

# **AfrinIC-4**

# **Meeting Report**

## Introduction

AfriNIC held its fourth public policy and member meeting from 16-17 May 2006 at the Sarova Panafric conference centre in Nairobi , Kenya .

More than 150 participants from around the world attended the event including AfriNIC Board members, staff, representatives from AfNOG, APNIC, ARIN, ICANN, ISOC, LACNIC, RIPE NCC, officials from Governments and African Network Operators at large.

The meeting started on 16/5/2006 Tuesday morning at 09:30 with the chairman of the AfriNIC Board of Directors, Mr. Pierre Dandjinou welcoming everyone and Adiel Akplogan, AfriNIC CEO thanking the event sponsors and introducing the Agenda for the meeting.

### May 16 2006, AfriNIC Meeting day 1, Report

## 1.0 AfriNIC Update

Adiel Akplogan provided an update on AfriNIC activities. According to him, the main objectives after recognition in April, 2005 was to:

- Increase participation of community in policy development
- Ensure a smooth takeover of resource management
- raise awareness of AfriNIC in the region among operators, government, and policy-makers
- train network operators on how to obtain resources
- create financial sustainability for AfriNIC to support itself at the end of the transition period
- participate in forums on Internet governance to raise awareness among policy-makers and government bodies

Since then AfriNIC has:

- created a training plan to help members use resources with 6 regions covered, 300 people trained and computer-based training provided with ARIN support
- obtained an income tax exemption from government of Mauritius
- Raise the financial reserve of the organization to be able to start taking over the cost of the Technical Operations in South Africa.
- partnered with other organizations such as AfNOG to strengthen effort of internet development in Africa
- participated in the WSIS process (AfriNIC represented during all the preparatory meeting held in Africa, contribute to the African common position, present AfriNIC initiative as a positive move toward Africa participation to the global governance forum).
- To be able to better raise awareness among governments and countries level policy makers, AfriNIC has decided to joint ITU as Development sector member.
- conducted joint activities with other RIRs through the EC, ECG, CCG mechanisms and participated in the RIR resource certification project

- launched the IPv6 Mandela project, conducted IPv6 training and participated in the 6DISS project

Adiel noted the strong growth in AfriNIC membership, resource allocation and requests for resource in the past year which requires AfriNIC to strengthen its organizational structure to handle the growth. He also said other challenges remained the need to increase awareness and increase participation in the policy development process by the community.

## 2.0 AfriNIC Board Update

Pierre Dandjinou the chairman of the Board introduced AfriNIC board members and said the board has regular email discussions, monthly teleconferencing, face-to-face meetings and several committees (finance, budget, nomination) in conducting its affairs.

Pierre noted that the achievements of the board for the past year included:

- Approval of the 2006 budget
- Audit of AfriNIC
- Resolution on usage of the name on all documents
- Waiving of resource assignment fees for ISPs in critical infrastructure
- Ratification of policies

Challenges for the board remain ensuring quality contribution and a commitment to the organization from its members.

## 3.0 RIRs Update

Ernest Byaruhanga introduced this session by presenting a joint statistics report for Internet resources managed by RIRs in their respective regions as of March 2006.

Representatives of APNIC (Son Tran), ARIN (Ray Plzak), LACNIC (German Valdez) and RIPE NCC (Paul Rendek) updated participants on activities in their respective regions.

### **APNIC:**

- Proposal to apply concept of using HD ratio to measure utilization of IPv4 has reached consensus
- 4 byte ASN Proposal has reached consensus now waiting for executive council to approve policy for it to be effective.
- Ongoing discussion about national internet registries fees and whether to restructure memberships fee
- Status of its resource certificate trial
- Training workshops held including spam and security workshops and IPv6
- Multimedia development of communication materials
- Participation in internet governance ongoing discussions (WSIS)
- APNIC-22 will be held from 4-8 September, 2006 in Kaohsiung , Taiwan .

**ARIN:**

- Provided statistics on membership, requests coming into ARIN
- Policies on Ipv6 PI Assignments, IPv6 Assignment utilisation, 4byte ASN adopted in ARIN region and now at various stages of implementation.
- Changes in Cybercafe's, printing, consultation rooms, learning kiosks during ARIN meeting
- Launch of ARIN comic book
- ARIN XVIII will be held from October 11-13, 2006 in St. Louis , Missouri .

