b>23,269</b>	<b>24,166</b>	<b>3,609</b>	<b>16%</b>	<b>2,712</b>	<b>11%</b>
Redistribution of Member Fees 2015	(5,335)	-	-	(5,335)	N/A	(5,335)	N/A
<b>Total Income</b>	<b>21,543</b>	<b>23,269</b>	<b>24,166</b>	<b>(1,726)</b>	<b>-7%</b>	<b>(2,623)</b>	<b>-11%</b>
<b>EXPENDITURES</b>							
Salary Components - Personnel	8,627	8,723	8,473	(96)	-1%	154	2%
Secondary Benefits - Personnel	2,352	1,914	2,013	438	23%	339	17%
Miscellaneous - Personnel	1,955	2,196	2,140	(241)	-11%	(185)	-9%
<b>Subtotal Personnel</b>	<b>12,934</b>	<b>12,833</b>	<b>12,626</b>	<b>101</b>	<b>1%</b>	<b>308</b>	<b>2%</b>
Housing	818	888	783	(70)	-8%	35	4%
Office Costs	1,668	1,872	1,643	(204)	-11%	25	2%
Marketing / ER	701	817	593	(116)	-14%	108	18%
Contributions	497	447	361	50	11%	136	38%
IT Infrastructure	1,327	1,229	1,275	98	8%	52	4%
Travel	1,277	1,210	1,341	67	6%	(64)	-5%
Consultancy	1,349	1,443	1,464	(94)	-7%	(115)	-8%
Bank Charges	203	168	163	35	21%	40	25%
Bad Debts	211	200	148	11	6%	63	43%
Depreciation	993	1,000	827	(7)	-1%	166	20%
<b>Total Expenses</b>	<b>21,978</b>	<b>22,107</b>	<b>21,224</b>	<b>(129)</b>	<b>-1%</b>	<b>754</b>	<b>4%</b>
<b>Deficit Before Financial Result</b>	<b>(435)</b>	<b>1,162</b>	<b>2,942</b>	<b>(1,597)</b>		<b>(3,377)</b>	
Result on Interest Income	470	350	460	120	34%	10	2%
Result Revaluation Government Bonds	(297)	-	12	(297)	N/A	(309)	N/A
<b>Financial Result</b>	<b>173</b>	<b>350</b>	<b>472</b>	<b>(177)</b>	<b>-51%</b>	<b>(299)</b>	<b>-63%</b>
<b>Deficit Before Taxation</b>	<b>(262)</b>	<b>1,512</b>	<b>3,414</b>	<b>(1,774)</b>		<b>(3,676)</b>	

**Balance Sheet 31 December 2015 Before Allocation of Deficit (in kEUR)**

<b>ASSETS</b>	<b>2015</b>	<b>2014</b>
<b>Tangible Fixed Assets</b>		
Computers	1,821	1,491
Infrastructure	19	88
Office Equipment	45	73
<b>Total Tangible Fixed Assets</b>	<b>1,885</b>	<b>1,652</b>
<b>Financial Fixed Assets</b>		
Government Bonds	10,331	7,305
<b>Total Financial Fixed Assets</b>	<b>10,331</b>	<b>7,305</b>
<b>Cash on Hand</b>	<b>19,388</b>	<b>17,672</b>
<b>Miscellaneous Receivables - Current Assets</b>		
Accounts Receivable	774	565
Value Added Tax (VAT)	127	181
Miscellaneous Receivables	1,256	1,133
<b>Total Current Assets</b>	<b>2,157</b>	<b>1,879</b>
<b>TOTAL ASSETS</b>	<b>33,761</b>	<b>28,508</b>
<b>CAPITAL AND LIABILITIES</b>		
<b>Capital</b>		
Clearing House	25,326	21,912
Surplus / Deficit After Taxation	(262)	3,414
<b>Total Capital</b>	<b>25,064</b>	<b>25,326</b>
<b>Current Liabilities</b>		
Creditors	615	965
Wage Taxes & Social Securities	506	562
Unearned Revenues	929	507
Redistribution of Members Fees 2015	5,335	-
Miscellaneous Payables	1,312	1,148
<b>Total Current Liabilities</b>	<b>8,697</b>	<b>3,182</b>
<b>TOTAL CAPITAL AND LIABILITIES</b>	<b>33,761</b>	<b>28,508</b>

## Cash Flow Statement 2015 (in kEUR)

		2015	2014
Operational Cash Balance	01 January 2015	17,672	14,680
<b>Cash Inflow</b>			
New Member Fees and Sign-up Fees		5,534	3,835
Member Fees		21,204	19,561
RIPE Meetings		187	280
Interest Received		468	466
Sale - Financial Assets		3,620	1,825
Other		891	876
<b>Total Inflow</b>		<b>31,904</b>	<b>26,843</b>
<b>Cash Outflow</b>			
Salary		6,804	6,519
Wage Tax and Social Security		4,297	4,304
Pension and Health		1,044	1,086
RIPE Meetings and Regional Meetings		848	664
ICANN		310	189
Purchase - Financial Assets		6,943	1,961
Creditors		10,021	9,209
<b>Total Outflow</b>		<b>30,267</b>	<b>23,932</b>
<b>Total Cash Inflow Balance</b>		<b>1,637</b>	<b>2,911</b>
Unrealised Exchange Rate Income		79	81
Operational Cash Balance	31 December 2015	19,388	17,672
<b>Financial Assets</b>			
Financial Assets Cash Balance	01 January 2015	7,305	7,157
<b>Government Bonds 01 January 2015</b>		7,305	7,157
Net Cash Used for Government Bonds		3,323	136
Revaluations of Government Bonds		(297)	12
<b>Government Bonds 31 December 2015</b>		10,331	7,305
<b>Other Financial Assets 01 January 2015</b>			
Net Cash Used for Other Financial Assets			
Revaluations of Other Financial Assets		-	-
<b>Other Financial Assets 31 December 2015</b>		-	-
Financial Assets Cash Balance	31 December 2015	10,331	7,305
<b>Total Start Cash Balance</b>	01 January 2015	<b>24,977</b>	<b>21,837</b>
<b>Total End Cash Balance</b>	31 December 2015	<b>29,719</b>	<b>24,977</b>

## Accounting Policies Used to Prepare the Financial Report

All amounts are expressed in kEUR (1,000 EUR). Foreign currencies are converted at the daily exchange rate at the date of transaction or valuation. The balance sheet is based on the status at 31 December 2015. The financial statements were prepared on 31 March 2016.

