RIPE NCC
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RIPE Network Coordination Centre
April 2007

Member Update

Information bulletin for RIPE NCC members

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.

Certification of Resources in the RIPE NCC Service Region

In the last RIPE NCC Member Update (September 2006), APNIC's Geoff Huston outlined the concept of IP resource certification, and how its adoption could benefit the global Internet community. In this issue, we look at what is being done in the RIPE community to prepare for the adoption of resource certification in this region.

To briefly summarise, the certification of Internet number resources offers a range of potential benefits for RIPE NCC members and the Internet community in general, such as:

- Resource holders will have proof that they hold a certain Internet resource
- Resource holders will be able to make attestations about resources when delegating (assigning) them to other entities
- Resource certificates could be used in securing routing information (either through the Internet Routing Registry, Border Gateway Protocol or other means)
- Resource certificates could serve as "proof of possession" when transferring resources between entities

Discussions at RIPE 53 in October 2006 led to the establishment of the RIPE Certification Task Force, whose role is to examine the issues surrounding the certification of IP resources in the RIPE NCC service region.

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RIPE NCC Launches Membership Discussion List

The RIPE NCC has set up a new mailing list (the RIPE NCC Membership Discussion List) where members can discuss topics relevant to RIPE NCC General Meetings and membership related issues.

The RIPE NCC Membership Discussion List is only available to fully paid-up RIPE NCC members. Members must subscribe to join this list. RIPE NCC members with an LIR Portal account can subscribe to this list through the RIPE NCC LIR Portal at: https://lirportal.ripe.net

The list is publicly archived, but messages can only be posted by RIPE NCC members who have subscribed to the list.

Archived messages from this list are publicly available at: www.ripe.net/maillists/ncc-archives/members-discuss •

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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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.

RIPE NCC Annual Report 2006

The RIPE NCC Annual Report 2006 has been published. As of 4 April 2007, it will be available on the RIPE NCC website at: www.ripe.net/ripe/docs/ar2006.html

RIPE NCC Focus Points and Budget 2007

At the end of 2006, the RIPE NCC Executive Board approved and published the RIPE NCC Activity Plan 2007 and Budget 2007. The RIPE NCC Activity Plan 2007 lists a number of focus points which are summarised below.

- **Reliable and Stable Technical Coordination of Internet Number Resources**

The RIPE NCC will improve the consistency and strengthen the stability of the processes for distributing Internet number resources to members.

- **Support for Internet Number Resource Certification**

The RIPE NCC will actively work to help ISPs improve routing security by continuing proof-of-concept work related to issuing certificates for Internet number resources. The focus will be on investigating the technological, administrative and procedural elements necessary to produce a production prototype for certifying Internet number resources.

- **RIPE NCC Customer Service Desk**

The RIPE NCC aims for excellence in service provision and Internet coordination. As part of its focus on a consistently high level of membership service, the RIPE NCC is concentrating efforts to provide an improved customer experience. A key element of these efforts is the development of the RIPE NCC Customer Service Desk.

- **High Quality Services for Operators and the Internet Community**

As a neutral and credible source of network and Internet-related information, the RIPE NCC will continue to supply timely, accurate and tailored Information Services. The Information Services provided by the RIPE NCC are not only relevant to operators and the Internet community but also to a range of audiences including governments, regulators and journalists.

- **Public Affairs**

The RIPE NCC will focus on enhancing public and private sector dialogue, demonstrating the importance of the RIR system to the public and private sectors and promoting enhanced co-operation between these sectors.

The RIPE NCC Activity Plan 2007 is available at: www.ripe.net/ripe/docs/ap2007.html

The RIPE NCC Budget 2007 is available at: www.ripe.net/ripe/docs/budget2007.html •

RIPE NCC Accepting Requests for 4-byte Autonomous System Numbers (ASNs)

From January 2007, the RIPE NCC has been accepting requests for 4-byte (32-bit) Autonomous System Numbers (ASNs). These assignments come from the range: 3.0-3.1023.

Until 1 January 2009, the RIPE NCC will continue to assign 2-byte (16 bit) ASNs by default unless a 4-byte ASN is requested. After 1 January 2009, the RIPE NCC will assign a 4-byte ASN by default, unless a 2-byte ASN is requested.

From 1 January 2010, the RIPE NCC will only assign 4-byte ASNs. •

IP Assignments for Anycasting DNS

In 2006, a new policy (2005-02) was accepted that specified the criteria for making IP assignments for anycasting DNS. The purpose of the policy is to enable country code Top-Level Domain (ccTLD) and global Top-Level Domain (gTLD) name server operators to provide their DNS service using shared unicast technology. To help this process, the policy specifies that the RIPE NCC may assign one IPv4 and/or one IPv6 prefix to each TLD operator.

