

# IANA Report

Subject: Recognition of AfriNIC as a Regional Internet Registry

Date: 6 April 2005

The Internet Assigned Numbers Authority (the IANA), as part of the administrative functions associated with management of the Internet Protocol (IP) address space, is responsible for evaluating applications for approval of new Regional Internet Registries. ICANN has received an application for final approval and recognition of the African Internet Numbers Registry (AfriNIC) as the fifth Regional Internet Registry (RIR).

## Background

The role and responsibilities of ICANN/IANA in this area are defined in the [Address Supporting Organization Memorandum of Understanding <http://www.icann.org/aso/aso-mou-29oct04.htm>](http://www.icann.org/aso/aso-mou-29oct04.htm) (ASO MOU), and [ICP-2 <http://www.icann.org/icp/icp-2.htm>](http://www.icann.org/icp/icp-2.htm) ("Criteria for Establishment of New Regional Internet Registries").

In September 2004, an application was submitted by the AfriNIC organization for recognition, together with a detailed transition which included draft bylaws, policies, funding model, and staff resumes. On request of the ICANN President, the IANA staff conducted a preliminary evaluation. In September 2004 the President reported to the Board his conclusion that the application and transition plan constituted a reasonable basis for eventual recognition, though he noted that some adjustments would be necessary. Also in September 2004, the existing RIRs, APNIC, ARIN, LACNIC and RIPE NCC, through the Number Resource Organization (NRO), issued a statement expressing their ongoing and continuing support for AfriNIC, and recommending a favorable response to the application by recognizing AfriNIC's accomplishments thus far.

Consistent with the IANA's preliminary evaluation and the recommendations of the existing RIRs, the ICANN Board on 30 September 2004 [gave provisional approval <http://www.icann.org/minutes/resolutions-30sep04.htm>](http://www.icann.org/minutes/resolutions-30sep04.htm) to the AfriNIC application, with the expectation that the transition plan would be completed and an amended or

revised application for recognition would be submitted. Over the following months, the IANA staff continued to consult with AfriNIC and the NRO to monitor the transition of information and registration responsibilities, and to assist in finalizing the application for full recognition of AfriNIC in conformance with the criteria set forth in ICP-2.

Since September, the AfriNIC organization has supplemented and finalized its application, which has been carefully reviewed and evaluated by the IANA according to the guidance and principles stated in ICP-2. On 21 February 2005, the Chairman of the NRO (and CEO of RIPE NCC) and the CEO of AfriNIC jointly communicated the NRO's favorable assessment of AfriNIC's readiness for final approval and recognition.

## Evaluation

In evaluating the AfriNIC application for final approval and recognition, the IANA follows the guidelines and principles documented in ICP-2. Each of the ten ICP-2 principles is set forth *in italics* below, followed by the IANA's evaluation and analysis. Helpfully, the AfriNIC application document tracks the numbered principles set forth in ICP-2.

*1) The region of coverage should meet the scale to be defined by ICANN, given the need to avoid global address fragmentation.*

The AfriNIC application satisfies Principle 1. AfriNIC will operate internationally, across a large geographic region of greater-than-continental size (see ICP-2: "The proposed RIR must operate internationally in a large geographical region of approximately continental size." See also [RFC 2050 <http://www.rfc-editor.org/rfc/rfc2050.txt>](http://www.rfc-editor.org/rfc/rfc2050.txt), page 3). Specifically, AfriNIC's service region will cover the following countries and territories:

Angola	Ghana	Namibia
Burkina Faso	Gambia	Niger
Burundi	Guinea	Nigeria
Benin	Equatorial Guinea	Rwanda
Botswana	Guinea-Bissau	Seychelles
R. D. Congo	Kenya	Sudan

Central African Rep.	Comoros	Sierra Leone
Congo	Liberia	Senegal
Cote d'Ivoire	Lesotho	Somalia
Cameroon	Libya	Sao Tome and Principe
Cape Verde	Madagascar	South Africa
Djibouti	Mali	Swaziland
Algeria	Morocco	Chad
Egypt	Mauritania	Togo
Western Sahara	Mauritius	Tunisia
Eritrea	Malawi	Tanzania, Un.Rep. of
Ethiopia	Mayotte	Uganda
Gabon	Mozambique	Zambia
		Zimbabwe

AfriNIC has adopted a structure that reflects the needs of the regional Internet community in the Africa region. The overall supervision of AfriNIC will be performed by representatives elected from the six identified sub-regions in Africa (Northern, Western, Central, Eastern, Southern and Indian Ocean). The resulting organization was registered in Mauritius with its various operations distributed among three other countries as follows:

- Technical Operations in South Africa
- Backup and Disaster Recovery in Egypt
- Training coordination in Ghana.