**LACNIC:**

- Statistics on allocations in Latin America
- Organized one-day IPv6 seminar for awareness, deployments, visited 10 different cities in 10 countries - 205 participants. Increase in IPv6 allocations in Latin America .
- Supported Latin American IPv6 Task Force organize workshop.
- Involvement in Plus Root project with agreement to deploy 7 root servers in latin America through anycast technology. LACNIC funding 1st two-years operation and ISC providing technical expertise for this project.
- Frida project - fund to give small grants to ICT projects in region which is currently in its second phase.
- Working closely with CCCTLDs, IXPs, ISP associations, government efforts for internet deployment and governance.

**RIPE NCC:**

- RIPE NCC E-learning center launched with one module - "Using WHOIS Database". Other modules in E-learning center include Policy Development Process, Advanced Database, and DNS for LIRs.
- Replaced organization's PABX with VOIP and working on integration of SIP server
- Planning to introduce content management equipment.
- Ticketing system to be overhauled for org-wide system
- Most recent Regional meeting held in Doha , Qatar with 100 LIRs attending
- Held roundtable meetings to engage government bodies and regulators with the third meeting held in Amsterdam in February 2006.
- Planning to bring Internet Resource Certification to the community
- RIPE-53 meeting will be held from 2-6 October, 2006 in Amsterdam , Netherlands .

## 4.0 NRO Update

Ray Plzak as secretary of the NRO EC, of ARIN gave an update of the NRO. He provided a brief overview of the NRO, its role, organizational structure and how it works (more information can be found on the NRO website <http://www.nro.net>).

He said current topics the NRO was tackling included:

- Follow-up activities on WSIS
- Working on liason with ITU-T for more open access to meetings
- Developing a robust relationship with ICANN advisory council
- Exploring use of certification
- Harmonization of IP allocation practices
- Incorporation of NRO

He also mentioned recent activities of the Address Council which include:

- Developing a global policy for IPv6
- Working on internal processes
- Recently selecting a new board member for ICANN (Bob Woodlet)

## 5.0 ICANN/IANA Report

Barbara Roseman of IANA presented an update of ICANN / IANA activities.

She said that IANA has improved its responsiveness to the many different types of requests they receive:

- They receive 30 root zone requests per month which take about 2 weeks to be implemented.
- There has been a significant improvement in handling Internet drafts with two staff dedicated to them and consultants.
- They are addressing the backlog of port requests from the early years of ICANN during which these requests were not handled properly.
- Now resolving requests of private enterprise numbers within 30 days.

Other current issues IANA is working on include:

- Consistent management focus and prioritization
- Understaffing and difficulties of hiring due to budget process
- Lack of infrastructure
- Single ticketing system
- Integrating multiple databases
- Simplifying complicated but well-established processes
- Process exceptions require manual handling
- Projects underway to automate processes
- Customer communications difficulty
- Collecting consistent data

IANA has several projects which are being implemented to improve performance, responsiveness and consistency:

- 24/7 availability
- Archiving old documents
- DNSSEC infrastructure
- Root zone automation
- IPv4 registry cleanup
- Ticket migration
- Detailed Statistics reporting

- Customer survey
- Web re-design project (Sample at <http://test.iana.org>)

IANA's goals before the Marrakesh Meeting in June are:

- Hire 2 additional staff (IETF liaison, Numbers liaison) subject to budget guidelines
- Put automation projects into limited production
- Clear current request backlogs
- Update and publicly document IANA resource allocation-related processes
- Publish IANA resource allocation performance data publicly
- Complete migration of historical ticket data
- publish proposed IANA web site for comment

## 6.0 Routing Report in AfriNIC Service Region

This report was presented by Alain Aina CEO of TRSTech. He stated that the objective of the report was to see how resources in the AfriNIC service region are utilized on the Internet. The statistics presented in the report will help us determine how resources are evolving and to make plans for the future. For example when AfriNIC goes to ask for additional resources to the IANA, what will remain from the pool of the IANA. The prefixes that form part of this analysis are 196/8 and 41/8

The number of addresses announced to Internet globally shows a growth rate of approximately 7.91% from June 2005 to March 2006. From the BGP routing table entries there is a growth of 18.36% from March 2005 to March 2006. The BGP routing entries are unfiltered. Transit AS has shown an increase of 15.42% for the same period. The elements will help to forecast how the routing tables will look like in the coming years and thus provision for routers and memory capacity can be made.