### General

As a not-for-profit membership association under Dutch law, the RIPE NCC administers Internet number resources for its members in Europe, the Middle East and parts of Central Asia. The RIPE NCC maintains several technical elements vital to the Internet infrastructure, including the public RIPE Database and K-root. Finally, as secretariat to the RIPE community, the RIPE NCC carries out a number of support functions such as running RIPE Meetings and facilitating the RIPE Policy Development Process.

The accounting principles applied by the RIPE NCC are in accordance with Dutch law and accounting standards on recognition and measurement. This financial report has been made in accordance with Dutch Accounting Standards (RJ640).

### Statement of Income and Expenditure

The financial result (a surplus or deficit) is determined as the difference between net income and all expenses relating to the reporting period. Costs are determined in accordance with the accounting policies applied to the balance sheet. The financial result is realised in the year in which the income is recognised. Losses and risks originating before the end of the financial year are recorded only if they are known before the preparation of the financial statements.

Income relates to the proceeds from membership fees, sponsorships and the delivery of services after deducting taxes on sales. If the result of a transaction relating to one of these can be reliably estimated and the income is likely to be received, the income relating to that service is recognised in proportion to the service delivered.

Annually, the RIPE NCC members determine whether to adjust member fees for the year by adopting a redistribution for the current year regarding excess contribution paid.

Expenses are determined with due observance of the accounting policies mentioned above and are allocated to the financial year to which they relate. Foreseeable and other obligations as well as potential losses arising before the end of the financial year are recognised if they

are known before the financial statements are prepared, provided that all other conditions for forming provisions are met.

Pension contributions payable to the pension scheme administrator are recognised as an expense in the Statement of Income and Expenditure. Contributions payable or prepaid contributions at year-end are recognised under accruals and prepayments respectively. A provision is formed for liabilities other than the contributions payable to the pension scheme administrator if, at the balance sheet date, the RIPE NCC has a legal or constructive obligation towards the pension plan administrator and its own employees, and settlement of these liabilities will likely entail an outflow of resources. This is provided a reliable estimate can be made of these liabilities. The provision for additional liabilities to the pension scheme administrator and/or the employees is based on a best estimate of the amounts required to settle these at the balance sheet date.

Interest income is recognised pro rata in the Statement of Income and Expenditure, taking into account the effective interest rate for the asset concerned, provided the income can be measured and it is likely to be received. Interest is allocated to successive financial reporting periods in proportion to the outstanding principal. Premiums and discounts are treated as annual interest charges so that the effective interest rate, together with the interest payable on the loan, is recognised in the Statement of Income and Expenditure with the amortised cost of the liabilities recognised in the Balance Sheet. Period interest charges and similar charges are recognised in the year in which they are due.

### Balance Sheet

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

Tangible Fixed Assets are depreciated for the actual period of economic use. If the expected depreciation method, useful economic life and/or residual value are subject to changes over time, they are treated as a change in accounting estimate. A tangible fixed asset is derecognised upon sale or when no further economic benefits are expected from its continued use or sale. The gain or loss arising from the disposal is booked to the Statement of Income and Expenditure. Tangible Fixed Assets in use by the company are carried at the cost of acquisition, net of accumulated depreciation and, where applicable, accumulated impairment losses. Tangible Fixed Assets carried at cost do not include capitalised interest charges.



Computers and Infrastructure are both written off over three years. Office Equipment is written off after five years. All items under EUR 500 are expensed.

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

Cash on Hand includes petty cash and cash held in bank accounts. It also includes deposits if these are effectively at the RIPE NCC's free disposal. Cash on Hand that is not expected to be at the RIPE NCC's free disposal within 12 months is classified under Financial Fixed Assets.

Accounts Receivable is initially stated at fair value and subsequently at amortised cost. This is shown after the deduction of a provision for bad and doubtful debts where appropriate. The Accounts Receivable and Miscellaneous Receivables have a maturity date within one year.

Current Liabilities are initially stated at fair value and subsequently at amortised cost. These are due within one year.

### Cash Flow Statement

The RIPE NCC adheres to the direct method for Cash Flow representation according to Dutch accounting standards. Cash consists of cash at current bank accounts and deposits. Cash Flow in foreign currencies is converted at the daily exchange rate on the date of transaction or valuation. Interest received and paid is reported under Cash Flow from operating activities.

### Taxes

Taxes are calculated on the surplus as disclosed in the statement of income and expenditure based on current tax rates, allowing for tax-exempt items and cost items which are non-deductible, either in whole or in part. Based on a ruling from the Dutch tax authorities, the RIPE NCC is subject to corporate income tax.

### Leasing

Assessing whether an agreement contains a lease depends on the substance of the agreement. An agreement is regarded as a lease if its fulfillment depends on the use of a specific asset, or if the lease contains the right of use for a specific asset. The RIPE NCC has no financial lease agreement or agreements in which it acts as lessor. For operating leases, the lease payments are charged to the Statement of Income and Expenditure on a straight-line basis over the term of the lease.

### Judgments and Estimates

The RIPE NCC's management makes various judgments and estimates when applying the accounting policies and rules for preparing financial statements. The principal judgments and estimates, including underlying assumptions, are the provision of bad debts. The provision of bad debts is an assumption based on the experience from past years that approximately 1% of existing members will not pay their membership fee.

### Notes to the Statement of Income and Expenditure 2015

The financial year 2015 resulted in a deficit of 262 kEUR. This deficit is caused by the redistribution of the excess membership fees paid (5,335 kEUR) that will be returned to the membership.

This redistribution followed the decision by the General Meeting in November 2015, when the membership voted to return the excess contribution paid in 2015 to members.

In 2015, the deficit resulted in a small decrease in the RIPE NCC’s Capital, leading to a decrease of the RIPE NCC’s capital/expense ratio from 119% of total expenses in 2014 to 114% at the end of 2015.

