

MEMBER UPDATE

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RIPE Network Coordination Centre

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The RIPE NCC Member Update is intended for RIPE NCC LIR contacts.

If you are not the right person to receive this update, please forward it to the appropriate colleague.

# IPv4 Exhaustion: A Message from the Chair of the RIPE NCC Executive Board

### **Nigel Titley**

Well, the event we have all been waiting for has finally happened. On the third of February 2011 the last five /8s were distributed to the five Regional Internet Registries and the IANA free pool of IPv4 address space was exhausted. We should now be considering IPv4 as a legacy protocol and moving forward with IPv6 as the real Internet protocol.

IPv4 will be with us for several years to come but as the shortage of IPv4 addresses starts to make itself felt the pressure will be ever increasing to move through transition mechanisms such as dual-stack to a pure IPv6 Internet. Of course we still have a little IPv4 space available but those regions with a rapid consumption rate, such as the RIPE NCC service region, are expected to run out completely within the next twelve months or even earlier. Once that happens, businesses have a choice: either try to put off the move to IPv6 by various methods such as Large Scale Network Address Translation (NAT) and offer an everdecreasing standard of service to their customers or to move forward with IPv6 and remove the limitations that NAT has already started to place on us. The choice seems to be clear.

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### IPv4 Exhaustion: Important Information for LIRs About IPv4 Requests

The RIPE NCC procedures ensure compliance with RIPE community policies and have been in place for some time. The RIPE NCC will avoid any drastic changes to these procedures in the coming period in order to contribute to a stable and orderly run out of IPv4 addresses in the RIPE NCC service region. However, approximately one month before the exhaustion of the RIPE NCC's IPv4 address pool, these processes will need to change to account for the scarcity of the remaining IPv4 addresses. For example, the "first come, first served" approach will be modified so that requests that require a query email from a RIPE NCC IP Resource Analyst (IPRA) will be sent back to the general request queue rather than being held in the IPRA's request queue. This will ensure that requests that contain an adequate level of relevant detail will be approved before requests that are missing the information necessary to approve the request. Each request will be evaluated by two IPRAs not one. These procedural details will be published shortly.

A presentation on procedural changes was made at RIPE 61 and can be seen at: http://ripe61.ripe.net/presentations/332-andrea\_ PPt\_Nov\_2010-3.pdf

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This publication is available online at: www.ripe.net/ membership/newsletter

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The mission of the RIPE NCC is to perform activities for the benefit of the membership; primarily activities that the members need to organise as a group, although they may compete with each other in other areas.

### IPv4 Exhaustion: A Message from the Chair of the RIPE NCC Executive Board

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IPv4 address trading may ease some of the pain for those able to afford it but is only a temporary measure. The IPv4 address space is just too small for the size of the modern Internet. We have a global population of six billion and only four billion IPv4 addresses and in today's world, one address per person is just not enough. Address trading will not fill the gap for long.

The RIPE NCC is committed to helping its members to make the transition to IPv6. We offer address space, materials (through the IPv6 Act Now and RIPE Labs websites) and training in the use of IPv6. Since 2008, all of our major services have been available on IPv6 to help you test your connectivity and to provide a better service to your IPv6-connected equipment. In addition, through regular RIPE Meetings we make it possible for you to meet and exchange experiences with those who are also going through this difficult transition.

IPv6 is probably the greatest change and challenge to face the Internet since its inception. If we weather it, then we will be on much firmer footing to move forward into a new, more open world.

### Update on Provider Independent Internet Number Resources

The changes in the way the RIPE NCC deals with Provider Independent (PI) Internet number resources comes from policy proposal 2007-01, "Direct Internet Resource Assignments to End Users from the RIPE NCC", which was accepted by the RIPE community in October 2008. This policy states that a contractual relationship between an End User and a Sponsoring LIR or the RIPE NCC must be established before the End User can receive independent Internet number resources directly from the RIPE NCC. It also states that such a contractual relationship must be retrospectively put in place for End Users of independent Internet number resources that were previously assigned.

Independent Internet number resources are defined as PI (IPv4/IPv6) assignments, AS Numbers, IPv6 Internet Exchange Point (IXP) assignments and IPv4/IPv6 Anycasting assignments.

Due to the scale of this policy's impact, the RIPE NCC is implementing it in three phases.

#### Phase 1 (March-May 2009)

This phase focused on new assignments only. The aim of this phase was to ensure that there are contracts in place between the End User of independent Internet number resources and the requesting (Sponsoring) LIR. This phase also made it possible for End Users to sign a contract directly with the RIPE NCC, becoming what is called a Direct Assignment User.