As part of this new policy, the RIPE NCC has been processing requests for IPv4 and IPv6 anycast assignments since September 2006.

The archived policy proposal for IP Assignments for Anycasting DNS is available at: www.ripe.net/ripe/policies/proposals/2005-2.html •

4-byte Autonomous System Numbers: The View from the Old BGP World

This is a reprinted version of an article written by Geoff Huston, APNIC Chief Scientist, that originally appeared in APNIC's newsletter in January 2007.

4-byte Autonomous System numbers are now being distributed by the five Regional Internet Registries (RIRs) under a transition policy. Geoff Huston explains how 4-byte ASNs will coexist with the existing 2-byte ASNs and what ISPs will observe during this transition.

The IANA has now expanded the AS Number registry from its original 16 bit range (AS Numbers 0 through 65535) to a 32 bit range (AS Numbers 0 through 4,294,967,295).

This is a timely action, in that we were running out of AS Numbers in the 2-byte number range, and the rate of AS Number consumption was such that by October 2010 the AS Number range would have been completely exhausted. The RIRs have adopted policies that allow ISPs to transition to this extended number range without the need for last minute rushed changes in BGP.

From 1 January 2007 until 31 December 2008, ISPs may specifically request an AS Number from the extended 4-byte number pool, but, by default, they will be assigned an AS Number from the original 2-byte number pool. From 1 January 2009, the allocation practice will be reversed, and unless specifically requested, AS Numbers will be allocated from the extended 4-byte number pool.

What are the implications for ISPs with this AS Number allocation policy?

If an ISP wants to use an AS Number that is greater than 65535 then it will need to deploy "new" BGP. That is, it will need to deploy a version of the BGP protocol in its routers that understands 4-byte AS Numbers.

But what about everyone else? What about the existing "old" BGP world that uses 2-byte AS Numbers? Even though they have a 2-byte AS Number, will they need to upgrade their BGP to see these new extended AS Numbers?

The approach in the 4-byte AS Number transition has been carefully constructed to be backward compatible. The reassuring news is that if you have a 2-byte AS Number and are running BGP then you need to change nothing at all. The Internet will still work and you will continue to see routes to all advertised networks, irrespective of the existence of 4-byte AS Numbers in the network. You don't need to upgrade your version of BGP, nor make any router configuration changes in your network. Nothing need change.

Geoff Huston, APNIC Chief Scientist

Well, almost nothing! Some things might change, and in this article I'd like to highlight some of the things to think about if you are running an old BGP that supports only 2-byte AS Numbers.

First, some background. In BGP, the AS path attribute is used for two essential roles. It's a metric of path length where, by default, BGP will prefer a short AS path over a longer one for the same advertised prefix. It's also a loop detector, where each AS is capable of detecting a potential routing loop by seeing its own AS already in the AS path of received BGP advertisements. Strictly speaking, the AS path does not have to be entirely accurate, but it does need to have these capabilities of path metric and loop detection.

The transition mechanism of 4-byte BGP is a combination of translation and tunnelling.

When passing a routing update into the 2-byte old BGP world the 4-byte new BGP speaker converts all AS Numbers in the AS path to 2-byte values. If the AS Number was between 0 and 65535 then all it does is strip off the leading 16 zero bits of the AS Number value to perform this conversion. If the AS Number is greater than 65535 then it translates the AS Number to the special 2-byte value of 23456. If any AS Number is translated in this way the new BGP speaker also saves a copy of the 4-byte AS path in a new transitive opaque community attribute called "NEW_AS_PATH".

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When passing a routing update from a 2-byte old BGP speaker to a 4-byte new BGP speaker, all the AS Numbers in the AS path attribute are expanded to the equivalent 4-byte values by adding the leading 16 zero bits to the AS Number value. If there is a NEW_AS_PATH community attribute, then this AS string is substituted back into the AS PATH. If all goes well, the 4-byte BGP world sees an accurately re-constructed 4-byte AS PATH, preserving both AS path length metrics and the BGP loop detection capability.

But even if the NEW_AS_PATH attribute is not present, or cannot be substituted back into the 4-byte AS path, it is not a fatal condition. Even without the substitution, the AS path length metric is preserved, and loop detection still can be performed, although in a degraded fashion. Potential routing loops entirely within the 4-byte new BGP world are detected as normal, as are potential routing loops entirely within the 2-byte old BGP world. And in the case of a mixed 2-byte and 4-byte potential routing loop, the detection will still happen when the loop formation reaches the 2-byte old BGP world. So if the NEW_AS_PATH attribute is lost in the 2-byte old BGP world, then the only casualty is speed of routing convergence, where it may take a number of additional AS hops for a potential routing loop to be detected and removed.

