RIPE NCC Consultations Report 2015

Introduction

The RIPE NCC has conducted regular large-scale surveys of its members and other important Internet community members for over a decade. In recent years, it has also carried out more focused consultations with these people. These consultations form an important part of the RIPE NCC's commitment to constantly monitor the situation in its service region and the issues that are affecting its members and the Internet community in general. This is essential if the RIPE NCC is to improve its services for all interested parties.

The last large-scale <u>RIPE NCC Survey was conducted in 2013</u>. This survey received over 3,600 responses and resulted in 48 key findings and actions that the RIPE NCC committed to investigating and implementing where possible.

With the next large-scale survey scheduled for 2016, the RIPE NCC decided to conduct consultations with members and other interested parties in its service region to check on its progress, to see if the work it carried out since 2013 has been of benefit to the community, and to identify the areas where improvements can be made.

The consultation meetings were conducted with participants from the following countries from November 2014 to January 2015 in the RIPE NCC service region (some were conducted in person and some via remote participation):

- France
- Ireland
- Italy
- Lebanon
- Poland
- Oatar

- Russia
- Romania
- Saudi Arabia
- Spain
- United Arab Emirates
- United Kingdom

Some of the participants were invited to the consultations because of their knowledge and understanding of RIPE community and RIPE NCC issues. RIPE NCC members of different sizes were also randomly invited to participate in the consultations.

Independent consultants Dr. Rob Allen and Dr. John Earls conducted the consultations on behalf of the RIPE NCC. The RIPE NCC recognises the importance of having external parties conduct the consultations to ensure objective reporting as well as anonymity for those who agree to take part. Dr. Allen prepared section 1 and 2 of this report based on analysis of the feedback from participants in the consultations.

The RIPE NCC's Senior Management and Executive Board were presented with this report in February 2015 and they committed to publishing a response to the issues raised by participants.

Section 1: Executive Summary

The issues raised by participants that should be addressed by the RIPE NCC Executive Board can be categorised in eight points.

- 1. General feedback The RIPE NCC provides good value for money but service improvements should be continuous and the Registry function should remain top priority. It was felt that input to RIPE Policies and RIPE NCC General Meetings often comes from the same group of people and that wider participation should be encouraged.
- 2. Services and introduction of services Possible additional activities should be presented to the membership for discussion before implementation.
- 3. Rules and procedures The RIPE NCC has many rules and procedures that can cause difficulties for new and small members in particular. These should be reviewed and simplified.
- 4. Transparency and accountability The new Activity Plan and Budget format was praised but there is always more work that can be done in this area. It would help to present the information in more digestible pieces that can be understood easily.
- 5. Regional outreach The work of the RIPE NCC in this area was seen as very important but Western Europe should not be forgotten.
- 6. Translations There were concerns that the RIPE NCC should not spend considerable resources on translations. It was noted that translations of some material would be beneficial.
- 7. IPv4 Transfers The RIPE NCC should play an impartial role with regards to IPv4 transfers. They should not be involved in encouraging the IPv4 market.
- 8. IANA stewardship transition During the transition period, the RIPE NCC needs to ensure that the technical community is represented and that the registry remains stable. The RIPE NCC should demonstrate that it is transparent, accountable and open to participation from everyone.

Specific feature requests and service improvements were noted by the consultants and passed to the RIPE NCC for consideration.

Section 2: Consultation Topics

The issues that the RIPE NCC identified as areas for discussion during the consultations were as follows:

- 1. RIPE NCC Transparency and Accountability
- 2. Regional Outreach and Engagement
- 3. Registration Services and IPv4/IPv6 Issues
- 4. Internet Governance and IANA Stewardship Transition
- 5. RIPE NCC Services and Progress

Participants were also invited to raise any other issues they felt were important.

1. Transparency and Accountability

Respondents indicated that they had seen major improvements in both the RIPE NCC's transparency and its communication with members and the community. They noted that reporting has greatly improved and the General Meeting (GM) is now much better than in previous years. For example, the ability to vote electronically was seen as a positive development.

While the RIPE NCC Executive Board and staff were complimented on these developments, respondents noted that improvement in this area must be continuous.

The new RIPE NCC Activity Plan and Budget format was praised and was considered "an excellent, industry-leading example of transparency." Respondents noted that there should be more member involvement in expenditure planning, especially in the introduction of new items. It was emphasised that clear communication of the plan in bite-sized summaries of issues was important.

