



# MEMBER UPDATE

## UPDATE FROM THE RIPE NCC MANAGING DIRECTOR

With over 3,600 respondents, the recently concluded RIPE NCC Survey 2013 was our most successful survey by far. Not only was it successful in terms of the number of responses we received but also because they came from 75 of the 76 countries in our service region. Thank you to all of our members and stakeholders who took the time to give us their views. Having such a large response rate gives us a wealth of opinions to work from and will allow us to more effectively tailor our strategy to the needs of our membership and community.

The survey results were used to inform the development of our recently published Draft Activity Plan and Budget 2014, in which we outline our planned activities for the coming year. The survey was useful not only in telling us things we didn't know but also in validating our existing direction. For example, calls for us to expand our regional presence match our decision to hire additional RIPE NCC staff to be based in the Middle East and Russian regions. Similarly, our members are interested in seeing more from us in terms of practical and online training options, which is something we have been working on for some time already.

Respondents also indicated a desire to see the RIPE NCC offer support for local languages. With such a diverse service region, as well as the many facets and considerable output of the RIPE NCC, clearly this is a complex issue. However, this does not mean that creative solutions can't be found. We will be carefully investigating what we can do in this area with the resources we have available.

The next steps will be to conduct a thorough review of the survey results and extract action items for implementation. As with our 2011 survey, these will be detailed in a document to be published after the upcoming RIPE Meeting. We will then report back on our progress in meeting these action items when we publish a final summary of the outcome.

Finally, with RIPE 67 just around the corner, I would like to remind members to register for the General Meeting (GM) and ensure that you exercise your voting rights. Remote participation and electronic voting options are available for members unable to attend the meeting in person.

At this GM, members will also discuss the Draft Activity Plan and Budget 2014. This year's document comes with an adjusted format to increase transparency by highlighting which services are expanding or decreasing in terms of financial investment. This document is currently published on our website and I encourage members to take a look at this and share your thoughts either at the GM or on the RIPE NCC membership mailing list.



**Axel Pawlik**  
RIPE NCC Managing Director



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# RIPE NCC General Meeting October 2013

The RIPE NCC General Meeting (GM) takes place from 16-17 October 2013 alongside the RIPE 67 Meeting in Athens.

Registration to attend will remain open until 16:00 (UTC +3) on the day of the GM. The registration link and all other information needed to participate, in person or online, is available at:

<https://www.ripe.net/lir-services/ncc/gm/october-2013>

## Draft RIPE NCC Activity Plan and Budget 2014

An important feature of the Autumn GM is the discussion that takes place over the Draft Activity Plan and Budget 2014. This document outlines all the activities the RIPE NCC plans to carry out in the upcoming year, along with their budgeted costs. Transparency towards our membership is an important goal for the RIPE NCC, and we see the Draft Activity Plan and Budget as one of the best ways we can demonstrate this transparency.

The Draft Activity Plan and Budget is a living document. A final version will be published in December 2013, but until then, we hope to hear feedback from RIPE NCC members. Discussion on the document will take place at the upcoming GM, but members are also encouraged to comment on the document and share their

opinions via the RIPE NCC membership mailing list at [members-discuss@ripe.net](mailto:members-discuss@ripe.net).

A PDF of the draft document is available at:

<https://www.ripe.net/lir-services/ncc/gm/october-2013/documents/draft-ripe-ncc-activity-plan-and-budget-2014>

## General Meeting Resolutions

At the upcoming GM, RIPE NCC members will vote on four resolutions relating to the corporate governance of the RIPE NCC. The resolutions to be voted on relate to the RIPE NCC Conflict Arbitration Procedure and the RIPE NCC Articles of Association.

The text of all four resolutions is in the GM agenda:

<https://www.ripe.net/lir-services/ncc/gm/october-2013/agenda>

## Participating in the GM

For those who can't attend the GM in person, the meeting will be webcast live for all members. A chat facility will be provided and, if you want to make your opinion known, a chat monitor will be on hand to read out your comment. All organisations that have been a member of the RIPE NCC for six months or more can cast a vote at the GM, either by paper ballot or electronically. If you register to

attend, you will be able to add the vote for your organisation at the start of the online registration process.

