

MEMBER UPDATE UPDATE FROM THE RIPE NCC MANAGING DIRECTOR

Following the RIPE NCC General Meeting in November 2011, the RIPE NCC Executive Board established a Charging Scheme Task Force. The main goal of this task force is to improve the RIPE NCC's Charging Scheme process and to get broader input on a future Charging Scheme model. The task force consists of participants from the RIPE NCC staff and Executive Board as well as individuals from each of the RIPE NCC's membership categories. A public mailing list (cs-tf at ripe.net) has been set up for those who want to follow and discuss the work of the task force. The task force has been set up to examine the higher level principles of the RIPE NCC Charging Scheme and not to set any actual fees or prices. A draft proposal from the task force will be sent to the RIPE NCC Executive Board ahead of the RIPE NCC General Meeting in April 2012. More details about the Charging Scheme Task Force are available on page 6 of this Member Update.

The RIPE NCC's certification work has continued in 2012 with 10% of members having requested a certificate by February of this year. The previous RIPE NCC General Meeting saw a vote concerning the future direction of the RIPE NCC's work on the certification of Internet number resources. As a result of this vote, and the related discussion, the RIPE NCC will continue development of certification by focusing on security, resilience and expanding the address space eligible for certificates. A central issue emerging from the discussions on the certification system has been the issue of network operators retaining autonomy. We take these concerns very seriously and have incorporated them into our development of the certification system. There will be a detailed presentation discussing this topic at the Plenary during the RIPE 64 Meeting in April 2012.

One of this year's major Internet governance-related events is the ITU World Conference on International Telecommunications (WCIT) in December 2012. This meeting will discuss the revision of the International Telecommunication Regulations (ITRs), a set of regulations that have not been updated since 1988. It is vital for the RIPE NCC to participate in these discussions. The revision of these regulations, which currently make no reference to the Internet, has the potential to significantly impact upon the operations of RIPE NCC members and the technical coordination of the Internet. The RIPE NCC will follow and contribute to the WCIT discussions in coordination with our colleagues in the Internet technical community and ITU Member States in our service region. As ever, we will promote the open, bottom-up policy development model that has underpinned the technical evolution of the Internet since its inception.

On that note, it gives me great pleasure to congratulate the RIPE NCC membership, and the RIPE community, on the 20th anniversary of the RIPE NCC. Established in April 1992, the RIPE NCC has been successful in providing administrative and technical coordination to the Internet community for 20 years. Our role as the world's first Regional Internet Registry has evolved through changes in the industry landscape encompassing the dot com boom, increased interest from governments and regulators and issues of IPv4 depletion and IPv6 adoption. I would like to thank our members and the RIPE community for the support they have given the organisation over the years. I look forward to seeing you all at RIPE 64 in Ljubljana, Slovenia, where there will be a special session celebrating 20 years of the RIPE NCC.



Axel Pawlik RIPE NCC Managing Director

Contents

- 2 IP Analyser
- 3 RIPE NCC IPv4 Available Pool
- 3 IPv6 Updates
- 4 RIPE NCC Supports IPv6 Roadshow Throughout Middle East
- 4 RIPE NCC: 20 Years Serving the RIPE Community
- 4 RIPE NCC Membership Reaches 8,000
- 5 RIPE Atlas
- 5 RIPE NCC Online Training Courses
- 6 Securing the RIPE NCC's Network and Systems
- 6 RIPE NCC Charging Scheme Task Force
- 7- RIPE NCC and the ITU World Conference on International Telecommunications
- 7 RIPE NCC Supporting the First Arab IGF
- 7 RIPE NCC Roundtable February 2012
- 8 RIPE NCC Regional Meetings
- 8 RIPE Meetings
- 8 RIPE NCC General Meetings

IP Analyser

The RIPE NCC is proud to announce the launch of the IP Analyser. This is a new service providing our members with an overview of their IPv4 and IPv6 allocations and assignments.

The basic features of the tool provide RIPE NCC members with:

- An overview of their IPv4 and IPv6 allocations
- An overview of the assignments they have made
- A list of blocks marked as "Infrastructure"
- The total amount of address space used in total and per allocation
- An option to filter allocations and search for a certain prefix size
- The option to search within their own assignments

A member who wants to make a new assignment can simply enter the prefix size into the IP Analyser search box. The tool will then display all of that member's allocations that have a free contigious block of the same size as the new assignment.

