# AFRINIC

The Internet Numbers Registry for Africa
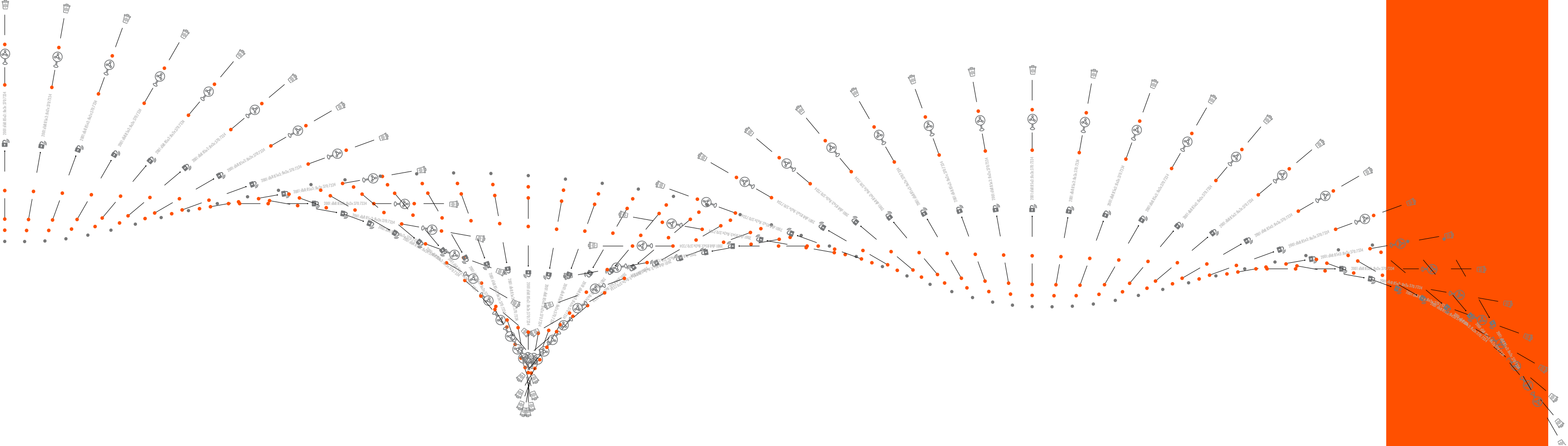
# 2016
## ANNUAL REPORT

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It is my pleasure to introduce the 2016 AFRINIC Annual Report. This year's report highlights, once again, the very important work that your Regional Internet Registry (RIR) is undertaking throughout Africa and beyond.

2016 was a year of key moments in the evolution of the global Internet: oversight of the IANA functions was transferred to the communities that use them from the US government's NTIA, and AFRINIC's IPv4 pool approached critically low levels by the end of the year. Our community-driven policy development process demonstrated throughout the year that our stakeholders are engaged and forward thinking, with policy proposals on IPv4 transfers to and within the region generating much discussion.

## Financial Overview
I am pleased to report that AFRINIC achieved a record surplus in 2016 directly attributed to the increased cost control measures used to manage the affairs of the company.

The net surplus of $930K for the year is more than double over the previous year. I am also happy to report an improved bank balance and increased reserves this year. The 2016 operational results continue to show the improvements that we implemented in 2015 and our closing cash position shows a 40% increase over 2015.

## Outlook
As 2016 closed, AFRINIC was approaching Phase 1 of its IPv4 Exhaustion process. For us here on the continent, IPv4 exhaustion can no longer be thought of as 'something that happens in other regions'. Together with the staff, community and members, the Board has worked tirelessly over the years to ensure that IPv6 deployment is high on every government, regulator and engineer's priority list. This will continue as we head through 2017. And with IPv4 exhaustion imminent, the Board is strategising on innovative ways to generate income in a post-IPv4 world. We look forward to the community's input on this.

## Strategic Plan
We have reviewed the Strategic Plan 2014-2018 and used it to come up with a strategic document for the period 2016-2020. We recognise the fact that financial stability is the foundation for the long-term sustainability of AFRINIC, hence, year-on -year, we have continued to increase our financial reserve towards achieving reserves for up to two years of operational viability.

## Governance and Transparency
Building on our efforts in the year 2015, the Board strove to improve governance, accountability and transparency for itself, the organisation and the community as a whole. To further reinforce our commitment to this, the AFRINIC Governance Committee was convened at the request of the community to advise the AFRINIC Board, AFRINIC Membership, and the community on matters of governance. The first set of committee members took office in October 2016, with three members selected by the community and two members appointed by the Board. They are joined by a non-voting Board liaison, AFRINIC's legal counsel and a representative from the secretariat.

A Special General members Meeting (SGMM) was held during AFRNIC-25 in November 2016 in Mauritius. During this meeting, the AFRINIC membership voted on whether to accept or reject proposed changes to AFRINIC Ltd Bylaws through special resolutions. The 2013 bylaws were then amended accordingly.

## Staff and Community
The Board appreciates the determination and hard work of the AFRINIC staff, whose efforts often go unseen or unrecognised, and who are all committed to building on AFRINIC's solid foundations to take Africa's RIR from strength to strength. It is also without doubt that our strong-willed and dedicated community is ensuring that Africa is at the forefront of local, regional and global Internet governance and Internet development. I would like to thank each and every one of you for your engagement, participation and your input.

## Outlook
In 2017, we hope to increase our efforts to ensure that AFRINIC adheres to best practices in terms of corporate governance. We are committed to reviewing the fees paid by members to ensure that these fees are equitable and in tune with the anticipated shift in the business profile of the organisation post IPV4 exhaustion.

I look forward to the continued feedback and to building on the hard work from 2016 to make Africa's Internet stronger, more secure, more reliable and available to all.

*Thank you for making 2016 the great year it was.*

**Sunday Folayan**
**Chair, AFRINIC Board of Directors**

It has been another busy year for AFRINIC. Some key events in 2016 were: a change in the contracting arrangements for the IANA numbering services as the IANA functions contract between NTIA and ICANN expired in October 2016, a review of accountability mechanisms in all RIRs, leading to several changes to AFRINIC's Bylaws in December 2016, the continued reduction in the amount of available IPv4 space, and the launch of a new IPv6 certification platform named Certi::6.

## IANA Transition

In order to distribute Internet number resources to our members, AFRINIC needs to receive resources from the IANA numbering service. Until recently, ICANN provided the IANA services (not only numbering services, but also domain name services and protocol parameter services) under a contract with the US government's NTIA. In March 2014, NTIA announced its intention to allow the contract to expire. The five RIRs and their respective communities soon decided that the RIRs should contract with ICANN to provide the IANA numbering services, but other stakeholders took a lot longer to decide what to do. The NTIA IANA contract eventually expired at the end of September 2016, and now ICANN provides the IANA numbering services under a contract with the five RIRs.

## Accountability Review

In 2015, the RIRs decided to carry out a review of their individual accountability mechanisms. AFRINIC's review was completed in 2016, and some changes to the Bylaws were proposed at a Special General Members' Meeting (SGMM) in November 2016. Some of the proposals were approved and then incorporated into the Bylaws soon after the SGMM.

## Membership, Services and Operations

AFRINIC's membership base continues to grow, with 169 new members coming on board during 2016. We ended the year with 1,441 members. We often receive feedback on ways in which we could improve, and we take that seriously. Our Membership Services team dealt with over 22,000 tickets during the year, and 94% of tickets received were responded to within 48 hours. We strive to provide professional and efficient services and, while we do not always hit our SLA, we have made steady progress and will continue to improve into 2017. Technical operations remained stable throughout the year with only four brief unplanned incidents.

## Internet Number Resources

We continue to distribute IPv4, IPv6, and ASN resources to AFRINIC members. We had expected to reach the "final /8" of IPv4 space around the end of the year in 2016, but allocated less space than expected, so we reached the end of the year with a little more than one /8 of IPv4 space available. In 2016, we continued to spread awareness that AFRINIC would hit Phase 1 of our IPv4 Exhaustion process imminently, and we often speak about the urgent need to deploy IPv6. It is gratifying that about 40% of AFRINIC member organisations have some IPv6 space, but disappointing that only 0.25% of Africa's population is able to use IPv6.

## Capacity Building

To reinforce our dedication to getting Africa IPv6-ready, our technical training team travelled the length and breadth of the continent, educating over 680 engineers in 18 countries in our free, hands-on technical IPv6 deployment training courses (see page 38). In May, we launched our Certi::6 programme, a multi-tiered examination programme that validates the knowledge and skill required to plan, design, configure, manage and troubleshoot multi-vendor IPv6 networks, ultimately providing a globally recognised certification to those who are successful.

# CEO'S REPORT

## Support for Internet Development

Aside from performing our core mission of managing and distributing Internet number resources, AFRINIC is committed to supporting the development of the African Internet however it can, wherever it can, and partners with like-minded organisations to make this happen. In 2016, we welcomed the launch of a new Internet Exchange Point (IXP) in Madagascar, which will help to decrease latency by keeping Africa's Internet traffic local and reducing connectivity costs. AFRINIC and Morocco's National Telecommunications Regulatory Agency (ANRT) signed an MoU to facilitate the deployment of a copy of the L-Root DNS Root Name Server in Morocco as part of the Root Server Copy Project (AfRSCP). AFRINIC also signed an MoU with Agence Tunisien d'Internet (ATI) to solidify their mutual cooperation and support in furthering IPv6 deployment in Tunisia and North Africa. Together with the other four RIRs, AFRINIC contributed to the Internet Engineering Task Force (IETF) Endowment to help provide stable, long-term funding to support the IETF in its mission to make the Internet work better. Our FIRE Africa grants and awards programme received donor funding and supports initiatives, tools and platforms that harness the power of the Internet to empower the community. Over the year, FIRE Africa distributed more than US$ 250,000 in funding to 13 projects in different parts of Africa.

## Community

As usual, the AFRINIC community was active and committed and pushed to have its voice heard on regional and global Internet governance and technical Internet operation matters. Four new policy proposals were submitted via the AFRINIC Policy Development Process (PDP - page 33) over the year and the number of subscriptions and posts to the resource-policy-discussion mailing list increased significantly. To further community input into our work, we also launched the Database

Working Group (DBWG - page 44) in 2016 to create a channel for discussion between AFRINIC staff and other stakeholders on implementation of AFRINIC's WHOIS service (page 44).

## Looking Ahead

As we head into 2017, I'd like to thank my Board, the Members, the community, my staff, and all of AFRINIC's partners and supporters for another successful year. I'd also once again like to take the opportunity to encourage everyone - engineers, governments, regulators, end users and educators - to have their say on the policies that AFRINIC uses to manage and distribute Africa's Internet number resources. If you cannot attend the open public policy meetings (page 34) in person, remote participation is facilitated and our comprehensive Fellowship programme (page 35) ensures that lack of funds is not a barrier to participation. Finally, AFRINIC is rapidly running out of IPv4 addresses, and IPv6 deployment is more urgent now than ever before.

## I wish you all a successful 2017.

**Alan Barrett**
**CEO AFRINIC**

## MEMBERS

**169**
New Members in 2016.

**1,441**
Total Members.

## IPV4

**11,780,096**
/32s of IPv4 address space (equivalent to 0.7 /8s) distributed in 2016.

**99,215,616**
/32s of IPv4 address space (equivalent to 5.9 /8s) distributed since 2004.

## IPV6

**6,881,575**
/48s of IPv6 address space (equivalent to 105.0 /32s) distributed in 2016.

**594,805,556**
/48s of IPv6 address space (equivalent to 9076.0 /32s) distributed since 2004.

## ASNs

**169**
ASNs assigned in 2016.

**1,434**
ASNs assigned since 2004.

## TRAINING AND CAPACITY BUILDING

**685**
people trained on IPv6 and INRM in 18 countries throughout Africa.

## BLOG AND SOCIAL MEDIA

**63**
blog posts published.

**4,515**
Facebook Page Likes, over
**2,740**
more than at the start of 2016.

**5,448**
Twitter Followers, over
**1,400**
more than at the start of 2016.

## FIRE AFRICA

**US$ 252,000**
of funding allocated to 13 projects through the FIRE Africa Grants and Award Program.

## OUTREACH

**31**
events attended by staff to represent the interests of the AFRINIC membership.

**5**
Member outreach meetings held

## FELLOWSHIP

**16**
AFRINIC Fellows provided with assistance to attend AFRINIC Meetings

## JANUARY

The FIRE Africa program publishes its promotional brochure.

**create.
enable.
connect.**

## FEBRUARY

The 2016 host countries for the AFRINIC Training Courses are announced

## MARCH

AFRINIC welcomes the launch of a new IXP in Madagascar, helping to decrease latency by keeping Africa's Internet traffic local and reducing connectivity costs.

AFRINIC and Morocco's ANRT sign an MoU to facilitate the deployment of a copy of the L-Root DNS Root Name Server in Morocco as part of the Root Server Copy Project (AfRSCP).

**ANRT**
الوكالة الوطنية لتقنين المواصلات
Agence Nationale de Réglementation des Télécommunications

## APRIL

AFRINIC announces it has secured over US$240,000 funding for the 2016 FIRE Africa Grants and Awards programme.

AFRINIC announces the call for FIRE Africa grant applications of up to US$30,000 each for nine projects aligned with Technical Innovation, Community Development, Governance Enhancement, Education, Internet Security including collaborative security, and Access provision.

## MAY

AFRINIC launches code of conduct for community to ensure respectful behaviour during AFRINIC Meetings, AIS Meetings and on AFRINIC mailing lists.

## JUNE

Over 360 delegates gather in Botswana for the Africa Internet Summit 2017 (AIS'17) and the AFRINIC-24 Meeting.

**AFRICA INTERNET SUMMIT'16**

## JUNE

AFRINIC members elect Sunday Folayan, Haitham Z. El Nakhal and Seun Ojedeji to the AFRINIC Board for three-year terms.

Sami Salih and Dewole Ajao are elected by the community as the Policy Development Working Group (PD-WG) co-Chairs.

# HIGHLIGHTS

## JUNE

Omo Oaiya is elected by the community to serve on the ASO-AC / NRO-NC.

The NTIA announces that the IANA Stewardship Proposal has met required criteria, paving the way for the IANA Oversight transition to go ahead.

AFRINIC, together with the other four RIRs, and ICANN sign an SLA for the Internet Numbering Services.

FIRE Africa trains 11 innovators and social entrepreneurs on project management, and social media skills

## JULY

The AFRINIC Board re-appoints Sunday Folayan as Chair and Haitham El-Nakhal as Vice-Chair for another one year term.

Leading Internet organisations, including AFRINIC,announce their combined commitment of more than US$3 million for the Internet Engineering Task Force (IETF) Endowment.

## AUGUST

AFRINIC publishes the 2015 Annual Report.

AFRINIC announces that Fiona Asonga (community representative), Douglas Onyango (Community representative) and Madhvi Gokool (staff) will serve on the IANA Numbering Services Review Committee.

The IANA announces the exhaustion of its 16-bit ASN pool: all future ASN assignments from the five RIRs will be 32-bit only.

The NTIA announces its intention to allow the IANA Functions Contract between it and ICANN to expire, representing the final step in an 18 year process to transition the Internet's domain name system (DNS) to the private sector.

The AFRINIC delegation attends AfPIF 2016 in Dar es Salaam, Tanzania. AFRINIC has been a proud sponsor of AfPIF since 2012.

AFRINIC launches the newly formed Database Working Group to provide a platform for technical discussions around the WHOIS database and related services.