If you would rather vote electronically, you need to follow the link to the BigPulse registration system in the email that is sent to all qualified members inviting them to register. Once you complete this process, you then need to send a copy of your identification to the RIPE NCC. All those who complete the process by 14:00 (UTC) on 15 October will receive an email on the day of the General Meeting with a link to the voting software. Electronic voting opens at agenda point 8 during the GM and closes the following day, 17 October, at 14:00 (UTC +3).

The Chairman of the Executive Board will announce the results at 15:45 (UTC +3) on 17 October. This announcement is also webcast live.

The full voting procedure for the GM is laid out at:

<https://www.ripe.net/lir-services/ncc/gm/october-2013/voting-procedure>

## Contact Us

If you have any questions about the GM, you can contact us at [agm@ripe.net](mailto:agm@ripe.net).

# RIPE NCC Survey 2013

The Oxford Internet Institute (OII) report on the results of the RIPE NCC Survey 2013 is now available:

<http://www.ripe.net/lir-services/member-support/info/surveys/ripe-ncc-survey-2013>

The survey was open to RIPE NCC members as well as other interested parties from our service region and beyond.

The results of the survey will help the RIPE NCC to improve its services and shape its strategy for the years ahead. The results have also been used to help develop the Draft RIPE NCC Activity Plan and Budget 2014, which is available at:

<https://www.ripe.net/lir-services/ncc/gm/october-2013/documents/draft-ripe-ncc-activity-plan-and-budget-2014>

This RIPE NCC Survey 2013 was launched at RIPE 66 and conducted by the OII to ensure independent analysis and anonymity for respondents. Over 3,600 people responded to the survey, including from 75 of the 76 countries in our service region. This means that the 2013 survey received by far the biggest number of responses to any RIPE NCC survey.

Desiree Miloshevic from the OII will present on the survey results at RIPE NCC Services Working Group at RIPE 67 in Athens, together with our Chief Communications Officer, Serge Radovic.

The next step regarding the survey is that the RIPE NCC will publish a list of the areas for further investigation that came out of the survey results. This will be followed with the results of those investigations at a later date.

# Introducing the Assisted Registry Check

The Assisted Registry Check (ARC) is the new name for the RIPE NCC's audit activities that have been improved using feedback from the RIPE community and the RIPE NCC membership. This improvement aims to make the process more efficient and less time consuming for LIRs.

## Maintaining Data Accuracy After IPv4 Exhaustion

As mandated by the RIPE community, the RIPE NCC has always conducted regular audits of LIRs to ensure the quality and currency of their registry data. Until now, these audits were typically conducted when an LIR requested an additional IPv4 allocation. Now that the RIPE NCC has reached the last /8 of IPv4 address space, from which LIRs may only receive one final /22 allocation, the number of these "additional allocation audits" conducted by the RIPE NCC is expected to reduce significantly.

In the meantime, the RIPE NCC needs to ensure that the accuracy of the RIPE Registry is maintained. The importance of correct registration was highlighted in the RIPE NCC Survey 2013, which identified

a need for the RIPE NCC to continue improving the quality and usefulness of data in the RIPE Database. The ARC review is a way for the RIPE NCC to maintain periodic contact with LIRs and to ensure that data accuracy within the RIPE Registry is maintained.

## Strengthening Registry Data

During the ARC review, the RIPE NCC will perform a variety of consistency checks to assess the quality of LIRs' registry data. RIPE NCC IP Resource Analysts will then provide personalised support to help correct any issues that are found. This helps to raise awareness of routing and reverse DNS inconsistencies while strengthening registry data. LIRs will also have the opportunity to ask questions about RIPE Policies, how resources should be registered in the RIPE Database and how to use the tools available at [ripe.net](https://www.ripe.net).

