RIPE Network Coordination Centre
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Member Update

Information bulletin for RIPE NCC members

www.ripe.net

The RIPE NCC Member Update is intended for LIR contacts.

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

RIPE 20 Year Anniversary

The forthcoming RIPE Meeting, RIPE 58, will mark twenty years since the first RIPE Meeting was held. This first meeting, held in May 1989, marked a key point in the early days of the European Internet and in the embryonic development of the RIPE NCC, through a statement that declared: "All participants agree that there should be some sort of registration of the networks taking part in the European IP net."

From this first RIPE Meeting, attended by 14 people, RIPE Meetings grew at an incredible pace, with attendance numbers increasing every year. RIPE Meetings, which have now been held in 19 different countries, regularly attract between 300 and 400 attendees and feature more than ten working groups dedicated to everything from IPv6 to solving the problem of network abuse.

The RIPE NCC has spent considerable effort on promoting the RIPE community and its Policy Development Process (PDP). New Local Internet Registries (LIRs) are offered two free tickets to their first RIPE Meetings, while government and regulatory representatives who are encouraged to attend the RIPE Cooperation Working Group and are kept informed through specially organised RIPE NCC Roundtable Meetings.

The landmark 20 year anniversary of RIPE will be acknowledged at a Plenary session during RIPE 58. More information about the RIPE 58 Meeting, which will be held from 4-8 May 2009 in Amsterdam, the Netherlands, is available at: www.ripe.net/ripe/meetings/ripe-58 •

RIPE NCC Membership Hits 6,000

On 17 November 2008, the RIPE NCC was joined by its 6,000th member, marking another milestone in the history of the Amsterdam-based, not-for-profit organisation. As the Regional Internet Registry (RIR) for Europe, the Middle East and parts of Central Asia, the RIPE NCC provides its members with Internet number resources, such as IPv4 and IPv6 address space and Autonomous System Numbers (ASNs).

"This is a significant moment in our membership history," said Paul Rendek, Head of External Relations and Communications, RIPE NCC. "The RIPE NCC has been providing its members with stable and secure service for more than 15 years. I would like to welcome our 6,000th member and thank the other 5,999 for their continued support."

Since its establishment as the world's first RIR in 1992, the RIPE NCC has provided its services to an ever-growing membership. By 1998, the RIPE NCC had more than 1,000 members, with the number of members increasing to over 3,000 by 2001, 4,000 by 2005 and 5,000 by June 2007.

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

If you have any feedback about this publication, please contact: feedback@ripe.net

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RIPE NCC Roundtable Highlights Governments' Role in IPv6 Deployment

Detlef Eckert, senior advisor in the Directorate General Information Society and Media of the European Commission (EC), emphasised the crucial role of European Union (EU) governments in leading the way to IPv6 migration during the February 2009 Roundtable Meeting for governments and regulators, hosted by the RIPE NCC. Attended by 60 key delegates from 18 countries, the event saw Eckert highlight the important role of governments in planning and acting now for the transition to IPv6.

Eckert explained: "Deployment of IPv6 is urgent as the Internet is effectively running out of IPv4 addresses. Adoption of IPv6 holds many challenges, and uptake to date has been slow, partly due to the fact that too many industry players take a "wait and see" attitude. Organisations and companies are not being sufficiently motivated to transition to the new Internet Protocol as they don't see enough immediate benefits. However from a societal and economic perspective the advantages of a fast uptake are significant. It is therefore essential for the public sector to take the long term view and decide on ways to intervene by leading IPv6 implementation."

In May 2008, the EC proposed that the Member States work together to achieve widespread IPv6 adoption. It set out an ambitious target that 25 per cent of users should be able to connect to the Internet over IPv6 by 2010. The EC has committed to using IPv6 and has subsequently launched a number of projects, including a study to measure progress in IPv6 usage over the next two years. There is active planning taking place in some Member States and the EC is working to provide support to generate synergy across the European Union.

Axel Pawlik, Managing Director at the RIPE NCC, summarised, "We view governments as key players in Internet growth and urge them to play their part in the deployment of IPv6 and in particular to lead by example in making content available over IPv6. Ultimately, we urge that the widespread deployment of IPv6 be made a high priority by all stakeholders."

Maria Häll, Co-Chair of the RIPE Cooperation Working Group, encouraged the Roundtable attendees to become involved in the Cooperation Working Group, either directly or by suggesting subjects that the working group should discuss.

The meeting featured presentations on the European Commission's IPv6 strategy from Eckert, on IPv6 from Rob Blokzijl, RIPE Chair, and on IPv6 deployment challenges from Patrik Fältström, Cisco. Lorenzo Colitti, Google, gave a presentation on Google's IPv6 deployment experience and Andrew de la Haye, RIPE NCC, gave an update on recent IPv6 policy developments.