#### Phase 2 (May 2009-January 2011)

This phase focused on existing assignments. The RIPE NCC approached LIRs regarding the assignments requested by and registered with them. All LIRs received an email from the RIPE NCC with more detailed information. They were given access to a web interface in the LIR Portal in which all the independent resources requested by their LIR were listed.

LIRs were asked to inform the RIPE NCC about each of these independent Internet number resources by specifying whether they were used in their own network infrastructure, in the networks of one of their customers or if the End User was no longer their customer.

If the resources were being used by an LIR's existing End User, the LIR was required to upload a set of documentation to prove this.

This phase ended in January 2010. There was a high participation rate among LIRs with over 4,500 of the 4,900 LIRs with existing PI assignments providing the RIPE NCC with the details required.

#### Phase 3 (March 2011 Onwards)

The results of Phase 2 will be used for the third and last phase of implementation, which is scheduled to start in March 2011. This phase will involve contacting the End Users from whom the RIPE NCC has not received an End User Assignment Agreement. This involves approximately 20,000 Internet number resources.

The RIPE NCC will continue to present updates on these activities via the RIPE NCC Services Working Group mailing list and at RIPE Meetings. ¶

# IPv4 Exhaustion: Important Information for LIRs

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#### IPv4 Requests: Tips for LIRs

When submitting IPv4 address requests, be sure to provide enough information for the RIPE NCC to make a meaningful evaluation of the request. Please provide:

- Detailed IP address configuration information for the networks including what type of service, where is it located, and a separate list of each subnet
- Copies of any documents that prove the deployment of the network, including

network equipment invoices, data centre contracts etc.

• Data that verifies the usage of previously assigned public IPv4 addresses if the request is for broadband networks

More information is available at: www.ripe.net/lir-services/resource-management/ ipv4/ipv4-verification

For more tips on how to request IPv4 resources from the RIPE NCC please see: www.ripe.net/lir-services/resource-management/ ipv4/tips-for-resource-requests ¶

## IPv4 Exhaustion: RIPE NCC Update

The IANA IPv4 free pool of IPv4 address space was exhausted in February 2011. Each of the Regional Internet Registries (RIRs) received one of the final five /8s. The RIPE NCC was allocated 185/8.

As of February 2011, the RIPE NCC held reserves totalling approximately four /8s (around 75 million individual IPv4 addresses), not including 185/8.

The RIPE NCC will continue to distribute IPv4 addresses from its reserves according to the current policy, ripe-509, "IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region".

When our reserves are exhausted, we will

begin to distribute IPv4 addresses from 185/8 according to section 5.6 of ripe-509.

This section states that each Local Internet Registry (LIR) will receive one /22 (1024 IPv4 addresses) from 185/8 upon application for IPv4 resources. In order to obtain this /22 allocation, the LIR must already have received an IPv6 allocation.

For more information about how to deploy IPv6, please see: www.ipv6actnow.org

More information about IPv4 exhaustion and its consequences is available at: www.ripe.net/internet-coordination/ipv4-exhaustion ¶

## "Preparing an IPv6 Addressing Plan" – New Manual Published on www.ripe.net



### Preparing an IPv6 Addressing Plan Manual

Have you ever been asked for advice by one of your customers on how they should distribute their IPv6 allocation over their network? This is a common question that arises in the RIPE NCC's IPv6 Training Courses. To help our members provide answers to this question, we've translated a useful Dutch manual into English. The manual is called "Preparing an IPv6 Addressing Plan" and can be downloaded from: www.ripe.net/training/material/IPv6-for-LIRs-Training-Course/IPv6\_addr\_plan4.pdf ¶

## The RIPE NCC and World IPv6 Day

In order to encourage organisations to deploy IPv6, a group of content and access providers including Facebook, Google and Yahoo, together with the Internet Society, have agreed on a World IPv6 Day when they will "switch on" IPv6 and make all of their content available over IPv6. World IPv6 Day will take place on 8 June 2011.

One of the goals of this day is to identify potential issues that users may encounter when accessing a website that is available via IPv6. The expectation is that most users will not even notice the change and only a very small fraction will face any problems. This in itself will be a good motivator for other organisations to deploy IPv6 for all their services. We welcome this initiative and will be supporting the effort.