The first release of IP Analyser offers a basic feature set that will expand incrementally. Currently, the tool covers "IPv4 Provider

Aggregated" and "IPv6 Allocated by RIR" address blocks. Our goal with the first release is to offer a tool that is accurate and easy to navigate. In future releases, we plan to include:

- All forms of IP address space
- A list of all overlapping and invalid assignments
- A report based on exported data
- An option to access and use this data locally

The IP Analyser tool is available through the Local Internet Registry (LIR) Portal (https://lirportal.ripe.net/). To access the IP Analyser, select "My Resources" once you have logged in to the LIR Portal. To access the tool, you need to be part of your LIR's "resources" group in the LIR Portal.

More information about the IP Analyser is available at:

https://labs.ripe.net/Members/AlexBand/introducing-the-ip-analyser

My LIR IR Contacts >	IPv4 PA Allocatio	ons				Show IPv4	IPv6
Communication Preferences >	Allocations (42)		Overview of 80.8	31.160.0 - 80.81.191.3	255 (80.81.160.0/1	9)	×
My Resources	62.142.0.0 - 62.142.255.255	85.6%	Assigned				
D dealars	62.248.128.0 - 62.248.255.255	50.1%					
P Analyser > Pv4 >	80.81.160.0 - 80.81.191.255	83.2%	INFRA-AW				
Pv6 >	80.186.0.0 - 80.186.255.255	100%	Free				
ASN >	81.197.0.0 - 81.197.255.255	90.6%					
Resource Certification (RPKI) >	82.103.192.0 - 82.103.255.255	100%	Assignments (71)		P		
Request Forms > Dbject Editors >	82.118.192.0 - 82.118.223.255	93.4%	_				
Object Editors >	83.245.128.0 - 83.245.255.255	86.8%	Range	Registration date	Netname	Status	Ŷ
	84.230.0.0 - 84.231.255.255	50%	80.81.190.0/23	04/02/2004	TIKKA3-FI-NET	ASSIGNED_P	A
Listing Service	85.76.0.0 - 85.79.255.255	75%	80.81.189.224/27	21/12/2004	FI-DYNAMOID-OY-NET	ASSIGNED_P	А
Browse Resources >	85.156.0.0 - 85.156.255.255	100%				_	
list Resources >	88.112.0.0 - 88.115.255.255	97.6%	80.81.189.192/27	08/12/2004	FI-NORDIC1-OY-NET	ASSIGNED_P	A
	91.152.0.0 - 91.159.255.255	62.5%	80.81.189.128/26	16/08/2007	FI-SAKO-OY-NET	ASSIGNED_P	A
	193.64.0.0 - 193.66.255.255	36.4%	80.81.189.0/26	12/09/2008	FI-MLOON-OY-LTD-NET	ASSIGNED_P	٨
Tools	193.94.0.0 - 193.94.255.255	19.7%	00.01.109.0/20	12/09/2006	FI-MEOON-OT-ETD-NET	ASSIGNED_F	~
IR Locator >	193.184.0.0 - 193.185.255.255	94.8%	80.81.188.0/24	16/01/2004	ENERMET-FI-NET	ASSIGNED_P	A
Fraining >	193.199.0.0 - 193.199.255.255	84.8%	80.81.184.0/22	12/05/2003	TIKKA2-FI-NET	ASSIGNED_P	A
API Access Keys >	193.229.0.0 - 193.229.255.255	42,1%		07/04/00000		10010150 0	
Blossary >	194.86.0.0 - 194.86.255.255	72%	80.81.183.0/24	27/01/2003	MPOLI-FI-NET	ASSIGNED_P	A
Other Tools	194.136.0.0 - 194.136.255.255	40,6%	80.81.182.0/24	14/03/2008	FI-AMBIENTIA-OY-NET	ASSIGNED_P	A
	194.157.0.0 - 194.157.255.255	61.5%					
	194.188.0.0 - 194.188.255.255	59.4%			Showing 1-10 of 7	1 ≪ < 1 > ≫	>
	194.211.0.0 - 194.211.255.255	75.1%					
	194.240.0.0 - 194.241.255.255	66.7%					
	105 16 102 0 - 105 16 222 255	20.7%					

RIPE NCC IPv4 Available Pool

The RIPE NCC provides up-to-date information on the amount of IPv4 address space it has available. The graph is updated weekly and is adjusted up or down as IPv4 addresses are distributed and returned. The most recent version of this graph is available at: http://www.ripe.net/internet-coordination/ipv4-exhaustion/ipv4-available-pool-graph



The amount of IPv4 addresses shown includes the 4.26 million IPv4 addresses temporarily set aside for the De-Bogonising New Address Blocks project.