## SEPTEMBER

The AFRINIC WHOIS Database manual is published, offering a comprehensive overview enabling users to create and manage their objects in the AFRINIC WHOIS database.

In line with the "Global Policy for Post Exhaustion IPv4 Allocation Mechanisms by the IANA", AFRINIC receives the equivalent of a /18 IPv4 prefix from the IANA to add to its IPv4 inventory.

FIRE Africa announces nine grant winners for 2016

# HIGHLIGHTS

## OCTOBER

The IANA functions contract between the US NTIA and ICANN expires on 1 October, representing the final step in a two-year, multi-stakeholder-driven process. Oversight of the IANA functions is now in the hands of the communities that rely directly on these services - the Names, Numbers and Protocol Parameter communities.

FIRE Africa announces four Award winners for 2016.

## NOVEMBER

The AFRINIC Board appoints Ms. Fiona Asonga as its representative to the NRO NC/ASO AC.

Over 240 people from 27 countries attend AFRINIC-25 in Flic-en-Flac, Mauritius.



## NOVEMBER



AFRINIC and the Agence Tunisien d'Internet (ATI) sign an MoU to solidify their cooperation and mutual support in furthering IPv6 deployment in Tunisia and North Africa.

A Special General Members' Meeting (SGMM) is held. Members vote to adopt or reject special resolutions for changes to the AFRINIC Bylaws.Members elect Isatou Jah, Wafa Dahmani, and Abdalla Omari to the newly constituted AFRINIC Governance Committee.

FIRE Africa trains nine grantee/project leaders on project management, leadership and pitching to businesses.

## DECEMBER

Four FIRE Africa Award Winners travel to Guadalajara, Mexico to attend the 2016 Internet Governance Forum (IGF) and to receive their prizes at the Seed Alliance Award Ceremony.



The AFRINIC Board announces its appointees to the AFRINIC Governance Committee. Mike Silber and Zeimm Auladin-Suhootoorah take on two and one year terms respectively. Board member Seun Ojedeji takes on the Board Liaison role.

# About AFRINIC

The African Network Information Centre (AFRINIC) is the Regional Internet Registry (RIR) for Africa. It is responsible for the distribution and management of Internet number resources (IPv4 and IPv6 addresses and Autonomous System Numbers – ASNs) for the African and Indian Ocean region. It was founded in 2004 and is a non-governmental, not-for-profit, membership-based organisation headquartered in Mauritius. The policies governing the distribution of Internet number resources by AFRINIC are defined by the AFRINIC community using a bottom-up, community-driven policy development process (PDP). The Board of Directors then ratifies these policies. AFRINIC also plays a leading role in education and capacity building as well as in IP infrastructure development and reinforcement throughout the region.
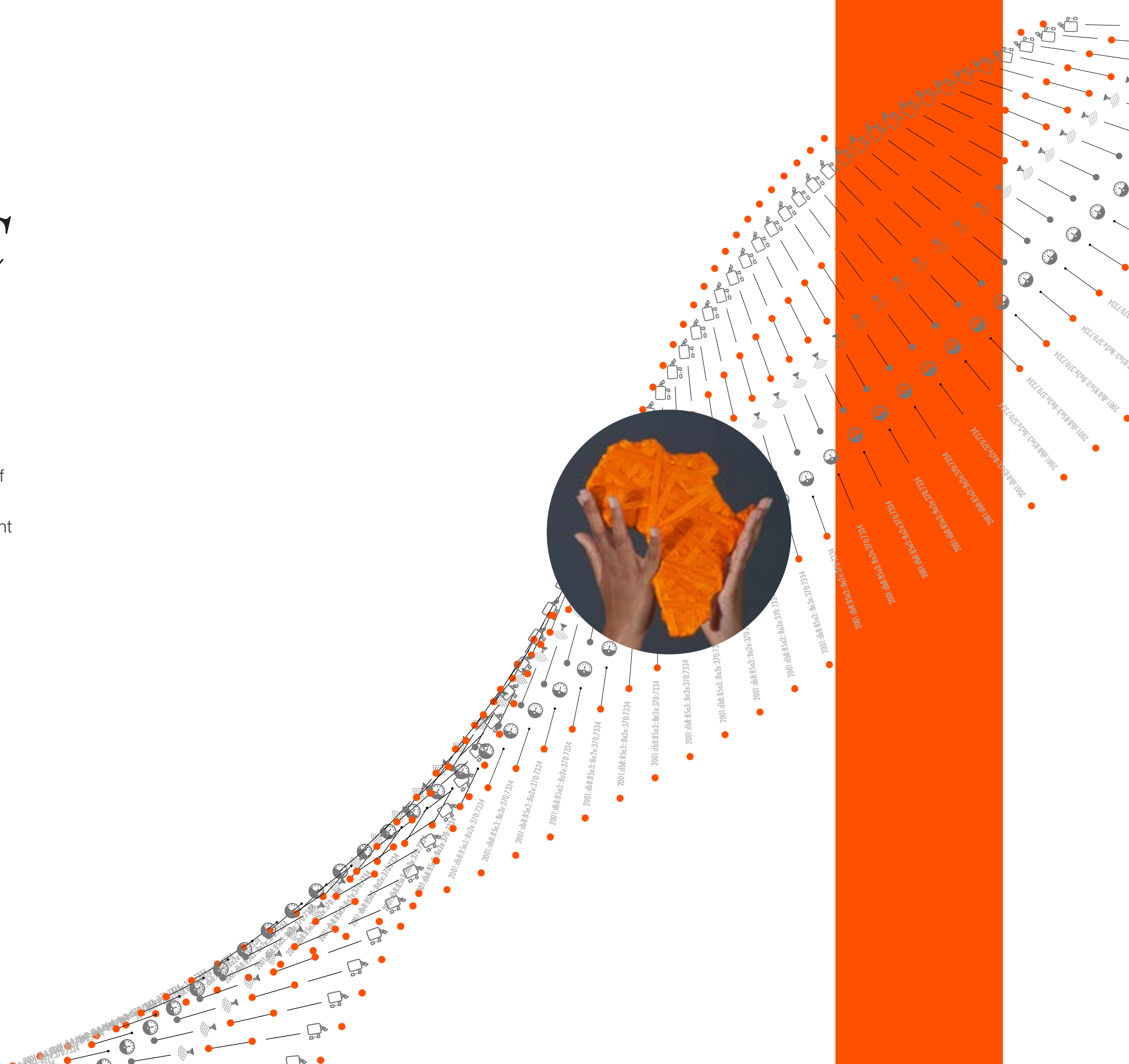
## Core Functions

AFRINIC's core function is to assign and allocate Internet number resources (IPv4, IPv6 and ASNs) to its members and to provide related services, including RPKI and the management of the Reverse DNS (rDNS) zones for the Internet number resources it allocates and assigns. In addition to its core function, AFRINIC:

Provides training and education services to its members, governments and the wider community to support capacity building and infrastructure development throughout the region.

Collaborates with regional and international organisations on Internet related matters to ensure the needs of the region are taken into account.

Promotes and supports an open, stable, secure and resilient Internet through technologies and projects including RPKI, DNSSEC, local Internet Exchange Point (IXP) set up and deployment of root server copies throughout Africa.

Acts as the secretariat for the AFRINIC community.

Manages the small Grants and Awards programme, FIRE Africa, to fund and mentor entrepreneurial Internet-related projects in Africa.

*Vision:*

Be the leading force in growing the Internet for Africa's sustainable development.

*Mission:*

Serve the African community by providing rg professional and efficient management of Internet number resources, supporting Internet technology usage and development, and promoting a participatory and multi-stakeholder approach to Internet self governance.

*Core Values:*

- Community Driven
- Operational Excellence
- Innovation & Creativity
- Passion

## Service Region

**There are 56 economies in AFRINIC's service region, which includes several island nations located in the Atlantic Ocean and in the Indian Ocean.**

## Members

AFRINIC is a membership organisation and provides services to its members, mostly Internet Service Providers (ISPs), governments, educational institutions and end-users, within its geographical service region. At year-end 2016, AFRINIC had **1,441** active members. More details about membership can be found on page 22.



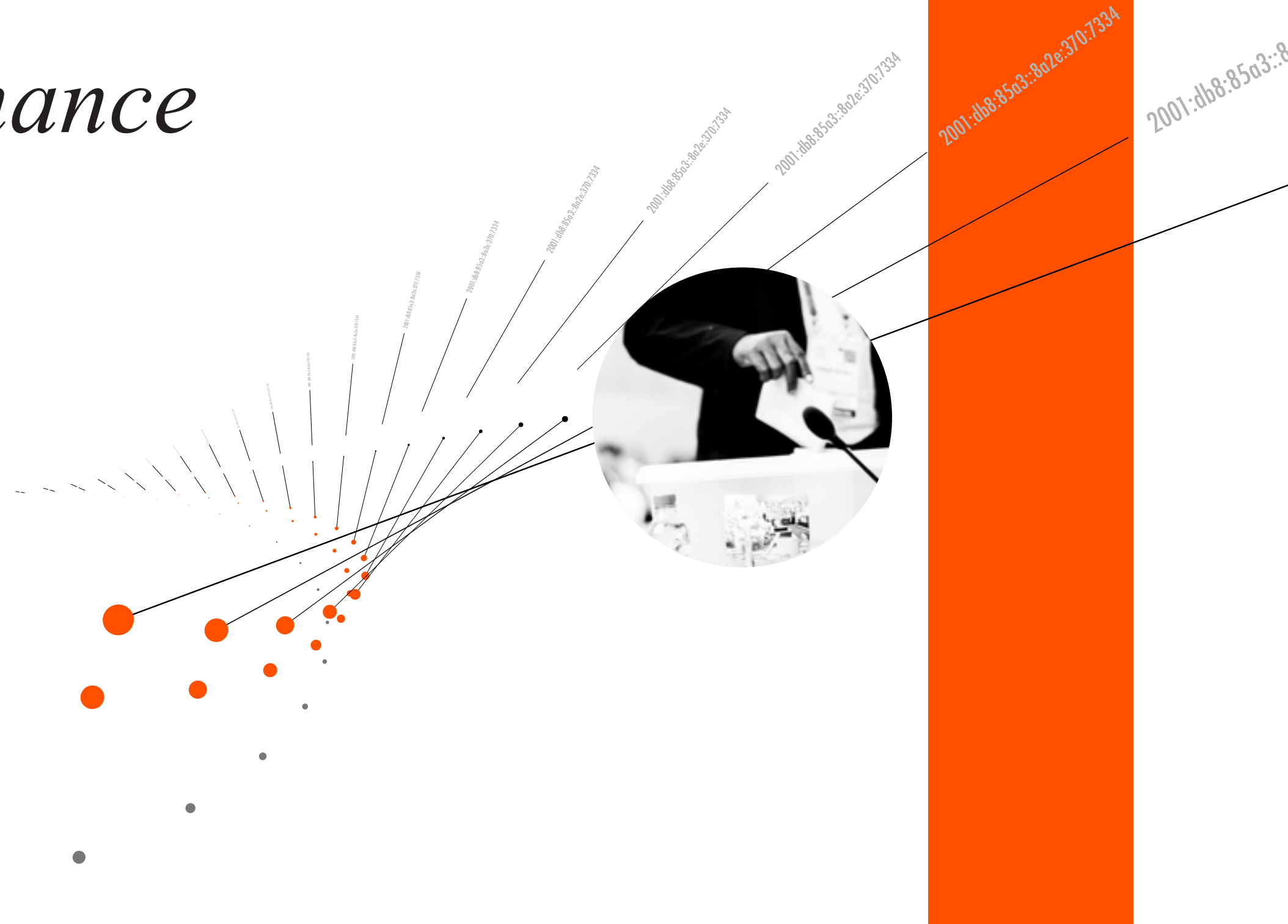AFRINIC Members vote during the 2016 Board Elections at the AIS'16

# ORGANISATIONAL STRUCTURE

AFRINIC's staff perform the administrative and technical functions associated with a Regional Internet Registry (RIR). At year-end 2016, AFRINIC had **46** staff in employment.

Members

Board of Directors (Elected)

Executive Assistant — Chief Executive Officer — Senior Support Team

Chief Operations Officer

| Director Human resources & Administration | Director, Finance & Accounting | | | | | |
| HR | Chief Accountant | | | | | |
| Admin Manager | Billing Accountant | Head of Communications & PR | Head of Member Services | Head of IT & Engineering | Head of Capcity Building & Community Engagement | Head of Research and Innovation |
| Front Desk | Travel Coordinator | Marketing, PR and Events | Registration Services | Service Desk | Trainers | Research & Development Engineer |
| | | Cooperation & Development | Policy Liason | Infrastructure | Training Coordinator | Research & Development Support Engineer |
| | | Public Affairs & Community Engagement | Customer Services | Applications | IPv6 Programme | |
| | | Technical Writing and Publishing | | Risk & Security | | |
| | | | | Content Management & Webmaster | | |

# Corporate Governance

AFRINIC's activities are overseen by a Board of Directors (BoD) and managed by an appointed Chief Executive Officer, who oversees the staff and daily operations. The BoD is supported by the Council of Elders, which performs an advisory function. AFRINIC is governed by a set of Bylaws developed and approved by the community.

2001:db8:85a3:8a2e:370:7334

2001:db8:85a3:8a2e:370:7334

2001:db8:85a3:8a2e:370:7334

2001:db8:85a3::8

AFRINIC is governed by a set of Bylaws that are developed and adopted by the AFRINIC membership. The Board of Directors (BoD) is elected by AFRINIC members on a regional and non-regional representation basis as defined by Article 13 of the Bylaws. Once appointed to the BoD, each director represents and works for the entire region and not just for the sub-region seat they were elected into. The BoD responsibilities as outlined in Article 15 of the Bylaws are to:

- Determine the guidelines for the allocation of address space for Members.

- Consider broad Internet policy issues in order to ensure that the policies and strategies of the company fully respond to the changing Internet environment.

- Determine a financial budget for the activities of the Company for a given period.

- Establish a ceiling for expenditures for a given period and from time to time to vary such ceiling as they deem fit.

- Fill any casual vacancy in the office of the auditor of the Company.

- Provide any general directives to the Chief Executive Officer regarding the staffing of the Company.

- Determine the conditions of employment of the employees of the Company who are employed at an Executive level

- Reduce or waive fees payable by any person to the Company, or to amend in any manner whatsoever the conditions relating to the payment thereof

- Appoint or remove the secretary of the Company and to determine the remuneration payable to such secretary; and

- Appoint such committees for such reasons and with such terms of reference as they shall consider necessary or desirable.

### Changes to Bylaws in 2016

AFRINIC conducted an accountability assessment early in 2016. Some areas for improvement in the Bylaws were identified. Appropriate changes to the Bylaws were drafted by AFRINIC's Legal Adviser in consultation with the CEO, which were then proposed to AFRINIC membership and community for comment in June. A Special General Members' Meeting (SGMM - see page 21) was held during the AFRINIC-25 Meeting on 30 November 2016 in Mauritius. During this meeting, the AFRINIC Membership voted on whether to accept or reject proposed changes to the Bylaws through Special Resolutions. The 2013 Bylaws were then amended accordingly.

The updated 2016 Bylaws, as well as previous sets of Bylaws, are available at:
www.afrinic.net/en/about/bylaws
Details of the Special Resolutions that passed are available at:
www.afrinic.net/fr/library/news/1957-results-of-voting-on-special-resolutions

## Compliance Statement

In accordance with its mission statement, AFRINIC is committed to applying the principles of good corporate governance in its day-to-day operations.