In terms of transparency, respondents asked why there was no election to choose the new RIPE Chair. Respondents noted that they were very supportive of the new RIPE Chair but that they would have liked to have been involved in the process by which he was selected.

Respondents indicated that the RIPE Policy Development Process (PDP) is not easily accessible to newcomers. There were comments that mailing list conversations are confusing for outsiders and only make sense to the initiated. There were calls for the RIPE NCC to offer more support to help newcomers take part in policy discussions.

Respondents were positive about the RIPE NCC Membership and community surveys and the consultation meetings, which they said made it easier to express their views. Anonymity of respondents was seen as a key factor in making these efforts a success.

2) Regional Outreach and Engagement

Regional outreach was seen by most respondents as very important. They were generally positive about the RIPE NCC's regional activities and believed that these should continue.

Respondents stressed the importance of having local people work on issues relevant to local communities. It was suggested that the RIPE NCC could help here with ongoing training and capacity-building activities. The key factor identified was that local communities and relationships should be developed and enabled to address specific, regional issues.

As far as regional outreach is concerned, respondents mostly accepted that separate regional meetings are necessary, but some expressed an interest in seeing the costbenefit analysis for such meetings.

Respondents felt that parts of Western Europe were being neglected. According to these respondents, even some Western Europeans cannot afford to take a week off work and to pay the registration and travel expenses for a RIPE Meeting.

Respondents called for the RIPE NCC to be more pro-active in three outreach areas:

- Regional training, support and outreach to groups such as academics and research centres
- Widening the audience beyond the technical community to include governments, regulators and executives across a range of sectors
- Encouraging participation from different regions in the RIPE PDP, at RIPE Meetings and at RIPE NCC Regional Meetings/Network Operator Groups throughout the service region

Respondents were concerned that the RIPE NCC might spend excessive resources on translations and noted the many problems that come with translation (scalability, translation inconsistencies, and disagreements over definitions). Respondents acknowledged that translations would be helpful in certain regions and for particular materials.

3) Registration Services and IPv4/IPv6 issues

Respondents noted that the membership application process and invoicing could be streamlined.

a) IPv4

In terms of IPv4 there were three main issues raised by respondents:

- The status of legacy space
- IPv4 last /8 policy and procedures
- IPv4 transfers

Respondents noted that, over the past decade, it has not been made clear what is happening with legacy Internet number resources. It was noted that the RIPE NCC should investigate reclaiming legacy Internet number resources or allocating IPv4 space from closed LIRs as the lack of available IPv4 space affects members negatively.

Respondents appreciated the RIPE NCC's efforts to observe and report on the entities that are opening LIRs just to get a /22 of IPv4 address space and then sell on those resources. The important aspect for respondents was for the RIPE NCC to improve due diligence and fix the last /22 abuse, which is seen to be increasing.

Respondents would benefit from more awareness-raising efforts and clarification regarding IPv4 transfers. They said that the RIPE NCC's role here is to maintain an accurate registry and to keep people informed but not be an active player in developing the market. In some areas of its service region, it was felt that the RIPE NCC was encouraging transfers. This created a negative feeling and it was noted that the RIPE NCC should remain neutral and not provide a platform that overly benefits the transfer market and transfer brokers. There were also a number of comments that the transfer market causes considerable problems for End Users, particularly in terms of the address space they use being unavailable to them once it is transferred. Respondents suggested that the RIPE NCC should not allow IP brokers to be the dinner sponsors at RIPE Meetings.

A number of respondents emphasised that the RIPE NCC should support the End Users and the small network operators. They felt that, currently, both RIPE and the RIPE NCC was overly influenced by a core group of participants that did not fully reflect all viewpoints. The difficulties in becoming involved in both RIPE Policy and RIPE NCC General Meeting discussions were noted.

b) IPv6:

The RIPE NCC's IPv6 activities were praised by almost all respondents. The common feeling was that the only way widespread deployment will happen is if big operators deploy first, and then others will follow.

In terms of driving IPv6 deployment, there were several suggestions from respondents:

- The RIPE NCC should explain the importance of IPv6 at the executive level and target CEOs and government representatives with clear information that summarises the technical and business issues.
- The RIPE NCC should be helping to promote IPv6 by offering more local training courses. The best strategy would be to focus on large operators.
- The RIPE NCC should increase contact between equipment manufacturers and providers and lobby for lower IPv6 equipment license costs.