The last /8 that the RIPE NCC received from the IANA on 3 February 2011 is included in this graph and shown by the yellow horizontal line. This last /8 will be allocated according to section 5.6 of the IPv4 Address Allocation and Assignment Policies for the RIPE NCC Service Region https://www.ripe.net/ripe/docs/ipv4-policies#----use-of-last-/8-for-pa-allocations

IPv6 Updates

IPv6 Deployment Statistics

A recent article published in RIPE Labs traces the percentage of Autonomous Systems (ASes) announcing IPv6 prefixes in the global routing table since 2004. The article notes that, as of March 2012, the percentage of ASes announcing one or more IPv6 prefixes in the RIR regions were approximately:

• APNIC 17%

- LACNIC 15% • RIPE NCC 15%
- AfriNIC 12%
- ARIN 10%.

The article provides an interactive graph showing how these percentages have changed in each RIR region since 2004 and a graph showing the top six countries worldwide in terms of ASes announcing an IPv6 prefix as of March 2012. These interactive graphs, and the full version of the article, are available at: https://labs.ripe.net/Members/mirjam/networks-with-ipv6-oneyear-later

IPv6 Act Now

The RIPE NCC provides an online resource enabling Internet Service Providers (ISPs), governments and other decision makers to stay up-to-date with the latest IPv6 developments. This resource, IPv6 Act Now, provides a range of IPv6 statistics, case studies and deployment checklists. http://www.ipv6actnow.org/

How IPv6-Ready Are You?

Find out how IPv6-ready your country or LIR is using the RIPEness system. RIPEness enables LIRs to accumulate up to four stars for their IPv6 services, depending on the following criteria: IPv6 allocation, visibility in the Routing Information Service (RIS), route6 object in the RIPE Database and reverse DNS delegation set-up. IPv6 RIPEness is available at: http://ripeness.ripe.net/

IPv6 Roadshows

The IPv6 Roadshow - a joint initiative from the Middle East Network Operators Group (MENOG), the RIPE NCC and APNIC - offers three- and five-day IPv6 workshops for ISPs/network operators or end users. The workshops will initially take place in the Middle East and will be conducted by independent trainers. IPv6 Roadshows are open to anyone. For more details see: http://menog.net/IPv6-roadshow

IPv6 Working Group

The RIPE IPv6 Working Group exists to promote IPv6 adoption. Its activities include anything that might be useful in helping people to deploy IPv6 and to manage IPv4/IPv6 co-existence. Find out more about the RIPE IPv6 Working Group at: http://www.ripe.net/ripe/groups/wg/ipv6

RIPE NCC Supports IPv6 Roadshow Throughout Middle East

The first in a series of new workshops focusing on supporting government and enterprise network operators in the Middle East was held from 25 - 29 March 2012. A joint initiative of the Middle East Network Operators Group (MENOG), the RIPE NCC and APNIC, the IPv6 Roadshow provides an innovative five-day program, giving operators from the region hands-on experience in deploying, routing and securing IPv6 networks.

"Exhaustion of the IPv4 address pool is quickly approaching - it is time for network operators to embrace IPv6 as the future of the Internet. The IPv6 Roadshow is designed to provide hands-on assistance and expert advice to operators throughout the Middle East," said Paul Rendek, Director of External Relations, RIPE NCC. "We've seen an enthusiastic response from government and network operators to the workshops offered in Dubai last week, and we look forward to moving forward with this initiative in Riyadh and Beirut in May 2012." Covering IPv6 transition mechanisms, routing, addressing and security issues, the IPv6 Roadshow also includes important modules on IPv6 monitoring, access, servers and applications. Previous IPv6 Roadshow events have been held throughout the region since 2010 and have taken place in Saudi Arabia, Oman, Palestine, Jordan, Syria and Turkey. The next IPv6 Roadshows are scheduled to take place in Riyadh, Saudi Arabia from 13-15 May 2012 and Beirut, Lebanon from 21-25 May 2012.