These presentations are available at: www.ripe.net/meetings/roundtable/feb2009/presentations

The next Roundtable Meeting for governments and regulators will be held on Monday, 21 September 2009 at the Sheraton Amsterdam Airport Hotel. More information about RIPE NCC Roundtable Meetings is available at: www.ripe.net/meetings/roundtable •

RIPE NCC Holds Law Enforcement Meeting

On 17 February 2009, the RIPE NCC held a one-day meeting with an agenda specifically devoted to law enforcement agencies (LEAs). Presentations included case studies and experiences from several LEA representatives, with the afternoon focused more on what the RIPE NCC (and the RIPE community) can do to assist the LEA community. This was the first time the RIPE NCC has held such a meeting and its success was marked by attendees expressing an interest in further interaction and cooperation with RIPE and the RIPE NCC. •

RIPE NCC Membership Survey 2008

Following the successful RIPE NCC Membership Surveys conducted in 2002 and 2005, the RIPE NCC conducted its third Membership Survey in 2008. The results of all three surveys are available at: www.ripe.net/membership/survey

The purpose of these surveys is to ensure that the RIPE NCC continues to meet its members' needs, and to give members the opportunity to voice their opinions on the RIPE NCC and the services it provides.

In 2008, the RIPE NCC commissioned the independent market research company TNS NIPO to conduct the survey. All individual responses were sent directly to TNS NIPO to ensure members' confidentiality.

The survey asked for members' opinions on all services provided by the RIPE NCC and asked members to rank the services according to how important they felt each service was to them. The survey also gave members the opportunity to give individual comments and suggestions for improvement.

There was an excellent response rate to the 2008 Membership Survey. There were 771 responses, which is a significant increase on the 259 responses in 2002 and the 279 responses in 2005. There was also great diversity in the origins of the responses, with more than 60 countries represented in the 2008 survey.

There will be a presentation on the 2008 Membership Survey at RIPE 58, which will be held from 4-8 May 2009 at the Krasnapolsky Hotel in Amsterdam, the Netherlands. The results of the survey will be incorporated into the RIPE NCC's long-term strategy. •

RIPE NCC Now Assigning 32-bit AS Numbers By Default

As of 1 January 2009, the RIPE NCC has been assigning 32-bit (or four-byte) Autonomous System Numbers (ASNs) by default. This follows the policy and timeline agreed by all Regional Internet Registry (RIR) communities and described in the RIPE Document, "Autonomous System (AS) Number Assignment Policies and Procedures" (ripe-389).

16-bit ASNs and 32-bit ASNs are interoperable, which means that those who previously received a 16-bit ASN will not need to renumber. It is possible, however, that some devices, either in your network or the network of your upstream provider, will not be compatible with 32-bit ASNs. It is therefore vital that network operators be aware of the new assignment policy and of their own network's status in terms of 32-bit ASN compatibility.

When requesting an ASN, LIR staff should ensure that 32-bit ASNs will be compatible with their existing networks. Some network operators may experience difficulties configuring BGP sessions if their or their upstream providers' equipment is not compliant with the new 32-bit standard. It is possible, when requesting an ASN, to specify that you require a 16-bit ASN (in such cases, you will be asked to provide information on why you cannot use a 32-bit ASN – this is simply to assist the RIPE NCC in evaluating the deployment of 32-bit ASNs).

For more information on 32-bit ASNs, including FAQs, please see:

32-bit Autonomous System Numbers:
A Guide for LIRs
www.ripe.net/news/asn-32-guide.html •

Formatting 32-bit AS Numbers

32-bit AS Numbers were introduced to increase the AS Number space. The mechanism of extending the AS Number space is described in RFC4893. While the document describes the technical aspects in great detail, it does not address a practical issue: how do we print these numbers when humans have to read them?

Clearly, a string of 32 ones and zeroes is not very practical. However, as the RFC did not propose a format, people started to invent their own conventions.

Over the years, at least three different formats emerged. This wasn't a very acceptable situation. As a result, the Inter-Domain Routing (IDR) Working Group of the Internet Engineering Task Force (IETF) published RFC5396, which specifies that the so-called ASPLAIN notation be used.

ASPLAIN is a simple format that uses the decimal representation of the bits. In other words, AS 65535 will be followed by 65536, then 65537, etc.

This format has meanwhile been adopted by the Regional Internet Registries, the IANA and major vendors.

In the past, the RIPE NCC used the ASDot notation. This notation was phased out in the first quarter of 2009. •

RIPE NCC at IGF 2008

After two successful meetings in Greece and Brazil, the third Internet Governance Forum (IGF) was held in Hyderabad, India in December 2008. Despite the events in Mumbai a couple of weeks earlier, which meant that a number of institutional attendees were advised not to travel to India, there was a wide geographical representation, and almost all the planned sessions went ahead.

The lack of pressure to deliver a negotiated text as an outcome of the meeting was widely acknowledged to be an extremely valuable characteristic. That, in turn, allowed the government delegates to attend on an equal footing with the civil society and industry stakeholders, with many of the most useful conversations happening "in the corridors" rather than in formal sessions.