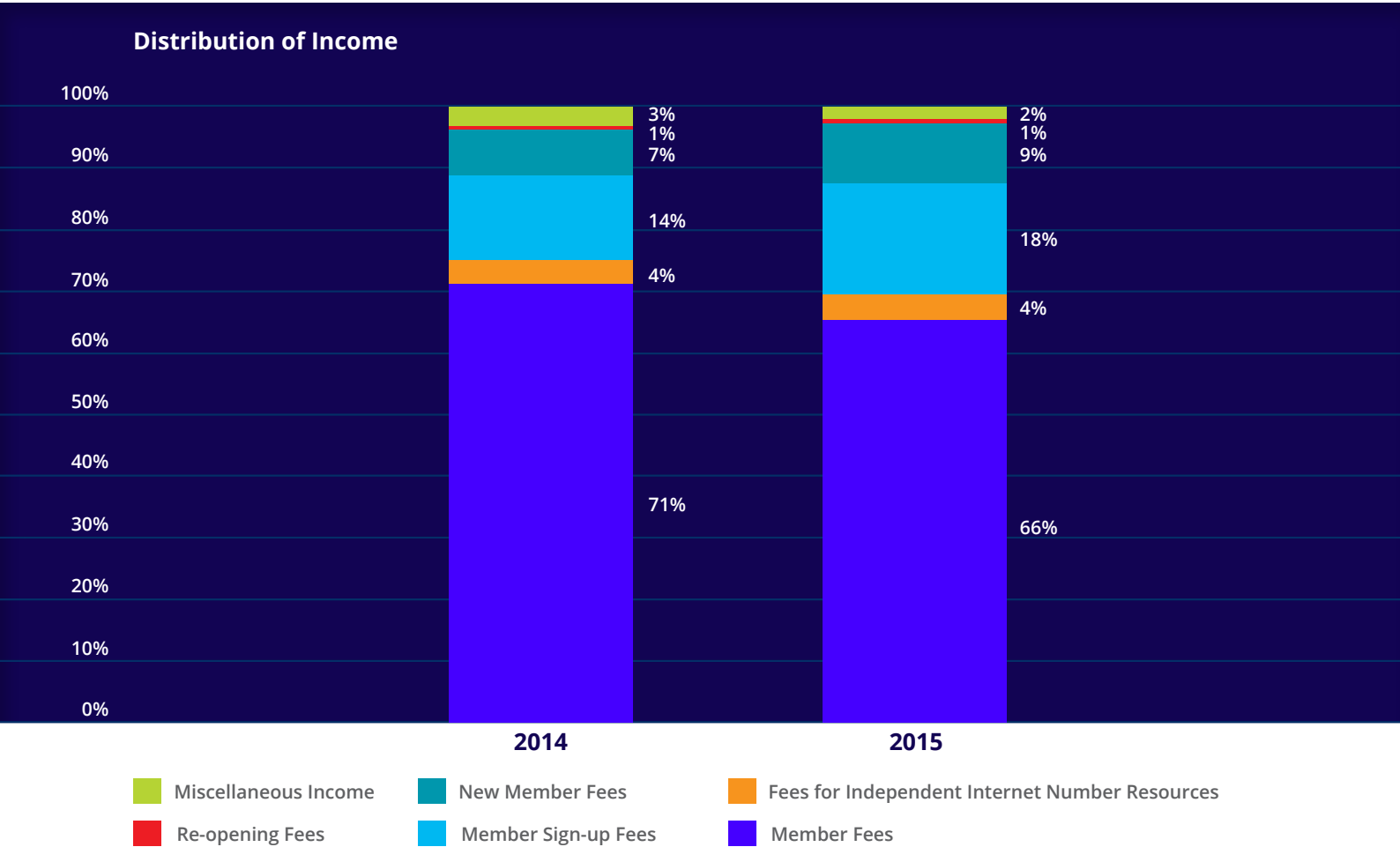
### Income

By 31 December 2015, the total income was 21,543 kEUR. The redistribution of contributions in 2015 amounted to 5,335 kEUR, bringing down the total income from 26,878 kEUR to 21,543 kEUR. The income excluding the redistribution was 16% above budget and 11% above the income from 2014.

Membership fees account for 81% of the RIPE NCC’s total income, without the redistribution of the excess membership fees. This category is comprised of membership fees for existing and new members, fees for independent Internet number resources and re-opening fees.

The income from sign-up fees in 2015 was the highest in the RIPE NCC’s history, reaching 4,904 kEUR. This corresponds to a 46% growth in comparison to sign-up fee revenue from 2014.

The chart below shows the distribution of income for 2015 compared to 2014. Note that this chart excludes the re-distributed amount of the member fees 2015.



Note: RIPE Meeting Income, Sponsorship Income and Other Income are grouped into “Miscellaneous Income” for representation purposes.

In 2015, the number of members increased by 1,715 to 12,830, a growth of 15%. This takes into consideration closures and mergers that took place throughout 2015.

In 2015, the RIPE NCC received 2,845 membership applications. The table below shows the membership development over 2015:

### Membership Development Over 2015

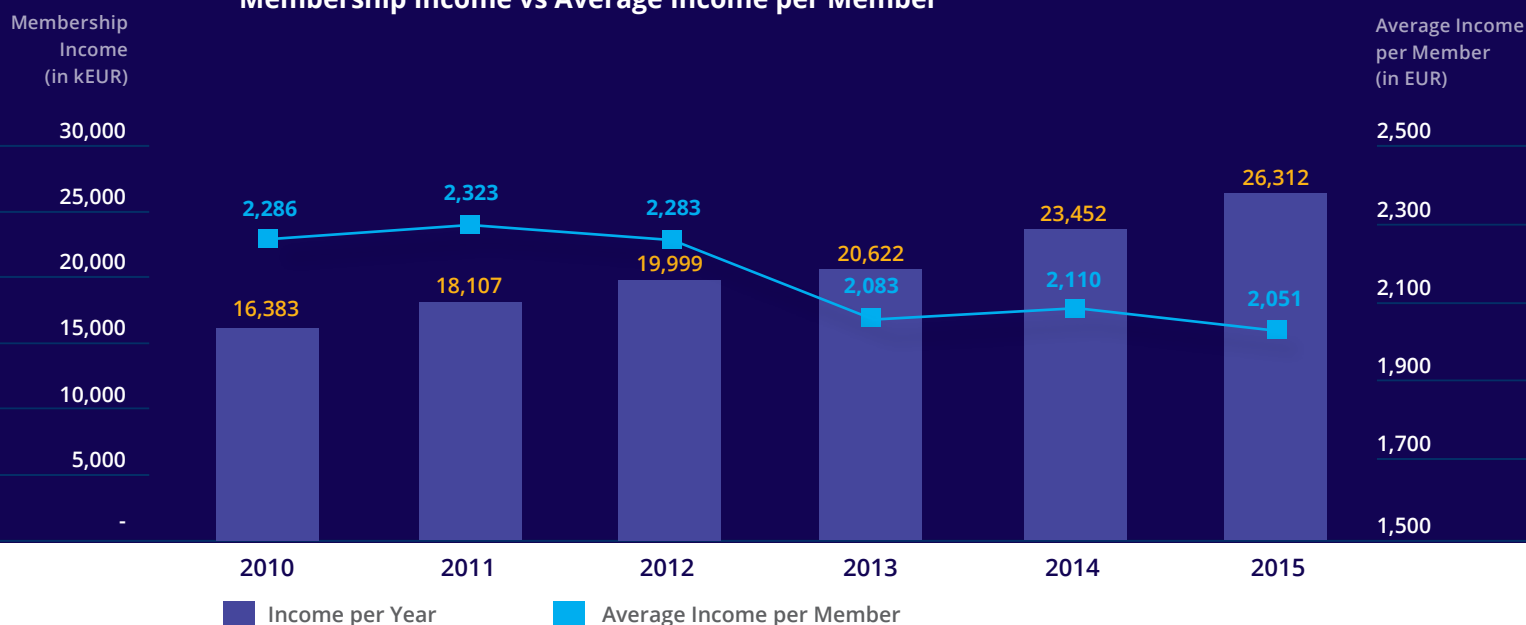
<b>Members per 1 January 2015</b>	<b>11,115</b>
Number of Applications	2,845
Never Starters	(373)
<b>Net Growth of New Members</b>	<b>2,472</b>
Closures due to Non-payment	(115)
Closures due to Mergers, Acquisitions or by Request of the Member	(642)
<b>Number of Closures</b>	<b>(757)</b>
<b>Members per 31 December 2015</b>	<b>12,830</b>