The RIPE NCC already makes all of its content available on IPv6 so we will not be changing or testing anything on the day. Our support will involve measuring the effects of the changes made by the other participants. We are currently planning to make the following measurements which will be published after thorough analysis:

DNS AAAA/A

We will query the DNS for domain names of participants and report the results, particularly whether AAAA records are returned in DNS responses.

- Reachability ICMP/ICMP6
- Content availability via HTTP over IPv4 and IPv6

We will measure whether the servers of participants are available on IPv4 and IPv6 using Internet Control Message Protocol (ICMP). If possible, we will also make measurements fetching content with special consideration to path MTU.

**Traceroutes** As far as possible, we will also execute traceroutes to the servers of participants over IPv4 and IPv6. ¶

#### The RIPE NCC and IPv6 Measurements

The RIPE NCC has a wide range of expertise in measuring and monitoring the Internet and routinely publishes IPv6-related measurements. See, for example:

- "Measuring IPv6 at Web Clients and Caching Resolvers"
- "Networks with IPv6 Over Time"
- "6to4 How Bad is it Really?"
- "Studies on "IPv6 RIPEness."

All these articles, and many others, are available on our RIPE Labs website at: http://labs.ripe.net

### Introducing the New www.ripe.net

On 9 February 2011, the RIPE NCC launched a new version of its website. The new site has been redesigned to provide a clearer structure, improved navigation and more efficient ways to interact with the web resources and tools provided by the RIPE NCC.

The driving force behind this redesign has been the needs of our members and colleagues in the RIPE community. We appreciate any feedback you may have on the new website. If you have any comments or suggestions, please contact the RIPE NCC by sending an email to: feedback@ripe.net ¶



### RIPEstat – A Toolbox for Checking the Status and Statistics of Internet Number Resources

The RIPE NCC holds a range of data related to IP addresses and Autonomous System Numbers:

- The RIPE Database contains registration data for number resources and the RIPE Routing Registry
- The RIPE NCC Routing Information Service (RIS) provides both real-time and historic information about the state of interdomain routing
- The Test Traffic Measurement (TTM) service makes continuous measurements
- The RIPE NCC also collects time series of data originated by others, such as CAIDA, Maxmind and various Real-time Blackhole Lists (RBLs)

This is a lot of data, but it is hard to access and correlate in a consistent manner. RIPEstat changes that by collecting this information together on a single web page with a simple user-interface. Enter an IP address and RIPEstat will tell you who it is registered to, how it is routed, where it is geolocated, whether it appears in certain block lists and so on. For most of these aspects, RIPEstat will also tell you the history of the address up to the present.

RIPEstat will also contain a steady stream of operational news based on the measurements, contributions from our community and our own experience. For an example of this, see the RIPE NCC's analysis of the Egyptian Internet outage on the RIPEstat page:

#### http://stat.ripe.net/egypt

Every four weeks we webcast a 30 minute public demonstration of new features and capabilities.



Anyone can watch and there's the opportunity to ask questions and make suggestions. For information about dates and how to participate, please see: http://labs.ripe.net/ripestat

RIPEstat is based on the Internet Number Resource Database (INRDB) and our experience with the Resource Explainer (REX) prototype. For more information, please see these articles on RIPE Labs:

http://labs.ripe.net/Members/kistel/content-introinrdb-internet-number-resource-database http://labs.ripe.net/Members/kistel/content-rexresource-explainer

We will improve the design and functionality based on your suggestions and your usage patterns.

Check out the beta version of RIPEstat now at: http://stat.ripe.net ¶



### RIPE Labs – Platform for Operator Tools and Data

Since the launch of RIPE Labs version 2.0 in July 2010, which provided new search functionality and improved layout, a lot of new content has been presented on RIPE Labs.

Ranging from prototype tools for operators to global IPv4 allocation statistics, RIPE Labs provides a host of useful tools, measurements and analysis. The new version of the site makes it easier than ever to present, interact with and comment on new ideas, measurements and prototypes.

Recent projects presented by the RIPE NCC on RIPE Labs include:

- Improvements and new features for the RIPE Database
- RIPE Atlas, a new active measurement network

- Various IPv6-related statistics, including the ongoing survey among vendors and users to identify IPv6 capable Customer Premise Equipment
- The RIPEstat Toolbox (see above)

We have also seen interesting external contributions covering topics like Egyptian Internet activity in February 2010, a reputation system to fight spam, a fascinating comparison between the Internet industry and other similar industries and a study of network complexity. RIPE Labs has become a known platform for the RIPE community to follow and participate in the development of new tools and other topics relevant for network operators.