Both the internal administrative and membership structures of AfriNIC are designed, consistent with the existing RIR models, to avoid address space fragmentation, difficulties with inter-RIR coordination and cooperation, and community confusion.

*2) The new RIR must demonstrate that it has the broad support of the LIRs (ISP community) in the proposed region.*

The AfriNIC application satisfies Principle 2. AfriNIC has conducted extensive regional outreach and encouraged community input and involvement through its Open Policy Forum. The incumbent RIRs for the region were ARIN, APNIC and RIPE NCC. A joint communication was sent to all ARIN, RIPE NCC and APNIC members in the proposed AfriNIC service region, and AfriNIC has made independent efforts to contact and communicate with ISPs across the Africa region, including use of public mailing lists, its website, presentations at conferences and meetings, and direct contacts with individual local Internet registries (LIRs) and ISP.

The IANA® review of the AfriNIC efforts and the response of the relevant community within the region supports the conclusion that a very substantial majority are prepared to support AfriNIC as the new regional RIR, to participate actively in its bottom-up policy-development processes, and to make the necessary financial commitment to support AfriNIC's operations.

In addition, over the period of the transition AfriNIC has demonstrated full capability to migrate existing RIR service agreements to AfriNIC.

*3) Bottom-up self-governance structure for setting local policies.*

The AfriNIC application satisfies Principle 3. AfriNIC has developed and implemented clearly defined procedures for the development of resource-management policies for its service region, as well as for participating in development of global policy recommendations through the Address Supporting Organization.

Drawing from the experiences and models of the ARIN, APNIC, LACNIC and RIPE NCC NCC bottom-up policy-development mechanisms, the AfriNIC procedures are open and transparent, accessible to all interested parties, and capable of ensuring fair representations of all constituencies within the region. AfriNIC has made a documented commitment to at least one open policy development meeting per year, accessible to all interested parties. AfriNIC maintains a publicly archived mailing list for the discussion of policies.

*4) Neutrality and impartiality in relation to all interested parties, and particularly the LIRs:*

The AfriNIC application satisfies Principle 4. AfriNIC is an independent, not-for-profit, and open membership association. The submitted AfriNIC bylaws and policies provide for equal treatment, fair distribution of resources, and impartial treatment of members and requestors. As reaffirmed in AfriNIC's application:

The AfriNIC organizational structure is set to encourage a bottom-up self governance management model where policies and other organizational functions are determined by the community in general and members who elect representatives that sit on the Board of Directors.

As confirmed by the NRO, AfriNIC's activities during the transition period have demonstrated full compliance with these principles.

*5) Technical expertise.*

The AfriNIC application satisfies Principle 5. AfriNIC has demonstrated full technical competence in all necessary areas, including:

- production grade global Internet connectivity;
- DNS servers to support Reverse DNS delegation;
- suitable internal infrastructure for operational purposes; and
- enough technically capable staff to ensure appropriate service levels to its members, and to the Internet community.

AfriNIC has operated with reliable, high-quality connectivity and the capability to operate reliable nameservers. It has also demonstrated the ability to administer the

necessary invoicing and accounting systems and other elements of internal infrastructure. The IANA is pleased to note its conclusion that AfriNIC's technical operation is impressive, well-designed, well-executed, and staffed by highly competent technical and operational personnel.

*6) Adherence to global policies regarding address space conservation, aggregation and registration.*

The AfriNIC application satisfies Principle 6. Throughout the transition, AfriNIC has adhered to the principles of Internet number registration. In their first annual meeting in May 2004, AfriNIC adopted initial policies that now govern their allocation and assignment processes. Those policies are consistent with the global policies applicable to IP address allocation and assignment.