Board members as of December 31, 2016. From left: Andrew Alston, Haitham El Nakhal, Christian Bope, Seun Ojedeji, Bhojendranath Radhakissoon (Legal Advisor* AFRINIC), Alan Barrett (CEO AFRINIC), Abibu Ntagihiye, Krishna Seeburn, Lucky Masilela, Sunday Folayan.
*AFRINIC's Legal Adviser, Mr Bhojendranath Radhakissoon, attends all Board Meetings for the purpose of advising the Board on legal matters as they arise.

## Board Composition: January 2016 to December 2016

| Name | Region | Role | Term |
|---|---|---|---|
| Haitham El Nakhal* | Seat 1: Northern Africa | Vice Chair | 1 July 2016 - 30 June 2019 |
| Sunday Folayan* | Seat 2:  Western Africa | Chair | 1 July 2016 - 30 June 2019 |
| Krishna Seeburn | Seat 3: Indian Ocean | Board Member | 1 July 2014 - 30 June 2017 |
| Christian Bope | Seat 4: Central Africa | Board Member | 1 July 2014 - 30 June 2017 |
| Lucky Masilela | Seat 5: Southern Africa | Board Member | 1 July 2015 - 30 June 2018 |
| Abibu Ntagihiye | Seat 6: Eastern Africa | Board Member | 1 July 2015 - 30 June 2018 |
| Seun Ojedeji* | Seat 7: Non-Geographical | Board Member | 1 July 2016 - 30 June 2019 |
| Aminata A. Garba* | Seat 7: Non-Geographical | Board Member | 1 July 2013 - 30 June 2016 |
| Andrew Alston | Seat 8: Non-Geographical | Board Member | 1 July 2014 - 30 June 2017 |
| Mr Alan Barrett | N/A | Appointed CEO | N/A |

### *Elections*

Sunday Folayan, Haitham El Nakhal and Aminata A Garba stood as candidates for re-election during the AGMM in 2016 during the AFRINIC-24 Meeting in Botswana, held from 29 May 2017 to 10 June 2017. Sunday Folayan and Haitham El Nakhal were each re-elected for another three-year term for their respective regions. Aminata A. Garba was not re-elected and was replaced by Seun Ojedeji, who was elected into Seat 7, Non-Geographical.

## Conflicts of Interest

All members of the Board of Directors are expected to be enlightened individuals from the region served by AFRINIC, who, by their wisdom and knowledge of Internet Technology and business, endeavour to advance the interests of the community and Internet Infrastructure in the region. A Board Director should bring to the knowledge of the Board any degree of conflict that may arise in the course of his or her functions and must resolve such conflict according to their own judgment, always acting in the best interest of the organisation. Each individual Director is encouraged to declare any possible conflict at the beginning of their term on the Board of Directors. The Director is encouraged to give details of the nature and extent of the conflict of interest, and how its nature relates to the decision making capacity of the Board of Directors, in writing, to the CEO. The CEO shall inform the Chairman of the Board, and an appropriate decision will be taken as per majority decision of the Board.

Committees are set up by the Board and assist the Board of Directors in the course of its work as per Article 15.3 of the Bylaws. The committees are re-formed as and when a new Board is elected and are also constituted with a defined lifetime. Each committee has Terms of Reference (ToR) that describe its role, membership and any delegated power or authority. Ad-hoc committees are created as and when necessary to support short-term projects or activities. The following Committees were active in 2016:

## The Audit Committee

The Audit committee assists the BoD in discharging its oversight responsibilities, and oversees the financial reporting process to ensure the balance, transparency and integrity of published financial information. The Audit Committee also reviews the effectiveness of AFRINIC's internal financial control and risk management system, internal auditing and control, informational systems and IT governance.

| Committee January - June 2016 | Committee July - December 2016 |
|---|---|
| • Andrew Alston | • Andrew Alston |
| • Christian Bope | • Abibu Ntahigiye |
| • Lucky Masilela | • Seun Ojedeji |

## Finance Committee

The Finance Committee monitors AFRINIC's significant financial planning, management and reporting matters. It also ensures the fiscal stability and long-term economic health of the company, as well as making recommendations and delivering reports to the BoD.

| Committee January - June 2016 | Committee July - December 2016 |
|---|---|
| • Hytham El Nakhal | • Christian Bope |
| • Kris Seeburn | • Hytham El Nakhal |
| • Alan Barrett | • Kris Seeburn |
| | • Alan Barrett |

## Remuneration Committee

This committee is responsible for recommendations in regard to determining, agreeing and developing the organisation's general policy on executive and senior management remuneration and performance related elements, including short-term bonuses and long-term incentives.

| Committee January - June 2016 | Committee July - December 2016 |
|---|---|
| • Sunday Folayan | • Sunday Folayan |
| • Aminata A Garba | • Lucky Masilela |
| • Alan Barrett | • Alan Barrett |

## Ad-Hoc Board Committees

### Review of MoUs Committee

- Andrew Alston

- Christian Bope

- Alan Barrett

### Company Secretary Review Committee

- Kris Seeburn

- Alan Barrett

### COO Recruitment Committee

- Sunday Folayan

- Lucky Masilela

- Seun Ojedeji

- Alan Barrett

### Associate Membership Criteria Committee

- Abibu Ntahigiye

- Alan Barrett

- Haitham El-Nakhal

### Nomination Committee

According to Section 9 of the AFRINIC Bylaws, a Nomination Committee is appointed by the Board and works to ensure that appropriate candidates are nominated for open Board seats and that all elections are conducted according to current procedures. The four members of this committee are appointed by the Board, one from within the Board and three others selected from respondents to the community call for volunteers.

#### NomCom 2016

- Mark Elkins (community volunteer)

- Janvier Ngnoulaye (community volunteer)

- Douglas Onyango (community volunteer)

- Kris Seeburn (Board representative)

## 2016 Board Retreat

A Board Retreat was held in Mauritius from 6 - 8 July 2016.  In addition, an induction programme and office visit were organised in July for the newly elected Director Seun Ojedeji.
During this retreat, the Board re-elected Mr Sunday Folayan as Chairman and Mr Haitham-El-Nakhal as the Vice-Chairman for a one-year term till July 2017. The Board also reviewed the Strategic Plan 2014 - 2018 Plan, brainstormed and produced the Strategic Document for the period 2016 - 2020.

## Board Meetings

The AFRINIC Board meets regularly. A Calendar of Board meeting for the upcoming year is approved at the end of each preceding year. The Board met 12 times during 2016. The following table shows Board member attendance throughout the year:

## 2016 Board Resolutions

During 2016, 59 resolutions were discussed and resolved. A detailed overview of these resolutions can be found at http://www.afrinic.net/fr/about/bod/meeting/2016

| Region | Board Member | 27 Jan | 24 Feb | 13 April | 11 May | 5 June | 6 July | 8 July | 10 Aug | 12 Oct | 9 Nov | 27 Nov | 21 Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seat 6: Eastern | Abibu Ntagihiye | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Seat 5: Southern | Lucky Masilela | ✓ | ✓ | x | x | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x |
| Seat 2: Western | Sunday Folayan | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓ | x |
| Seat 4: Central | Christian Bope | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓ | ✓ | ✓ |
| Seat 1: Northern | Haitham El-Nakhal | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Seat 3: Indian Ocean | Kris Seeburn | ✓ | ✓ | ✓ | ✓ | ✓ | x | x | ✓ | ✓ | ✓ | ✓ | ✓ |
| Seat 8: Non-Geographical | Andrew Alston | x | ✓ | x | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Seat 7: Non-Geographical | Aminata A Garba * | ✓ | x | ✓ | ✓ | ✓ | Term as Board Director expired and not re-elected. | | | | | | |
| Seat 7: Non-Geographical | Seun Ojedeji ** | Took office in July 2016 | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

* Aminata A. Garba's term expired in June 2016 and she was not re-elected for another term.
** Seun Ojedeji was subsequently elected into the vacant seat, seat 7 for a three-year term as Non-Geographical Representative.

## AFRINIC Governance Committee

During the AGMM 2015, the membership called upon the Board to facilitate a Governance Committee. The AFRINIC Governance Committee was constituted for the first time following a membership election that took place on 30th November 2016 during the AFRINIC-25 meeting. The Governance Committee's role is to advise the AFRINIC Board, AFRINIC Membership, and the community, on matters of governance and consists of two members appointed by the Board, three members elected by AFRINIC Membership, one Board member (non-voting) appointed by the Board as a liaison, AFRINIC's legal adviser (non-voting) and one or more members from the Secretariat (non-voting). Find out more about the Governance Committee, the Governance Committee members and the ToR at :
www.afrinic.net/about/governance-committee

## AGMM and SGMM 2016

The Annual General Members' Meeting (AGMM) is held once a year, usually during an AFRINIC meeting (see page 34). Special General Members' Meetings (SGMM) are convened as necessary. The AGMMs enable the membership to meet with the Board, the Council of Elders and CEO to discuss operational, financial and corporate governance issues. Elections for Board seats and voting on proposed resolutions may also take place during the AGMMs. The AGMM 2016 was held in Gaborone, Botswana, on 9 June 2016. During this meeting, the Audited Financial Report 2015 was adopted by the members and an overview of the accountability assessment and Bylaws changes were presented to members. The Bylaws changes were proposed and voted upon during the SGMM 2016, which took place on 30 November 2016 in Mauritius during the AFRINIC-25 Meeting. One important milestone of the SGMM was the constitution of the AFRINIC Governance Committee and the election of its initial three members.

## Council of Elders

Article 16 of the AFRINIC bylaws enables the Board to appoint up to six former AFRINIC Board Chairs to the AFRINIC Council of Elders. Those who are eligible for membership to the Council of Elders should have served for at least one full term as the Chair of the AFRINIC Bioard. The Council of Elders performs an advisory role.

### *Current Council of Elders:*



Mr Viv Padayatchy



Mr Pierre Dandjinou



Mrs Maimouna Diop



Dr Nii Quaynor

# Membership Overview

AFRINIC members are mostly Internet Service Providers (ISPs), governments, educational institutions and end-users located within its service region (see page 12). At year-end 2016, AFRINIC had **1,441** active members. Most members receive Internet number resources (IPv4, IPv6 and ASNs) from AFRINIC and then distribute them to their customers or use their allocations and assignments within their own networks.

# MEMBERSHIP OVERVIEW
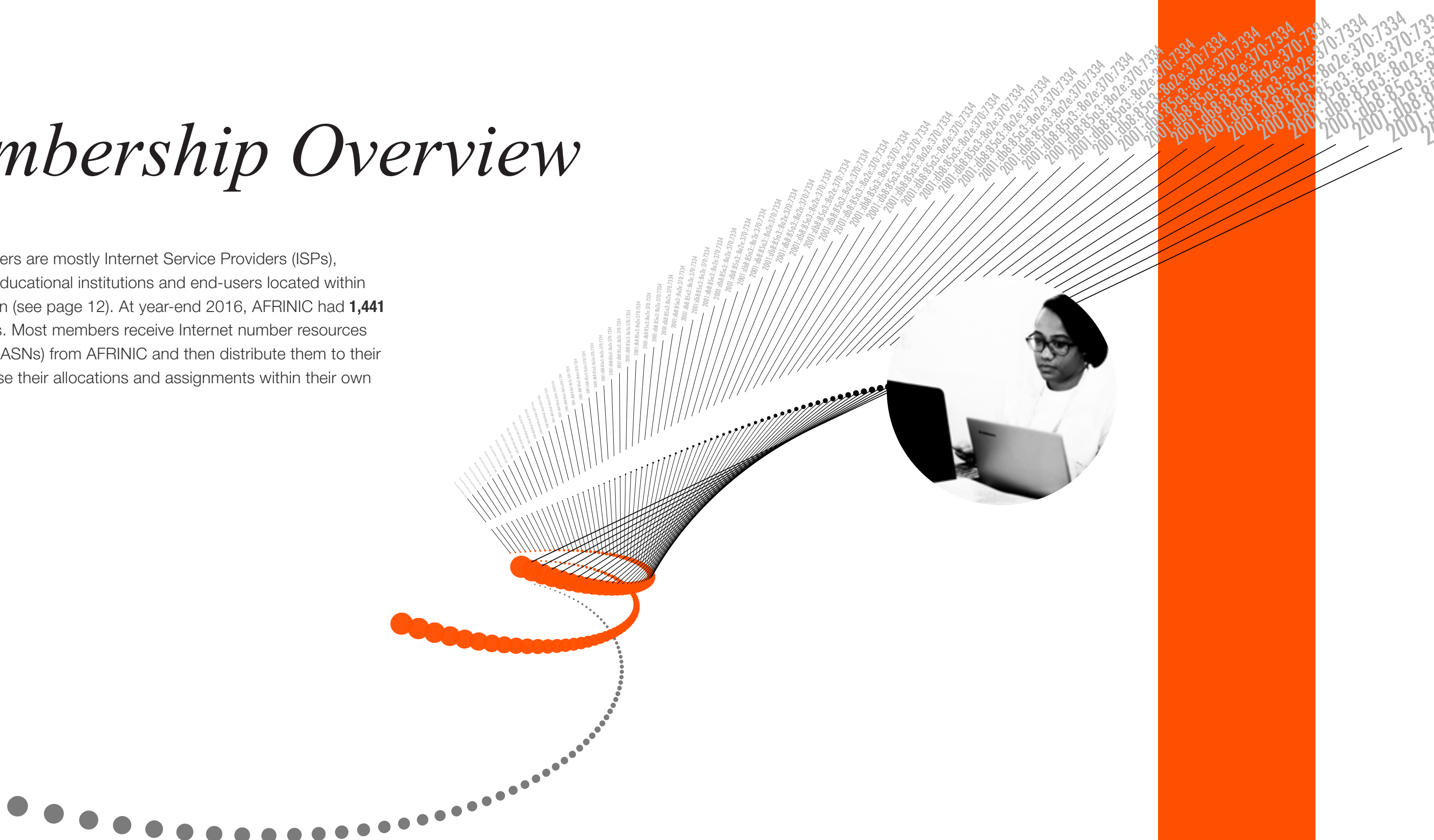
## Members

There are two types of membership available:

- Resource Members: Local Internet Registries (LIRs) or End Users (EUs) Organisations that allocate the Internet number resources they receive to their own customers or those who use the resources in their own infrastructure.

- Associate Members: Organisations or individuals who do not use Internet Number Resources but have a substantial interest in the management of Internet Number resources in Africa.

## Benefits of Membership

- Obtain IPv4 and IPv6 address space and Autonomous System Numbers (ASNs).

- Get reverse DNS and RPKI for their resources,

- Take advantage of priority places on AFRINIC's FREE hands-on IPv6 and Internet Number Resource Management (INRM) Training Courses.

- Use an IPv6 test-bed to test their IPv6 deployments.

- Make user of cost-free transfer of resources to another AFRINIC member.

- Attend the Annual General Members' Meetings (AGMM) either in person or remotely and take part in elections for Board and Governance Committee positions.