- It would be useful to have to have representatives of equipment manufacturers at RIPE NCC-organised events to discuss "the mechanisms of their equipment with IPv6" and to offer "translation solutions to IPv6 networks."
- If IPv6 is going to really take off, it needs to do something that IPv4 cannot currently do. The RIPE NCC should have its researchers investigate this area.

c) RIPE Database:

Several respondents thought that the RIPE Database is still too complicated and needs to evolve. Respondents noted that lots of companies do not have a dedicated developer working with the RIPE Database and have to make all changes manually, object by object. According to these respondents, the RIPE NCC needs to offer a tool for members to integrate into their own systems and to allow them to automate their changes to the RIPE Database. There were several requests for RIPE Database APIs and the ability to integrate them into members' systems.

d) Internet Number Resource Certification (RPKI)

Some respondents were critical of the way that RPKI was introduced. They thought it was badly handled initially and that money was spent without adequate member involvement and prior approval. However, respondents see its potential if enough members get involved in certifying their resources. They believe it is a good idea but will not work unless there is more understanding at the grass roots level of its potential value.

Other respondents were concerned that RPKI offers an external entity (such as a government or law enforcement agency) the chance to revoke a resource holder's key and cut off their entire network. Route Object Filtering was noted as an alternative that could be investigated.

Respondents asked the RIPE NCC to ensure that they are informed about any further developments with RPKI.

4) Internet Governance and IANA Stewardship Transition

Respondents said that dealing with external stakeholders (governments, regulators, etc.), representing the best interests of the technical community and protecting net neutrality is important work and must be done by an entity that represents their interests.

In terms of the transition of the stewardship of the Internet Assigned Numbers Authority (IANA) away from the US government, the RIPE NCC's responsibility is to "ensure the number registry stability and make sure that this is impacted as little as possible."

Respondents said that during the transition period, the RIR communities need to show that they are a model of transparency and that everyone can participate.

Some respondents thought the RIPE NCC should focus on technical issues, which they considered most important.

5) RIPE NCC Services/Progress

a) General:

Most respondents stated there have been improvements since the last survey, but this needs to be continuous and there is no room for complacency.

It was felt that new and current services should be based on member need and the benefits offered to the membership as a whole. Respondents wanted new services to be openly debated, costed and approved. They also suggested that there needs to be a lot of publicity before anything new is started.

A major consideration for many members is to keep costs efficient and to resolve the technical issues of customers.

Some respondents want the RIPE NCC to be more pro-active and suggested that the organisation should be actively reaching out to universities and researchers. Respondents noted that there are potentially huge benefits for these groups using certain RIPE NCC services but they do not know about them.

RIPE Atlas and Training Services received a lot of positive feedback.

b) LIR Portal:

According to respondents, the LIR Portal has improved in the last two years. They suggested the following improvements could be made to the portal:

- The possibility to attach files to requests so that members do not have to send these by email
- The option to see whole history of all RIPE NCC tickets together with the emails and documents related to these tickets

c) RIPE Atlas:

Respondents like RIPE Atlas. They said it helps with troubleshooting and understanding the Internet. It is used regularly and is seen as being of considerable value, especially to Internet Exchange Points (IXPs).

Respondents noted that RIPE Atlas still needs further development, such as work on the front end. Respondents were not aware that RIPE Atlas is open source and its code is published.

Respondents stated that there should have been more member involvement in the early stages of RIPE Atlas development.

d) RIPEstat

RIPEstat was considered as invaluable when needed. Respondents said it is of great benefit when trying to identify problems with Internet number resources allocated by the RIPE NCC and to check for possible solutions. The ability to better integrate RIPEstat into members' tools was noted as a potential improvement.

e) IP Analyzer

All respondents that mentioned this service were positive about it.

f) Training

RIPE NCC's Training Services were almost universally praised. More local training was requested as well as the option to have digital or paper copies of the LIR Handbook more widely available. Respondents wanted the RIPE NCC's IPv6 training to offer more advanced modules.

Appendix

The below document was sent to respondents prior to consultation meetings and interviews in order to provide some background information on some of the topics to be discussed.

RIPE NCC Consultations 2014

1: Accountability and Transparency

Background Information:

The RIPE NCC has worked to strengthen and improve its accountability and transparency over recent years.

The RIPE NCC holds two General Meetings every year. At these meetings the membership is able to discuss the RIPE NCC's activities, give feedback to the Executive Board and RIPE NCC management, elect members of the board and vote on resolutions relating to RIPE NCC governance and the fees that members pay.