The meeting was very successful for the Regional Internet Registry (RIR) communities, with several previously sceptical governments praising them on their management of the address space. This reflects well on the advance preparations and engagement in several workshops made by the whole technical community.

The second IGF in 2007 included some workshops on Critical Internet Resources, and these became a main session topic in 2008, headlined "Transition From IPv4 to IPv6". One of the outcomes was a realisation that IPv4 will continue to be deployed for many years, even after the widespread introduction of IPv6.

The Number Resource Organization (NRO), representing all five RIRs, also hosted a stand in the IGF Village. This was an area where IGF attendees could find out more about the various organisations participating in the event. RIR representatives were on hand to help attendees understand IP addressing issues in their regions. The NRO distributed two reports developed specifically for the IGF, both of which can be downloaded from the NRO website:

- NRO Continuing Cooperation report: www.nro.net/docs/brochure-mediumres.pdf
- The Regional Internet Registries: Global Management of Internet Resources and the Transition to IPv6: www.nro.net/docs/NRO_IGF2008_Brochure.pdf

The RIPE NCC continues to meet its goal of providing governments with the information required to make informed decisions, and the IGF is an effective platform to demonstrate that policies exist to ensure the equitable distribution of IP addresses.

The fourth IGF meeting will take place in Sharm El Sheikh, Egypt, from 15–18 November 2009.

For more information, visit: www.intgovforum.org •

RIPE NCC Acting as NRO/ASO Secretariat for 2009

In 2009, the RIPE NCC will carry out the Secretariat functions for both the Number Resource Organization (NRO) and the Address Supporting Organization Address Council (ASO AC).

The NRO was formed in 2003 to represent the common interests of the Regional Internet Registries (RIRs). The purpose of the NRO is to undertake joint activities of the RIRs, including joint technical projects, liaison activities and policy coordination.

The body responsible for the NRO's actions is the NRO Executive Council (EC), which is made up of the five Executive Directors of the RIRs. The positions in the NRO EC rotate on an annual basis. In 2009, the members of the NRO EC and their positions are as follows:

- Chairman: Adiel Akplogan (AfriNIC)
- Secretary: Axel Pawlik (RIPE NCC)
- Treasurer: Raul Echeberria (LACNIC)
- Members: Paul Wilson (APNIC), John Curran (ARIN)

More information on the NRO is available at: www.nro.net

The five RIRs also appoint three members each to the ASO AC. The ASO AC oversees recommendations on IP address policy and appoints members to the ICANN Board of Directors. As the Secretariat of the NRO, the RIPE NCC will support the operations of the ASO AC throughout 2009.

More information on the ASO is available at: http://aso.icann.org •

RIPE Policy Development: September 2008 – February 2009

Submitted Proposals

From September 2008 to February 2009, six new proposals were submitted.

1. *Anycasting Assignments for TLDs and Tier 0/1 ENUM, 2008-05*
Proposed by Brett Carr and Ondřej Surý.

The proposal is to allow Tier 0/1 ENUM operators to receive IPv4 and IPv6 anycasting assignments and extend the number of anycasting prefixes that can be assigned to an operator from one to up to four assignments. After feedback from the mailing list and the discussions that took place at RIPE 57, the proposal was revised in December 2008. Most of the discussions were on the definition of an ENUM operator and how this should be reflected in the policy text. As of February 2009, a third version of the proposal is being worked on.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2008-05.html

2. *Use of Final /8, 2008-06*
Proposed by Philip Smith

This proposal describes how the RIPE NCC should make allocations from its last /8 worth of address space at the time of total depletion of the IANA free pool. As we are nearing the end of the IPv4 free pool this proposal is one of many that deals with the usage of the last bits of the free pool. The proposal's current version suggests a /16 to be reserved for some future uses, as yet unforeseen, and that all new and existing LIRs receive a single allocation of the minimum size from the last /8 that the RIPE NCC will hold.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2008-06.html

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

This is a proposal to require documentation of all historical address resources held when assessing a RIPE NCC member's eligibility for further IPv4 address space, where historical resources are defined as all the resources registered in the RIPE Database that were distributed before the existence of the RIPE NCC. Eighty percent usage of the previously allocated space needs to be documented for the member to be eligible for an additional allocation block according to the current policy. Historical resources were exempt from this policy so far, but this proposal suggests that they should be included in the same policy for further allocations.

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

This proposal is a product of the work done by the RIPE Certification Task Force. The task force has studied possible policy implications and decided that a short initial policy will be a useful guideline for a certification system for the RIPE community to discuss. It lays out guidelines for how LIRs can receive certificates over their Provider Aggregatable (PA) address space holdings and how these certificates should be maintained. Once a policy for PA resources for LIRs has been discussed and the community has agreed on guidelines, the task force will consider more complicated scenarios, such as PI, ERX and legacy address space.