- Get preferential access to various AFRINIC initiatives and activities.
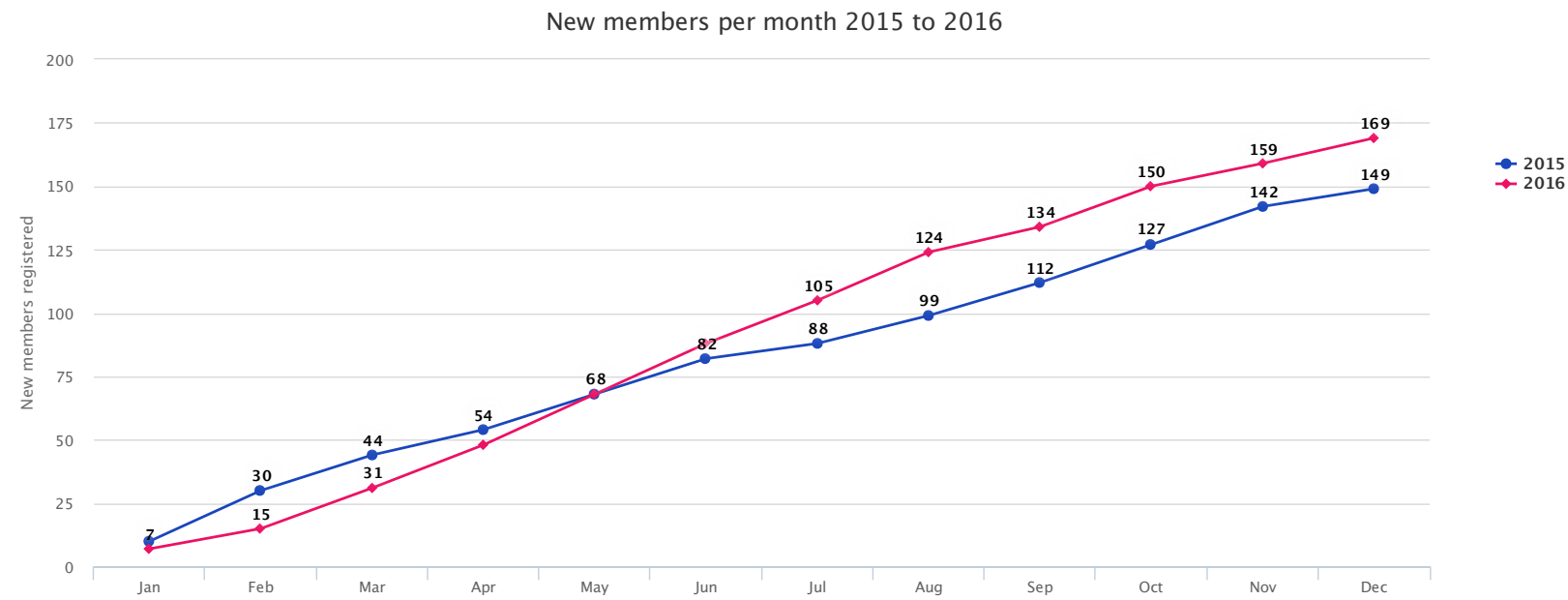
Find out more how you can become a member at:
www.afrinic.net/en/services/rs.
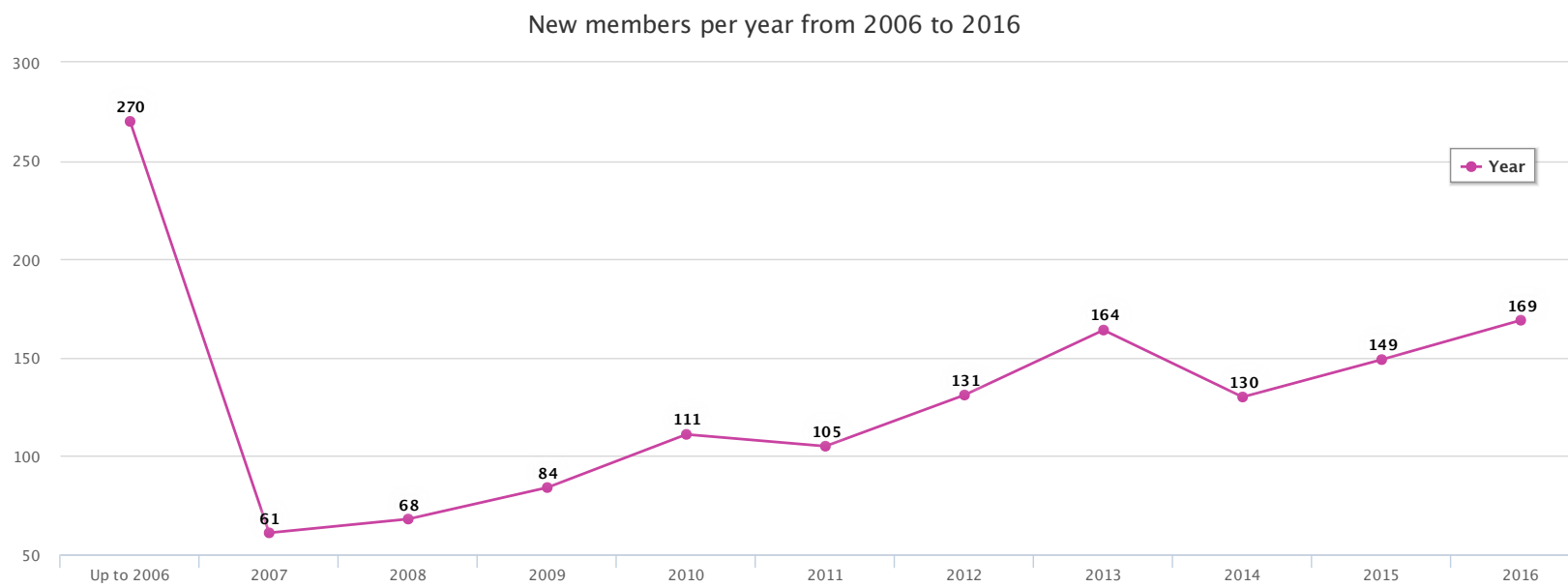
## Fees

Yearly membership fees are calculated based on the amount of Internet number resources an organisation may request per year.

## New Members per Month 2015 - 2016

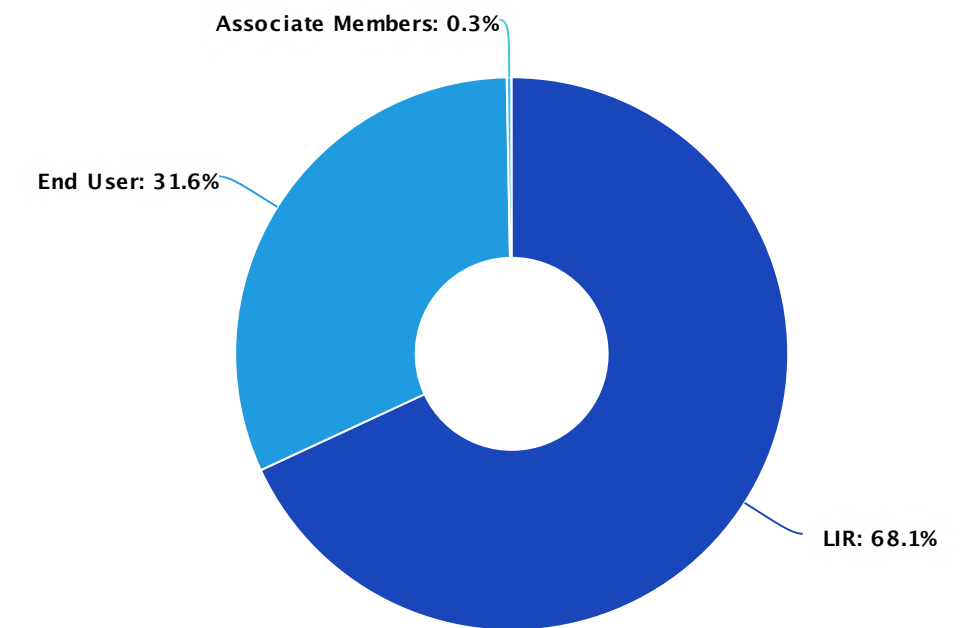New members per month 2015 to 2016
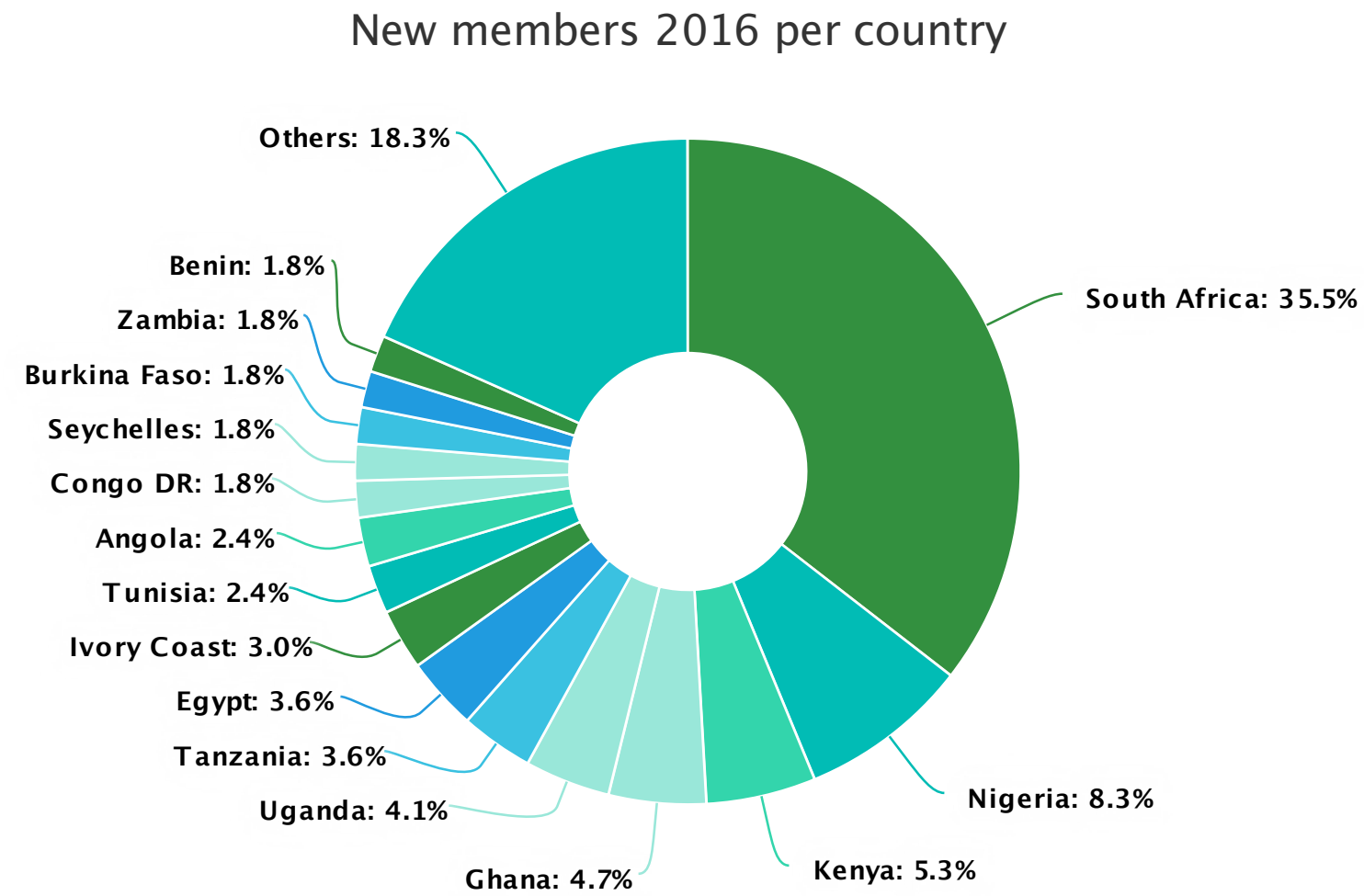


## New Members per Year 2005 - 2016

New members per year from 2006 to 2016



## New Members 2016 by Membership Category

Total members per membership category



Associate Members: 0.3%

End User: 31.6%

LIR: 68.1%

**New Members 2016 per Country**

**Total Members per Membership Category**

### New members 2016 per country



- Others: 18.3%
- Benin: 1.8%
- Zambia: 1.8%
- Burkina Faso: 1.8%
- Seychelles: 1.8%
- Congo DR: 1.8%
- Angola: 2.4%
- Tunisia: 2.4%
- Ivory Coast: 3.0%
- Egypt: 3.6%
- Tanzania: 3.6%
- Uganda: 4.1%
- Ghana: 4.7%
- Kenya: 5.3%
- Nigeria: 8.3%
- South Africa: 35.5%

### Total members per membership category



- Associate Members: 0.3%
- End User: 31.6%
- LIR: 68.1%
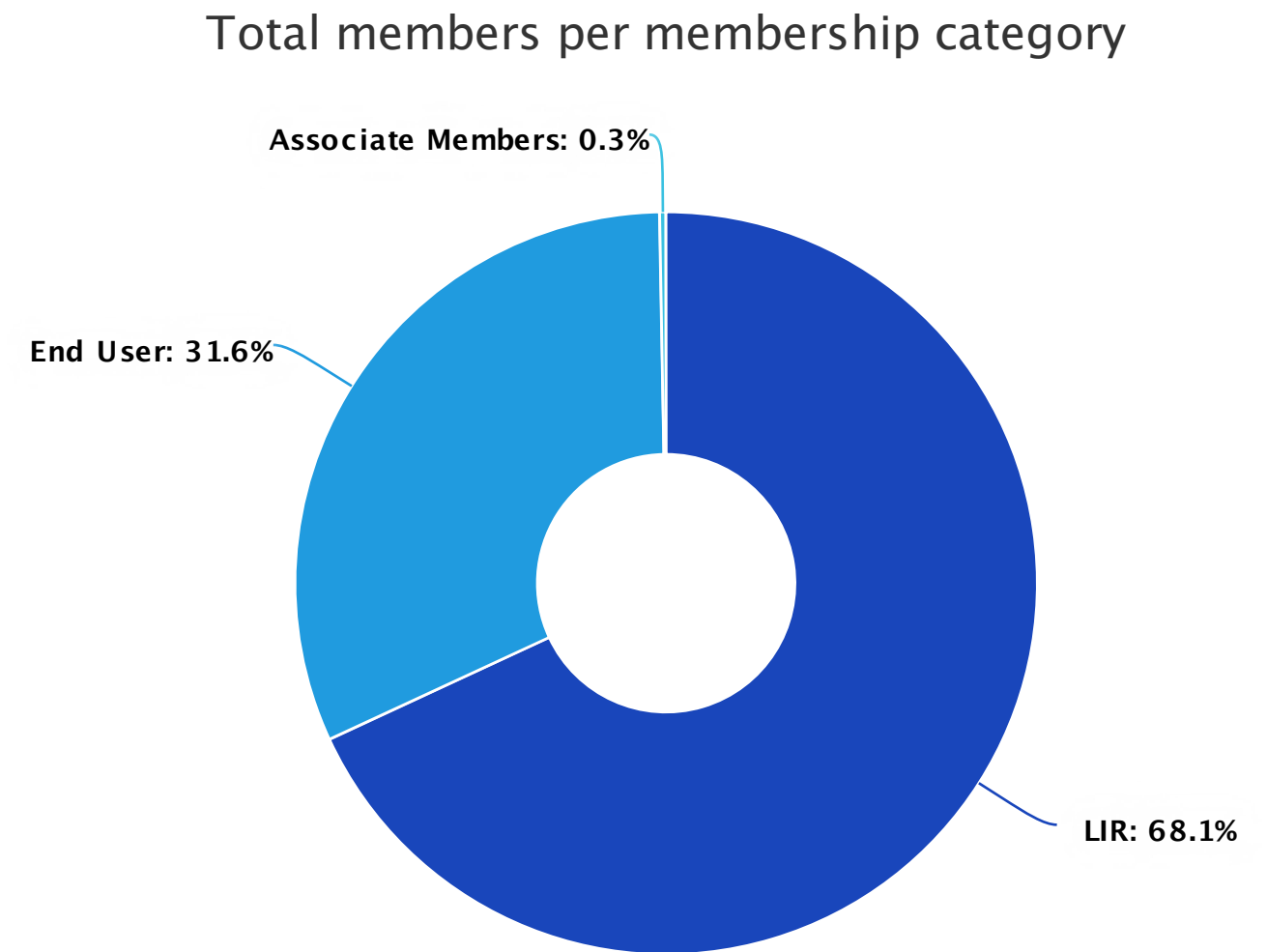
## Member Services (MS)

Aside from their core duties, the MS team's objectives in 2016 were to improve customer satisfaction and quality management as well as increasing outreach activities. The team was also instrumental in the implementation of several key AFRINIC projects throughout the year, including the deployment of WHOIS v2, New Member Registration Portal (NMRP) enhancement, procedure updating, services documentation, policy implementation, Internet Routing Registry (IRR) maintenance, member contacts updates and billing automation.