In 2015, the annual membership fee was lowered from EUR 1,750 to EUR 1,600, a fee decrease of 9%, continuing the trend of reducing the membership fees that started in 2012.

Membership Income, comprised of membership fees and sign-up fees, amounted to 26,312 kEUR. In 2015, the average income per member was EUR 2,051, a 3% decrease in comparison to 2014. This decrease is less than the annual membership fee decrease as a result of the high influx of new members who pay an additional sign-up fee of EUR 2,000.

The chart below shows the development of the Membership Income and the average income per member over time.

### Membership Income vs Average Income per Member



RIPE Meeting Income was lower than budgeted and 22% below the previous year. This decrease was caused by local VAT charges that were applied to RIPE Meeting fees following EU VAT regulations. Since the RIPE Meeting fees were kept at the same level as previous years, the VAT reduced the actual income in comparison to the budget and to 2014 levels. In addition, the number of free tickets used by new LIRs increased, lowering the total number of paying attendees at the two RIPE Meetings in 2015 to 743 compared to 787 in 2014.

In 2015, Sponsorship Income was at the same levels as the previous year.

Sponsorship Income (in kEUR)	2015	2014
RIPE Atlas Probes	95	90
ENOG Meetings	38	45
RIPE Meetings	122	123
SEE Meetings	13	10
<b>Total Sponsorship Income</b>	<b>268</b>	<b>268</b>

In 2015, Other Income was 84 kEUR. This includes payments from debtors, exchange rate differences and EU VAT reclaims from 2014, as well as the value change of the Middle East Network Operator Group (MENOG) funds that are accounted for by the RIPE NCC.

### Redistribution of Member Fees 2015

In November 2015, the General Meeting decided that the excess membership fees paid in 2015 should be redistributed as a rebate to members. The redistribution 2015 comprises of a redistribution of Member fees that will be returned to the members as a discount over the 2016 member invoices of 5,335 kEUR. This redistribution reduces the Total Income to 21,543 kEUR.

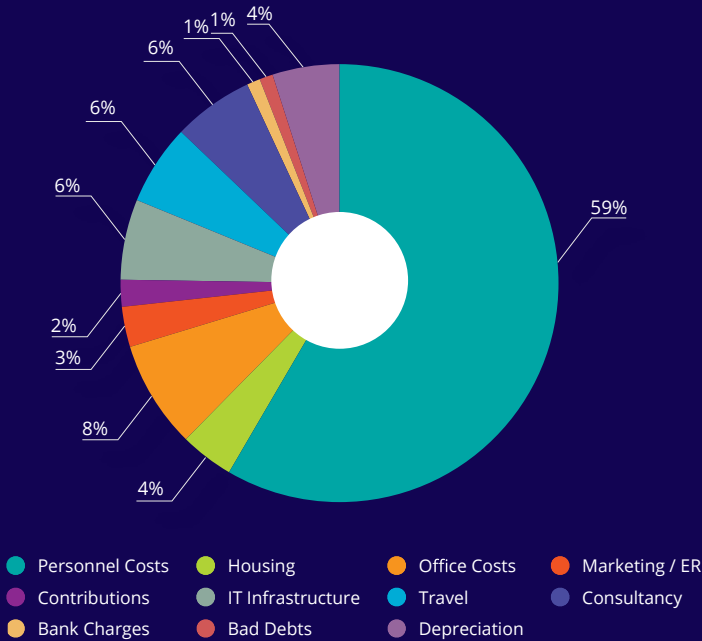
### Expenditures

Even though the high influx of new members in 2015 caused additional workload, as in previous years the RIPE NCC was able to keep expenditures within the budget set. The total expenditure amounted to 21,978 kEUR, 1% below budget.

The chart below shows the distribution of expenses per category for 2015.

Expenses (in kEUR)

Personnel Costs	12,934
Housing	818
Office Costs	1,668
Marketing / ER	701
Contributions	497
IT Infrastructure	1,327
Travel	1,277
Consultancy	1,349
Bank Charges	203
Bad debts	211
Depreciation	993
<b>Total</b>	<b>21,978</b>



Personnel Expenses

In 2015, Personnel Expenses were 1% above budget and 2% above 2014. The number of employees decreased from 137 to 133 full-time equivalents (FTEs).

Overall, the average cost per employee increased in 2015. This was mainly caused by regular annual salary increases but also scarcity in the labour market for skilled engineers increasing salaries for new engineers coming onboard.