The implications for old world BGP appear to include the following considerations:

- The first implication for the old BGP world is that it is preferred if the NEW_AS_PATH is carried as a transitive opaque community attribute when present. That's a "SHOULD", not a "MUST", by the way.

- The second implication is that the old 2-byte BGP world will see more and more instances of AS23456 as both an originator and as a transit provider. This is not a mistake, it is just the only way that the 2-byte world can carry a place-holder for a 4-byte AS value.

- The third implication is that an old BGP ISP may see routing peers, both as customers, peers, and possibly upstreams, using 4-byte AS Numbers. But as your local BGP is an old world BGP, your routers will not be aware of these 4-byte AS values. From your routers' perspective, AS23456 is going to start popping up both as a diverse prefix originator and a ubiquitous transit provider. The ISP's operating support system (OSS) probably should be able to store the corresponding AS Numbers of these routing peers as 4-byte number values, simply to avoid unnecessary confusion and potential ambiguity! But if you use the OSS to generate router configuration fragments, AS path filters and similar, then you may need to revise your OSS to transform the 4-byte AS Number values into the 2-byte equivalent value of AS23456. The same situation occurs when using a Routing Registry to generate local configuration state for your 2-byte BGP. So, for example, your OSS may have a configuration relating to a BGP peer with AS1.2, but your old BGP router will need to be provided with a generated configuration fragment that refers to AS23456.

- Many ISPs use directed community attributes to signal to a remote AS. A prefix that has explicit signalling to AS65505 may use a community attribute of "65505:123", for example. But this will not work as cleanly if the old BGP wishes to generate a signal to a 4-byte target AS. At the very least, your BGP version should support expanded community attributes (RFC4630) and also support the means of entering 4-byte AS Numbers into these attributes (see draft-rekhter-as4octet-ext-community-01.txt).

- You should also expect a modest increase on memory and bandwidth requirements for BGP. While nothing much is changing in your view of the routing world, you will be carrying these NEW_AS_PATH transitive community attributes along with the prefixes, and the memory and bandwidth required to hold AS paths will triple for old world BGP routers. That's not saying that total BGP memory demands will triple, just that requirement relating to AS path storage.

- We might anticipate slightly poorer performance in routing. The specific cases where convergence times will extend are in those circumstances where the NEW_AS_PATH attribute is lost on transit through the old BGP 2-byte world. In such cases loop detection will take slightly longer, and this will have some level of impact on convergence times.

- There is no dynamic capability to support a change from 2-byte old BGP to 4-byte new BGP. When a routing domain wants to transition from a 2-byte to a 4-byte AS Number, then the BGP session will need to be reset via a complete shutdown and restart. The transition from old BGP to new BGP within a domain includes a number of considerations with respect to iBGP as well as eBGP sessions, and the transition will need to be planned very carefully. •

RIPE Meetings

RIPE 53

The RIPE 53 Meeting took place from 2-6 October 2006 at the Krasnapolsky Hotel in Amsterdam, the Netherlands.

The RIPE 53 Meeting Report, including a summary of the action points and highlights from all Working Group sessions, is available at: www.ripe.net/ripe/meetings/ripe-53/report.html

Minutes are available at: www.ripe.net/ripe/meetings/ripe-53/minutes

All the Plenary and Working Group session presentations from RIPE 53 can be viewed at: www.ripe.net/ripe/meetings/ripe-53/presentations •

RIPE 54

RIPE 54 will take place from 7-11 May 2007 at the Sokos Viru Hotel in Tallinn, Estonia.

More information is available at: www.ripe.net/ripe/meetings/ripe-54

RIPE NCC General Meetings

RIPE NCC General Meeting October 2006

The RIPE NCC General Meeting (GM) October 2006 was held on Thursday, 5 October 2006, adjacent to the RIPE 53 Meeting at the Krasnapolsky Hotel in Amsterdam, the Netherlands.