It was clear from previous feedback that the RIPE NCC's audit activities needed to be more efficient and less time consuming for LIRs. With this in mind, the RIPE NCC will initially conduct ARC reviews for a period of three months, during which

time we will closely monitor the time and effort required from LIRs. At the end of this period, we will complete an in-depth review and incorporate any feedback as appropriate. Continual development is a vital component of the ARC review and will ensure that the activity remains relevant and useful for LIRs.

More information about what the ARC review involves can be found at:

<https://www.ripe.net/lir-services/resource-management/assisted-registry-check>

There is also a RIPE Labs article that details the ARC review process:

[https://labs.ripe.net/Members/matt\\_parker/the-assisted-registry-check-let-us-help-you](https://labs.ripe.net/Members/matt_parker/the-assisted-registry-check-let-us-help-you)

If you are interested in participating and would like to volunteer your LIR for an ARC review, you can email [lir-help@ripe.net](mailto:lir-help@ripe.net).

# Address Hijacking in the RIPE NCC Service Region

In October 2012, the RIPE NCC was notified by the holder of a legacy address block that their resources had been hijacked. A subsequent investigation revealed around 80 additional resources that may have been illegally obtained. The RIPE NCC is looking closely at these cases and reverting any unauthorised changes where appropriate. The hijackers seem to be targeting resources that are not publicly announced on the global routing tables.

The hijackers showed a great deal of sophistication and a thorough understanding of the RIPE NCC's procedures. After one early failed attempt, they adapted their approach to include forging legal documents and signatures, creating copies of websites and re-registering expired company domains that were previously associated with the resources.

The RIPE NCC takes its stewardship role

very seriously. As a result of this activity, we are reviewing and updating our verification processes appropriately. In cases where forged documentation has been submitted, the RIPE NCC will be reporting this activity to the relevant authorities to pursue further legal action. In cases where member involvement can be proven, the RIPE NCC will be within its rights to force closure of the LIR account and de-register that member's resources.

## Getting the Balance Right

The RIPE NCC has always been careful to maintain a balance between establishing a reasonable degree of certainty that we are dealing with the rightful holder on the one hand while not being overly bureaucratic or inflexible on the other. There are plenty of legitimate cases, particularly with legacy resources, where it can be difficult to establish clear proof of holdership – especially in cases where the organisation

that originally held the resources is no longer in operation. In light of these recent developments, members may find that the RIPE NCC is more strict in its verification requirements as we seek to establish this reasonable degree of certainty and ensure due diligence on our part.

In cases where the RIPE NCC reverts changes on the basis of a suspected hijacking and this is disputed, the affected party may ask to escalate the issue to RIPE NCC management for a final decision. If still no agreement can be reached, and if they are members of the RIPE NCC, they may object to our decision via the Arbiters Panel (non members may go through a sponsoring LIR). During arbitration, all ongoing processes are frozen.

If you have any concerns or suspect that your resources may have been hijacked, please contact the RIPE NCC.

# Reassigning Referenced AS Numbers

The RIPE NCC currently has around 1,400 returned 16 and 32-bit Autonomous System (AS) numbers that are referenced in **route** and **aut-num** objects. With the global supply of 16-bit AS numbers becoming exhausted, there is a clear need for these resources from some operators. However, because they are referenced, they have not been reassigned until now.

At the Address Policy Working Group session at RIPE 66, the RIPE NCC requested guidance from the RIPE community on what to do with these returned AS numbers. Based on the feedback received from here, and on the Address Policy Working Group Mailing List, the RIPE NCC will be taking the following action:

- We will send an email to the maintainer and contacts of the RIPE Database objects in which the returned AS numbers are referenced, asking for the reference to be removed

- We will send three additional reminders, at intervals of three weeks from each other, for a total of four emails
- If, after four emails, the reference is still in place, we will update the RIPE Database object ourselves, removing the reference
- If the reference is recreated within one month from deletion (possibly due to automatic updates), we will contact the organisation through means of communication other than email

The total number of RIPE Database objects that reference returned AS numbers is currently around 2,000. All references are in the policy attributes of **aut-num** objects. No **route(6)** objects are involved.