To see the latest tools, research and ideas, please visit: http://labs.ripe.net ¶

### Certification of Internet Number Resources

Now that the IANA pool of IPv4 addresses has been exhausted, the registry function of the five Regional Internet Registries (RIRs) is more important to the Internet community than ever. People are going to be searching all nooks and crannies for remaining IPv4 addresses and this may not always be done in an orderly fashion. It is extremely important to know who is the legitimate holder of a block of IP addresses.

This has always been one of the main drivers behind the RIRs' plans to deploy a system that attaches digital certificates to Internet number resources (IP address blocks and AS Numbers). Since the launch of the Resource Certification service at the beginning of this year, hundreds of Local Internet Registries (LIRs) have enabled the service, providing them with several benefits.

First of all, certification verifies the legitimacy of a resource's allocation or assignment by an RIR. In other words, it offers validated proof of holdership. This can be vital when transferring Internet number resources between parties. How can you confirm who is the rightful holder of the addresses? How can you be sure this block hasn't already been transferred to another holder? Certification helps to make resource transfers reliable and secure.

Secondly, there is a routing benefit. It's one thing to have people claim address blocks that are not theirs, but it's another for them to actually use these addresses on the Internet. Any network operator can announce any prefix on their router, either intentionally or by mistake. Whatever the cause, the impact of prefix hijacking is high because it can take entire networks offline. We currently have Internet Routing Registries (IRRs) to help mitigate this issue. But with more than 30 IRRs and no means of confirming that all of the information in these IRRs is actually correct an extra level of authentication offers useful benefits.

The resource certification system can help by allowing for the prefix holder checks to be automated in a dependable, transparent and standardised way. This has the potential to streamline ISP workflows while also facilitating better routing security.

The system works through the creation of Route Origin Authorisation (ROA) objects. A ROA is a standardised document stating that the holder of a certain prefix authorises a particular Autonomous System (AS) to announce that prefix. A valid ROA can only be created by the holder of the certificate for that address space. Anyone on the Internet can now validate if a route announcement is authorised by the legitimate holder of the address space. Several router manufacturers have committed to building certification support into their hardware, further expanding the potential.

Moving forward, the RIPE NCC will focus on expanding the feature set of the service by making it possible for LIRs to run their own local set-up that interfaces with the RIPE NCC. We are also planning to develop a more comprehensive Validator and to build a notification system that warns the user if ROAs do not match real-world routing.

For more information, including step-by-step instructions on how you can enable and use the certification service, please visit www.ripe.net/certification ¶

### **RIPE NCC Regional Meetings**

The RIPE NCC holds regional meetings throughout its service region. These meetings offer network engineers and other technical staff the opportunity to share knowledge and experiences, and identify areas for regional cooperation.

### Dubrovnik September 2011

In September 2011, the RIPE NCC will hold its first Regional Meeting in Dubrovnik, Croatia. The meeting will take place from 7-9 September 2011. The meeting agenda will consist of plenary presentations, tutorials, as well as long coffee breaks, lunches and evening social events where there will be ample time for attendees to meet each other face-to-face. More information is available at:

www.ripe.net/ripe/meetings/regional-meetings

RIPE NCC regional meetings are usually held parallel to Network Operators' Group meetings such as the Middle East Network Operators' Group (MENOG) and the recently formed Eurasia Network Operators' Group (ENOG).

### **RIPE NCC Regional Meeting/ENOG**

The RIPE NCC Regional Meeting/Eurasia Network Operators' Group (ENOG) will take place in Moscow from 6-8 June 2011. More information is available at:

www.ripe.net/ripe/meetings/regional-meetings/ moscow-2011

### **RIPE NCC Regional Meeting/MENOG**

MENOG meetings are well-established events in the Middle East that feature a range of tutorials, conference sessions and hands-on workshops.

#### MENOG 7: October 2010

MENOG 7 took place alongside the RIPE NCC Regional Meeting in Istanbul, Turkey from 21-29 October 2010. There were approximately 240 attendees from 34 different countries. More information, including links to the presentations from the meeting, is available from the MENOG website at:

www.menog.net/meetings/menog7

#### MENOG 8: May 2011

MENOG 8 will take place alongside the RIPE NCC Regional Meeting in Damascus, Syria, from 14-19 May 2011. For more information and to register, visit the MENOG website at: www.menog.net/meetings/menog8

#### MENOG 9: September-October 2011

MENOG 9 will take place alongside the RIPE NCC Regional Meeting in Muscat, Oman, from 27 September – 6 October 2011. For more information, visit the MENOG website at: www.menog.net/meetings

### **RIPE Atlas**



with unprecedented detail. It will also allow probe hosts and sponsors/subscribers to execute their own measurements from any of thousands of probes.