The RIPE NCC has also responded to feedback asking that it be fully transparent in its operations. To this end, much work has been carried out to improve the RIPE NCC Activity Plan and Budget, which is published for the Autumn General Meeting (GM) every year for members to discuss. This document outlines all the RIPE NCC's activities and provides information on the cost of each activity and the number of full-time equivalent staff assigned to each activity over the course of the year.

The RIPE NCC has also published the roles and responsibilities of Board members, and increased the amount of operational reporting on the mailing lists, website and at meetings across the service region.

2: Regional Outreach and Engagement

Background Information:

The RIPE NCC has greatly stepped up its on the ground regional engagement following requests from all stakeholders in its service region. Work in this area has seen the RIPE NCC employ staff in the Middle East and CIS regions to better engage with local communities, governments and regulators. The RIPE NCC believes that it is now able to react much more quickly to issues that arise in these regions.

In Europe, the RIPE NCC has also increased its support for regional and local NOGs, boosted its attendance at industry events and provided sponsorship and speakers for these events.

An increased number of RIPE NCC Regional Meetings have been held, in locations such as Bulgaria, Iran, Kazakhstan, Azerbaijan and Macedonia. The RIPE NCC has found that holding these events leads to greater local awareness of the issues faced by members of the Internet community and more focused feedback on what the RIPE NCC can do to help the local communities.

The RIPE NCC also holds Government and Law Enforcement Roundtable Meetings to engage with those communities and to connect them with the technical community.

More information about the RIPE NCC's regional outreach activities is available at: https://www.ripe.net/ripe/meetings/ripe-ncc-events

3: Registration Services and IPv4 Issues

Background Information:

The RIPE NCC reached the last /8 of its allocated IPv4 address space some time ago and this has changed the environment for us all. Despite the decreasing pool of IPv4 addresses, the RIPE NCC membership has steadily grown. Member organisations can only receive a /22 of address space (1,024 addresses) from the remaining pool of IPv4 address space. While the RIPE NCC is actively working to help with deployment of IPv6, there are a number of issues relating to IPv4 address space.

With the depletion of the available pool of IPv4 addresses, we've seen an increased number of attempted hijackings of IPv4 address space. The RIPE NCC is actively working to prevent this while at the same time trying not to be too bureaucratic for our members.

IPv4 transfers is another issue that has arisen in recent years. The RIPE NCC has a transfer listing service to put address holders in touch with those looking to acquire address space. Policy discussions on allowing transfers between RIR regions are also taking place.

4: Internet Governance Including IANA Stewardship Transition

Background Information:

The RIPE NCC engages in a range of activities that can be defined as "Internet governance". These activities include working with the technical community, governments, regulators, civil society and law enforcement agencies. The work carried out in this area is outlined at:

 $\underline{https://www.ripe.net/internet-coordination/internet-governance/multi-stakeholder-\underline{engagement}}$

The RIPE NCC's External Relations Team, senior management and members of the Executive Board represent the interests of the RIPE NCC membership and the

technical community at Internet governance events around the world, including ICANN Meetings, ITU events, the Internet Governance Forum (IGF) and many other events.

This activity has become more prominent with the announcement earlier this year that the US Commerce Department's National Telecommunications and Information Administration (NTIA) intends to transition oversight of the key IANA functions to the multistakeholder community.

https://www.ripe.net/internet-coordination/internet-governance/internet-technical-community/iana/iana-oversight-transition

5: RIPE NCC Progress and Value from RIPE NCC Services

Background Information:

Following the RIPE NCC Survey 2013, the RIPE NCC identified 48 key findings and proposed actions to address these. Much work has also been taken on the topics discussed in the previous four points.

While the core function of the RIPE NCC is the allocation and registration of Internet number resources, there is a range of services relating to this function that the RIPE NCC also provides for its members and the wider community.

Some of the services the RIPE NCC provides for its members are:

- 1. RIPE Atlas
- 2. RIPEstat
- 3. RIPE Labs
- 4. RPKI
- 5. Training Services
- 6. DNS Services
- 7. IP Analyzer tools

The full list of RIPE NCC services, and information about each one, is available at: http://www.ripe.net/lir-services/ncc/list-of-ripe-ncc-services

The RIPE NCC is eager to ensure that it is making progress for the benefit of its members and community, and also that RIPE NCC members get better value from the services it provides.