At the GM October 2006, the RIPE NCC members unanimously approved the RIPE NCC Charging Scheme 2007. This document is available at: www.ripe.net/ripe/docs/ripe-392.html

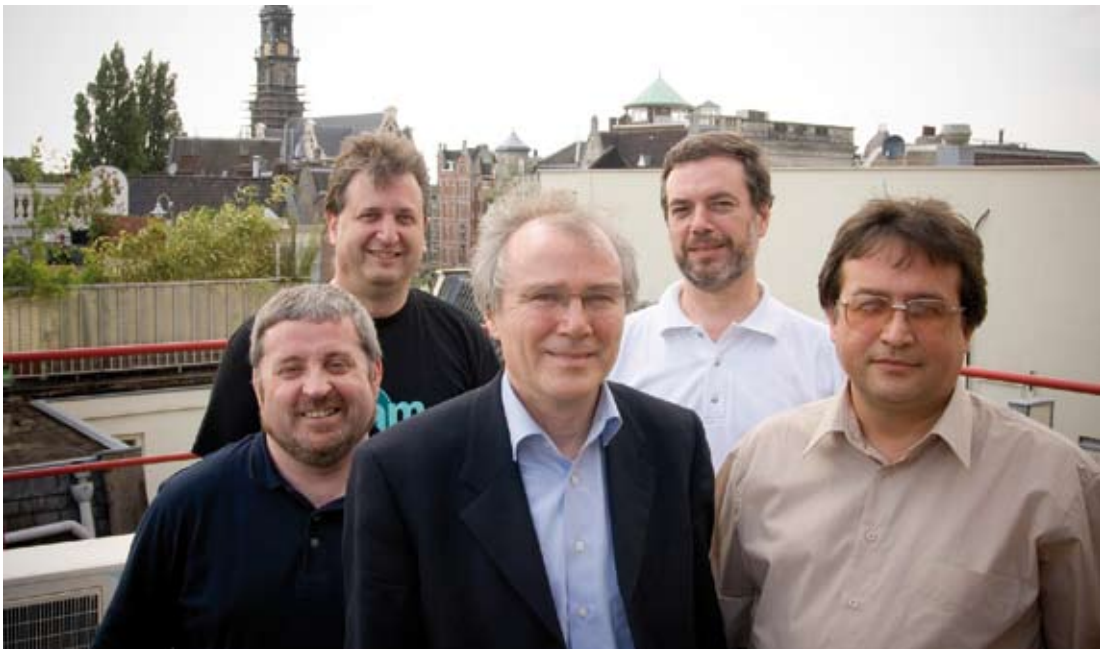
The presentations given at the General Meeting can be found at: www.ripe.net/membership/gm/gm-october2006/presentations •

Upcoming RIPE NCC General Meeting: May 2007

The next RIPE NCC GM will be held on Wednesday, 10 May 2007, adjacent to the RIPE 54 Meeting at the Sokos Viru Hotel in Tallinn, Estonia. All members of the RIPE NCC are encouraged to attend. You must register prior to the meeting.

More information about RIPE NCC General Meetings is available at: www.ripe.net/membership/gm

Members can discuss membership issues prior to the GM by using the RIPE NCC Membership Discussion List. More information is available on page 1.



RIPE NCC Executive Board
From left: Jim Reid, Nigel Titley, Kees Neggers, János Zsakó and Dmitry Burkov

The Number Resource Organization (NRO) at ITU Telecom World, Hong Kong

The RIPE NCC took part in the Internet Pavilion at ITU Telecom World, held in Hong Kong from 4-8 December 2006. The Internet Pavilion, which was also a feature at the World Summit on the Information Society (WSIS) in Tunisia in November 2005, was created to promote a greater understanding of the bottom-up development processes of the Internet technical community.

The Internet Pavilion at ITU Telecom World

Co-sponsored by the RIRs, ICANN and ISOC, the Internet Pavilion included:

- Multimedia presentations on Regional Internet Registry (RIR) history, the NRO and IP addressing and routing
- NRO fact sheets in six official United Nations languages (Arabic, Chinese, English, French, Russian, and Spanish)
- Brochures, newsletters and articles on technical and RIR-specific issues

Representatives from all the RIRs, ICANN and ISOC were available at the Internet Pavilion to provide ITU participants and journalists with information and to answer questions.

For more information, please see: www.nro.net/governance/itu-exhibition-info.html •

New Global Policy for Allocating IPv6 Addresses to RIRs

At its 7 September 2006 Meeting, the Board of ICANN ratified a global policy for the allocation of IPv6 addresses by the Internet Assigned Numbers Authority (IANA) to Regional Internet Registries (RIRs).

This new global policy describes how IANA distributes IPv6 address ranges to the RIRs. Under the policy, the unit of IPv6 allocation is now a /12, with IANA allocating sufficient address space for each RIR to support their respective registration needs for at least 18 months.

An RIR will be eligible to receive additional IPv6 address space from the IANA when either its available space is less than 50 percent of a /12 or its available space is less than its established necessary space for the following nine months.