Head of Member Services, Arthur Nguessan, assists an AFRINIC Member during the AIS'16

### *Requests, Queries and Tickets*

Over 22,000 tickets were dealt with by the team in 2016. MS strives to comply with the AFRINIC Service Level Commitment (SLC) by responding to at least 95% of tickets logged within 48 working hours. Throughout the year, the team was also testing an auto-monitoring device that, when implemented, will improve ticket response times.

Real-time ticket statistics can be found at:
http://www.afrinic.net/en/services/statistics/rt-stats

### *Outreach*

Throughout the year, MS scaled up its targeted member outreach by attending events, meetings and Network Operators' Groups (NOGs) throughout the service region to talk directly with local members and recruit new members. Staff members attended WACREN, AfPIF, SAFNOG, SdNOG, NigeriaCom2016, ICTAM, iWeeek16, EastAfricaCom 2016, AFRINIC IPv6 Training Courses in Egypt and Morocco, FutureSat16 and AfricaCom16. Feedback from members has so far been good and the team will continue outreach efforts throughout 2017.



Radha Ramphul, Customer Service Manager, gives an overview of AFRINIC's services and membership requirements during the Newcomers' session at AIS'16.

### *Survey*

As part of AFRINIC's ongoing efforts to improve the quality of service delivered to members, service requestors are asked to complete a short survey once their ticket has been resolved or closed. The survey was implemented in July 2016 and responses showed that, in the latter half of the year, 86% of members who responded were satisfied with the service delivered but only 39% of non-members were satisfied. The team will be working on ways to improve service levels to non-members throughout 2017.

# IPv4, IPv6 and ASNs

AFRINIC's core function is to assign and allocate Internet number resources (IPv4, IPv6 and ASNs) to its members and to provide related services.

In 2016 a total of **11,780,096** IPv4 addresses were allocated to AFRINIC members, a decrease of **30.2%** compared to 2015, when **16,883,712** IPv4 addresses were allocated. At year-end 2016, a total of **94,932,142** IPv4 addresses (an equivalent of approximately **5.66** /8s) had been allocated to AFRINIC's members since 2004.
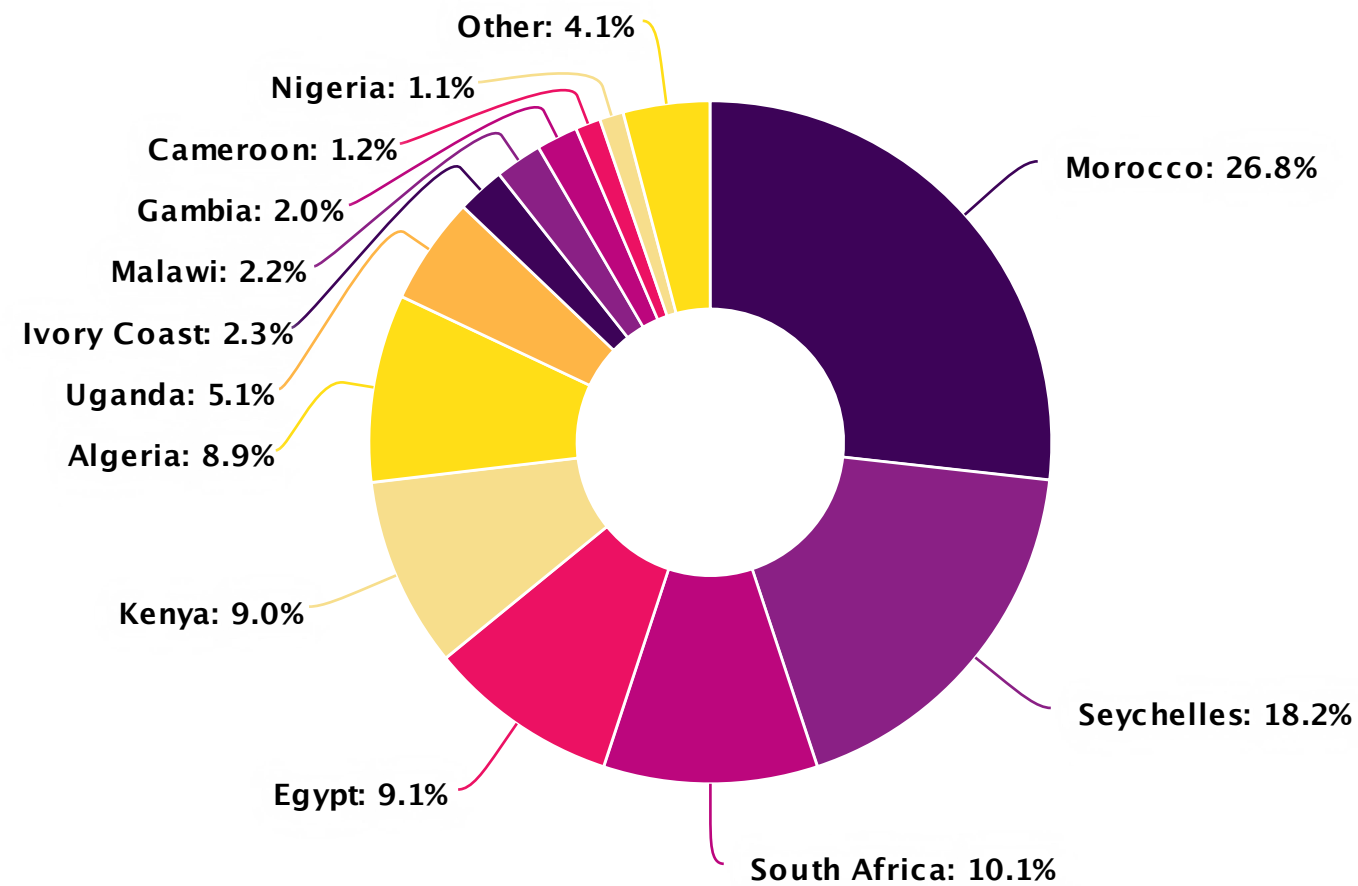
## *Five Year Overview*

|  | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** |
|---|---|---|---|---|---|---|
| **New Resources Members** | 120 | 141 | 168 | 134 | 149 | 168 |
| **IPv4 Addresses Allocated /32** | 9,160,704 | 7,943,680 | 6,881,280 | 13,137,664 | 16,883,712 | 11,780,096 |
| **IPv4 Addresses Allocated /8** | 0.55 | 0.47 | 0.41 | 0.78 | 1.01 | 0.70 |
| **IPv6 /48 prefixes allocated** | 10,092,839 | 275,447,865 | 4,390,912 | 3,276,817 | 315,359,232 | 6,881,575 |
| **IPv6 /32 Prefixes Allocated** | 154 | 4203 | 67 | 50 | 4812 | 105 |
| **ASNs assigned** | 132 | 147 | 170 | 141 | 159 | 169 |

## *Total IPv4 Addresses Allocated in the AFRINIC Service Region 2005 - 2016*
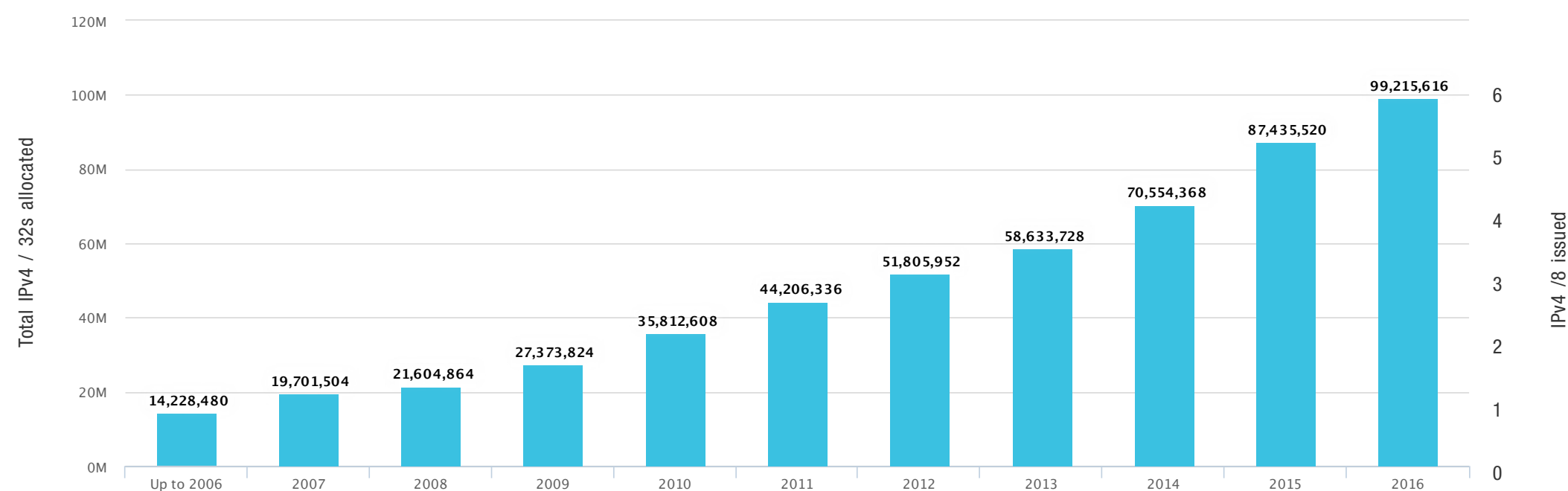
## Distribution of IPv4 Addresses in 2016 Per Country

### IPv4 allocations per country in 2016



- Other: 4.1%
- Nigeria: 1.1%
- Cameroon: 1.2%
- Gambia: 2.0%
- Malawi: 2.2%
- Ivory Coast: 2.3%
- Uganda: 5.1%
- Algeria: 8.9%
- Kenya: 9.0%
- Egypt: 9.1%
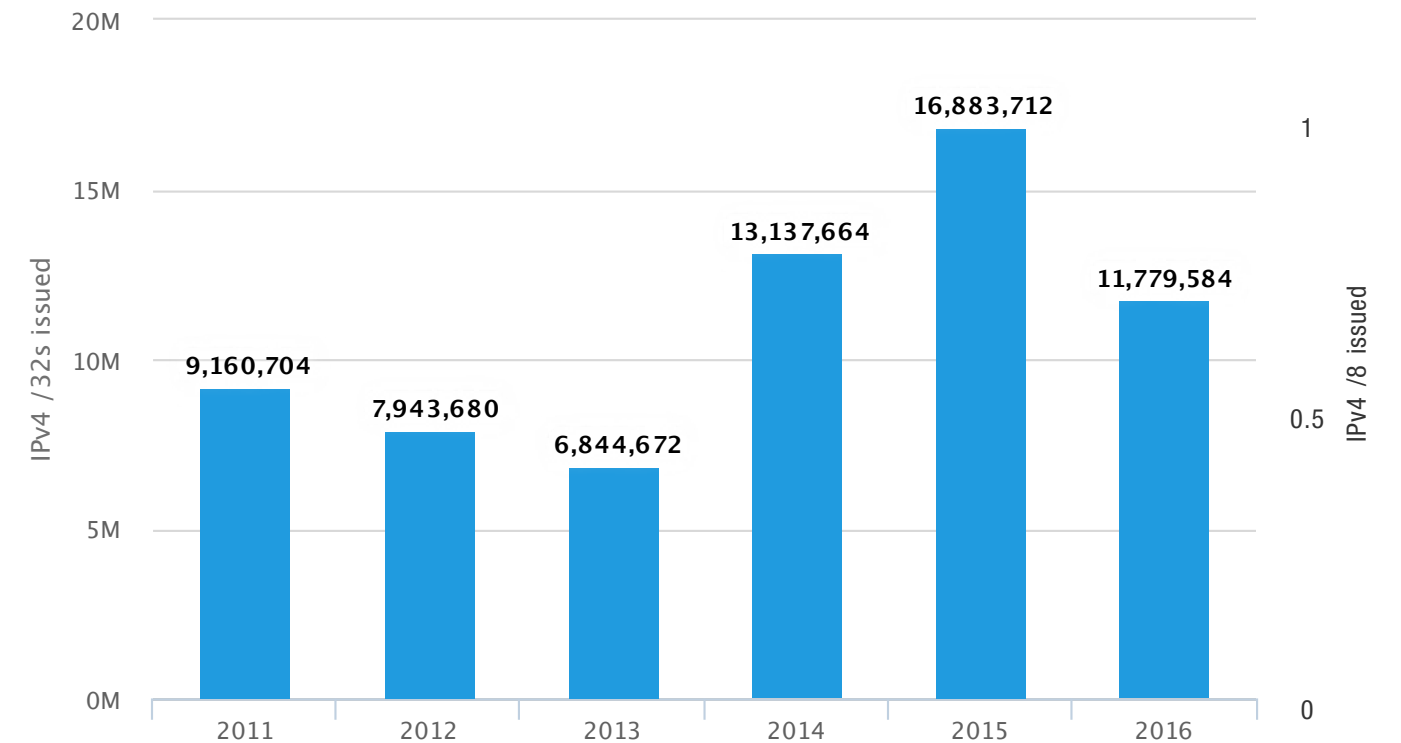- South Africa: 10.1%
- Seychelles: 18.2%
- Morocco: 26.8%

In 2016, Morocco was allocated the most IPv4 space, receiving **27%** of the total amount of IPv4 space allocated by AFRINIC in 2016. This was followed by the Seychelles (18%) and South Africa (10%).

## IPv4 Exhaustion

In February 2011, the IANA allocated two large blocks of IPv4 address space to APNIC, causing the global IPv4 pool to deplete to a critically low level. This triggered a previously agreed upon global policy, "Global Policy for the Allocation of the Remaining IPv4 Address Space". Each RIR then received one /8 of IPv4 address space each, which is around 16.8 million IPv4 addresses, depleting IANA's pool of available IPv4 address space. Since September 2015, AFRINIC has been the only one of the world's five RIRs with an available pool of IPv4 space to assign to its members according to the current community policies. AFRINIC has been working for the past several years to spread the message that the time to deploy IPv6 is now (see page 30).

