



## RIPE NCC Survey 2016

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October 1, 2016

Appendix 1: Consultations Report

# **1 Introduction**

The following report summarises the results of the RIPE NCC consultation groups and interviews carried out from November 2015 to January 2016. These consultations were carried out by independent consultant, Dr. Rob Allen, who produced this report.

He interviewed nine individuals at RIPE 71 in Bucharest, conducted five consultation group meetings (in Estonia, Greece, Norway, Switzerland and Turkey) and held six individual interviews via Skype (with interviewees based in Germany, Iran, Israel, Ukraine, the United Kingdom and Yemen). These locations were chosen to encourage a diverse range of feedback and to ensure input from regions that had not been covered in previous consultations.

The consultation groups and individual interviews comprised a total of 37 people. Respondents ranged from small and large RIPE NCC members (both new and more established members), IXPs, NRENs, legacy resource holders, a ccTLD operator, and representatives from an LEA, the European Commission and a government-run LIR together with other members of the RIPE community.

# **2 Executive Summary**

Most respondents were happy with the direction of the RIPE NCC. They agreed it was operating with good levels of transparency and accountability. There was a general feeling that the organisation acts in the best interests of the membership and offers good value for members. However, there were concerns that the RIPE NCC should not become overinflated, especially given the perceived decrease in workload associated with IPv4 run-out and IPv6 administration.

The issues that respondents raised most consistently are summarised below.

## **2.1 RIPE Policy Development Process (PDP)**

There were concerns that the knowledge threshold for participation in the PDP was too high for newcomers. Some respondents noted that the behaviour on the mailing lists had deteriorated with people “eager to eat you alive”. There was also the frequent comment that there were already more than enough people involved in the PDP, so what was the benefit of adding another voice. Several respondents noted that the process for choosing the RIPE Chair was unclear and should be clarified.

## **2.2 RIPE NCC Services**

Most respondents were positive about the RIPE NCC’s tools and services. The most consistently positive comments were for RIPE Atlas, the LIR Portal, the

RIPE Database and the RIPE NCC’s Training Services. Most respondents appreciated projects that went beyond the core registry services, but there was a feeling that the RIPE NCC must be careful not to over-expand. The organisation should be clear about its remit and benefit of new activities and ensure that these are discussed with members. RIPE Atlas was noted as a service that was not clearly discussed with members prior to launch. However, it received almost unanimous praise from respondents.

### **2.3 Assisted Registry Checks (ARCs)**

Many respondents did not see the value of ARCs. There were responses ranging from confusion to frustration, with a number of respondents stating that ARCs offered no tangible benefits for members and represented a waste of resources on both sides. There was a request for more data on ARCs, such as statistics showing benefits to data accuracy and an overall cost-benefit analysis.

### **2.4 RPKI**

Some respondents appreciated that RPKI has been integrated into the LIR Portal functionality. Respondents from IXPs also expressed a need for RPKI deployment. But other respondents thought that, while securing BGP was vital, RPKI was not the solution. The three main criticisms revolved around the burden of deployment, potential network problems due to router incompatibilities and the lack of a decentralised trust anchor system enabling the possibility of an Internet “kill switch”.

### **2.5 Transparency and Accountability**

Nearly all respondents noted that the level of transparency at the RIPE NCC had increased in recent years and that the current level was good. In general, respondents felt that the RIPE NCC was being responsible with their money. Respondents were generally positive about the RIPE NCC’s existing feedback mechanisms.

### **2.6 External Relations**

The RIPE NCC’s activities with governments, regulators and law enforcement agencies were almost unanimously praised. These activities were supported but there were calls for more reporting on the RIPE NCC’s activities in this area. There was repeated emphasis on the need for the RIPE NCC to represent the best interests of their membership to external parties such as governments and regulators. This included several calls for the RIPE NCC to intercede at the level of local legislation. Respondents that followed the IANA transition thought that

the RIPE NCC was acting in the best interests of its members and the RIPE community.