# Training Services Priorities for 2014

The RIPE NCC Survey 2013 showed that members are very satisfied with the existing training services provided by the RIPE NCC. However, it also showed that there were a number of additional services they would like to see. Things commonly requested included a greater online presence, more hands-on technical courses and training documentation in languages other than English. This has led us to decide on the following priorities for 2014:

## Expanding the RIPE NCC E-Learning Centre

In addition to the range of instructional videos, documentation and live webinars already on offer, the RIPE NCC is looking at implementing a Learning Management System (LMS) in 2014. This will allow us to offer more learning modules and training courses through a platform that will be integrated with the website and the LIR Portal. This will allow members to test and certify their knowledge and webinars will be integrated into the LMS and continue to be held weekly, focusing on topics and issues most important to LIRs.

## More Hands-on Courses in 2014

In 2014 the RIPE NCC will launch a more hands-on, in-depth IPv6 training course that will be delivered on a regular basis throughout our service region. We will also continue to increase the practical components in our existing training courses.

## Subtitles for our Videos

We are currently exploring the possibility of sourcing volunteers from the community to help us to add subtitles in their local language to our online videos.

In 2014, we will begin a small pilot project to investigate how this could work.

## Upcoming Training Courses

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

## Upcoming Webinars

<http://www.ripe.net/lir-services/training/e-learning/webinars>



Webinars

IPv6

DNSSEC

RIPE Database

RIPE Community

# Regional Meetings

## The Eurasia Network Operators' Group (ENOG)

The Eurasia Network Operators' Group (ENOG) is the regional forum in which experts concerned with the core operational issues of the Internet can share knowledge and expertise on issues unique to the Russian Federation, the Commonwealth of Independent States (CIS) and Eastern Europe.

<http://www.enog.org/>

### ENOG 5

ENOG 5 took place from 27-28 May in St Petersburg at the Corinthia Hotel. There were 328 people attending from 15 different countries.

Reports from the RIPE NCC included information on membership statistics and fees, IP address allocations across the region, last /8 allocations, IPv4 address transfers, policy updates, billing issues, and the RIPE NCC's measurement tools, as well as more technical subjects such as IPv6 implementation, global peering and Internet Exchange Points, statistics on Internet usage, and legislation in the region.

Local issues that created earnest debate between attendees both on-site and via remote participation focused on Internet governance in the Russian region, DDoS

attacks, content banning, and traffic blocking and filtering.

The presentations from ENOG 5 are available at:

<http://www.enog.org/meetings/enog-5/presentations/>

### ENOG 6

As the Member Update goes to print, the ENOG 6 Meeting is about to start in Kiev, Ukraine. Over 425 people registered to attend ahead of the meeting, which will be webcast live on the ENOG 6 webpages.

<http://www.enog.org/meetings/enog-6/>

The presentations from ENOG 6 are available to download at:

<http://www.enog.org/meetings/enog-6/presentations/>

## The Middle East Network Operators Group (MENOG)

The Middle East Network Operators Group (MENOG) is the established international forum that brings together key players in the Middle East's Internet network operations to focus on issues of relevance to the region.

<http://www.menog.org/>

## MENOG 13

MENOG 13 took place from 22-23 September at the JW Marriott Hotel in Kuwait. There were 95 attendees from 17 different countries.

RIPE NCC staff gave presentations and led workshops on a number of topics, including security issues in IPv6, detecting and preventing route hijacks, the latest features and functionality in RIPEstat and RIPE Atlas, an introduction to Resource Certification (RPKI), kick-starting IPv6 deployment, and an update from RIPE NCC Registration Services about IPv4 and IPv6 allocations, membership statistics, regional statistics, IPv4 transfers and policy changes.

Other presentations focused specifically on topics relevant to the Middle East region, such as Internationalised Domain Names (IDNs) and establishing Internet Exchange Points (IXPs) in the region.