Find out more about IPv4 Exhaustion at www.afrinic.net/en/community/ipv4-exhaustion

### Total IPv4 Addresses Allocated



- 2011: 9,160,704
- 2012: 7,943,680
- 2013: 6,844,672
- 2014: 13,137,664
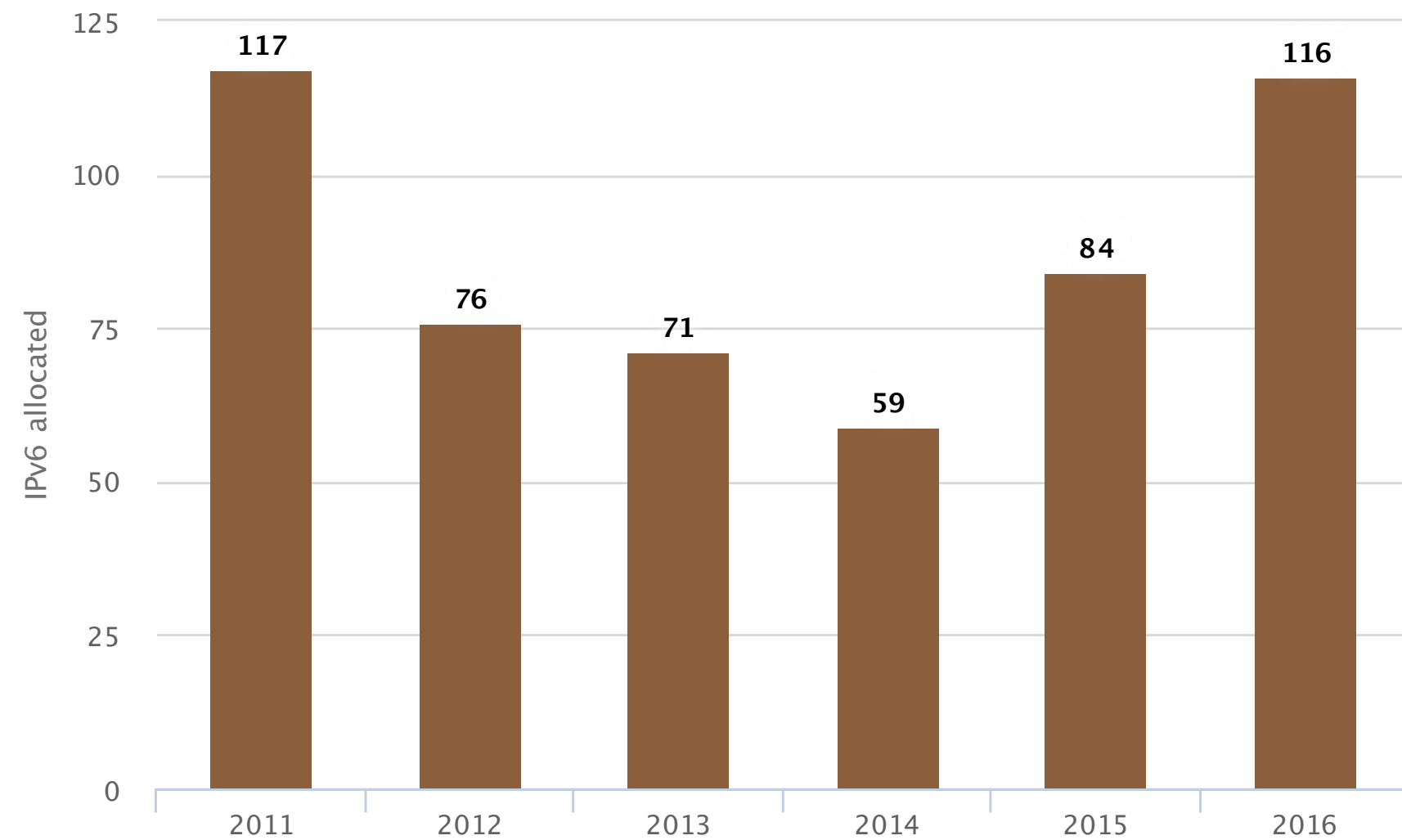- 2015: 16,883,712
- 2016: 11,779,584

## IPv6 Penetration in Africa

This is an increase of **25.8%** compared to 2015 where **116** IPv6 allocations were made in 2016. **50** out of the **56** economies in the AFRINIC Service Region (**89.2**%) have at least one ISP or end-user with an IPv6 prefix. However, only **18.7**% of networks (ASes) announce an IPv6 prefix in the AFRINIC region. As we cannot predict how long AFRINIC's supply of IPv4 address space will last (see page 29 ), it is imperative that AFRINIC members not only obtain an IPv6 allocation but also start to deploying IPv6 on their networks as soon as possible. AFRINIC offers **free** IPv6 Fundamentals and Deployment Workshops across the continent for members and non-members and encourages all those eligible to attend.

Find out more about networks announcing IPv6 at: http://v6asns.ripe.net/v/6

### Number of IPv6 allocations per year ( 2011 - 2016 )

IPv6 allocated

| Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------|------|------|------|------|------|------|
| IPv6 allocated | 117 | 76 | 71 | 59 | 84 | 116 |

## IPv6 Allocation per Country in 2016
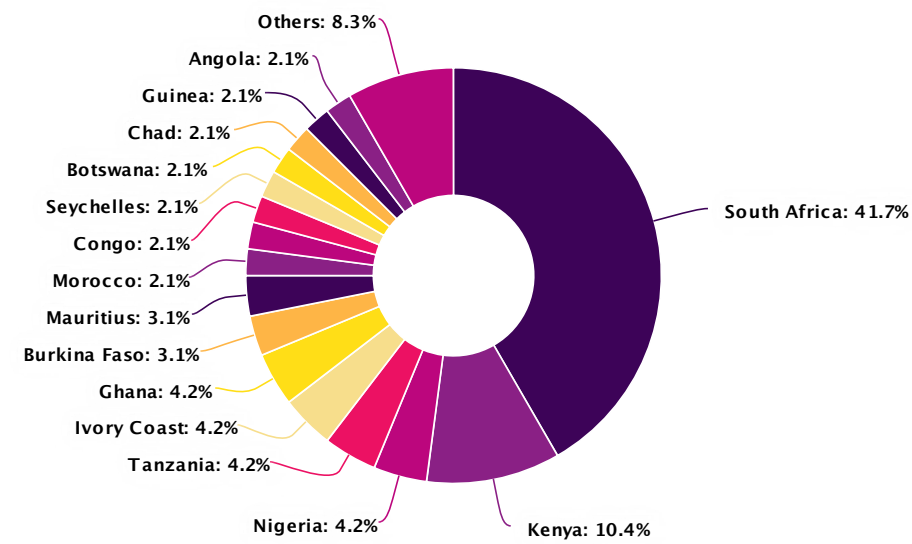


South Africa received the most IPv6 allocations in 2016, and was allocated **41.7%** of the year's total allocations, followed by Kenya (**10.4%**) and Nigeria (**4.2%**).
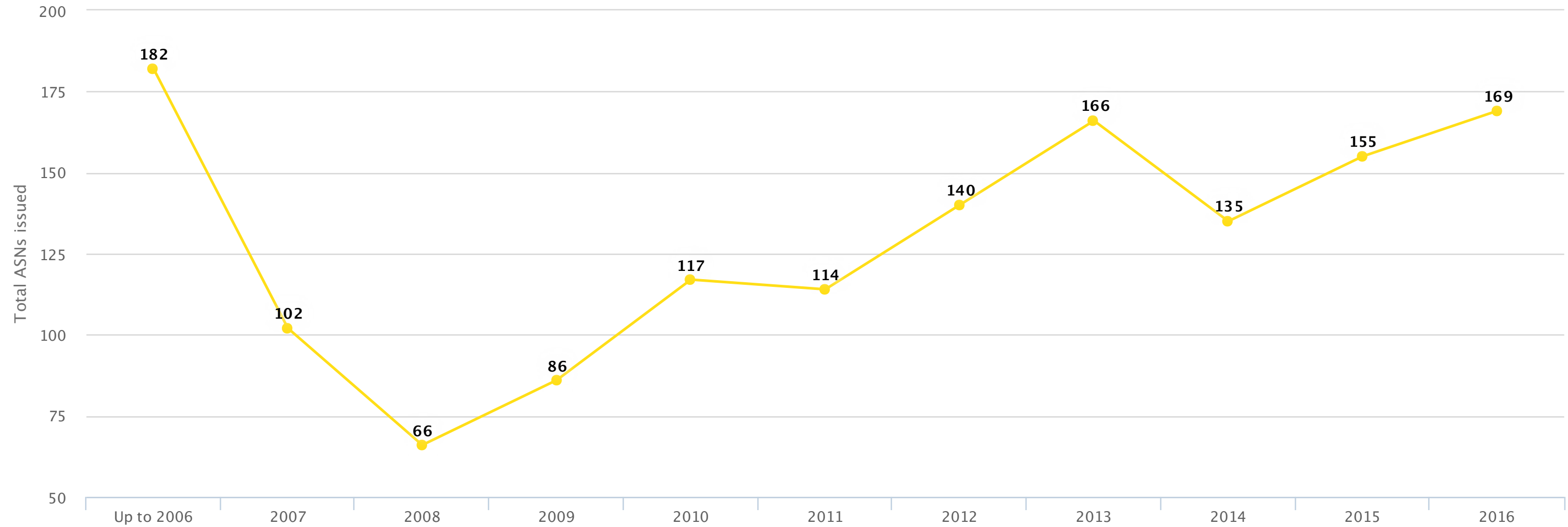
## IPv6 addresses allocated ( 2011 - 2016 )
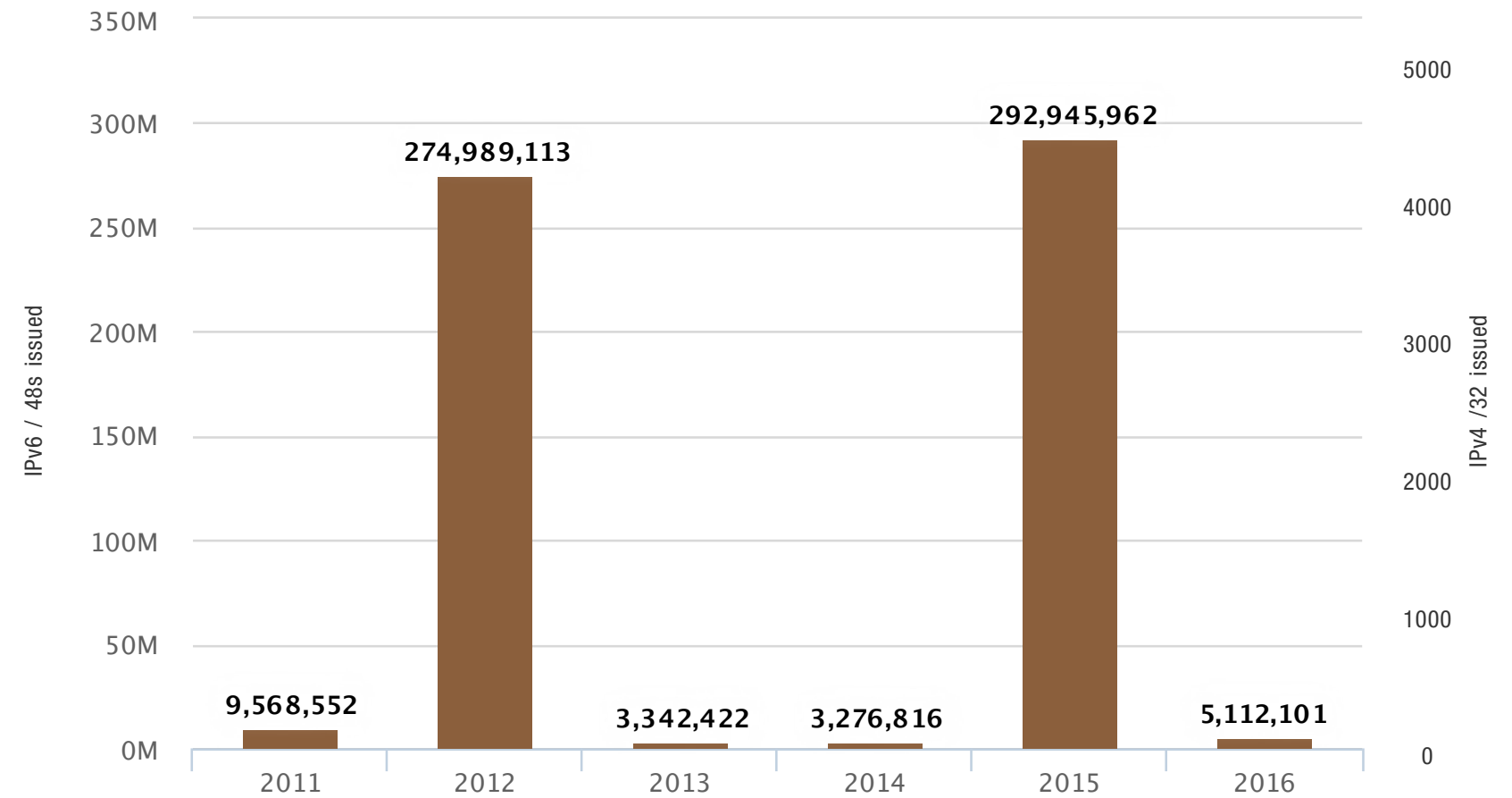
## AS Numbers

**169** Autonomous System Numbers (ASNs) were assigned in 2016 compared to **155** in 2015. **17** of the ASNs assigned in 2016 were 16-bit.

### Total ASNs Assigned per Year

# Community & Policy Development

AFRINIC aims to inform, educate and disseminate information about Internet number resource management and policy development, Internet technologies, Internet governance, and e-development to the local and global Internet community. As well as workshops, panel sessions, developmental conferences and business events, AFRINIC supports, facilitates and organises several events throughout the region, including the AFRINIC public policy meetings. As part of its secretariat role, AFRINIC facilitates the Policy Development Process for the AFRINIC community. AFRINIC also seeks to represent the interests of the African and Indian Ocean nations Internet technical community at global industry events to ensure that the unique needs of the region are taken into account. AFRINIC also engages frequently with local, regional and global media, issuing press releases, scheduling interview sessions with key staff and community members and placing articles in strategic publications throughout the region and beyond.

## AFRINIC Meetings

AFRINIC holds two open public policy meetings every year in various locations throughout its service region.The meetings provide a unique opportunity for local, regional and global Internet-related individuals and organisations to gather to discuss and develop the policies governing Internet number resource distribution in the African region and beyond (see page 37), to share technical knowledge and best practices, and to attend relevant courses, workshops and tutorials.

## Africa Internet Summit 2016 (AIS'16) and AFRINIC-24

The Africa Internet Summit (AIS) is an annual, regional, multi-stakeholder ICT conference co-organised by AFRINIC and the African Network Operators' Group (AfNOG). It is the pinnacle educational and business ICT event in Africa enabling key players in the Internet industry to come together to interact with the global Internet community. The AIS'16 and the AFRINIC-24 Meeting took place from from 29 May - 10 June in Gaborone, Botswana. 365 people attended.

## AFRINIC-25

AFRINIC-25 was held in Mauritius from 25 - 30 November 2016. Over 240 people attended. The meeting report can be found at www.afrinic.net/blog/179-afrinic-25-wrap-up

The AFRINIC Fellowship Programme enables individuals from African countries who have an interest in Internet operations and governance to participate in AFRINIC Meetings. The fellowship provides financial assistance to the selected applicants who fulfil the eligibility criteria and who are subsequently selected by the Fellowship Committee. In 2016,  18 people were assisted with meeting attendance.