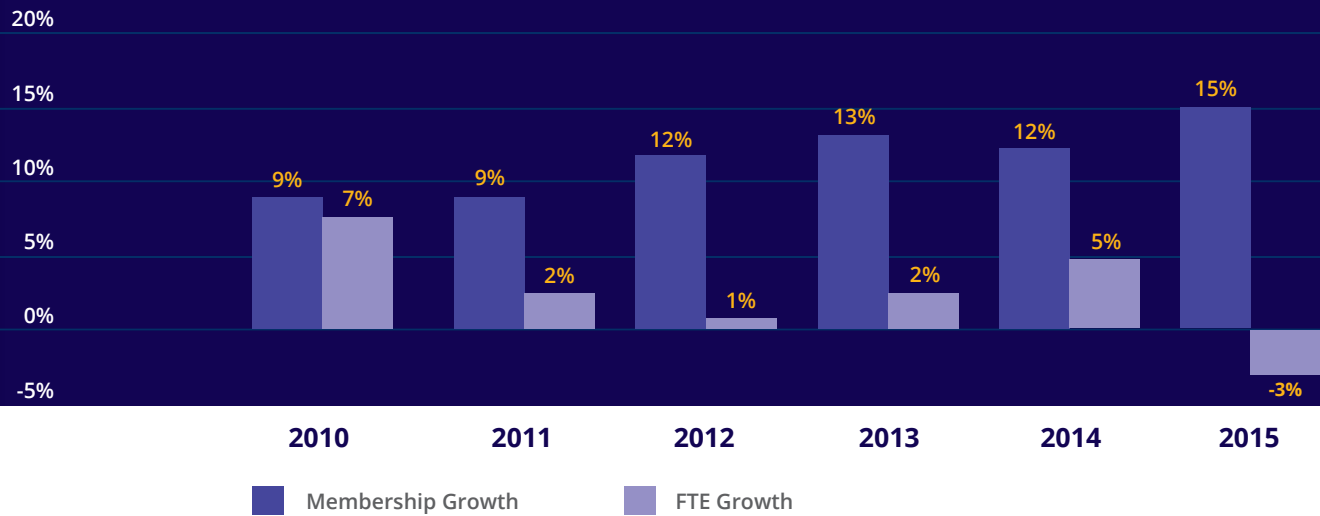
The RIPE NCC has a pension system of defined contributions with a pensionable age of 67 years, in accordance with Dutch legislation. Pension contributions increased as the result of an ageing workforce and also due to a one-off settlement with the former pension provider of 65 kEUR.

In 2015, Personnel Expenses accounted for 59% of the total Expenses of the RIPE NCC.

Pension Contributions and Wage Taxes (in kEUR)

	2015	2014
Pension Contribution	1,129	963
Employers Taxes	1,138	1,323

FTE Growth vs Membership Growth



The RIPE NCC Executive Board does not receive remuneration or a fixed cost reimbursement. Board members are reimbursed for expenses incurred while fulfilling their RIPE NCC duties. These costs are primarily travel expenses for board meetings, RIPE Meetings, RIPE NCC Regional Meetings and other Internet coordination meetings such as ICANN meetings. In 2015, these costs amounted to 165 kEUR.

In 2015, Housing costs were below budget but increased by 35 kEUR from 2014 levels, due to contractual price index increases in the lease prices for both the Amsterdam and Dubai offices. Office costs were well below budget, mainly due to lower use of temporary staff as well as less equipment rent required for our offices and for external meetings. The expenses levels were 25 kEUR higher than 2014, caused by high postage costs due to the increase in new members.

Marketing and External Relations costs were below budget but 18% higher than in 2014. A grant of 50 kEUR was made to the CryptTech project as part of the RIPE NCC Executive Board's promise to fund projects for the good of the Internet. The RIPE NCC also increased outreach efforts by offering more member events throughout its service region. This resulted in higher expenses than the previous year.

As in previous years, financial contributions were made to Internet governance organisations like ICANN, ISOC, the ITU and the IGF. These contributions are made in USD, which strengthened against the EUR in 2015. This led to higher than expected costs.

The local node for resiliency and the overhaul for existing co-locations increased the expenses for IT infrastructure by 8% over budget and 4% in comparison with 2014. In addition to this, in 2015 the RIPE NCC renegotiated existing co-location contracts for K-root global nodes, providing a higher quality of service and support to co-location providers to assure the overall continued stability of K-root.

Travel costs increased by 6% against the budget and decreased by 5% versus 2014. This decrease was caused by a lower number of trips made in 2015: 491 against 446 in the budget and 516 in 2014. The average cost per trip remained at the same level as in 2014.

Consultancy costs in 2015 were 7% below budget and 8% less than in 2014, mainly resulting from a reduction in IT consultancy.

Bank charges increased by 25% over 2014 due to a higher number of transactions following the increase in the membership.

As in previous years, the amount of Bad Debts continues to be 1% of the member fees. For 2015, this amounted to 211 kEUR. This is an increase from 2014 caused by a higher number of non-paying members in 2015. This item includes an accrued amount for the outstanding invoices in 2015 at year-end.

2015 was marked by high investments being made in hardware, resulting in 20% higher depreciation costs compared to the previous year. These investments were mainly lifecycle replacements to maintain a stable and state-of-the-art IT infrastructure. The RIPE NCC maintained a low rate of investment in office infrastructure, which it started in 2014. Overall, depreciation expenses were just 1% below the budget.

Interest income is generated by the bank deposits and government bonds held in the RIPE NCC's portfolio. The total interest income amounted to 470 kEUR, reflecting the continued low returns on bank deposits and government bonds. On average, the RIPE NCC achieved a 1.5% return on its investments. The revaluation of government bonds was negative due to the negative exchange rate developments causing an overall low financial result of 173 kEUR. The capital gain that is attributable to the Clearing House reserve is excluded from corporate income tax. This amounted to 120 kEUR, while 53 kEUR will be taken into account for corporate income taxation.

## Notes to the Balance Sheet as per 31 December 2015

### Tangible Fixed Assets

Capital expenses for 2015 were 1,226 kEUR, which corresponded to an increase of 24% in capitalised costs compared to 2014, but represents a decrease of 35% against the budget set for 2015. The lower capital expenses are largely due to very low housing infrastructure investments – as the RIPE NCC will relocate in 2016, no further investments in the existing offices were made.

Below is an overview of the Tangible Fixed Assets per 31 December 2015.