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

5. *ASPLAIN Format for the Registration of 4-byte ASNs, 2008-09*
Proposed by James Spenceley

This proposal sought to modify the current policy document, "Autonomous System (AS) Number Assignment Policies and Procedures", to adopt the use of ASPLAIN for recording and representation of 4-byte AS Numbers. Given the recent publication of RFC5396, the proposer and the Address Policy Working Group Chairs have agreed that there was no need to keep 2008-09 in the RIPE Policy Development Process. Therefore, in late February 2009, the proposal was withdrawn (RFC5396 can be found at: ftp://ftp.ripe.net/rfc/rfc5396.txt). However, the update to the policy document, "Autonomous System (AS) Number Assignment Policies and Procedures", still progressed and a draft was published. After the one-month review period for this draft, it was published as a policy document in March 2009.

The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2008-09.html

6. *Global Policy for the Allocation of IPv4 Blocks to Regional Internet Registries, 2009-01*
Proposed by Axel Pawlik and Nigel Titley from RIPE NCC as part of a team consisting of people from each of the five RIRs.

With the depletion of the IANA free pool of IPv4 address space, the current policy regarding the allocation of IPv4 address space to the RIRs

will become moot. The RIRs may, according to their individual policies and procedures, recover IPv4 address space. This proposal provides a mechanism for the RIRs to retro-allocate the recovered IPv4 address space to the IANA and provides the IANA the policy by which it can allocate it back to the RIRs on a needs basis. It creates a new global pool of IPv4 address space that can be allocated where it is needed on a global basis without a transfer of address space between the RIRs.

The details of the proposal can be found at:
www.ripe.net/ripe/policies/proposals/2009-01.html

Concluded Proposals

Six proposals were concluded in the period September 2008 to February 2009

1. *Cooperative Distribution of the End of the IPv4 Free Pool, 2007-09*
Proposed by Tony Hain

This policy was to establish a process for RIR-to-RIR redistribution of the tail-end of the IPv4 pool, taking effect after the IANA Reserve is exhausted. According to the proposed process the RIR with the longest window before exhausting its current pool would be designated as the "source" RIR and the others would request space from this RIR. The process requires at least two RIRs to apply it. It was abandoned in all the other RIR communities where it was proposed and so the proposer decided to withdraw the proposal in the RIPE community too, due to insufficient support.

The details of the proposal can be found at:
www.ripe.net/ripe/policies/proposals/2007-09.html

2. *Global Policy for the Allocation of the Remaining IPv4 Address Space, 2008-03*
Proposed by Roque Gagliano, Francisco Obispo, Hytham EL Nakhal, Didier Allain Kla and the JPNIC IPv4 countdown policy team

This proposal is to distribute a single /8 to each RIR at the point when the IANA free pool is left with five /8s. It was concluded in the RIPE community with consensus in September 2008.

A RIPE policy document was published upon the proposal becoming an accepted policy and it can be found at:
www.ripe.net/ripe/docs/ripe-436.html

The details of the proposal can be found at:
www.ripe.net/ripe/policies/proposals/2008-03.html

Having received consensus in all the other RIR communities, as of February 2009 this proposal was due to be ratified by the ICANN Board.

3. *Direct Internet Resource Assignments to End Users from the RIPE NCC, 2007-01*
Proposed by Nick Hilliard

This proposal states that a contractual relationship between an End User and a sponsoring LIR or the RIPE NCC must be established before the End User receives Internet number resources (Autonomous System (AS) Number, Provider Independent (PI) IPv4 and IPv6, Internet Exchange Point (IXP) and anycasting assignments) directly from the RIPE NCC. The proposal also reaffirms and clarifies the existing RIPE policy that IPv4 Provider Independent address assignments of any type cannot be sub-assigned.

The proposal reached consensus in October 2008.
www.ripe.net/ripe/policies/proposals/2007-01.html

4. *IPv6 ULA-Central, 2007-05*
Proposed by Jordi Palet Martinez

This policy was intended to allow the assignment of IPv6 blocks within the so-called "Centrally Assigned Unique Local IPv6 Unicast Addresses" to organisations or individuals requiring it. These addresses are globally unique and intended for local communications, usually within a site or set of them and are not expected to be routable on the global Internet. Prefix FC00::/7 is already reserved by the IANA for ULA (bit 8 determines whether it is locally or centrally assigned, hence ULA or ULA-Central).

The proposer decided to withdraw this proposal and wait for the IETF process on the subject to conclude in November 2008.

5. *Enabling Methods for Reallocation of IPv4 Resources, 2007-08*
Proposed by Nigel Titley and Remco van Mook

This proposal outlines a framework to migrate previously allocated IPv4 resources from one Local Internet Registry (LIR) to another LIR within the RIPE NCC service region.