In carrying out the consultations, Dr. Allen focused on five topics to frame the discussions. These were:

- Outreach and Engagement
- IPv4/IPv6/AS Number Registration and Distribution
- RIPE NCC Services Development
- RIPE NCC Accountability and Transparency
- Internet Governance (including IANA Stewardship Transition)

The sections below outline the feedback received for each of these topics.

## **3 Outreach and Engagement**

### **3.1 Regional Meetings**

Most respondents didn't attend regional meetings. One was particularly negative about these meetings, while several respondents thought they were a crucial RIPE NCC contribution to making successful, local communities.

### **3.2 RIPE Meetings**

Most respondents didn't attend RIPE Meetings due to time and cost. They appreciated that the presentations were available online. The respondents that did attend RIPE Meetings thought that they were of a high quality and had no suggestions for improvements.

### **3.3 RIPE Policy Development Process**

Many respondents noted that they didn't have time to be involved in the RIPE Policy Development Process (PDP). There was a feeling that the volume of PDP emails was high and there were already enough voices involved in the PDP discussions. There was also a repeated comment that the process was confusing for newcomers and there was high knowledge threshold needed to participate properly. Several respondents were entirely unaware of the PDP and thought policy was decided elsewhere (e.g., ICANN).

### **3.4 RIPE NCC Feedback Mechanisms**

Respondents were positive about the consultation groups/interviews and the membership surveys. One respondent noted that holding a survey every three years was the right level of engagement. There was the suggestion that, in some regions, potential respondents would attend if they knew translation was available.

## **4 IPv4/IPv6/AS Number Registration and Distribution**

There was a mixed response to the RIPE NCC’s registration and distribution of IP resources. Some respondents thought that the registration processes were working well. Other respondents called on the RIPE NCC to be less bureaucratic and to stop requesting use cases for IP allocations. Several respondents were disappointed with the speed of the replies from the RIPE NCC’s IP Resource Analysts (IPRAs) and claimed that they never replied to a ticket in less than a day and a half. They suggested that IPRAs should give members an overview of all the documents that are required instead of doing everything one document at a time. This seemed inefficient, because of the slow response time, and frustrating because respondents had no overview of the overall process.

### **4.1 IPv4**

Some respondents noted that the IPv4 registration process had become more streamlined since the last /8 policy. However, other respondents stated that RIPE NCC IPRAs were still asking questions about usage even though this was no longer required by the current policy. These respondents felt that that the RIPE NCC was “babysitting” or they were using out-of-date templates that didn’t reflect the last /8 policy.

Several respondents noted that the last /8 policy had been abused. They welcomed the two-year freeze on the transfer of new IPv4 space and the prevention of multiple LIRs, but they claimed this happened too late. They also noted that, despite the recent GM resolution, there were still lots of workarounds for entities looking to get more than one /22.

### **4.2 IPv4 Transfers**

There was no objection to IPv4 transfers. The general feeling was that the rules needed to be clear, effective and focused on maintaining an accurate registry. Several respondents noted that the RIPE NCC IPv4 listing service was a useful and pragmatic response to the situation.

### **4.3 IPv6**

Most respondents thought that the RIPE NCC was doing all it could to help with IPv6 deployment. They noted that this was a commercial issue. One respondent noted that transition was more difficult because big incumbents remained IPv4-only. Another respondent was critical of the RIPE NCC's IPv6 efforts and said that the RIPE NCC should have done more to try to convince vendors and governments to promote widespread IPv6 deployment.

One respondent was critical about the RIPE NCC's request for a usage plan and audit of his organisation's IPv6 space during an Assisted Registry Check. This respondent claimed that the whole IPv6 allocation process was old-fashioned, while another respondent stated the IPv6 registration process was very smooth.

Several respondents noted that the RIPE NCC provided a lot of useful IPv6 information and training. One respondent insisted that the RIPE NCC continue IPv6 capacity building in his region. Another respondent noted that because only 30% of content is available over IPv6, NAT and dual stack is required but that the latter is inhibited due to the lack of available IPv4 space.