### Tangible Fixed Assets (in kEUR)

	Hardware	Infrastructure	Office Equipment	Total
Purchased Costs	3,193	432	172	3,797
Depreciation	(1,702)	(344)	(99)	(2,145)
<b>Book Value 31 December 2014</b>	<b>1,491</b>	<b>88</b>	<b>73</b>	<b>1,652</b>
Additions	1,225	0	1	1,226
Depreciation	(895)	(69)	(29)	(993)
<b>Total Change in Net Book Value</b>	<b>330</b>	<b>(69)</b>	<b>(28)</b>	<b>233</b>
Purchase Costs	4,418	432	173	5,023
Accumulated Depreciation	(2,597)	(413)	(128)	(3,138)
<b>Book Value 31 December 2015</b>	<b>1,821</b>	<b>19</b>	<b>45</b>	<b>1,885</b>

### Financial Fixed Assets

The RIPE NCC's investments are managed in accordance with the RIPE NCC Treasury Statute. At present, the RIPE NCC only holds deposits with a maturity of less than one year. These deposits with a short maturity are reported as Cash on Hand and are effectively at the RIPE NCC's free disposal.

By 31 December 2015, the RIPE NCC held 11 different government bonds for a value of 10,331 kEUR invested in five different currencies: EUR, CAD, AUD, USD and GBP. The expansion of the government portfolio meets the asset mix that is aimed for in the RIPE NCC Treasury Statute, assuring a minimal risk strategy for the RIPE NCC's reserves.

By 31 December 2015, the RIPE NCC held the following government bonds (figures stated at fair value in kEUR).



**Government Bonds (in kEUR)**

Government bond	Currency	Coupon Rate	Expiration Year	Value per 31 Dec 2014	Additions	Disposals	Revaluations	Value per 31 Dec 2015
Australia	AUD	4.25%	2017	870			(21)	849
Austria	EUR	3.50%	2021	-	977		6	983
Canada	CAD	1.50%		857		832	(25)	-
Canada	CAD	2.75%	2016	905			(72)	833
European Investment Bank	EUR	4.75%	2017	962			(36)	926
European Investment Bank II	EUR	2.25%	2022	-	988		9	997
Finland	EUR	3.50%	2021	-	999		(26)	973
France	EUR	3.25%	2016	939			(29)	910
Germany	EUR	1.00%	2025	-	1,000		(17)	983
Germany	EUR	2.25%		1,021		1,009	(12)	-
Norway	NOK	5.00%		744		790	46	-
The Netherlands	EUR	1.75%	2023	-	998		(13)	985
The Netherlands	EUR	3.50%		1,007		989	(18)	-
United Kingdom	GBP	5.00%	2018	-	995		(42)	953
United States	USD	3.13%	2019	-	986		(47)	939
				<b>7,305</b>	<b>6,943</b>	<b>3,620</b>	<b>(297)</b>	<b>10,331</b>

The value listed is the fair value: the price of the bond at the reference date, multiplied by (when applicable) the exchange rate at the reference date, multiplied by the number of bonds. Government bonds are held to maturity.

**Current Assets****Accounts Receivable**

Accounts Receivable is 774 kEUR and consists of those member fee invoices outstanding at 31 December 2015. The largest part of the Accounts Receivable are outstanding invoices from 222 new applicants, amounting to 678 kEUR. In addition, outstanding invoices from existing members amounted to 38 kEUR. A restatement of 131 kEUR was made from Accounts Receivable to Accounts Payable for amounts prepaid by members at 31 December 2015.

Other items included in Accounts Receivable are outstanding invoices from miscellaneous debtors of 55 kEUR, all related to outstanding invoices from sponsors for RIPE Atlas and RIPE Meetings. A Bad Debt provision is set at 1% of the Accounts Receivable for all outstanding invoices per 31 December 2015. Payments that could not be identified and

attributed to any specific member amounted to 3 kEUR at year-end 2015.

**Value Added Tax (VAT)**

The VAT to be received from tax declarations for 2015 amounts to 127 kEUR, which is considerably lower than the previous year. This decrease of 54 kEUR compared to 2014 is the result of a lower number of outstanding creditor invoices in the last months of 2015.

An amount of 20 kEUR relates to VAT to be received from the Romanian tax authorities for Romanian VAT charged at the RIPE Meeting in Bucharest in November 2015.

**Miscellaneous Receivables**

Miscellaneous Receivables in 2015 increased by 123 kEUR compared to 2014. The increase was due to a higher level of prepayments for upcoming RIPE Meetings. Other items are prepayments and transitory items for payments that will be made for 2016 related costs for office rent, software licenses, IT service contracts, co-location lease, travel costs, pensions, health, Dubai office-related costs, public transportation cards and contributions.

The overall amount held in funds increased in 2015 but due to the low interest rate on deposits, the Interest Receivable in 2015 was on the same level as the previous year. Other Receivables was slightly lower than 2014 and reflects a lower amount of credit card payments to be received. Rent deposits and payments in transit are included under Other Receivables.

Miscellaneous Receivables (in kEUR)	2015	2014
Prepayments	824	698
Interest Receivable	273	271
Other Receivables	159	164
<b>Total Miscellaneous Receivables</b>	<b>1,256</b>	<b>1,133</b>