It was accepted in December 2008 and is documented in "IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region":
www.ripe.net/ripe/docs/ripe-441.html

6. *ASPLAIN Format for the Registration of 4-byte ASNs, 2008-09 (see above).*

Archived proposals (either withdrawn or concluded) are stored at:
www.ripe.net/ripe/policies/proposals/archive

Ongoing Proposals

As this article was being written, there were eight proposals open in the RIPE PDP:

1. *Provider Independent (PI) IPv6 Assignments for End User Organisations, 2006-01*
Proposed by Jordi Palet Martinez

This proposal is intended to provide a solution for organisations that need IPv6 Provider Independent (PI) assignments.
www.ripe.net/ripe/policies/proposals/2006-01.html

2. *PI Assignment Size, 2006-05*
Proposed by Philip Chr. Laustsen Langelund

This proposal suggests that the minimum assignment size for PI assignments should be a /24 when routing is a major issue for a multihoming End User.
www.ripe.net/ripe/policies/proposals/2006-05.html

3. *Using the Resource Public Key Infrastructure to Construct Validated IRR Data*
Proposed by Randy Bush and Kurtis Lindqvist

This proposal is to introduce a new registry that augments IRR data with the formally verifiable trust model of the Resource Public Key Infrastructure (RPKI) and provide ISPs with the tools to generate an overlay to the IRR which is much more strongly trustable. During RIPE 56, the proposal was discussed in the Routing Working Group as well and it was suggested that the proposal could be withdrawn while an operational implementation proposal is discussed in the working group. As of February 2009, this was still work in progress.

The details of the proposal can be found at:
www.ripe.net/ripe/policies/proposals/2008-04.html

The following five proposals (described in more detail above) were still ongoing as of February 2009:

4. *Anycasting Assignments for TLDs and Tier 0/1 ENUM, 2008-05*
5. *Use of Final /8, 2008-06*
6. *Ensuring Efficient Use of Historical IPv4 Resources, 2008-07*
7. *Initial Certification Policy for Provider Aggregatable Address Space Holders, 2008-08*
8. *Global Policy for the Allocation of IPv4 Blocks to Regional Internet Registries, 2009-01*

Further Information

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

RIPE Meetings

RIPE 57

The RIPE 57 Meeting took place at the JW Marriott Hotel, Dubai, United Arab Emirates from 26–30 October 2008.

The RIPE 57 Meeting Report is available at:
www.ripe.net/ripe/meetings/ripe-57/meeting-report.html

Minutes and presentations from the RIPE 57 plenary and working group sessions are available at:
www.ripe.net/ripe/meetings/ripe-57/presentations

RIPE 58

RIPE 58 will take place at the Krasnapolsky Hotel, Amsterdam, the Netherlands, from 4-8 May 2009.

More information is available at:
www.ripe.net/ripe/meetings/ripe-58 •

RIPE NCC Membership Hits 6,000

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The RIPE NCC currently supports members in 75 countries in its service region and has been providing Internet number resources to members since 1992. The RIPE NCC also provides technical coordination of the Internet and information services for the Internet community, as well as administrative support for Réseaux IP Européens (RIPE), a collaborative forum open to all parties with an interest in wide area IP networks and the technical development of the Internet. •

ARIN Update

Participate in ARIN Meetings From Your Desk – New Opportunities Available

ARIN has expanded its remote meeting participation options to allow all participants to fully experience the Public Policy and Members meeting. Beginning with ARIN XXII in Los Angeles, California from 15-17 October 2008, attendees could pick up their meeting packet onsite at the ARIN registration desk or click on the ARIN website and print or view all of the meeting materials.

Online attendees could also access and download all the media and materials available in the Cyber Café, including taking advantage of opportunities to provide feedback about the service needs of the ARIN community via various short surveys. Attendees onsite and online were eligible to win prizes in raffle drawings if they submitted their forms by the stated deadline. We even had our first online winner!

Webcast and chat options were available beginning with the Open Policy Hour (OPH), which always features a lively discussion where new policy ideas are introduced and ARIN staff share their experience with current policies. The webcast and chat features were available during the remainder of the Public Policy and Members meeting. The remote participation page on the ARIN website provided details on how to connect to the webcast, an open jabber chat room to share ideas and comments with other deskbound colleagues, a room where registered participants entered comments and questions to be incorporated into the onsite discussion, and most importantly a jabber room where registered viewers were able to "raise their hand" to answer the questions posed by the Chair during policy proposal discussions.

We look forward to continuing to improve upon our meeting enhancements, and we hope you will join us for ARIN XXIII, 24-26 April 2009. Remember you now have a choice of how you attend an ARIN meeting – either online or in person. For those that will be attending in person, the meeting will be conducted in San Antonio, Texas. Regardless of how you choose to attend, we will see you then. •

Certification of Internet Number Resources

During 2008, the RIPE NCC, together with the RIPE Certification Task Force, worked to define a certification system that could incorporate the technological, administrative and procedural elements necessary to certify Internet number resources. The resulting web-based application, featuring basic key and certificate management, was extensively evaluated by a group of testers formed at the RIPE 56 Meeting in Berlin in May 2008. Their feedback and comments were used to fix potential problems and to identify subsequent features that the certification system should provide. A second Beta release, which included Route Origin Authorisation (ROA) functionality, was issued in September 2008 and presented at RIPE 57 in Dubai in October 2008.