The presentations from MENOG 13 are available at:

<http://www.menog.org/meetings/menog-13/presentations/>

# Upcoming Meetings



**RIPE 67**  
Athens, Greece  
14 - 18 October 2013



**RIPE 68**  
Warsaw, Poland  
12 - 16 May 2014



**MENOG 14**  
Dubai, United Arab Emirates  
30 - 31 March 2014



**ENOG 7**  
Moscow, Russia  
26 - 27 May 2014



**RIPE NCC / SEE 3**  
Sofia, Bulgaria  
14 - 15 April 2014

# RIPE Database Update:

## Recent Achievements and What's Coming Up

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The past few months have been exceptionally busy for the RIPE NCC's Database Department. A number of changes have been moved into production. Some notable examples include:

- A working implementation of RDAP, the Registration Data Access Protocol (developed by the IETF's Web Extensible Internet Registration Data Service (WEIRDS) Working Group) was developed in cooperation with APNIC. This was demonstrated at the IETF meeting in Berlin and was shown to work well with other implementations.
- A dry-run feature has been added to database software so that the live database can be used for testing updates with single objects.
- Object tag metadata has been implemented. Where this is not the default it can always be seen by including the query option: "--show-tag-info".
- The RIPE Global Resource Service now has improved data import from the other RIRs and provides a more complete Global Resource Service (GRS) for all Internet resources. A new query flag "--resource" will search all sources to return the authoritative resource data.
- A "diff" functionality has been added as the default output for all notification messages for modifications to any object type.
- A major upgrade of the RIPE Database Query and Update Reference manuals has been undertaken and will be ready by RIPE 67.

### Open Source Software

Both the RIPE NCC and APNIC are now running the new RIPE Database whois software. There has been successful collaboration between the two RIRs on feature development and re-factoring of the software. We look forward to working more with APNIC and other industry partners on future developments.

### What's Coming Up

Around half of all RIPE NCC members have now implemented the new "abuse-c" attribute. Feedback received has indicated that some members have had trouble setting this up and as a result we are developing a simple web form, accessible through the LIR Portal, that will allow members to set this up by simply entering an email address and clicking a button. While the deadline for creating an abuse-c contact was September 2013, we will propose an extension to this at RIPE 67 to allow members time to use this new web form.

We are now integrating the RIPE Database with RIPE NCC Access (single sign-on service). This will allow members to seamlessly transition from querying the RIPE Database and managing Internet number resources and other functions in the LIR Portal.

We have been looking at the database model and the data content for quite a long time. We feel there is still room for improvements in data quality and the way data is presented and managed. We are aiming for simplification wherever possible and will have ideas to share with the community soon.

After the major upgrade of our reference manuals, we will be looking at the spread of database documentation across the ripe.net website and looking at ways to present future descriptions, user reference and developer details to different target audiences in a way that is clear, well laid out and easy to use.

Finally, we want to work towards improving the user experience within the RIPE Database. To do this, we will need input from our users most of all. There are a number of questions that we want to answer: how do people try and find out about the RIPE Database? How can we work more effectively with the community? These are the types of questions we'll be looking to answer as we continue to engage with the community throughout the year.

# Data Consolidation: Collection and Retrieval via RIPE Atlas and RIPEstat

The RIPE NCC provides a variety of technical services, including the compilation and analysis of huge amounts of data from different sources. In order to provide a more unified service, we plan to focus on RIPE Atlas as the RIPE NCC's data collection system and RIPEstat as the RIPE NCC's consolidated point for data retrieval.

Our long-term aim is to consolidate all of the RIPE NCC's data collection efforts under the umbrella of RIPE Atlas, which has, until now, operated as its own independent initiative with a more limited scope. RIS data collection will be migrated into the RIPE Atlas infrastructure, along with all data that we collect from other RIRs, IANA and external parties. Members of the community who participate in data collection will benefit from a single interface when communicating with the RIPE NCC. For users accessing the data, consolidating our data collection will allow us to operate a wider network of data collection and active measurements, and integrate different types of collected data together so that we can aggregate, analyse and present all of this different data more seamlessly.