Alain Aina presented statistics from the AfriNIC service region.

He commented from January-March 2006, AfriNIC has allocated more addresses than it has for the 1 year ended 31 December 2005. He also commented on a chart showing the number of addresses announced against the number of addresses allocated from the routing table whereby there is a small gap between addresses announced in the routing table that allocated. Furthermore some research is being carried out to determine why many addresses has been announced in the period July and August 2005.

here has been a peak in November 2005 from allocation based on new assignments registration in the WHOIS database due to /16 returned by a legacy member. Regarding ASN allocation, there has been a growth of 32.31%. There is a small decline in AS prefixes being announced.

## 7.0 MyAfriNIC & Online AfriNIC Membership process

Frank Nnebe the Engineering and Database Service Manager at AfriNIC described MyAfriNIC as a way to give members a simpler, user-friendly means to manage their membership with AfriNIC.

He said that the existing email-based template method has proved error-prone particularly for new users and placed a burden on support in addressing very basic questions.

He said MyAfriNIC would provide members one place where they could submit their requests and information through web-based forms that would allow syntax-checking as well as automatic template generation and WHOIS updating to ensure a smoother experience for the user and a more efficient system for AfriNIC staff. He said the portal would allow request tracking and easy access to help documents to provide enhanced support.

A trial first version of MyAfriNIC will be available sometime in June with the full version deployed in July.

## 8.0 Internet Resource Certification

Alan Barrett, AfriNIC board member welcomed everyone to the session on Internet Resource Certification saying the key questions to be examined are:

- How do you know routes are valid
- How do you know routes are allowed to be announced
- How do you know RIR allocated space to LIR
- How do you know LIR allocated it to an end-user

Randy Bush of IJJ gave a brief overview on how public key authentication works and then described a standardized way for RIRs to use PKI for verifying the right to announce prefixes, the origin of announcements, routing registration data, ability to verify BGP announcements dynamically.

### **APNIC Trial: The Lesson Learnt**

Geoff Huston's Report on APNIC Resource Certification Trial was presented by Gerard Ross of APNIC. In this report the mechanism for certifying resources was described including a distributed certificate management system signed by APNIC.

He said in this system routing requests as well as information submitted to routing registries could be signed by resource owners for validation. In addition routing information can be signed and propagated in protocols like S-BGP.

He said the APNIC trial has issued dummy 3779 certificates for all membership holdings and was looking at issues of:

- Issuing and validating sub-ordinate certificates
- Mechanisms of distributed certificate repositories and how to gather certificates to validate them
- Dealing with certificate revocation and re-issuing
- Developing open source tools for validating certificates, synchronizing repositories, generating routing requests, generating sub-ordinate certificates and managing certificate revocations.

He said they were working on completing the trial by the end of 2006.

### **Open Microphone and Discussions**

An open microphone discussion on resource certification followed at the AfriNIC meeting. An attendee expressed a concern about centralization of RIR databases. Randy Bush of IIR clarified that by design certification is distributed.

Alan Levin, AfriNIC board member asked Randy whether he envisioned specialized certificate authorities and Randy said that resource certification was not about identity but about right to use resources.

Adiel Akplogan asked whether an RIR could combine identity certification with resource certification?

Randy Bush explained that resource verification does not have anything to do with identification.

Brian Longwe, AfriNIC board member asked what resource certification means for an environment with fewer network operators and how closely this subject should be followed for immediate and medium-term effect for operations.

Randy Bush said that statistics on the growth of ASNs in African region do not back up thesis of fewer network operators. He also said that Africa is part of the global internet so use of certification applies equally to Africa as it does elsewhere.

Mark Elkins of Uniform asked a question about revocation of allocations at RIR's and how would it work for routing data.

Randy Bush said that the certificate age can mirror the length of contract but that issues such as routing announcements with expired certificates or those without certificates would have to be addressed.

Mouhammet Diop asked if there was a parallel between resource certification and DNSSEC and the implications for external trust bodies having control over routing.

Randy said the problem with DNSSEC was distributing and managing over 260 keys from 254 cTLDs and 14 gTLDs. Randy said resource certification was more deployable because there are only 5 trust anchors and cross-certification also reduces the number of trust anchors.

Alan Levin asked about legacy address space and how resource certification will handle this.



Randy said each registry's members will have to decide how to handle these address allocations and these are political / business decisions not really technical problems.