More information about the IPv6 Roadshow, including schedules, agendas and requirements for potential hosts, is available at:

http://www.menog.net/IPv6-roadshow

With the success of the IPv6 Roadshow in the Middle East, the RIPE NCC has plans to expand the initiative into Russia and the Ukraine, in cooperation with the Eurasia Network Operators Group (ENOG).

RIPE NCC: 20 Years Serving The RIPE Community

On 1 April 1992, the RIPE NCC was established to coordinate and support the activities of the RIPE community and to function as a European Internet Registry (later a Regional Internet Registry) responsible for the distribution and management of Internet number resources. In April 2012, the RIPE NCC celebrates 20 years of serving the RIPE community.

Originally set up as part of Réseaux Associés pour la Recherche Européenne (RARE, later TERENA) and with a staff of one (current Chief Scientist Daniel Karrenberg), the RIPE NCC has grown over the past two decades to become a diverse organisation with over 8,000 members and responsible for a wide range of functions and projects. During this time, the Internet has grown and interwoven with business and society in ways few could have predicted, and the role of the RIPE NCC has evolved to meet a range of new challenges.

During the upcoming RIPE 64 meeting in Ljubljana, Slovenia, there will be a plenary session devoted to celebrating this milestone and looking to the future of the RIPE NCC.

RIPE NCC Membership Reaches 8,000

On 23 March 2012, the RIPE NCC was joined by its 8,000th member, marking a milestone for the organisation as it approaches its 20th anniversary. The RIPE NCC's membership hit 1,000 in 1998, 3,000 in 2001 and 6,000 in 2008.



RIPE Atlas

We are happy to announce that RIPE Atlas, an active measurements network run by the RIPE NCC, has reached 1,300 active probes. The goal is to have 2,048 probes active by 30 June 2012. These probes continuously monitor the state of the Internet by automatically measuring latency and reachability.

We have introduced user-defined measurements, which we have been Beta testing since November 2011. The results of the Beta test have been positive. We will soon introduce a "credit system" enabling users to control the use of their own specific measurements using the RIPE Atlas network.

For more information on customising the measurements from RIPE Atlas, please see:

https://labs.ripe.net/Members/becha/happy-beta-testers-of-atlasudm

RIPE Atlas is available at: https://atlas.ripe.net/



Example of "Internet Weather" as Reported by RIPE Atlas: Response Times of DNS Root Name Servers: https://atlas.ripe.net/contrib/comparative_root_rtt.html

RIPE NCC Online Training Courses: Webinars

In February 2012, the RIPE NCC launched a new online training option for Local Internet Registries (LIRs). We want to make it as easy as possible for LIRs to participate in the training courses we offer and so we now provide RIPE NCC Webinars. These online training courses enable you to interact with our trainers without leaving your desk or spending a full day on a RIPE NCC training course. The first Webinars took place on 14-15 March and focused on the RIPE Database.

If you wish to learn more about RIPE NCC-related topics and services, participating in our Webinars might be the right option for you. Each session is limited to 15 participants to allow questions and everyone's participation.



Securing the RIPE NCC's Network and Systems

At the RIPE NCC we've detected an increasing interest in our network and connected systems. Some of our visitors go out of their way to help us test the reliability of our web applications and other services. As it is essential to keep our network and systems secure, and to protect the membership data entrusted to us, we take security issues very seriously. This article summarises some of the steps we are currently taking to ensure we provide our members and the wider Internet community with secure web applications and services.

The two main aspects of our security work are rapid incident response and preventative measures designed to keep our systems and data secure. In terms of rapid response, we make a quick assessment of any security incidents to assess which systems were affected and to determine if any sensitive information was compromised. If necessary, we also bring in external forensic specialists to investigate the cause and impact of a security incident. Once the investigation is finished, and if there is anything substantial to report, we publish a summary of the results on the RIPE NCC website. If needed, we also contact individuals or member organisations to inform them of the situation.

While being able to quickly detect and respond to security incidents is important, our main focus is on preventing these incidents occurring in the first place. We have deployed several initiatives to keep our systems and data secure. This includes performing risk assessments for all new RIPE NCC services, where we also look at the technical setup and make a detailed vulnerability analysis. The purpose here is to ensure that all services have a solid security baseline. Our goal is to keep all the RIPE NCC's services secure by regularly auditing them and involving external security specialists where needed.

We also prioritise security awareness within the company by keeping our staff

up-to-date with important security issues, such as new patches for critical security vulnerabilities, and by providing ongoing training. In 2011, selected RIPE NCC staff attended secure programming training as well as more specialised training regarding security incident detection and network penetration testing ("ethical hacking").