AfriNIC's policies are fully documented and publicly accessible on its website. These policies, and any changes to them, will be adopted according to AfriNIC's open, bottom-up, member-driven policy development process. The provisions of the currently proposed policies appear to be consistent with and to respect the main goals of the IP address registry system (e.g., uniqueness, proper registration, aggregation, conservation, and fairness), demonstrating AfriNIC's commitment to adhere to the IP addressing requirements of the global Internet, including global policies concerning conservation, aggregation, and registration.

AfriNIC's longstanding active participation, as an emerging RIR, in the Address Supporting Organization, further demonstrates its commitment to adhere to applicable global policies.

*7) Activity plan.*

The AfriNIC application satisfies Principle 7. AfriNIC has submitted (and published) a detailed activity plan specifying activities that are clearly within the purview of an RIR. The AfriNIC activity plan was developed through its open, community-based process, and appears to be accepted and supported by its prospective regional membership.

AfriNIC's activity plan is not limited exclusively to IP address registration services. Its objectives also include:

- supporting the growth of the Internet in continental Africa and the Indian Ocean.
- supporting the regional community in the development of procedures, mechanisms, and standards in order to assure the efficient assignment of Internet resources.
- promoting educational opportunities to its members in its technical and political areas of competence.
- proposing and developing public policies in its areas of competence.

AfriNIC also submitted a comprehensive, multi-phase transition plan, which was endorsed by the ICANN Board when it gave provisional recognition in September 20054. That transition plan has been successfully implemented and has now reached its final stages. The transition plan covered off- and on-site training of AfriNIC registration personnel, technical exchanges between ARIN, APNIC, LACNIC, RIPE NCC and AfriNIC engineering staffs, and full collaboration between AfriNIC and the other RIRs on legal, financial, administrative, and registration matters. The NRO has reported favorably on AfriNIC's execution of its transition plan.

Consistent with the guidance of ICP-2, AfriNIC has committed not to be involved in forward domain name assignment or administration.

#### *8) Funding model.*

The AfriNIC application satisfies Principle 8. AfriNIC is established as a not-for-profit association. AfriNIC's funding is based on membership fees. The fee structure (<http://www.afrinic.net/documetns/membership/afadm-fee200405.pdf>) is based on 5 categories of membership linked with quantity and type of resources held by the LIR.

As elaborated in their revised application, to ease the start-up funding of its operations, AfriNIC has concluded an incubation agreement with three supporting organizations across the continent. These organizations agreed to support part or entire costs of the first two years of operations. Additional areas of support are being shared by four additional entities: Mauritius ISP association with the support of the Ministry of Telecommunications; South African Department of Communication in partnership with CSIR; Egyptian Ministry of Information and Communication Technology; GH-NIC (Ghana).

AfriNIC is independent and autonomous in its operations from these supporting entities. After the two years of incubation period, AfriNIC is expected to take over the whole management of these four locations both administratively and financially, on its own revenues supported by its membership. The business plan provided with the initial application to ICANN shows that, at the time the full financial responsibility will be handed over to AfriNIC, the company will have the necessary financial strength to handle it.

#### *9) Record Keeping.*

The AfriNIC application satisfies Principle 9. AfriNIC has established capabilities to maintain proper records of all registry activities, including the archiving of all information collected from local Internet registries in the process of making IP address space assignments. As specified in ICP-2, all of AfriNIC's relevant core registry documentation, records, archives, and information needed for operational audits will be maintained in English.

#### *10) Confidentiality.*

The AfriNIC application satisfies Principle 10. AfriNIC has developed and implemented a comprehensive set of policies and procedures to ensure that the information it collects in the registration process will be kept in strict confidence, and used for registration purposes only. As stated in AfriNIC's application:



Every piece of information collected by AfriNIC from members or any other entity will be processed and managed according to a non-disclosure agreement which should be signed between the two parties. All AfriNIC's staff has signed a non-disclosure and confidentiality agreement at the start of work in the company.

## Conclusion

AfriNIC has met all of the conditions specified in ICP-2. AfriNIC's operations, policies, and bottom-up self-governance structure comply fully with the specified guidelines. AfriNIC's technical operations and expertise are impressive. The transition plan has been satisfactorily executed and is virtually complete. AfriNIC's cooperation with the incumbent RIRs has been exemplary, and the NRO has given its full endorsement to approval and recognition of AfriNIC as an independent RIR.

Accordingly, the IANA concludes that AfriNIC has met all the necessary requirements for approval and recognition.