Mouhammet Diop said a special session to help ISPs know how to handle resource certification would be a good idea.

### May 17 2006, AfriNIC Meeting day 2, Report

The second day was dedicated to AfriNIC department updates, policy discussions and the member Annual General Meeting (AGM).

Key issues of the day:

- Updates and statistics from various departments
- Discussion of various policy documents that were proposed on the policy working group and policy proposals in the AfriNIC region
- Presentation and adoption of the 2006 budget
- Presentation and adoption of 2005 Audited Financial Statements for the year ended 31 December 2005
- Renewal of the vacant seats in the AfriNIC board,

## 1.0 Registration Services Report

A report was given by Ernest Byaruhanga, AfriNIC Registration Services Manager covering the details, statistics and activity from the AfriNIC Registration Service. This report shows continued increase of resource allocations in the AfriNIC region of service since the last year. The largest share for IPV4 allocation is from the South Africa with around 60% of total allocation. There were 12 IPv6 - prefixes allocated so far in the AfriNIC service region.

## 2.0 Finance and Administration Service Report

Harish Gowrisunkur, AfriNIC CFO gave an update about the various activities in his department. He started by updating the community that the billing exercise has been completed for the year and so far 85% of invoices have been collected. The financial statements for 2005 have been audited by Ernst and Young. On the HR side Manoda Marimuthu has joined the company and assists in billing as well as the purchasing function. Some statistics in terms of membership distribution and revenue by members were commented upon.

## 3.0 Engineering Service Report

Frank Nnebe, AfriNIC Senior Software Engineer / Database Manager reported on the activities of the Engineering department for the past quarter. He said that Engineering has focused on strengthening the core services it provides its

members to mirror the level of quality found in other regions. Notable core tasks undertaken include:

- Automating Reverse delegation zone management
- Transitioning 196/8 block from ARIN to AfriNIC through ERX mechanism
- Ensuring a consistent, accurate and reliable WHOIS database
- Providing bulk WHOIS data to researchers
- Gathering WHOIS statistics for both internal and external use
- Developing a simple, user-friendly portal for members

## 4.0 Training report

Adiel Akplogan, AfriNIC CEO presented a report on the training carried out by AfriNIC for 2005-2006 and planned future training dates till the end of the 2006. So far 11 training events have been organized both in English and French and a total of 300 persons have been trained. All the 6 sub regions have been covered. The CEO highlighted the major challenge that AfriNIC was is the limitation of resources to efficiently cover all the regions. The future plan is to revise the training material and produce explanatory training manuals.

Details are available on the AfriNIC training website.

## 5.0 Policies under discussion in other RIRs regions

Ernest Byaruhanga commented on the status of various policies in other RIRs region. Regarding IPv4: In the RIPE region the HD ratio proposal for additional v4 requests as well as the IP assignments for anycasting DNS are being reviewed. In the LACNIC region, there are four policies under discussion; they are: Additional allocation to regional ISPs, analysis of alternative information for initial IPv4 allocations, additional allocation usage projection period and HD ratio for additional allocation. AfriNIC has adopted the PI end user assignments and temporary critical infrastructure assignments policies.

Regarding current IPv6 related policies, the IPv6 assignments for anycasting DNS us being reviewed whilst IPv6 PI proposal and proposal to amend IPv6 assignment and utilization requirements are under discussion. The IPv6 allocations from IANA to RIRs have been accepted. In the APNIC region, the proposal to amend IPv6 assignment and utilization is under discussion and so are IPv6 PI proposal for end sites and abolishing IPv6 per address fee for NIR. The IPv6 allocations from IANA to RIRs has been adopted. In the ARIN region the IPv6 PI proposal for end-sites and proposal to amend assignment and utilization criteria have been adopted. In the LACNIC region, the policy to change HD ratio valued for IPv6, policy for IPv6 assignments to end users and the size of IPv6 assignment are under discussion whilst the policy for IPv6 allocation from IANA to RIRs has been adopted. AfriNIC has adopted IPv6 allocation from IANA to RIRs and the IPv6 PI proposal for end-sites is draft.

For ASN related proposal the main policy is the 4 byte AS number proposal and these are under discussion in the AfriNIC and LACNIC region. It has been adopted

in the ARIN region, a consensus has been reached in the APNIC region and it is being reviewed in the RIPE region.

## 6.0 Policy Proposals in the AfriNIC region

Alan Barrett, AfriNIC Board Member talked about policies in the AfriNIC region. He remarked that anybody can make a proposal in the AfriNIC region.