Our main security goals for 2012 are to further develop our capabilities to prevent and detect security incidents whilst also increasing our security auditing activities. In 2012, all of the main RIPE NCC web services will be extensively audited and a summary of the results will be published after completion.

We would also like to ask our members or anyone else from the Internet community to inform us of any security issues they encounter regarding the RIPE NCC's services. We take all incident reports seriously and always follow them up. If you would like to contact us, please email: ncc@ripe.net

RIPE NCC Charging Scheme Task Force

During 2011, the RIPE NCC Management and Executive Board put in a lot of effort to propose a new, fairer and more future-proof Charging Scheme for 2012. Several proposals were announced to the members-discuss mailing list in July 2011. After extensive discussion involving a wide variety of opinions, the model proposed by the RIPE NCC Executive Board was rejected by the membership at the RIPE NCC General Meeting November 2011. This means that for 2012, the existing Charging Scheme of 2011 will be continued.

To improve the Charging Scheme process and to get broader input on a future Charging Scheme model, the RIPE NCC Executive Board established a Charging Scheme Task Force. The objectives of this task force are to:

• Define the principles of a future Charging Scheme

• Propose an improved process for the annual Charging Scheme discussions and adoption

• Set a pricing structure for several years for Legacy address space holders

• Advise the Executive Board on a discussion or resolution for the RIPE NCC General Meeting in April 2012

The task force is not mandated to discuss or set any actual fees. Its primary function is to study Charging Scheme principles, process improvements and propose these to the RIPE NCC Executive Board. Following any recommendations from the task force, the RIPE NCC Executive Board is responsible for making a final proposal towards the General Meeting, which will vote on the future Charging Scheme.

The task force consists of individuals from each of the RIPE NCC's membership categories and Executive Board as well as participants from the RIPE NCC staff. A public mailing list (cs-tf@ripe.net) has been set up for those who want to be informed about, and discuss the work of, the task force.

Prior to the RIPE NCC General Meeting in April 2012, the RIPE NCC will report back to the mailing list on the progress of the task force. You can subscribe to the Charging Scheme Task Force mailing list at: https://www.ripe.net/mailman/listinfo/cs-tf.

The task force will send a draft proposal to the RIPE NCC Executive Board ahead of the RIPE NCC General Meeting in April 2012.

RIPE NCC and the ITU World Conference on International Telecommunications

One of this year's major Internet governance-related events is the ITU World Conference on International Telecommunications (WCIT), which will run from 3-14 December 2012 in Dubai. The purpose of this meeting (and the preparatory meetings leading up to it) is the revision of the International Telecommunication Regulations (ITRs). These regulations, which form a binding international treaty, establish general principles relating to the provision and operation of international telecommunication.

The regulations have not been updated since 1988, and therefore make no reference to the Internet. This is one of the major reasons behind the push to update them.

The RIPE NCC will follow and contribute to the discussions that take place during and leading up to WCIT, in coordination with colleagues in the Internet technical community (including the other RIRs) and ITU Member States in the RIPE NCC service region. Our overall goal in this process is the promotion and defense of the open, bottom-up policy development model that has underpinned the technical evolution of the Internet to date. More specifically we will be monitoring and responding to any proposals or developments relating to areas such as Internet number resource administration, Internet intermediary liability and management of the Internet's global infrastructure.

RIPE NCC Supporting First Arab IGF

As a strong supporter of building regional engagement with Internet governance discussions, the RIPE NCC is proud to be a major sponsor of the Arab Internet Governance Forum (AIGF), which will hold its first event in October 2012 in Kuwait.

The decision to move forward with the AIGF came out of a twoday multistakeholder meeting held in Beirut, Lebanon on 31 January - 1 Feburary 2012, with participants including the League of Arab States (LAS), the United Nation Economic and Social Commission of Western Asia (ESCWA), the Council of Ministers of the Republic of Lebanon, the Kuwait Information Technology Society and the RIPE NCC. The meeting also accepted the proposal from the Republic of Egypt National Telecommunication Regulatory Authority to act as AIGF secretariat.