"This is an outcome which provides certainty to Internet Registries and their customers who include Internet Service Providers and users" said Dr Paul Twomey, President and CEO of ICANN.

The policy was developed through a bottom-up process, coordinated through the various RIR communities, before being submitted to the Address Supporting Organization (ASO) Address Council by the Executive Council of the Number Resource Organization in June 2006.

The Global Addressing Policy document is available from the ASO website at: www.aso.icann.org/docs/aso-global-ipv6.pdf •

Internet Governance Forum, Athens, October 2006

By Roland Perry, Public Affairs Officer, RIPE NCC

Conceived as a series of five meetings to carry forward aspects of the discussion started at the World Summit on Information Society (WSIS), the Internet Governance Forum (IGF) takes its mandate directly from the UN Secretary General.

The first IGF was held in Athens in October 2006 and was hailed as a success. A late surge in registrations, with 400 government delegates from 97 member states, resulted in the event being considerably oversubscribed. Extra passes were needed to attend the plenary sessions on the first day, but every organisation that wanted to hold a workshop was accommodated, although this meant that attendees often needed to choose between four sessions taking place at once.

Photo by Gerard Ross, APNIC

Several members of the 40-strong Advisory Group were on hand to assist in the organisation of the sessions, with universal praise for the work of the translators and simultaneous transcription team. Connectivity and remote participation were sometimes patchy, but the online record of the event is a very useful resource.

Perhaps the most noticeable feature of the IGF Athens meeting was the genuine openness, where anyone with a view to express was welcome. In an effort to be seen as multi-stakeholder, there were probably too many people on the panels, which were a feature of both the plenary and workshop sessions. By the time the panel had all introduced themselves and the moderator had collected a few, often lengthy, questions, it was almost time to wrap up.

The IGF in Athens did not have a mandate to produce or negotiate a deliverable. Many people regarded that as an important strength, especially for governmental attendees. It avoided an unnecessary degree of formality and the need to stick rigidly to a pre-prepared brief. One important consequence that did arise from the meeting, however, was the concept of Dynamic Coalitions. These are not quite working groups, but newly formed associations with a common purpose.

It is expected that the Dynamic Coalitions, which will be working independently of the United Nations framework underpinning the main IGF, will be given an opportunity to report back in November 2007, on topics such as: Privacy, Spam, Open Standards, Bill of Rights, Access and Connectivity, and Access to Knowledge. There is also a Dynamic Coalition looking at the remote participation, or Online Collaboration, process itself.

The next IGF meeting will be held in Rio de Janeiro, Brazil, in November 2007.

More information is available at: www.intgovforum.org •

New Design for RIPE Document Store

The RIPE Document Store has been redesigned to make it easier for members and the RIPE community to find the documents they need.

One new feature is that all Internet number resource request forms and supporting notes are now directly available from the same page.

The RIPE Document Store is available at: www.ripe.net/ripe/docs •

RIPE Policy Development: August 2006-March 2007

Submitted Proposals

Between August 2006 and March 2007, four new policy proposals were submitted.

1. *Contact E-mail Address Requirements, 2006-04*
Proposed by Jeffrey L. Scribner.

The proposal suggested that working and up-to-date contact e-mail addresses should be maintained at all times for address space that is registered in the RIPE Database. It was discussed during RIPE 53 and was withdrawn in February 2007 because not enough consensus could be reached. The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2006-04.html

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

This proposal suggested that the minimum IPv4 assignment size for Provider Independent assignments should be a /24 in cases where routing is a major issue for a multihoming End User. The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2006-05.html

3. *IPv4 Maximum Allocation Period, 2006-06*
Proposed by Axel Pawlik.

This proposal suggests that the RIPE NCC allocates address space to Local Internet Registries (LIRs) based on their one-year needs. It suggests setting a maximum allocation period of 12 months. During RIPE 53, the RIPE NCC was asked to do some analysis on the possible impact of this proposal on address space consumption and fragmentation. The results of this analysis were published in November 2006 at the same time that the proposal's discussion period was extended. The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2006-06.html

4. *First Raise in IPv4 Assignment Window Size, 2006-07*
Proposed by Leo Vegoda.

This proposal suggests that the Assignment Window (AW) available to new LIRs should automatically be raised from zero (0) to /21 (2,048 IPv4 addresses) six months after they receive their first allocation. Because the sub-allocation policy references the AW policy, the sub-allocation policy also needs to be updated. This proposal suggests that the maximum sub-allocation should be kept at /20 (4,096 IPv4 addresses). This is the second version of the proposal after revisions were made to it by the proposer based on the feedback collected on the first version. The details of the proposal can be found at: www.ripe.net/ripe/policies/proposals/2006-07.html

Concluded Proposals

Two proposals submitted in 2005 were concluded in September 2006.