### Cash on Hand

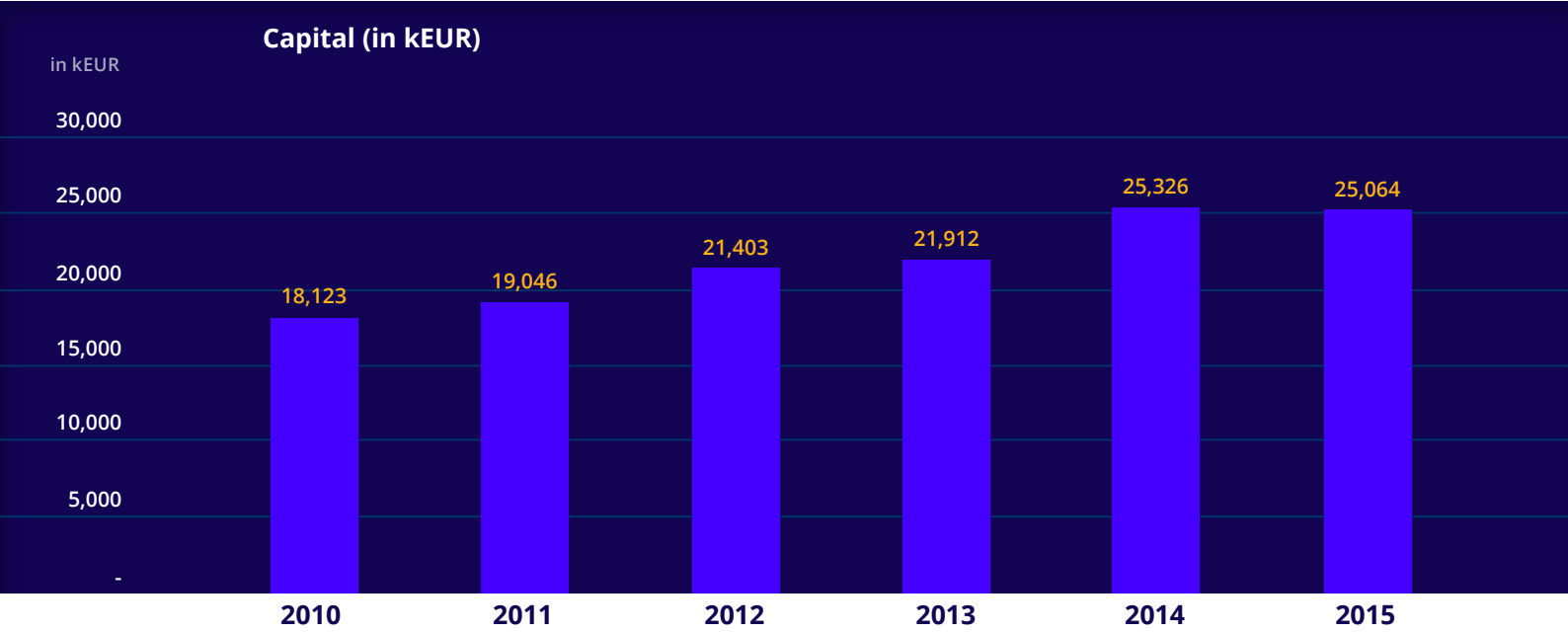
Deposits included under Cash on Hand can be withdrawn on demand. All amounts in Cash on Hand are at the RIPE NCC's free disposal under the conditions set out in the Articles of Association and the Treasury Statute.

### Capital

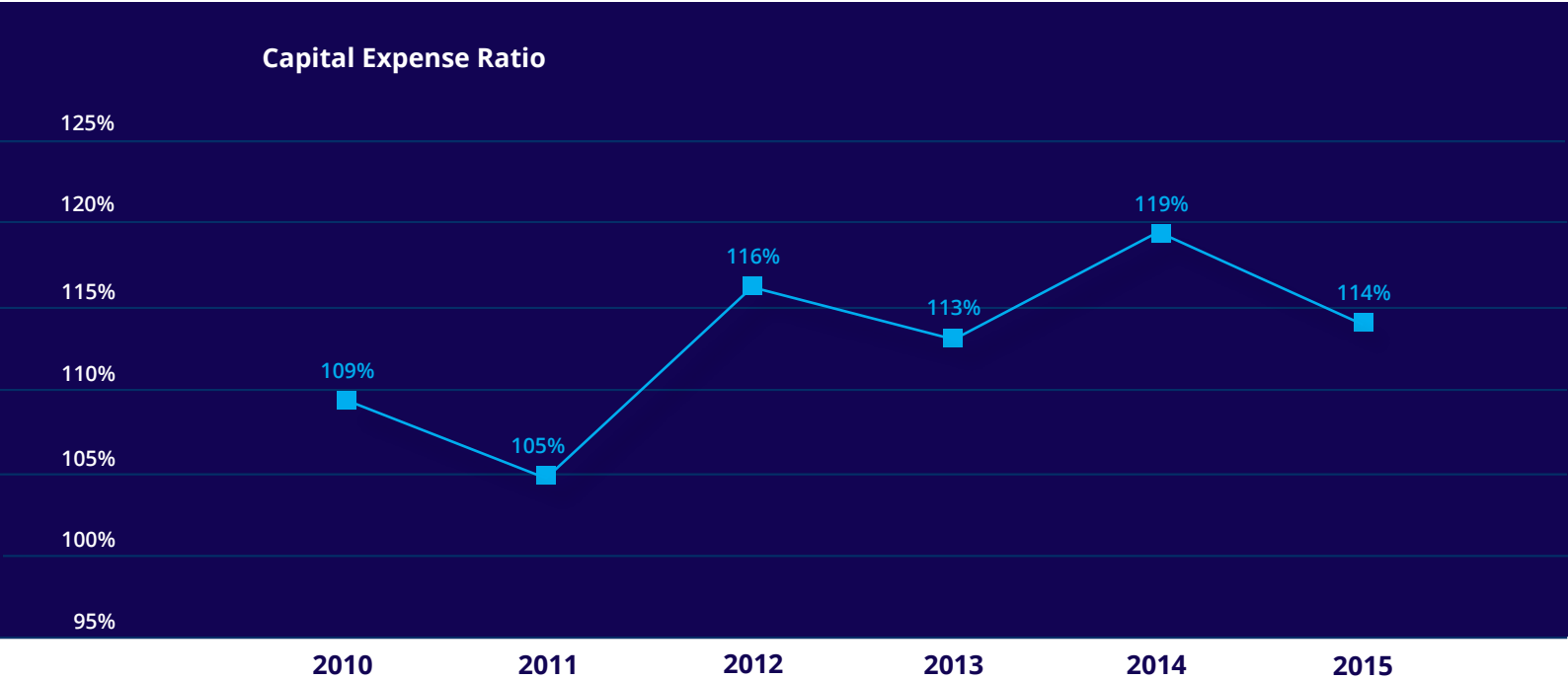
Capital consists of the RIPE NCC Clearing House, the capital gain made within the year at issue. The Capital decreased by 262 kEUR in 2015, amounting to 25,064 kEUR.

### Movement Schedule of Capital (in kEUR)

	Reserve	Clearing House	Surplus / Deficit	Total
Begin Balance 1 January 2014	477	19,703	1,732	21,912
Transfers to/from the Clearing House	(477)	477	-	-
Addition of the Result		1,732	(1,732)	-
Result Current Year		-	3,414	3,414
<b>Total Balance 31 December 2014</b>		<b>21,912</b>	<b>3,414</b>	<b>25,326</b>
Begin Balance 1 January 2015		21,912	3,414	25,326
Addition of the Result		3,414	(3,414)	-
Result Current Year			(262)	(262)
<b>Total Balance 31 December 2015</b>		<b>25,326</b>	<b>(262)</b>	<b>25,064</b>



The continued stable level of the Capital assured that the Capital Expense ratio, a key indicator used by the RIPE NCC to weigh the extent of the Capital in relation to the expenses, remained above the 100% target at 114%. At this level the existing reserve safeguards the organisation’s financial stability and covers the RIPE NCC’s operational costs for more than one year.