As a result of feedback from test users and the RIPE community, subsequent releases of the Beta application feature a more mature key life cycle management as well as full object validation functionality accessible through a web portal and a command line tool. In addition, since RIPE 57, the RIPE NCC has worked on designing the architecture of the future production environment, selecting the appropriate hardware signing module and developing best practices for Business Public Key Infrastructure (BPKI). The RIPE NCC has continued to communicate with the certification test group to confirm the priorities and requirements of the certification system while conducting a thorough risk analysis of the software components involved, as well as optimising the performance and robustness of the certification system. Other work has focused on enabling auditing methods and creating tools for users. •

Wilfried Woeber Appointed to NRO Number Council

Wilfried Woeber has been selected by the RIPE NCC Executive Board to take the vacant seat on the Number Resource Organization (NRO) Number Council (NC) for the RIPE NCC service region. The NRO NC performs the role of the Address Supporting Organization Address Council (ASO AC). The term of Mr. Woeber's appointment is from 1 January 2009 to 31 December 2011.

The selection was announced during the Closing Plenary session on Thursday, 30 October 2008, at the RIPE 57 Meeting in Dubai.

More information about the NRO NC and its nomination process is available at: www.ripe.net/info/resource-admin/nro2008 •

The RIPE NCC and DNS Monitoring

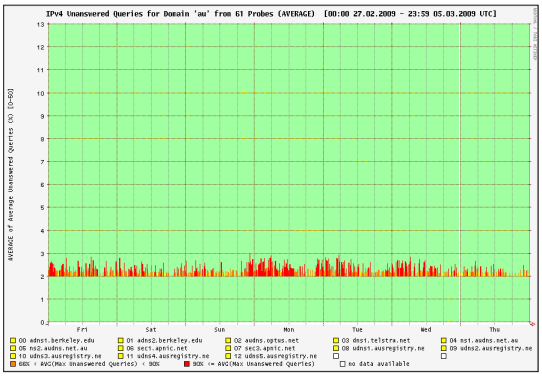
In order for the Domain Name Service (DNS) to function properly, two things are essential: the server machines should be working correctly and the clients using the server should be able to reach the name servers across the network. Monitoring the latter was historically difficult as the clients, typically DNS caches at ISPs, could be thousands of kilometres and a few dozen network hops away. These caches, however, are used by the vast majority of users for DNS resolution and represent a crucial part of the Internet's infrastructure.

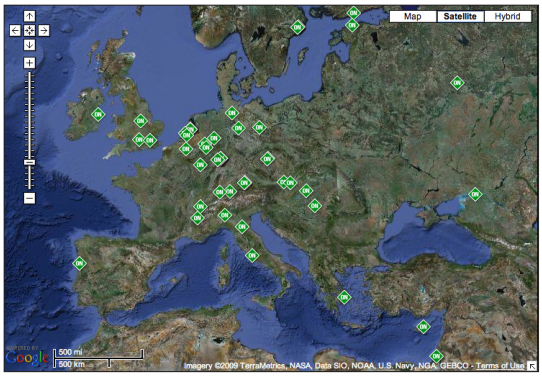
As part of our Information Services activities, the RIPE NCC monitors the stability and quality of this DNS infrastructure, including the root zone, .arpa and a variety of gTLD, ccTLD and ENUM tier 1 domains. Operational since 2004, the RIPE NCC's DNS Monitoring service (DNSMON) was built to use a globally distributed and easily expandable network of measurement probes, each of which continually sends queries to all of the monitored servers. The responses are collated and measured in order to calculate the number of dropped queries, and the delay in responding to those queries. The results are then plotted on graphs and published on our website (http://dnsmon.ripe.net), where they are available for anyone to see.

In this way, DNSMON is able to provide a comprehensive, objective and up-to-date overview of the DNS globally. This service, provided at no charge to root name server operators, helps operators to optimise the performance of the 13 root name servers, an essential part of the Internet's infrastructure. At the same time, making the data publicly available allows the RIPE NCC to provide an unbiased and useful service to the global Internet community. Supporting an initiative that provides accurate, useful and timely measurement data on the Internet's infrastructure enables the RIPE community to contribute to the ongoing security and stability of the Internet.

DNSMON undergoes constant development to improve its feature-set and the quality of the information it provides. Most recently, we have reacted to the ongoing trend for deployment of DNS servers using anycasting, and we have enabled reporting on specific root server anycast instances.

DNSMON is complemented by a broader suite of RIPE NCC Information Services of specific interest to network operators, including IS Alarms for detecting prefix hijacks and the Test Traffic Measurement (TTM) service for the continual monitoring of network connectivity. You can find out more about these services at: http://is-portal.ripe.net. •





DNSMON Fast Facts

- Launched in April 2004
- Provides overview of DNS root servers and participating Top-Level Domain (TLD) name servers
- Shows the service quality of key DNS servers observed at dozens of locations in the Internet
- Enables users to distinguish server-side and network problems
- Part of the RIPE NCC's Information Services (http://is-portal.ripe.net)

RIPE NCC General Meetings

All RIPE NCC members are encouraged to attend the RIPE NCC General Meetings, which are currently held twice a year. During these General Meetings, members can vote to accept the audited Financial Report for the previous year and to adopt the RIPE NCC Charging Scheme for the following year. Members are also responsible for electing the Executive Board and for voting on resolutions, which are proposed in accordance with the RIPE NCC's Articles of Association and which are related to the RIPE NCC's service agreement with its members. General Meetings also provide a forum for members to provide feedback on the RIPE NCC's activities, services and charging scheme directly to the Executive Board.