1. *4-Byte AS Number Policy, 2005-12*
Proposed by Geoff Huston.

This policy proposal detailed a set of actions and associated dates for Regional Internet Registry (RIR) AS Number assignment policies. The purpose of the proposal is to assist with the orderly transition from 2-byte to 4-byte AS Number space. The policy proposal was concluded with consensus in September 2006 and the related policy document was updated. It can be found at: www.ripe.net/ripe/docs/asn-assignment.html

This was a joint policy proposal in all five RIR regions and, as of January 2007, it became common policy for all RIR regions. The proposal can be found at: www.ripe.net/ripe/policies/proposals/2005-12.html

2. *IP Assignments for Anycasting DNS, 2005-02*
Proposed by Andreas Baess.

This proposal suggested that to enable country code Top-Level Domain (ccTLD) and global Top-Level Domain (gTLD) name server operators to provide their DNS service using shared unicast technology, the RIPE NCC may assign one IPv4 and/or one IPv6 prefix to each TLD operator. It was concluded with consensus in September 2006 and the following related policy documents were updated accordingly:

- IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region: www.ripe.net/ripe/docs/ipv4-policies.html
- IPv6 Address Allocation and Assignment Policy: www.ripe.net/ripe/docs/ipv6policy.html

The proposal can be found at: www.ripe.net/ripe/policies/proposals/2005-2.html

The proposal outlining the allocation of IPv6 address space from the IANA to the RIRs became a global policy after ICANN ratified it

in September 2006. This proposal had already concluded with consensus in the RIPE region in April 2006, The related RIPE Document can be found at:
www.ripe.net/ripe/docs/ripe-376.html

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

Further Information

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

More details about the RIPE Policy Development Process (PDP) is available at:
www.ripe.net/ripe/docs/pdp.html •

RIPE NCC Regional Meetings 2006

In 2006, the RIPE NCC held three Regional Meetings. The first was held in Doha, Qatar, from 17-18 January 2006. The second meeting was held in Moscow, Russia from 18-19 September. The third took place in Manama, Bahrain from 14-15 November. All meetings were well attended, with the Doha meeting attracting 76 attendees from 16 countries, the Manama meeting attracting around 90 attendees from 14 countries and the Moscow meeting attracting 155 attendees from 10 countries.

These meetings help the RIPE NCC to gather valuable feedback from members and key industry players in specific parts of our service region.

More details about past RIPE NCC Regional Meetings can be found at:
www.ripe.net/meetings/regional/previous.html

If your organisation would like to provide hosting or sponsorship for a future RIPE NCC Regional Meeting, please send an e-mail to:
contact@ripe.net •

AfriNIC Update

AfriNIC-5

The AfriNIC-5 meeting took place from 27 November-1 December 2006 at Maritim Hotel, Balaclava, Mauritius.

The meeting was attended by 120 delegates from 35 countries. The largest proportion of attendees were from telecom operators, followed by ISPs, which gives an indication of the importance that incumbent telecommunication operators are now giving to the role of AfriNIC and Internet number resources.

One of the numerous outcomes of this meeting was the setting up of two working groups: the first one to support African operators and policy makers to address the issue of spam in a coordinated way within Africa; the second one on IPv6 initiatives (such as the 6Mandela Project) to raise awareness on IPv6 in Africa.

The following open policy proposals were discussed during the meeting: IPv6 assignments for End Users, IPv6 Address Allocation and Assignment Policy IPv6 for critical infrastructure. However, no consensus was obtained on the policies discussed, and it was agreed to send the policies back to the mailing lists for further discussions.

The full report of the meeting can be found at:
www.afrinic.net/meeting/afrinic-5/afrinic-5-minutes.htm

Internet Governance

AfriNIC continues to follow global discussions on Internet Governance issues particularly through the Internet Governance Forum. AfriNIC CEO, Adiel Akplogan, was actively involved in the preparation of the first IGF meeting held in Athens as a member of the Meeting Advisory Group set up by the UN Secretary General.

Staff

AfriNIC is now embarking on a new phase of its operations and has recruited new communications and engineering staff to sustain its growth.