Find out more about the Fellowship Programme at :
www.afrinic.net/services/279-afrinic-fellowship-program



AFRINIC-25 Fellows

| AFRINIC-24 Fellows | |
|---|---|
| Enock Sthembiso Xhakaza | South Africa |
| Arbogast Ishemo Fabian | Tanzania |
| Akal, Tigabu Dagne | Ethiopia |
| Folly Ekue Farell | Benin |
| Goma Serge-Parfait | Congo-Brazzaville |
| Abakar Kerima Saleh | Chad |
| Alkhansa Abdalla | Sudan |
| Anissa Bhar, | Tunisia |

| AFRINIC-25 Fellows | |
|---|---|
| Mandimbiarisoa Antsa Fanomezana | Madagascar |
| Jacob Kwaku Baiden Odame | Ghana |
| Omagor John Michael Sozi | Uganda |
| Boitumelo Brett Tau | Botswana |
| Reham Zein Elabdeen Kordy Aly Elgebaly | Egypt |
| Tungali Baguma Arsene | Congo (Kinshasa) |
| Ouedraogo Abdrahamane | Burkina Faso |
| Tjiho Josaphat | Namibia |
| Sibiro Philippe Junior | Central African Republic |
| Natukunda Priscilla | Rwanda |

## Keeping the Community Informed

### AFRINIC Blog

In October 2015, AFRINIC launched the AFRINIC Blog to share interesting articles, news, research and statistics that are relevant to the community as well as to facilitate community discussion on Internet related topics in Africa and beyond. Throughout 2016, 63 blog posts were published, invited guest bloggers to write about their expertise and encouraged discussion.

### Mailing Lists

AFRINIC facilitates several mailing lists. The Community Discussion Mailing List was launched in 2015. Throughout 2016, the mailing list further aided online discussion between the AFRINIC community on relevant topics. Find out more about AFRINIC's mailing lists, most of which are open to at:
www.afrinic.net/fr/community/email-a-mailing-lists

### Outages and Incidents

AFRINIC ensures that the community is kept up to date on any incidents and outages through its dedicated webpage. The community can also make sure they are informed by following the @AFRINIC_IT twitter feed, which updates the community in real time of any planned or unscheduled maintenance. In 2016 we had only four brief unplanned incidents.

### Social Media

AFRINIC also actively engages in social media to further its information dissemination efforts. In 2016, the Communications Team significantly ramped up its social media activities:

**63**
blog posts published.

---

**4,515**
Facebook Page Likes,
over
**2,740**
more than at the start of 2016.

---

**5,448**
Twitter Followers,
over
**1,400**
more than at the start of 2016.

## Community Elections 2016

### PDWG Co-Chair Elections

The AFRINIC community held elections during the AFRINIC-25 Meeting in June for to elect one Policy Development Working Group (PDWG) co-Chair (see below). Sami Salih, Sudan, was re-elected to serve an additional two year term (expiring June 2018). Due to his recent election to the AFRINIC Board, PDWG co-Chair Seun Ojedeji resigned and the community elected Dewole Ajao, Nigeria, to complete the remainder of Seun's term, which will expire in June 2017.

### ASO-AC / NRO-NC

An election to appoint the AFRINIC region's representative to the ASO-AC / NRO-NC (see page 58) was also held during the AFRINIC-25 election. Omo Oaiya, Nigeria, was elected to serve a three-year term beginning January 2017 to December 2019, replacing Fiona Asonga, whose term is due to the end of 2016.

### IANA Number Services Review Committee

The IANA Numbering Services Review Committee, supports the NRO Executive Council when it conducts periodic reviews of IANA's services. The AFRINIC community selected Fiona Asonga, Kenya (until 31 December 2016) and Douglas Onyango, Uganda (until 31 December 2017), to serve on this committee. See page 58 for more details.

## Policy Development

The policies that govern how AFRINIC manages and distributes Internet number resources in its region are proposed, discussed and accepted or rejected by the AFRINIC community using a consensus-based, transparent, open and inclusive, multi-stakeholder policy development process (the PDP). Policy proposals can be submitted by anyone from anywhere .They are discussed by the community on a mailing list, the resource policy discussion (rpd) mailing list and at the AFRINIC face-to-face meetings, which happen twice a year. A proposal that achieves consensus during a public policy meeting and after the "last call" period has closed is then ratified by the Board, and implemented by AFRINIC staff.

## Consolidated Policy Manual

The Consolidated Policy Manual (CPM) contains all implemented policies that have successfully gone through the PDP and have been ratified by the Board.

## The Policy Development Working Group (PDWG)

The PDWG is made up of anyone that wishes to participate in the Policy Development Process through discussions on the rpd@afrinic.net mailing list or in person/remotely during the the AFRINIC open public policy meetings. Two community elected Policy Development Working Group co-chairs guide discussions, gauge consensus and ensure transparency throughout the discussion while also ensure that the PDP is followed per the agreed process. AFRINIC facilitates the PDP by providing services like mailing list and coordination of the open public policy meetings.

## 2017 PDWG co-Chairs

* Dewole Ajao            * Sami Salih

Dewole Ajao was appointed to serve the remainder of Seun Ojedeji's term (expiring June 2017). Seun resigned from his position as co-Chair due to his election to the AFRINIC Board of Directors

## Policy Highlights 2016

- **4** new policy proposals submitted.
- **1** policy accepted by the community.
- **2** proposals withdrawn by authors.
- **164** new rpd mailing list subscribers (880 total).
- **1126** posts to the rpd mailing list.



Total posts to rpd list



Total subscribers to rpd list

# COMMUNITY & POLICY DEVELOPMENT
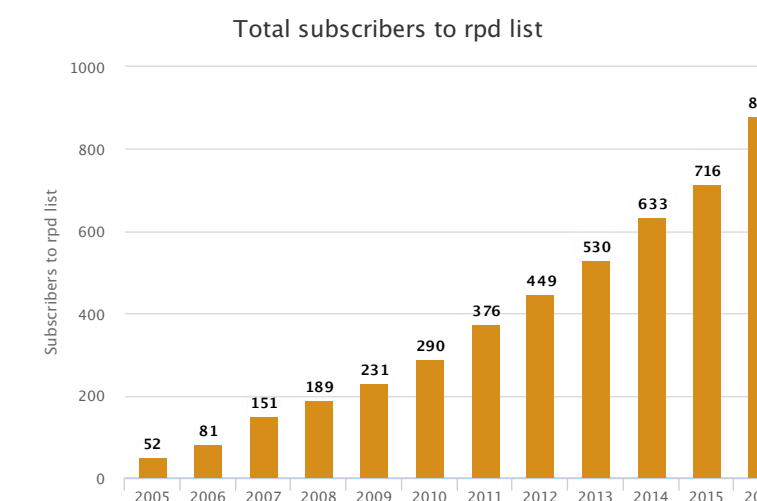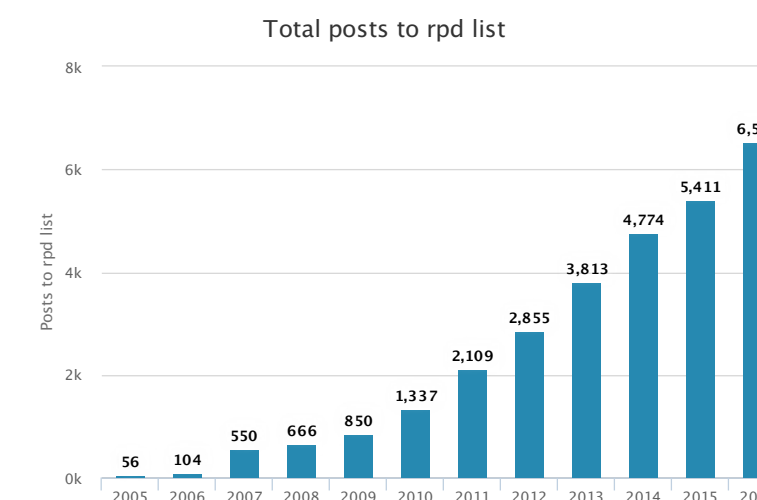
## Policy Development Overview - 2016

Six policy proposals were discussed on the mailing list and during the two public policy meetings that took place. An archive of the discussion can be found on the rpd mailing list archives and in the minutes from the public policy sessions that took place during AFRINIC-25 and AFRINIC-24.

## Proposals Accepted by the Community:

**AFPUB-2016-V4-003-DRAFT-03, "IPv4 Resource transfer within the AFRINIC Region"**

The proposals sought to solve the issue of an African organisation needing IPv4 number resources after the exhaustion of the AFRINIC IPv4 pool or when AFRINIC can no longer satisfy the addressing needs of an organisation. This will ease transfers of resources between AFRINIC members, including transfers from Legacy Resource Holders to other member organizations.
Status: Last Call, awaiting ratification from the AFRINIC Board.

## Proposals Under Discussion at Year End:

**AFPUB-2016-V4-001-DRAFT-04: "IPv4 Soft Landing-BIS"**

This proposal describes how AFRINIC shall manage allocations/assignments from the last /8 of IPv4 address space received from the IANA.

**AFPUB-20176-GEN-001-DRAFT-04: "Internet Number Resources review by AFRINIC"**

This proposal suggests that, in order to ensure efficient and appropriate use of Internet number resources, AFRINIC shall conduct regular reviews of resource utilisation held by its members. This would allow recovery of any type of resource when usage is not in compliance with the Registration Services Agreement. These resources can then be reallocated for better usage.

**AFPUB-2016-GEN-002-DRAFT-01, "Inbound Transfer Policy"**

This proposal covers the inbound transfer of all IP resources, including ASN's, both 16-bit and 32-bit, IPv4 space and IPv6 space

## Withdrawn Proposals

**AFPUB-2016-V4-002-DRAFT01 "Soft Landing Overhaul"**

This proposal outlined how a block of IPv4 space should be reserved for new entrants, while allowing for the natural depletion of IPv4 through standard demand, and hence encouraging the uptake of IPv6 in a more aggressive manner.

**AFPUB-2015-GEN-001-DRAFT-01: "Number Resources Transfer Policy"**

This proposal facilitates the transfer of IPv4 resources from other RIRs to AFRINIC and vice versa.

You can find out more about the PDP, current, proposed, rejected and withdrawn policies at :
www.afrinic.net/en/community/policy-development.

# Training & Capacity Building

AFRINIC plays a leading role in education and capacity building and offers free training courses on Internet Number Resource Management and IPv6 deployment throughout its service region.

# TRAINING & CAPACITY BUILDING
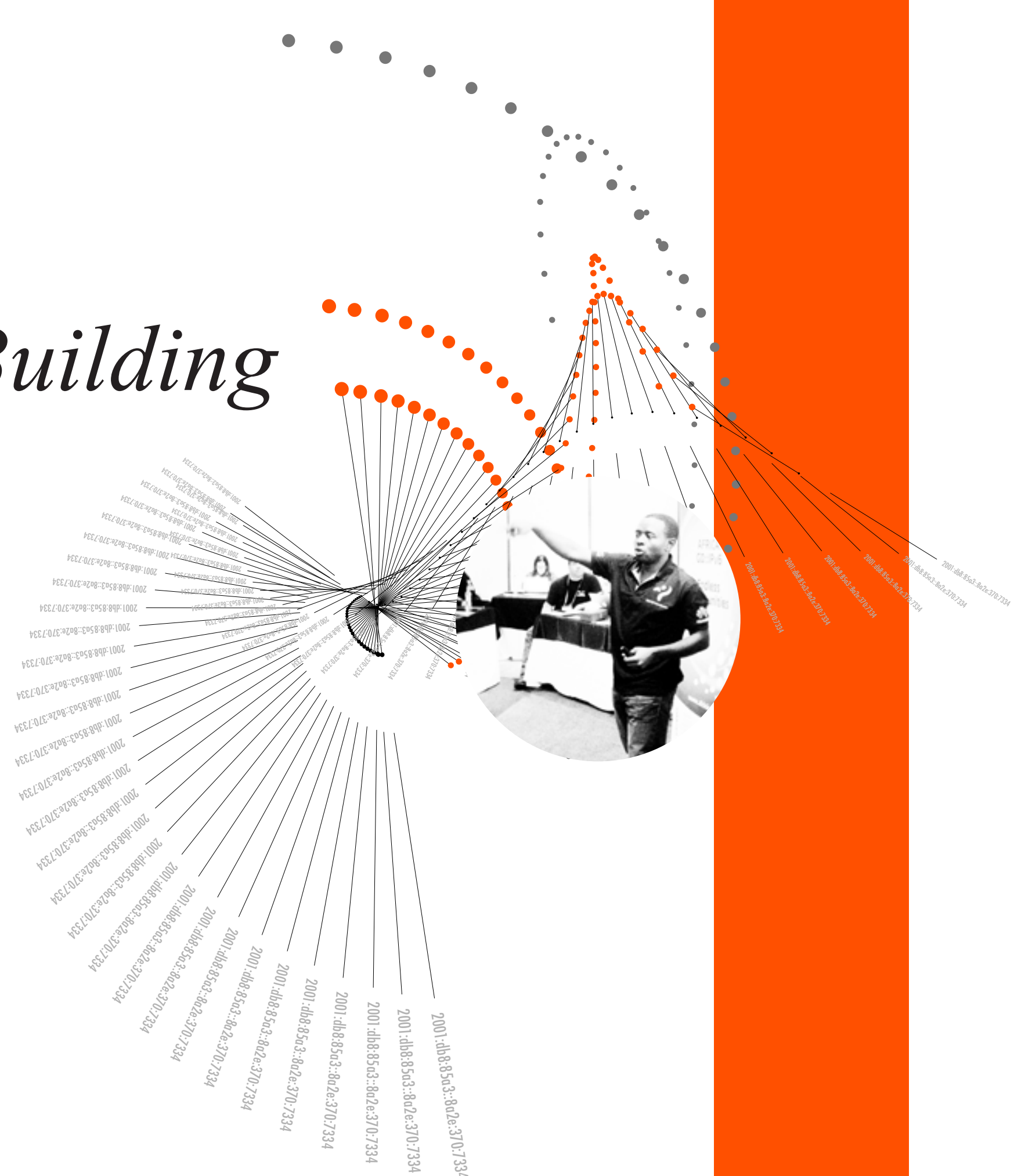
## Training

AFRINIC offers a comprehensive training programme and provides free training throughout Africa and the Indian Ocean in French and English on Internet Number Resources Management (INRM) and IPv6 Planning and Deployment. In 2016, the training team visited 18 countries and trained 685 people. The training courses are highly rated, achieving an average Net Promoter Score of 75, which is higher than the industry benchmark - 71 - for an IT training course in 2016.