## Current Liabilities

### Redistribution 2015

Redistribution 2015 (in kEUR)	2015	2014
Redistribution of Member Fees 2015	5,014	-
Repayment of Redistribution 2015	321	-
<b>Total Redistribution 2015</b>	<b>5,335</b>	<b>-</b>

The redistribution of the excess contribution amounted to 5,335 kEUR. The redistribution 2015 comprises of a redistribution of member fees that will be returned to the members as a discount over the 2016 member invoices of 5,014 kEUR. Furthermore, an additional amount of 321 kEUR was taken as a current liability and will be returned with a future redistribution. A total of 12,764 members were eligible to receive the redistribution. The amount per member was pro rata based on the member fee paid in 2015. The average amount members will receive is EUR 393.

### Creditors

The amount payable to creditors at the end of 2015 decreased significantly compared to 2014, due to fewer purchases made in the last months of 2015. A restatement of 8 kEUR was made from Accounts Payable to Accounts Receivable for outstanding credit notes at 31 December 2015.

### Wage Taxes and Social Securities

By year-end 2015, wage taxes and social securities showed a decrease, following from the lower number of staff employed at year-end 2015 in comparison with year-end 2014.

### Unearned Revenues

Unearned Revenues consist of invoices sent in 2015 that pertain to 2016. These invoices include unpaid invoices from new members consisting of services and sign-up fees and sponsorship invoices. The high increase in the Unearned Revenues is caused by the high number of new members towards the end of the year.

### Miscellaneous Payables

Miscellaneous Payables showed a considerable increase in comparison to 2014.

Miscellaneous Payables (in kEUR)	2015	2014
Accruals	374	285
Payable Employee Expenses	42	53
Miscellaneous Payable Wage Components	895	810
<b>Total Miscellaneous Payables</b>	<b>1,311</b>	<b>1,148</b>

The amount of Accruals increased due to costs incurred in 2015 for which invoices have not yet been received. In addition, the Accruals include a six month estimation of the contribution for the ICANN fiscal year 2015/2016. Miscellaneous Payable Wage Components consists of the accrued holiday allowance and the accrued vacation days for employees. The accrued vacation days amount is based on the number of outstanding vacation days at 31 December 2015, valued at the December 2015 salary levels. The total value of the accrued vacation days is 479 kEUR compared to 421 kEUR at the end of 2014. Miscellaneous Payables include business expenses payable to employees by 31 December 2015.

## Items Not Shown in Balance Sheet

All amounts stated in this section include VAT.

The RIPE NCC rents office space in two connected buildings and has separate rental agreements for each building with an expiration date of 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 632 kEUR in 2016. As the lease for the first quarter of 2016 was paid in advance in 2015, the remaining total obligation for these agreements is 474 kEUR.

From 1 July 2016, the RIPE NCC will start renting another office location, where it will relocate its head office. This rental agreement has been concluded for a 10-year term and will expire by 30 June 2026. The rental amount due for this new office space for 2016 will be 359 kEUR. The total

obligation for this rental agreement is 6,789 kEUR for the 10-year period.

Additional lease agreements have a total obligation of 247 kEUR towards third parties for the next five years. An amount of 85 kEUR in lease payments is included in the Statement of Income and Expenditure 2015 for these additional leases. The lease agreements have different set terms ranging from three to five years and have fixed annual lease payments.

At 31 December 2015, the RIPE NCC had no other financial liability or obligation towards any other party 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.

## Taxes

For 2015, the RIPE NCC is subject to corporate income tax, therefore any surplus or deficit will be submitted for taxation. The RIPE NCC has a tax ruling with the Dutch tax authorities that excludes the Clearing House reserve and any capital gains in the Clearing House reserve from corporate income taxation. The corporate income tax rates for 2015 are 20% up to 200 kEUR and 25% on the amount over 200 kEUR. The effective tax rate for 2015 was 0%.

No deferred tax asset is recognised for temporary differences between the valuation for tax and financial reporting purposes and carry-forward losses, as it is not probable that future taxable profit will be available for set-off.

## Corporate Income Tax Payable

Corporate Income Tax Due*	0
-/- Paid on Preliminary Corporate Income Tax assessments 2015	0
<b>Corporate Income Tax Payable</b>	<b>0</b>

\* 20% up to 200 kEUR; 25% on the excess

## Events after the Balance Sheet Date

No significant events occurred after the balance sheet date.

## NOTES TO THE CASH FLOW STATEMENT

The Operational Cash Inflow by year-end 2015 is marked by an influx of cash following an increased number of members as well as 3,620 kEUR from the sale of expired government bonds. The Other Cash Inflow is a result of RIPE Atlas sponsorships and other miscellaneous income.

The Operational Cash Outflow shows an increase in items like salary and creditors. The RIPE Meeting cash outflow grew with the prepayments needed for the upcoming RIPE Meetings. The purchase of seven additional government bonds in accordance with the RIPE NCC Treasury Statute marks the outflow of 6,943 kEUR. The strengthening of USD/EUR exchange rate in 2015 was responsible for the increase of cash outflow corresponding to the ICANN contribution.

At the end of 2015, the Cash Flow resulted in an increase of 4,742 kEUR, putting the total Cash at year-end at 29,719 kEUR.

## INDEPENDENT AUDITOR'S REPORT

To: The members of Réseaux IP Européens Network Coordination Centre

We have audited the accompanying financial statements 2015 of Réseaux IP Européens Network Coordination Centre (RIPE NCC), Amsterdam, which comprise the balance sheet as at 31 December 2015, the statement of income and expenditure and cash flow statement for the year then ended and the notes comprising a summary of the accounting policies and other explanatory information.

### Management's responsibility

Management is responsible for the preparation and fair presentation of the financial statements and for the preparation of the management board report, both in accordance with the Guideline for annual reporting 640 'Not-for-profit organisations' of the Dutch Accounting Standards Board. Furthermore, management is responsible for such internal control as it determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's responsibility

Our responsibility is to express an opinion on these financial statements 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 statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 statements.

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 statements give a true and fair view of the financial position of RIPE NCC as at 31 December 2015, and of its result for the year then ended in accordance with the Guideline for annual reporting 640 'Not-for-profit organizations' of the Dutch Accounting Standards Board.

Amsterdam, 31 March 2016

Ernst & Young Accountants LLP

signed by B. Minks



**RIPE Network Coordination Centre**  
[www.ripe.net](http://www.ripe.net)