One respondent suggested that the RIPE NCC should not charge for IPv6 PI space. This charge is “restrictive for small players who are enthusiastic and might deploy IPv6.”

### **4.4 RPKI**

One respondent was an active proponent of RPKI. Some were considering deployment but most were either unaware of RPKI or unwilling to deploy it for routing.

Those respondents that were positive about RPKI included academic network operators and IXPs. The latter noted that, even if RPKI was only used by 10% of their members, as an IXP they need to deploy it. The respondents that supported RPKI were happy that it been integrated into the LIR Portal and that it could be used for PI space.

Some respondents noted that, in theory, certified IPv6 space was more likely to reach critical mass given the fact that the current IPv6 routing table was much smaller than the IPv4 routing table.

The three main criticisms of RPKI revolved around a) the burden of deployment; b) potential network problems; and c) the lack of a decentralised trust anchor system enabling the possibility of an Internet “kill switch”.

a) One respondent noted that the pressure for RPKI was not coming from the people who would actually have to implement certificates. This respondent suggested that big incumbents wanted RPKI because they could offload the routing work on the route owners, who have to do the work related to RPKI keys. He added that while it was easy for incumbents to use RPKI (as their big chunks of space require just one signature), smaller players didn't have the time or manpower to sign all their resources. This respondent concluded by saying that “RPKI is a good idea, but it is dead because of the division of responsibilities.”

b) One respondent was interested in RPKI but hadn't implemented it because of the potential network impact. The respondent noted that developments like RPKI can cause border routers to fail if vendors have not conducted the right tests.

c) One respondent noted that while securing BGP was crucial work, RPKI might not be the right approach. The respondent's main concern was that the current trust anchor system was not distributed and allowed a single government or regime the possibility of an Internet "kill switch".

## 4.5 Legacy Address Space

There was divergent criticism from respondents on the RIPE NCC's handling of legacy address space. Two respondents stated that the RIPE NCC had not done enough to support the interests of legacy address space holders. One of these respondents suggested that the community should have been consulted before the RIPE NCC took action, while the other noted that trying to force legacy space holders to become members was counter-productive. Two other respondents criticised the RIPE NCC for not putting more pressure on legacy space holders to register their address space with one of the RIRs and to "follow the rules."

# 5 RIPE NCC Services Development

Most respondents were positive about the RIPE NCC's services. There were several warnings that the RIPE NCC must be careful in areas where new activities might compete with services operated by commercial companies or the activities of a RIPE NCC member.

There were several suggestions for new services/tools. In terms of offering more tools or measurements, one respondent noted that there was no need for the RIPE NCC to provide lots of niche tools as long as they remained transparent. He noted that as long as data (e.g., RIS raw data) was available, interested parties could use this data for their own measurements: "This is transparency in a nutshell. Don't change this."

## 5.1 RIPE Database

There was general consensus among respondents that the RIPE Database had improved and was easy to use. For newcomers and small ISPs, the RIPE Database can seem overwhelming at first. Some respondents noted the improvements to revision history and data verification.

## **5.2 LIR Portal**

All respondents who mentioned the LIR Portal noted that it has improved over the last three years. They were positive about the look and feel, the tools and the fact that their LIR information was available in one place. Respondents were happy to see the LIR Portal continually improve.

The two new features that were noted as significant improvements were the IP Analyzer and the ability to sign resources with RPKI.

## **5.3 RIPE Atlas**

Most respondents were positive about RIPE Atlas. All respondents agreed it was an interesting service. Some respondents thought the service was improving, though others were not clear what the benefits were. There were repeated comments from respondents with probes that they wanted to start looking at the measurements but didn't have time. One respondent, who described himself as a RIPE Atlas ambassador, thought the service was reaching saturation point, and the maximum number of probes should be 10,000 - 15,000.

## **5.4 RIPE NCC Training**

Most respondents that mentioned the RIPE NCC's training courses were positive. There were several comments that people appreciated the chance to talk to the trainers in an informal setting and find out how things "really work". The quality of the courses and the staff was consistently rated as high.