The RIPE NCC General Meeting October 2008

The RIPE NCC General Meeting (GM) October 2008 was held on Tuesday, 28 October 2008 adjacent to the RIPE 57 Meeting at the JW Marriott Hotel in Dubai, United Arab Emirates.

There were 52 attendees, excluding RIPE NCC staff and observers from the other Regional Internet Registries.

The RIPE NCC members approved the following four formal resolutions at the GM:

- "The General Meeting adopts the RIPE NCC Charging Scheme 2009"
- "The General Meeting adopts the RIPE NCC End User Assignment Agreement"
- "The General Meeting adopts the RIPE NCC Charging Scheme 2008 Addendum effective upon adoption"
- "The General Meeting supports the RIPE NCC Executive Board's ratification of the RIPE NCC Supporter Agreement and welcomes supporters to attend future General Meetings"

The RIPE NCC General Meeting May 2009

The RIPE NCC GM May 2009 will take place on Wednesday, 6 May 2009, adjacent to the RIPE 58 Meeting at the Krasnapolsky Hotel, Amsterdam, the Netherlands.

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/membership/gm •

The Middle East Network Operators Group

The Middle East Network Operators Group (MENOG) is a regional forum offering network engineers and other technical staff the opportunity to share knowledge and experiences, and identify areas for regional cooperation.

MENOG 3: April 2008

MENOG 3 took place in combination with the RIPE NCC Regional Meeting from 15-17 April 2008 in Salmiya, Kuwait.

Attracting more than 100 attendees from 20 countries, MENOG 3 was a successful event that brought together regional network operators, vendors, ISPs and technical groups.

MENOG 4: April 2009

MENOG 4 will take place alongside the RIPE NCC Regional Meeting in Manama, Bahrain from 5–9 April 2009. Attendance is free of charge and all presentations, tutorials and workshops will take place in English.

More information on both meetings is available from the MENOG website at: www.menog.net/meetings •

RIPE Database Legal Information

Over the past year, the RIPE NCC has worked to strengthen and improve the legal framework it operates under. To comply with Dutch Data Protection regulations, the RIPE NCC established a procedure for removing personal data from the RIPE Database. With the assistance of the RIPE Data Protection Task Force, the RIPE NCC also created a new Acceptable Use Policy and new Terms and Conditions that govern the use of the RIPE Database.

All of the legal documentation concerning the RIPE NCC is available at: www.ripe.net/legal •

APNIC Update

2008 saw a number of changes at APNIC. We released an upgrade to our online number resource management system, MyAPNIC. Users of MyAPNIC can now access the service either with a username and password or with the existing digital certificate-based system. They will also benefit from a range of improvements to the user interface, as well as the additional functionality of a front end to APNIC's newly-developed Resource Certification hosted signing service.

APNIC commenced a new initiative called the "IPv6 program". With Miwa Fujii appointed as leader of the operation, the IPv6 program seeks to support the community during the transition to IPv6 by disseminating practical information customized for a variety of stakeholders.

In addition, the IPv6 program will create alliances with other IPv6-related organizations to represent APNIC's current stance on the IPv6 transition and to support each other's activities through information exchange.

APNIC makes decisions based on feedback gathered from our membership in periodic surveys. The APNIC Member and Stakeholder Survey was conducted by KPMG in December 2008. Receiving 446 complete responses, it assessed APNIC's performance, how APNIC's revenue should be spent and asked for personal opinions regarding the state of IPv6 readiness in the region. The results will be released soon and will guide APNIC decision-making in the coming years.

APNIC is currently undertaking the complete redevelopment of its website, utilizing a new content management system. The new website will offer vast improvements with regard to usability and is scheduled to be launched in early 2009. It will continue to be refined throughout the year.

APNIC will, as usual, be conducting two meetings in 2009 – APNIC 27 in Manila, Philippines and APNIC 28 in Beijing, China. APNIC 27 will be held in conjunction with APRICOT 2009, and APNIC 28 is our standalone meeting. You are all hereby invited to attend these exciting and captivating events! For more information, see:
http://meetings.apnic.net •

AfriNIC Update

AfriNIC is expecting 2009 to be an exciting and eventful year! Firstly, AfriNIC will launch the IPv6 Virtual Lab, the first of its kind to launch in the African region. This will be used for testing and educational purposes as it is a test network configured for public access. This testbed, managed by AfriNIC, was set up to increase hands-on experience with IPv6. Support for this initiative was provided by Cisco Systems and 6Deploy.