The launch of the prototype at RIPE 61 was met with overwhelming interest: about 250 probes were distributed to interested individuals. We will distribute more than 1,000 additional probes before mid 2011.

More information about RIPE Atlas is available at: http://atlas.ripe.net ¶

RIPE Atlas is a distributed measurement network consisting of thousands, and potentially tens of thousands, of measurement nodes ("probes") placed around the Internet

Google. Map data © 2011 Geocentre Consulting, MapLink, Tele Atlas, Whereis(R), Sensis Pty Ltd

and connected to a controlling framework. The probes are small hardware devices that execute active measurements. They can easily be installed in residential settings, corporate networks and ISP infrastructure.

Eventually, this will enable RIPE Atlas users to observe Internet behaviour in real time



### **RIPE Meetings**

#### **RIPE 61**

The RIPE 61 Meeting took place at the Westin Excelsior Hotel in Rome, Italy, from 15-19 November 2010.



The meeting attracted over 420 attendees from more than 40 countries.

The RIPE 61 report, featuring a summary of the plenary and working group sessions, is available at: www.ripe.net/internet-coordination/news/about-ripe-ncc-and-ripe/ripe-61-meeting-report

#### **RIPE 62**

The RIPE 62 Meeting takes place at the NH Grand Hotel Krasnapolsky in Amsterdam, the Netherlands, from 2-6 May 2011.

For more details, and to register, please see: www.ripe.net/ripe/meetings/ripe-meetings/ripe-62

### **RIPE NCC General Meetings**

### The RIPE NCC General Meeting November 2010

The RIPE NCC General Meeting (GM) November 2010 took place on Wednesday, 17 November 2010 adjacent to the RIPE 61 Meeting.

There were 96 attendees, excluding RIPE NCC staff and observers from the other Regional Internet Registries. RIPE NCC members approved the Charging Scheme 2011 as well as changes to the RIPE NCC Articles of Association.

More information, including the agenda, presentations and supporting documents, is available at:

www.ripe.net/lir-services/ncc/gm/november-2010

#### The RIPE NCC General Meeting May 2011

The RIPE NCC GM May 2011 will take place on Wednesday, 4 May 2011, adjacent to the RIPE 62

Meeting at the NH Grand Hotel Krasnapolsky in Amsterdam, the Netherlands, from 2-6 May 2011.

All members of the RIPE NCC are encouraged to attend. You must register prior to the meeting. More information about the RIPE NCC General Meeting is available at:

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

Members can discuss membership issues prior to the GM by using the RIPE NCC Membership Discussion List. RIPE NCC members with an LIR Portal account can subscribe to this list through the LIR Portal at: https://lirportal.ripe.net

https://mportui.mpc.net

Archived messages from this list are available at: www.ripe.net/maillists/ncc-archives/membersdiscuss ¶

### **RIPE NCC and the OECD**

The RIPE NCC continues to be involved with the work of the Organisation for Economic Co-Operation and Development's (OECD) committee for Information, Computer and Communication Policy (ICCP) and the Working Party on Communication, Infrastructures and Services Policy (CISP).

Through the Internet Technical Advisory Committee (ITAC), the RIPE NCC, together with the other RIRs and industry partners, is able to formally contribute documents and statements to the ICCP and the CISP. At the end of 2010, the RIPE NCC was nominated by ITAC to become ITAC's formal point of contact for the CISP, a role the RIPE NCC is eager to fulfill.

Over the last year, the RIPE NCC sent representatives to the following OECD meetings

and workshops held at the OECD headquarters in Paris, France:

- Committee for Information, Computer and Communication Policy (ICCP) Meeting, 10-11 March 2010
- The Working Party on Communication, Infrastructures and Services Policy (CISP) Meeting, 14-15 June, 2010
- The Working Party on Communication, Infrastructures and Services Policy (CISP) & Working Party on the Information Economy (WPIE) Joint Workshop on Internet Intermediaries, 16 June 2010
- The Working Party on Communication, Infrastructures and Services Policy (CISP) Meeting, 13-14 September 2010

 Committee for Information, Computer and Communication Policy (ICCP) Meeting, 30 September – 1 October 2010

The RIPE NCC also contributed to the following formal document distributed to the delegates at the Committee for Information, Computer and Communication Policy (ICCP) Meeting held in March: "Evolution of the Internet's Address Distribution Function, IPv6 and the Role of Government"

### This document can be found online at: www.internetac.org/?attachment\_id=467

Information about ITAC can be found online at: www.internetac.org ¶

### RIPE Policy Development: August 2010-March 2011

### **Submitted Proposals**

Five proposals were submitted from August 2010 to March 2011. One other potential global proposal was in the pipeline.