RIPEstat acts as the data retrieval counterpart to RIPE Atlas, consolidating all collected information about Internet number resources within a single interface. It presents an array of data,

including registration and routing data, DNS data, geographical information, abuse contacts and more. In the long term, we hope that RIPEstat will act as a centralised data retrieval point where users can access our different data sets using a consistent set of interfaces. We envisage RIPEstat evolving into much more than a web-based data retrieval platform, with proper APIs, Command Line Interface and other data access mechanisms. We've revamped the RIPEstat webpages to make it easier to find the information you're looking for, adding new information and expanding on existing features, such as the FAQ.

By focusing on one data collection and one data retrieval system, and strategically improving these, we will work towards an improved user experience. We are confident that, in streamlining our service offerings it will be easier for both participants and end users to benefit from our publicly offered services.

There is a RIPE Labs article that provides more information about the future direction of the RIPE NCC's technical services:

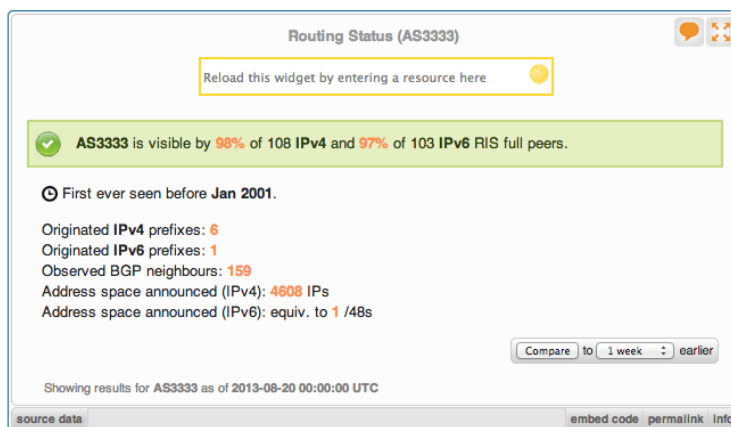
<https://labs.ripe.net/Members/kranjbar/future-of-ripe-ncc-technical-services>

## Improved Routing Information via RIPEstat

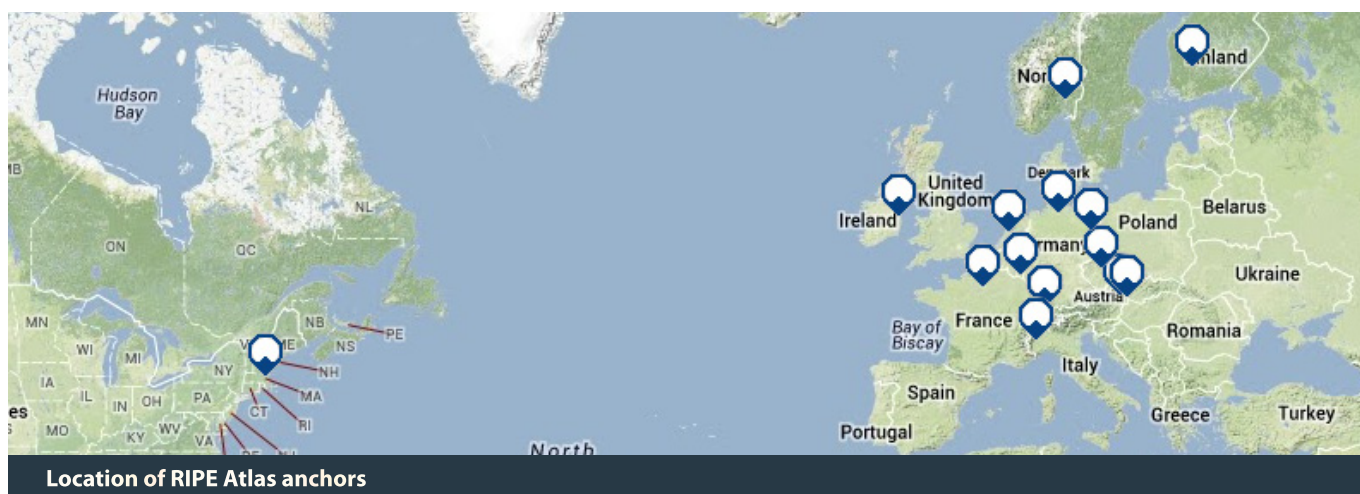
Our Routing Information Service (RIS) has been collecting global BGP routing information for 12 years. During this period, many different interfaces to analyse and visualise accumulated data have been developed. In line with our long-term goals to provide more consolidated services, we will be integrating the RIS tools and interfaces into RIPEstat.