There are two AfriNIC public policy meetings planned for 2009. AfriNIC-10/AfNOG-10 will take place 10–22 May 2009 in Cairo, Egypt. This event is a milestone as it will mark the 10th AfriNIC public policy meeting and AfNOG's 10th year celebration. We are looking forward to an exciting event and great participation. AfriNIC-11 is tentatively planned for 28 Nov–4 Dec 2009.

AfriNIC's 2009 Training Schedule is very ambitious as we are committed to our goal of conducting at least one LIR/IPv6 training workshop in all of the African countries by 2010. We also intend to collaborate more with the 6Deploy team to extend our reach throughout the African Continent with IPv6 training. Some of these workshops will take place in Tunisia, Libya, Tanzania, and Egypt, in addition to our regularly planned training workshops and will also target the academic community.

AfriNIC launched the Anycast Root Server Copy Program, a project that aims to support well established IXPs in the African region to deploy instances of root servers. AfriNIC will assist with financial and technical support for the local deployment.

Additionally, AfriNIC intends to increase its capacity by hiring several new staff members in the Communications and Technical Operations areas.

For additional information on the public policy meetings, training, programs, or opportunities, please visit our website at:
www.afrinic.net •

Conference Calendar

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

1–3 April 2009
PAM 2009: Passive and Active Measurement Conference
Seoul, South Korea
http://pam2009.kaist.ac.kr

5–9 April 2009
MENOG 4/RIPE NCC Regional Meeting
Manama, Bahrain
www.menog.net/meetings/menog4

20–24 April 2009
18th International World Wide Web Conference
Madrid, Spain
www.www2009.org

26–29 April 2009
ARIN XXIII
San Antonio, United States
www.arin.net/ARIN-XXIII/

27–28 April 2009
14th Euro-IX Forum
Prague, Czech Republic
https://www.euro-ix.net/event/show/43

4–8 May 2009
RIPE 58
Amsterdam, the Netherlands
www.ripe.net/ripe/meetings/ripe-58

10–22 May 2009
AFNOG 10
Cairo, Egypt
www.afnog.org

10–22 May 2009
AfriNIC 10
Cairo, Egypt
www.afrinic.net/meeting

18–19 May 2009
LINX 65
TBD, United Kingdom
www.linx.net

24–29 May 2009
LACNIC XII
Panama City, Panama
www.lacnic.net/en/eventos/lacnicxii/llamado-organizadores.html

27 May 2009
AMS-IX GM 26
Amsterdam, the Netherlands
www.ams-ix.net

28–29 May 2009
German IPv6 Congress
Frankfurt/Main, Germany
www.ipv6-kongress.de

14–19 June 2009
2009 USENIX Annual Technical Conference
San Diego, United States
www.usenix.org/events/usenix09

21–26 June 2009
ICANN 35
Sydney, Australia
http://public.icann.org/

15–23 July 2009
SANOG
Chennai, India
www.sanog.org

26–30 July 2009
IETF 75
Stockholm, Sweden
www.ietf.org/meetings/0mtg-sites.txt

12–14 August 2009
18th USENIX Security Symposium
Montreal, Canada
www.usenix.org/events/byname/security.html

17–18 August 2009
LINX 66
TBD, United Kingdom
www.linx.net

24–28 August 2009
APNIC 28
Beijing, China
www.apnic.net/meetings

RIPE NCC Training Courses

LIR Training Courses

Madrid, Spain
Friday, 3 April 2009

Athens, Greece
Friday, 10 April 2009

Budapest, Hungary
Friday, 17 April 2009

Helsinki, Finland
Friday, 24 April 2009

Amsterdam, the Netherlands
Friday, 1 May 2009

Bucharest, Romania
Friday, 15 May 2009

Frankfurt, Germany
Wednesday, 27 May 2009

Vienna, Austria
Friday, 5 June 2009

Lisbon, Portugal
Friday, 5 June 2009

Amman, Jordan
Monday, 15 June 2009

Oslo, Norway
Friday, 19 June 2009

London, United Kingdom
Thursday, 25 June 2009

Routing Registry Training Courses

Paris, France
Friday, 17 April 2009

Rome, Italy
Friday, 15 May 2009

London, United Kingdom
Friday, 26 June 2009

RIPE NCC Speakers

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

A list of topics that the RIPE NCC can provide speakers for is available at:
www.ripe.net/meetings/ncc-speakers.html

Postal Address:
RIPE NCC
PO Box 10096
1001 EB Amsterdam
The Netherlands

Phone: +31 20 535 4444
Fax: +31 20 535 4445

General Queries:
ncc@ripe.net

Membership Queries:
lir-help@ripe.net

IP Resource Requests:
hostmaster@ripe.net

Training Services:
training@ripe.net

Membership Applications:
new-lir@ripe.net

Billing Department:
billing@ripe.net

RIPE Database Support:
ripe-dbm@ripe.net

RIPE Meetings:
meeting@ripe.net

RIPE NCC Regional Meetings:
meeting@ripe.net