The meeting attendees agreed that the AIGF should:

- Focus on discussing public policies related to Internet governance, especially in the areas of access, stability, security and development
- Facilitate the exchange of information, best practices, knowledge and lessons learned by involving experts, the technical community and academics

- Gather different opinions and build consensus for unified Arab views on priorities and on mechanisms to respond to Arab countries' needs related to Internet governance issues
 Discuss emerging issues and present recommendations on these issues
- Build and develop capacity in Internet Governance as well as improve the participation of all stakeholders to benefit from all possible resources of knowledge and expertise
 Communicate the Arab countries' positions globally and enhance their role in formulating Internet Governance policies
 Participate in outreach activities related to the Internet Governance Forum (IGF) and other regional IGFs with the purpose of exchanging knowledge and expertise

The RIPE NCC looks forward to supporting and contributing to the AIGF discussions and events, and to assisting in bringing the views and concerns of this region into the global Internet governance conversation.

RIPE NCC Roundtable February 2012

The RIPE NCC Roundtable Meeting for Governments and Regulators took place on Tuesday, 21 February 2012 at the Le Plaza Hotel in Brussels.

This was the first time that the RIPE NCC has held such an event in Brussels, and it attracted an audience of more than 50 government representatives, law enforcement agencies and RIPE community members.

Discussions during the day focused on RIPE community priorities in the lead-up to the ITU World Conference on International Telecommunications (WCIT), cross-border legal issues related to the Internet registry system and RIPE NCC tools and analysis.

RIPE NCC staff also provided updates on IPv4 exhaustion, IPv6 adoption and the development of Internet resource certification (RPKI). Jacques Babot, of the European Commission (EC), presented an update on the EC's support for IPv6 adoption in the European Union.

All presentations delivered at the meeting are now available at: http://www.ripe.net/ripe/meetings/roundtable/february-2012

RIPE NCC Regional Meetings

RIPE NCC Regional Meeting Dubrovnik September 2011

The RIPE NCC Regional Meeting in Dubrovnik was held 6-9 September 2011. This was the first time a RIPE NCC Regional Meeting took place in South East Europe. The meeting attracted more than 120 attendees from over 30 countries. The archive of presentations given at the meeting are available at: http://www.ripe.net/ripe/meetings/regional-meetings/ dubrovnik-2011/agenda

ENOG 2 / RIPE NCC Regional Meeting/MSK-IX Peering Forum, November 2011

The ENOG 2/RIPE NCC Regional Meeting/MSK-IX Peering Forum took place at the World Trade Centre in Moscow, Russia on 28-30 November 2011. More than 400 attendees took part in the first day of the conference.

The meeting report is available at: http://www.enog.org/meetings/enog-2/meeting-report/

Upcoming Regional Meetings

Menog 10

Dubai, United Arab Emirates 22 April – 1 May 2012



This regional meeting will take place alongside the 10th meeting of the Middle East Network Operators Group (MENOG).

More information is available at: http://www.menog.net/meetings/menog10

ENOG 3

Odessa, Ukraine 22 – 23 May 2012



The ENOG 3/RIPE NCC Regional Meeting will take place in Odessa, Ukraine from 22 - 23 May 2012. This is the first time an ENOG Meeting will take place in Ukraine.

More information is available at: http://www.enog.org/meetings/enog-3/

RIPE Meetings

RIPE 63

Vienna, Austria

This meeting took place from 31 October - 4 November 2011. Attracting 465 people, RIPE 63 was the biggest RIPE Meeting to date.

The full meeting report and links to session archives from the meeting are available at: http://ripe63.ripe.net/

RIPE 64

Ljubljana, Slovenia 16-20 April 2012 https://ripe64.ripe.net/

RIPE 65

Amsterdam, the Netherlands 24-28 September 2012 http://ripe65.ripe.net/

RIPE NCC General Meetings

RIPE NCC General Meeting November 2011

The RIPE NCC General Meeting (GM) November 2011 took place 2 – 3 November 2011 in Vienna, Austria during RIPE 63.

More information about the GM November 2011 is available at: http://www.ripe.net/lir-services/ncc/gm/november-2011

RIPE NCC General Meeting April 2012

The RIPE NCC General Meeting April 2012 will take place on 18 April from 16:00 – 20:00 (UTC+2). The GM will be held adjacent to the RIPE 64 Meeting which takes place from 16 - 20 April 2012 at the Grand Union Hotel in Ljubljana, Slovenia.

The draft agenda is available at: http://www.ripe.net/lir-services/ncc/gm/april-2012/agenda

For more information and to register, see: http://www.ripe.net/lir-services/ncc/gm/april-2012