### 1. Registration Requirements for IPv6 End User Assignments, 2010-06

Proposed by Marco Hogewoning and Remco Van Mook

The proposal has two main aspects: a change to the current policy ripe-481, "IPv6 Address Allocation and Assignment Policy", to require the use of new database attributes; and the creation of a new policy that defines the use of new attributes in the RIPE Database.

According to the proposal, the assignment will be registered with the new "status:" attribute value "AGGREGATED-BY-LIR", to indicate it is an End User assignment, and also the new attribute "assignment-size:" attribute that will indicate a longer prefix than the object prefix itself. This will improve and ease the verification of efficient IPv6 address space usage and the consequent HD ratio calculation.

The proposal was discussed with positive feedback on the mailing list and at RIPE 61. A new version was edited and by the end of 2010 the new text entered the Concluding Phase of the PDP.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-06

2. Ambiguity Cleanup on IPv6 Address Space Policy for IXP, 2010-07 Proposed by Sergi Polischuk

This proposal suggests removing the word 'open' from the policy document ripe-451, "IPv6 Address Space Policy for Internet Exchange Points", in the section where it defines the requirements of the open policies an IXP must have to require IPv6 address space.

The main purpose of the proposal is to remove the ambiguity the RIPE policy section could generate especially considering consequences of the implementation. The discussion at RIPE 61 supported the need for clarity. It was suggested that the policy be reworded as part of the Cosmetic Surgery Project. This position was confirmed by the community during the Review Phase and therefore the proposal was withdrawn. (See below, Concluded Proposals).

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-07

**3. Abuse Contact Information, 2010-08** *Proposed by Tobias Knecht* 

The proposal introduces as mandatory the reference to **irt** objects in the **inetnum**, **inet6num** and **aut-num** objects of the RIPE Database.

The proposal aims to drastically improve the abuse contact information management that is seen as a problem in other RIR databases. The long discussion ensued in the mailing list collected mixed opinions. The discussion at RIPE 61 led to the decision to reword the whole policy proposal text in collaboration with the RIPE NCC Database Department.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-08

**4. Frequent Update Request, 2010-09** *Proposed by Tobias Knecht* 

The proposal defines a procedure for the RIPE

NCC to follow in order to guarantee data accuracy in the RIPE Database.

The procedure specifies that the RIPE NCC should periodically contact members to have them double-check their data through the LIR Portal.

The following discussion in the mailing list and at the RIPE 61 Meeting found the proposal scope too operational for a policy. After the RIPE Meeting, it was decided to withdraw the proposal and solve the implementation issues pointed out by the proposal discussion with the help of a newly constituted task force (see below, Concluded Proposals).

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-09

# 5. Adding Reference to Sponsoring LIR in inetnum, inet6num and aut-num Objects, 2010-10

Proposed by Piotr Stryzewski

The proposal suggests adding in **inetnum**, **inet6num** and **aut-num** objects in the RIPE Database a reference to the sponsoring LIR of the End User.

The purpose of the proposal is to improve the usefulness, accuracy and updates of the RIPE Database, especially in cases where it is necessary to track and handle abuse events.

The mailing list discussion and the further comments at RIPE 61 led to the decision to leave the implementation issues of the proposal to an appropriate task force and withdraw the proposal (see below, Concluded Proposals).

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-10

#### **Concluded Proposals**

Six proposals were concluded during the period August 2010 to March 2011.

**1. 80% Rule Ambiguity Cleanup, 2010-04** *Proposed by Gert Doering* 

This proposal aims to solve the ambiguity in the current wording of the IPv4 Allocation Policy (ripe-491) regarding the "80% utilisation rule".

In order to receive additional allocations, an LIR has to prove that 80% of address currently allocated is in use. In the past, it was possible that the "80% rule" could be interpreted in different ways when an LIR with multiple existing allocations requested a new allocation from the RIPE NCC. This issue was brought up at RIPE 59 and then, after further discussion, at RIPE 60 it was agreed to start a policy proposal to correct this ambiguity by removing one single reference to the "80% rule" in the sub-allocation section of the IPv4 Address Allocation Policy.