He mentioned approval of the Board for the following policies:

- PI Direct Assignments to End User Organisations and Critical Infrastructure.
- Temporary address assignments
- Change the criteria for ASN assignments
- Allocation of IPv6 address space by IANA to RIRs

Two proposals are under discussion:

- 4 byte ASN policy proposal. He outlined a road map for requesting 4 byte ASN proposal and stated that from 1 January 2010, AfriNIC will cease to differentiate between 2-byte and 4-byte only AS Numbers.
- IPv6 PI Policy Proposal

This proposal will allow end users to get /32 of PI space from a special block. This policy is intended to provide a solution for organizations that have a need for provider independent assignments in IPv6.

## 7.0 Discussions regarding the above proposals

There main discussions centered around the IPv6 PI policy proposal

- There are no demand in the AfriNIC region for PI thus the policy may not be relevant.
- However, one needs to look for the future and hence anticipate that demand for PI space
- A similar policy has been adopted by the ARIN Board
- What size space would be appropriate for the region? /48 may be appropriate and will not be filtered. A /32 may be too large
- There should be more details on the charges or fees of /32 PI
- More discussion is needed on the mailing list on this policy

There was less discussion on the ASN 4 byte proposal. The few views expressed in the meeting were in favour of the proposal although some participants think that this may not be too relevant for the AfriNIC region for the time being. There is consensus to move forward with this proposal.

## 8.0 AfriNIC Member meeting

### Update on AfriNIC Structure

Adiel Akplogan commented that a report is being drafted by the AfriNIC legal counsel. The aim is to harmonize AfriNIC bylaws with the Companies Act in Mauritius . A final report (draft) will sent to the community on the mailing list for discussion and for the time being committees have been set up by the Board.

### **Audit Committee report**

Sunday Folayan, Members of the Audit committee, presented the Audit report provided by Ernst & Young and commented on the financial statement for the year ended 31 December 2005. According to the Audit committee the accounts shows a true and fair view of the state of affairs of AfriNIC as at 31 December 2005. The audit committee stated that the accounts have been approved by the Board. The Audit committee has recommended the re-appointment of Ernst and Young for the next financial year. An interim audit is planed to be conduct in June for half year exercise.

### **Financial Committee report**

The Financial committee commented on the Budget for AfriNIC for the year 2006. The forecast OPEX for \$687,203 and forecast Income is \$853,098 of which \$635,648 will be derived from membership fees. Alan Barrett who is the chair of the financial committee stated that the strategy is to build in 12 months operating expenses to cover 12 month reserves.

The financial committee as well as the Board has approved the budget.

### **AfriNIC Quarter 1 activity report**

Adiel Akplogan presented the highlights of the first four months of the year. So far 82% of the income target has been achieved and 23% of the expenses have been consumed. The expenses ratio will rise because most invoices for the year has been raised and collected.

### **Board Election - Renewal of Seats 3 and 4:**

Seats 3 and 4 (for the Southern Africa and Eastern Africa Region respectively) had fallen vacant. For each seat, a primary and alternate member is selected according to the AfriNIC by-laws. The members were therefore required to elect persons to fill these seats.

An election was conducted which ended as follows:

Southern African Region (Seat 3):

- **Alan Barrett ( South Africa ) - Primary**
- **Silvio Almada ( Angola ) - Alternate**

Eastern African Region (Seat 4):

- **Badru Ntege ( Uganda ) - Primary**
- **Brain Longwe ( Kenya ) - Alternate**

Welcome to Badru Ntege and Silvio Almada on board and congratulations to Alan Barrett and Brain Longwe for their re-election.

## **9.0 AfriNIC-5 Meeting Announcement**

The fifth AfriNIC public policy meeting will be held in Mauritius from 27 November to 1 December 2006. Registration details and agenda will be online soon.

## 10.0 End Of Meeting

The meeting was closed at 17:30 by the AfrinIC Board Chair and the CEO who both thanked the following organizations who sponsored the AfrinIC-4 meeting:

AFILIAS, ISOC, KENIC, CCK, SWIFTGLOBAL , KENYA DATA NETWORKS,  
COMPUTER TECHNICS, TSPAK, NETWORK STARTUP RESOURCE CENTER

The AfNOG, AfrinIC and INET'Africa meetings held in Nairobi can be followed online.