Next Meeting: AfriNIC-6

AfriNIC-6 will be held in Abuja, Nigeria. Elections to renew Northern and Western Africa seats (Primaries and alternates) on the board will also be held during the meeting, as well as for one position on the NRO Number Council. More information can be found at:
www.afrinic.net/afrinic-6 •

LACNIC Update

On 31 October 2006, LACNIC celebrated its fourth anniversary as a Regional Internet Registry (RIR). In four years the organization has made important progress. This is demonstrated by the fact that during this period our staff has increased from three to fifteen, our budget has increased from 150,000 USD to 1,500,000 USD and our membership has increased from 100 organizations to over 500.

This growth was reflected in the opening of our new headquarters. The opening ceremony took place on 11 December 2006, with a reception where LACNIC staff were accompanied by representatives of regional and international Internet organizations as well as Civil Society representatives, LACNIC members and friends of the regional Internet community. At LACNIC we are extremely proud of this achievement, one that will help us continue to provide quality services to our community. You will find more information at the webpage we created especially for this important event: http://lacnic.net/en/nueva-sede/

In addition, in October 2006, together with the CNTI (National Center for Information Technology) we inaugurated a new root server within the framework of the +Raices project. This server represents the third version implemented under the agreement with the ISC for the deployment of F root server anycast copies in Latin America. During 2007, we expect to implement copies in Panama, Ecuador and a Caribbean country.

In parallel and as part of the Policy Development process, three new policies have been implemented in our region. The first policy increases the size of additional IP address allocations in order to allocate volumes that will cover the applicant's operational needs for the following twelve months. Previously this period was established as three months. The second criterion that was implemented modifies the HD Ratio value acceptable for the allocation of additional blocks of IPv6 address space. The value was changed from 0.8 to 0.94. This will allow an optimization and better utilization of the IPv6 blocks that have already been allocated. Finally, as the RIPE NCC has done, we have begun assigning 32-bit Autonomous System Numbers.

In addition, and in compliance with the resolution of its Member Assembly, LACNIC has lowered the fees for the allocation of IPv4 addresses for the smaller categories, with reductions of up to 15% plus discounts of up to 50% for non-government, non-profit organizations. The aim of all of these measures is to allow small and medium-sized organizations in our region to have greater access to resources.

Finally, LACNIC would like to extend to you an invitation to participate in our next meeting, LACNIC X, which will be held from 21-25 May 2007, in Isla Margarita, Venezuela. •

ARIN Update

Recent ARIN Outreach Activities

ARIN has participated in several different forums and conferences in its region. During the fourth quarter of last year, ARIN participated at ISPCON in Santa Clara, California. ISPCON is one of the largest conferences in the United States for Internet Service Providers and offers panel discussions, workshops, keynote speakers, and an exhibit hall.

ARIN's goal was to provide information on its open and transparent policy development process and to encourage attendees to become involved.

Richard Jimmerson, Director of External Relations, spoke as part of a panel called "Opportunities in IP: A Roundtable on IPv6, Domains, NANP and You," where he discussed ARIN's allocation practices and provided information on the open policy process.

ARIN also set up a booth in the exhibit hall. Staff members distributed several documents, including an overview of how to get resources from ARIN, an "IPv6 and ARIN" brochure, the Adventures of Team ARIN comic book, and information sheets about ARIN and how to get involved in its activities. The booth featured continuous multimedia presentations on the history of the RIRs, information on the Number Resource Organization, and the new ARIN meetings video.

Staff members were on hand to answer questions about ARIN, its operations, policies, and practices. Registration Services staff members were especially in demand, answering questions about how to qualify for address space, how to interpret specific policies, and current statistics involving IPv4 exhaustion rates and the status of IPv6.

All in all, this event was a great success. ARIN looks forward to participating in the next ISPCON event in Orlando in May 2007. •

Certification of Resources in the RIPE NCC Service Region

← *continued from page 1*

While the potential benefits of certification are clear, its implementation will have significant consequences for the operations of the RIPE NCC and its members. It will also be necessary to coordinate globally to develop an effective certification system.

All five RIRs are currently exploring the consequences of providing a certification system, but successful implementation will depend on effective cooperation both at the RIR community level, and at a global, inter-RIR level.