The feedback from the community in the mailing

list was largely positive. The proposal reached consensus and was formally accepted in October 2010.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-04

**2. Allocations from the Last/8, 2010-02** Proposed by Alain Bidron and Philip Smith

This proposal describes how the RIPE NCC should distribute address space from its last /8 worth of IPv4 address space.

The policy proposal is the merger of the two previous proposals 2008-06, "Use of Final /8" and 2009-04, "IPv4 Allocation and Assignments to Facilitate IPv6 Deployment". The discussion during RIPE 60 led to another version of the policy to better define the implementation expected from the RIPE NCC.

Further comments after publishing the External Impact Analysis during the Comment and Review Phase showed the need for further editing of some details. A third version of the proposal was discussed by the community and reached consensus. The proposal was formally accepted in January 2011.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-02

**3. Ensuring Efficient Use of Historical IPv4 Resources, 2008-07** *Proposed by Philip Smith* 

This is a proposal to require documentation of all address resources held when assessing a RIPE NCC member's eligibility for further IPv4 address space.

The current version extends the proposal to new members. During RIPE 59, it was discussed to develop another version to address the comments made on the mailing list.

After further analysis, the proposer decided to withdraw the proposal.

The details of this proposal can be found at: www.ripe.net/ripe/policies/proposals/2008-07

#### **4.** Ambiguity Cleanup on IPv6 Address Space Policy for IXP, 2010-07 Proposed by Sergi Polischuk

The editorial text change proposed will be discussed in the Cosmetic Surgery Project. (See "Submitted Proposals", for details of the discussion).

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-07

**5. Frequent Update Request, 2010-09** *Proposed by Tobias Knecht* 

The proposer decided to withdraw the proposal based on the feedback received at RIPE 61.

A task force will be organised to solve the implementation issues pointed out by the proposal discussion. (See "Submitted Proposals" above for details of the discussion.)

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-09

#### 6. Adding Reference to Sponsoring LIR in inetnum, inet6num and aut-num Objects, 2010-10

Proposed by Piotr Stryzewski

The proposer decided to withdraw the proposal based on the feedback received at RIPE 61. A task force will be organised to solve the implementation issues pointed out by the proposal discussion. (See "Submitted Proposals" above for details of the discussion.)

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-10

### **Ongoing Proposals**

As of February 2011, there were four proposals open in the RIPE Policy Development Process (PDP).

#### 1. Temporary Internet Number Assignment Policies, 2010-01

Proposed by Nick Hilliard

This proposal expands the RIPE NCC's ability to assign number resources for temporary purposes and allows the RIPE NCC to reserve pools of IP addresses and Autonomous System Numbers (ASNs), which can be used by the RIPE NCC to make temporary assignments to End Users.

Key to this proposal is that all temporary resources assigned under this policy proposal are assigned on a strictly temporary basis, ensuring that they can be quickly re-assigned to other End Users after the assignment period expires.

The External Impact Analysis was published at the beginning of the Comment and Review Phase. At the end of this phase, it was decided that not enough feedback was received to declare consensus. The proposal was further discussed at the RIPE 61 Meeting, collected positive feedback and entered the PDP Concluding Phase.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-01

2. Global Policy for IPv4 Allocation by the IANA Post Exhaustion, 2010-05 Proposed by Martin Hannigan

This is a proposal for a global policy that will allow for allocation of IPv4 address space after the depletion of the IANA IPv4 address pool. Some of the intentions of the proposal are: to establish a Reclamation Pool to be utilised by RIRs to request and to return IPv4 address space post "Exhaustion Phase"; to define the "need" as the basis for future IPv4 allocations by the IANA; and to disallow transfers of address space sourced from the Reclamation Pool in the absence of an IPv4 Global Transfer Policy and to encourage the return of IPv4 address space.

The authors of the proposal see the necessity for such a policy in order for IANA to transparently continue to allocate IPv4 addresses beyond exhaustion. The same policy proposal was introduced in other RIR fora and discussed in RIR meetings.

The proposal was further discussed at RIPE 61 in Rome and a new version of the proposal text was announced. The new version was published after the meeting and a new Discussion Phase started on the mailing list. As of March 2011, it was decided to extend the discussion by four weeks.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2010-05

**3. PI Assignment Size, 2006-05** *Proposed by Nick Hilliard* 

This proposal suggests a /24 as the minimum assignment size for PI assignments when routing is a major issue for a multihoming End User.