Some respondents were aware of webinars, and one respondent mentioned the RIPE NCC Academy as a "really good e-learning platform" that he actively encouraged his colleagues to use.

## **5.5 Assisted Registry Checks (ARCs)**

There were repeated comments from multiple respondents that ARCs were time-consuming, annoying and offered no tangible benefits to members. A majority of respondents doubted that ARCs were worth doing.

One respondent noted that the RIPE NCC should produce a cost/benefit analysis of ARCs. If ARCs mostly resulted in minor tweaks, it was suggested that they should be terminated.

## **5.6 RIPEstat**

Several respondents noted that RIPEstat was useful for operators. They used it for debugging networks, checking reverse DNS zones and investigating historical hijacks.

## **5.7 RIPE Labs**

One respondent noted that RIPE Labs was a good resource but that the community was not submitting research results or ideas at the right pace. The respondent suggested that the RIPE NCC should use the 2016 survey to figure out why RIPE Labs isn't more successful.

## **5.8 BGPlay**

BGPlay was mentioned favourably by several respondents.

# **6 RIPE NCC Accountability and Transparency**

Most respondents were satisfied with the RIPE NCC's level of transparency and there were several comments along the line that, "in comparison to ICANN, the RIPE NCC are definitely transparent enough."

Most respondents knew they were entitled to attend and vote at the GM in person or remotely. A majority of respondents didn't participate in the GM, mostly because of time issues. There were several comments that there were already "enough members with different perspectives that will pull the RIPE NCC if it starts going in the wrong direction." The respondents that participated in GMs thought the process worked well and that e-voting was a good improvement.

Most respondents didn't read the documents associated with RIPE NCC General Meetings (GMs), but agreed it was good practice to provide them. The respondents that read the RIPE NCC Activity Plan and Budget thought that these documents offered good levels of transparency and accountability. One respondent noted that these documents should be published two months before the GM to allow for a "meaningful discussion" of FTEs and associated costs for each activity.

There were several comments that the process of selecting the RIPE Chair was unclear.

Most respondents agreed that the RIPE NCC acts in the best interests of the members. Two respondents noted that not all members share the same interests and wanted the RIPE NCC to focus on smaller groups, with a more regional focus.

One respondent noted that only 10% of the membership was voting at GMs and this meant that the RIPE NCC did not know if the majority of RIPE NCC members were satisfied. The respondent suggested that in the 2016 survey, the RIPE NCC should ask the membership if they are happy with the services and fees; and if not, why not.

## **7 Internet Governance (including IANA Stewardship Transition)**

There was almost unanimous support for the RIPE NCC's outreach efforts with governments, regulators and Law Enforcement Agencies (LEAs). The RIPE NCC was consistently praised for doing good work in this crucial area. Respondents noted that these activities should be performed for the benefit of the members and the community as opposed to the needs of the governments, regulators or LEAs. There were calls for the RIPE NCC to intercede at the level of local legislation. Respondents noted that local communities needed support from the RIPE NCC to prevent regulators and legislators making bad decisions based on a lack of technical awareness or excessively strict regulatory principles.

Several respondents wanted more information about what was happening at roundtables with LEAs, regulators, governments: "What did you do, and on whose behalf? Who did you speak to and what was their response? How did they challenge the views you were representing on my behalf? What were the outcomes?"

One respondent suggested that NOGs were a good way of reaching 20,000 people in a six-month period and were probably more effective in terms of overall influence than sending an email to a mailing list. The respondent suggested that NOG presentations were an alternate channel for IANA related presentations or other important Internet governance updates.

### **7.1 IANA Transition**

Most respondents were not following the IANA stewardship transition. All of the respondents that were following this process thought the RIPE NCC was doing a good job in a very complex situation. One respondent called for more input from the RIPE community in the IANA transition process. Another respondent wanted a general update on this process based on what the RIRs have been doing to represent the bottom-up, community policy processes.

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