Input and direction from the RIPE community will be vital in determining how resource certification is implemented in the RIPE NCC service region. The specific goals of the RIPE Certification Task Force, as specified in its charter, are to:

- Raise awareness about this issue among network operators
- Solicit and collect requirements and opinions about such a service
- Follow and advise the RIRs joint work on the subject, especially in relation to the RIPE NCC
- Evaluate and review the anticipated technical, policy and business relationship changes between LIRs and RIRs
- Produce a report on its work

The RIPE Certification Task Force report will include, but is not limited to, evaluations of the:

- Usefulness of number resource certification in general
- Business implications of a number resource certification service for resource holders
- General and specific requirements for a number resource certification service
- Implications of such a service for number resource policies
- Expected uptake of such a service among resource holders

The Task Force held its first meeting in Amsterdam on 14 February 2007, with discussions growing out of the preliminary work done by the RIPE NCC. This preliminary work has included:

- A certification service example
- A technology prototype for the certification service that models how certification will work from RIR to LIR and from LIR downstream

Discussions at the initial Task Force meeting were wide ranging, and identified the key policy and technical issues that need to be considered in implementing a resource certification system. Over the coming months, the Task Force members will provide feedback on the certification prototype developed by the RIPE NCC, and develop a strategy for proceeding with certification in the RIPE NCC service region.

The Task Force will provide a fuller report of its discussions and subsequent activities at RIPE 54 which will take place in Tallinn, Estonia, from 7-11 May 2007. More information about RIPE 54 is available at:
www.ripe.net/ripe/meetings/ripe-54

The RIPE Certification Task Force members are:

Vasily Dolmatov, Cryptocom, RU
Fahad Alshirawi, 2Connect, BH
Martin Papik, 2Connect, BH
Nigel Titley, Easynet, UK
Ramon de Jong, SARA, NL
Ruediger Volk, Deutsche Telekom, DE
Gert Döring, SpaceNet, DE

For more information on the RIPE Certification Task Force, see:
www.ripe.net/ripe/tf/certification/index.html •

RIPE NCC Service Announcements

The RIPE NCC has created a web page to inform RIPE NCC members and the RIPE community about any problems with the RIPE NCC network or services. The RIPE NCC Service Announcements page lists any current problems, and has an archive that details when a problem was resolved.

The RIPE NCC Service Announcements page is also used to alert users of RIPE NCC services to planned maintenance that could impact the use of services on a specified day and time.

This page is in addition to the e-mail announcements that the RIPE NCC sends out to relevant mailing lists as soon as a problem with a RIPE NCC service occurs or when planned maintenance is scheduled.

The RIPE NCC Service Announcements page is available at:
www.ripe.net/news/status.html •

Conference Calendar

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

22-25 April 2007
ARIN XIX
San Juan, Puerto Rico
www.arin.net/ARIN-XIX

1 May 2007
AfNOG 8
Abuja, Nigeria
www.afnog.org/2007/announce.html

2-3 May 2007
AfriNIC 6
Abuja, Nigeria
www.afrinic.net/meeting/afrinic-6

6 May 2007
CENTR 16
Tallinn, Estonia
https://www.centr.org/meetings

7-11 May 2007
RIPE 54
Tallinn, Estonia
www.ripe.net/ripe/meetings/ripe-54

21-25 May 2007
LACNIC X
Isla Margarita, Venezuela
www.lacnic.net/en/eventos/lacnicx

25-29 June 2007
ICANN Meeting
San Juan, Puerto Rico
www.icann.org/meetings

22-27 July 2007
IETF 69
Chicago, USA
www.ietf.org/meetings/69-IETF.html

27-31 August 2007
SIGCOMM 2007
Kyoto, Japan
www.sigcomm.org/sigcomm-conference-current

29 August-7 September 2007
SANOG 10
New Delhi, India
www.sanog.org

RIPE NCC Training Courses

LIR Training Courses

Dublin, Ireland
Friday, 13 April 2007

Warsaw, Poland
Friday, 20 April 2007

Moscow, Russia
Thursday, 24 May 2007

Hamburg, Germany
Friday, 25 May 2007

Paris, France
Friday, 1 June 2007

London, United Kingdom
Wednesday, 6 June 2007

Amsterdam, the Netherlands
Friday, 8 June 2007

Riga, Latvia
Friday, 15 June 2007

Tehran, Iran
Wednesday, 20 June 2007

Belgrade, Serbia
Friday, 22 June 2007

Stockholm, Sweden
Friday, 29 June 2007

DNS for LIRs Training Courses

Frankfurt, Germany
Friday, 20 April 2007

Budapest, Hungary
Friday, 27 April 2007

Amsterdam, the Netherlands
Friday, 18 May 2007

London, United Kingdom
Friday, 8 June 2007

Tehran, Iran
Thursday, 21 June 2007

Routing Registry Training Courses

Manama, Bahrain
Thursday, 5 April 2007

Budapest, Hungary
Thursday, 26 April 2007

Amsterdam, the Netherlands
Friday, 4 May 2007

Moscow, Russia
Friday, 25 May 2007

London, United Kingdom
Thursday, 7 June 2007

Rome, Italy
Friday, 29 June 2007

RIPE NCC Speakers

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

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