After RIPE 60, a new proposer took over the proposal and a new version of the draft text was published. The community feedback on the mailing list was active, discussion at RIPE 61 was positive and some rewording was suggested that could bring more clarity. As of February 2011 the proposer was working on a new draft to publish on the mailing list.

The details of this proposal can be found at: www.ripe.net/ripe/policies/proposals/2006-05

**4. Initial Certification Policy for Provider Aggregatable Address Space Holders, 2008-08** Proposed by Nigel Titley, on behalf of the RIPE Certification Task Force

The RIPE NCC has deployed a certification service that can be used to secure uniqueness of resources. This proposal lays out guidelines for how LIRs can receive certificates over their Provider Aggregatable (PA) address space holdings and how these certificates should be maintained.

A second version of the proposal was published for review on the mailing list. There was a lively discussion at RIPE 61 that led to some changes in the proposal text in order to specify some references to the Certification Practice Statement.

The details of this proposal can be found at: www.ripe.net/ripe/policies/proposals/2008-08

### **Further Information**

You can find the full list of current proposals at: www.ripe.net/ripe/policies/proposals ¶

### **Conference Calendar**

Conferences and meetings that may be of interest to RIPE NCC members

3-7 April IPv6 Roadshow Amman, Jordan www.menog.net

10-13 April ARIN XXVII San Juan, Puerto Rico www.arin.net/participate/ meetings/ARIN-XXVII

2-6 May RIPE 62 Amsterdam, Netherlands www.ripe.net/meetings

7-11 May IPv6 Roadshow Riyadh, Saudi Arabia www.menog.net 15-20 May LACNIC XV Cancun, Mexico www.lacnic.net/sp/eventos/ lacnicxiv

16-20 May WSIS Forum 2011 Prague, Czech Republic http://groups.itu.int/Default. aspx?alias=groups.itu.int/ wsis-forum2011

4-10 June AfriNIC 14 Dar es Salaam, Tanzania www.afrinic.net 6-8 June ENOG/RIPE NCC Regional Meeting Moscow, Russia www.ripe.net/meetings

8 June World IPv6 Day Everywhere http://isoc.org/wp/ newsletter/?p=2902

29 August-2 September APNIC 32 Busan, Korea http://meetings.apnic.net TBC September RIPE NCC Regional Meeting Dubrovnik, Croatia www.ripe.net/ripe/meetings/ regional-meetings

# **RIPE NCC Training Courses**

#### LIR Training Courses

Ankara, Turkey Thursday, 31 March 2011

Leeds, UK Thursday, 21 April 2011

Sofia, Bulgaria Thursday, 28 April 2011

Kiev, Ukraine Thursday, 12 May 2011

Dublin, Ireland Wednesday, 1 June 2011

Belgrade, Serbia Thursday, 2 June 2011

Amsterdam, the Netherlands Thursday, 9 June 2011

Berlin, Germany Thursday, 16 June 2011 Riga, Latvia Monday, 20 June 2011

Beirut, Lebanon Thursday, 30 June 2011

### Routing Registry Training Courses

Helsinki, Finland Friday, 8 April 2011

Budapest, Hungary Friday, 27 May 2011

Dublin, Ireland Friday, 3 June 2011

Amsterdam, the Netherlands Friday, 10 June 2011

### IPv6 for LIRs Training Courses

Ankara, Turkey Friday, 1 April 2011

Helsinki, Finland Thursday, 7 April 2011

Rome, Italy Friday, 15 April 2011

Leeds, UK Thursday, 21 Apr 2011

Sofia, Bulgaria Friday, 29 April 2011

Kiev, Ukraine Friday, 13 May 2011

Prague, Czech Republic Friday, 20 May 2011

Budapest, Hungary Thursday, 26 May 2011 Dublin, Ireland Thursday, 2 June 2011

Belgrade, Serbia Friday, 3 June 2011

Amsterdam, the Netherlands Wednesday, 8 June 2011

Berlin, Germany Friday, 17 June 2011

Riga, Latvia Tuesday, 21 June 2011

Beirut, Lebanon Friday, 1 July 2011

For more information about RIPE NCC Training Courses and to register, please visit www.ripe.net/training

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RIPE Database Support: ripe-dbm@ripe.net

RIPE Meetings: meeting@ripe.net

RIPE NCC Regional Meetings: meeting@ripe.net

### **RIPE NCC Speakers**

To request a RIPE NCC speaker for your event, please contact: **speaker@ripe.net** 

### **RIPE NCC Social Media**

A list of the RIPE NCC's social media accounts is available at: www.ripe.net/social