RIPEstat allows users to access all available information about Internet number resources, including routing information, in one place. As the "one-stop-shop" for all information about Internet number resources, we wanted to also make routing information collected by RIS available via RIPEstat. To enable this transition, some older RIS tools and interfaces will be replaced with improved RIPEstat counterparts, although the RIS infrastructure itself will still be used to collect routing information.

The RIS tools and interfaces being migrated into RIPEstat are the RIS Dashboard, ASInUse, RIS PrefixInUse and the RISwhois web interface. Many users have been accessing routing information via RIPEstat for several months now, and we expect to complete the migration by the end of October 2013. We will also be taking into account feedback we receive from the community about which tools and functionality they want to see incorporated into RIPEstat. IS Alarms has been disabled within RIS and we are working on a new and improved, generalised alarms service that will be integrated within RIPE Atlas in the future.



# RIPE Atlas Anchors Pilot: Findings and the Future



Following a successful pilot, from October 2013 the RIPE NCC will be accepting new requests to host RIPE Atlas anchors.

## Enhanced Probes and Regional Measurement Targets

RIPE Atlas anchors support many more baseline measurements than regular RIPE Atlas probes, and they act as well-known and co-operating targets for user-defined measurements set up by probe hosts throughout the RIPE Atlas network. They are hosted by those with sufficient bandwidth to support this larger number of incoming measurements.

In return for this service to the community, anchor hosts earn additional credits that they can use to perform their own user-defined measurements and in the near future will get access to a wider range of services. There is also full mesh measurement between all anchors.

Planned additional features include regularly scheduled measurements from surrounding probes, the use of measurement packet-capturing software and the provision of more added-value services such as SMS alerts for changes in defined measurements.

## The Results of the Pilot

Since it was announced at RIPE 65, we have had 15 anchor hosts join the project. From the outset, we aimed to collect a large amount of regional Internet performance data, and to provide stable targets for incoming measurements. The idea was to use powerful hardware to perform more outgoing measurements while keeping logistics and operations as simple as possible. We defined additional goals as the pilot progressed: to achieve greater coverage and expand globally by making the service available to non-members, to make the anchor hardware more affordable, and to reach 50 anchors by the end of 2014.

During the research period, and following feedback from pilot

hosts, we came to the conclusion that we want to build the anchors as a single-service system and, because of this, to use more modest hardware for the anchors when we go to production. This lower cost will also make RIPE Atlas anchors available to a wider variety of hosts around the world. We will continue to provide support for anchors currently in use for the duration of the pilot hosts' service contracts (after which time we will ask them to switch to the new hardware).

During the pilot phase, we also investigated the possibility of hosting multiple services on the same box using virtualisation. Extensive research has been done, both by a student intern and by our own RIPE NCC engineers.

We found that, while it would be technically possible to offer multiple services on the RIPE Atlas anchor box using virtualisation, we decided not to pursue this because, at this time, there are no immediate plans to provide additional services on the box. Furthermore, based on the initial survey of pilot hosts, the interest for multiple services was not overwhelming.

The technical findings of the virtualisation investigation are detailed further in a RIPE Labs article:

[https://labs.ripe.net/Members/romeo\\_zwart/further-virtualisation-testing-for-atlas-anchor](https://labs.ripe.net/Members/romeo_zwart/further-virtualisation-testing-for-atlas-anchor)

## The Next Step

Our goal is to bring RIPE Atlas anchors to production around the RIPE 67 Meeting in Athens, where we will announce final specifications for the new hardware and invite suitable, interested parties to purchase the hardware and host a RIPE Atlas anchor for themselves.

For more information, visit:

[atlas.ripe.net/about/anchors](https://atlas.ripe.net/about/anchors)