## Course Reports

Course reports from the 2016 courses can be found at
www.afrinic.net/blog
Find out more about AFRINIC's training courses at
learn.afrinic.net.
Follow the Training Team's travels and news on
Twitter: @afrinictraining

## certi::6

AFRINIC launched its Certi::6 platform in May 2016. A multi-tiered programme of written exams created by AFRINIC under the IPv6 Forum certification programme, certi::6 validates the knowledge and skill required to plan, design, configure, manage and troubleshoot multi-vendor IPv6 networks and provides globally recognised certification.
Find out more about Certi::6 at: www.certi6.io

### Participants per country

| Country | Participants |
|---|---|
| Nigeria | 84 |
| Morocco | 40 |
| Egypt | 26 |
| Chad | 42 |
| Burkina Faso | 39 |
| Senegal | 26 |
| Ethiopia | 41 |
| Ivory Coast | 33 |
| Togo | 23 |
| Kenya | 40 |
| Ghana | 31 |
| Mauritius | 21 |
| Benin | 40 |
| Cameroon | 38 |
| Botswana | 47 |
| Congo | 38 |
| Lesotho | 30 |
| South Africa | 46 |

### PARTICIPANTS RATING ON KPI'S

| 98.7% | 95.9% | 89.8% | 98.3% |
|---|---|---|---|
| Participants said Trainers were Knowledgeable | Theory Vs exercises / labs balance | Course Sufficiently Detailed | Met or Exceeded Expectations |

## MoU

On 28 November 2016, AFRINIC and the Agence Tunisien d'Internet (ATI) signed an MoU to solidify their cooperation and mutual support in furthering IPv6 deployment in Tunisia. As the first partner in AFRINIC's certi::6 programme, ATI will administer certification exams in Tunisia so that engineers can get their certification within a short period of time and at an affordable price. Local training facilitated by ATI using AFRINIC's world-class IPv6 training course materials and certified trainers will prepare local engineers for certification under the certi::6 programme. This will help to increase the number of internationally recognised and highly skilled IPv6 engineers on the continent. Both organistions will also benefit from cross-promotion, collaborative marketing efforts and access to wider audiences to promote IPv6 deployment throughout North Africa and beyond.



AFRINIC and ATI sign MoU to further IPv6 Deployment in North Africa.

# Technical Services and Operations
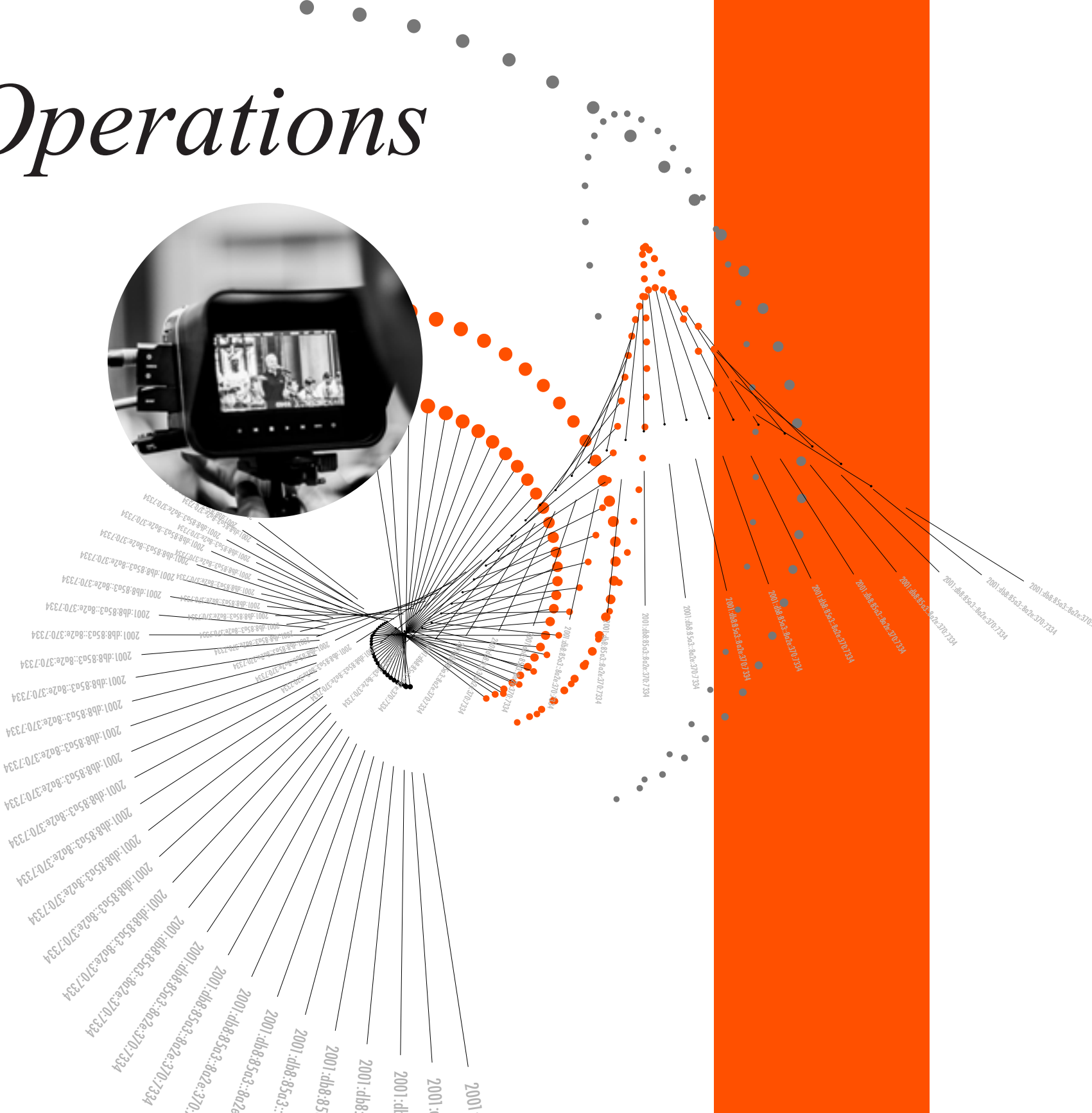
## DNS & DNSSEC

AFRINIC manages and publishes Reverse DNS (RDNS) zone data for the IP address space it allocates or assigns to its members. All these zones are additionally DNSSEC signed, which enables the community to validate authoritative DNS data from AFRINIC's RDNS zones and enables members to publish DS records to build the chain of trust for their own RDNS zones. In 2016, AFRINIC successfully migrated its signing system from OpenDNSSEC version 1.2 to 1.4. The details of the migration were shared in this AFRINIC Blog post: www.afrinic.net/blog/67-migrating-an-opendnssec-signer

Find out more about DNSSEC at: www.afrinic.net/en/initiatives/dnssec

## DNS Support Programmes

### Root Server Copy Project (RSCP)

In 2016, AFRINIC continued its ongoing root server copy (RSCP) project aiming to further increase the number of instances of root servers in the African region. The Kenya L-root instance was identified for a change of local hosting partner and a hardware refresh in 2017, and initial planning was begun at year end. AFRINIC also made agreements with the local hosting partner for an L-root node to be deployed in Benin during 2017. Find out more about the RSCP at: www.afrinic.net/en/initiatives/root-server-copy

### African DNS Support Programme (AfDSP)

AFRINIC also continued to support the robust and resilient anycast secondary DNS infrastructure that it makes available to ccTLD operators in the service region. In 2016, no new anycast nodes or new DNS domains where added. However, ongoing maintenance of the existing infrastructure and support for the existing ccTLDs continued, including support and expert advice offered to two African ccTLD operators when they reached out for technical assistance during the year.

Find out more about AfDSP:

www.afrinic.net/en/initiatives/dns-support

## AFRINIC Internet Routing Registry

Apart from the IRR Database functional updates included with the WHOIS v2.2 release, AFRINIC continued to encourage and assist members who aer still using other regional routing registries, to "home" their IRR objects into the AFRINIC Database.

## Internal Services

During 2016, AFRINIC also deployed several improvements internally to assist staff in their daily work. Some highlights include:

• Organisation-wide cloud password management application deployed to encourage online security awareness for all staff.

• Upgrading of the corporate accounting systems.

• Launch of a web-based travel planning and management application to assist with staff travel.

## Media Streaming for Events

In 2016, AFRINIC designed and built its own video streaming solution. This simple set-up is fully portable, self contained and operable by staff with no need for external audio-visual support. The organisation is therefore now able to provide a live stream and recorded video of any events or meetings where a local third-party media provider is not available. This new set-up was successfully used throughout the AFRINIC-25 Meeting in November 2016.

# WHOIS

The AFRINIC Database is a public database that contains information about registered IP address space and AS numbers, routing policies and RDNS delegations in the AFRINIC region. 2016 was a year that included two significant milestones for the AFRINIC WHOIS Database.

## *Database Working Group*

The AFRINIC Database Working Group (DBWG) launched in August 2016, creating a channel for discussion between AFRINIC staff, technical community members, and other stakeholders, regarding the implementation of AFRINIC's WHOIS service. It also enables community and member input into the future roadmap for the WHOIS Database.

The DBWG mailing list is open to anyone and you can sign up here:  https://lists.afrinic.net/mailman/listinfo/dbwg

## *WHOIS Version 2.2 Release*

A major version release of the AFRINIC WHOIS database went into production in the first half of 2016. This release included the follow features and business rules as well as various other DB clean-up's bug-fixes and minor updates:

## *WHOIS DB Core:*

- Modification of minimum IPv6 PA assignment to /128

- Minimum and maximun CIDR size for inetnum objects updated: ALLOCATED PA MAX CIDR SIZE = 8, ASSIGNED PA MIN CIDR SIZE = 32 and ASSIGNED PI MAX CIDR SIZE = 8.

- ORG attribute not mandatory for SUB-ALLOCATED PA inetnum.

- Modification of current anycast implementation to allow direct anycast end user assignment to LIRs and a check that an ORG does not already have an assigned anycast block. InetnumCheckBeforeDeletionValidator to look for child route, domain and inetnum objects before deletion of IPv4 and IPv6 objects.

- Assigned Anycast IPv6 Implementation.

- WHOIS query redirection for minority space.

## Routing Registry:

Out of region autnum, autnum authentication (mnt-by, mnt-routes), pending update.

## RDAP:

Clean inetnums that have a "parent" attribute. Prevent the parent attribute from being written in the DB. It must be generated only. Monthly scheduled task to report all overlapping inetnums.

# Projects & Research

As part of the work of the Research & Innovation Department, AFRINIC offers or contributes to several initiatives for the benefit of the entire community.
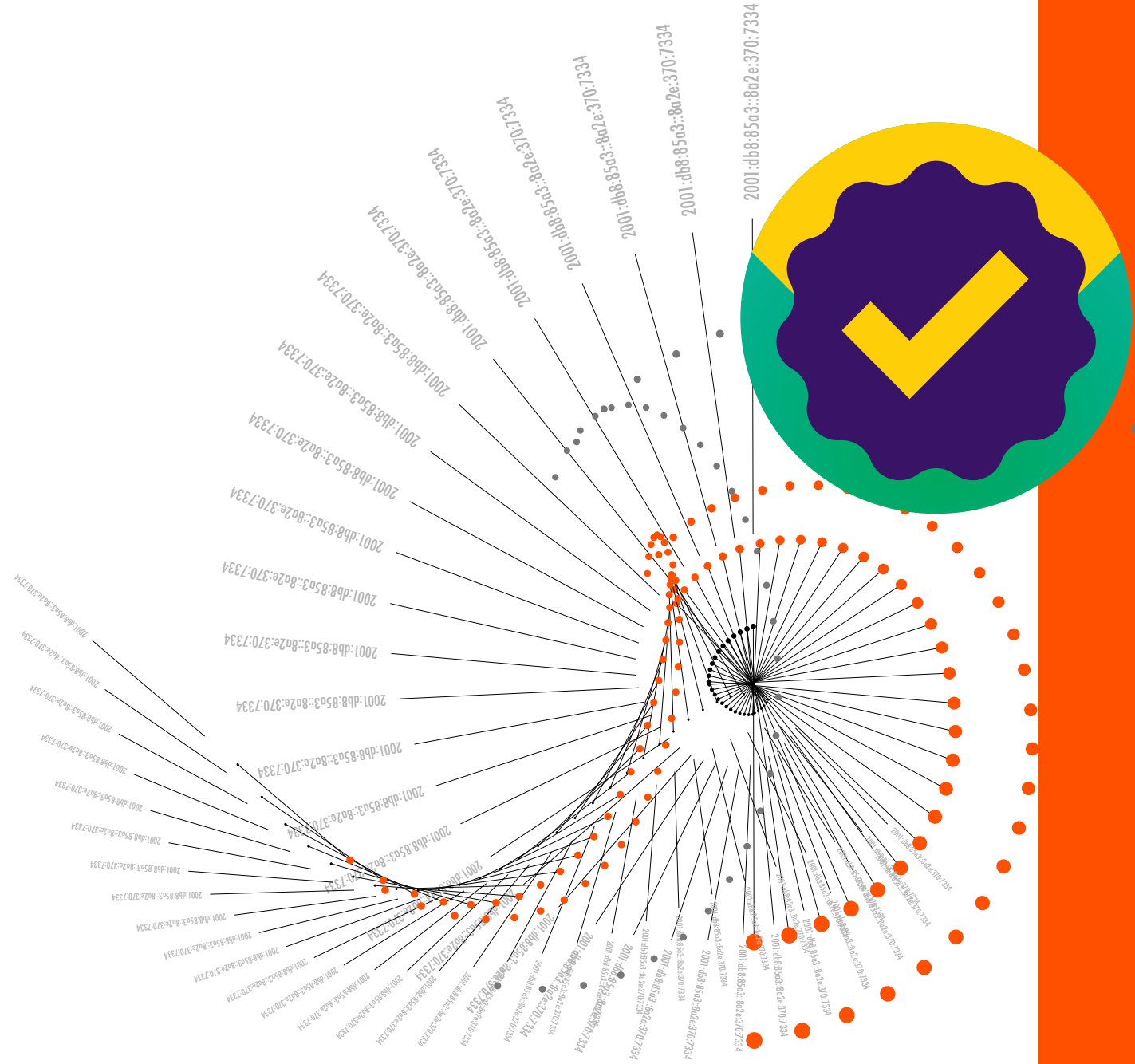
## Resource Public Key Infrastructure (RPKI)

Resource Certification is a security framework to verify the association between Internet number resources (IPv4, IPv6 and/or ASNs) and their rightful holders. Since 2006, AFRINIC, alongside the other four RIRs, has worked on RPKI, while also following the development of the standards in the Secure Inter-Domain Routing (SIDR) Working Group at the Internet Engineering Task Force (IETF). Throughout the year, the R&I team continued work on maintaining the RPKI system. The team also reviewed the monitoring mechanisms to ensure overall stability, which ensured that there were no outages of the RPKI system during 2016. IPv4 resources allocated from the IANA's Recovered IPv4 Pool were added to the AFRINIC certificate to allow users to create ROAs with those resources. The AFRINIC certificate is updated twice a year in April and October following new allocations from the IANA |

Find out more about RPKI at www.afrinic.net/en/services/bpki

By the end of 2016, a total of **51** members had activated RPKI with a total of **83** ROAs created.

## Publications

Throughout the year, team members contributed to the following publications:

- "DNS Lame delegations: A case-study of public reverse DNS records in the African Region": Phokeer, Aina and Johnson AFRICOMM International Conference on e-Infrastructure and e-Services for Developing Countries, Springer International Publishing, 2016.

The DNS, as one of the oldest components of the modern Internet, has been studied multiple times. It is a known fact that operational issues such as mis-configured name servers affect the responsiveness of the DNS service which could lead to delayed responses or failed queries. One of such misconfigurations is lame delegation and this article explains how it can be detected and also provides guidance to the African Internet community as to whether a policy lame reverse DNS should be enforced. It also gives an overview of the degree of lameness of the AFRINIC reverse domains where it was found that 45% of all reverse domains are lame.

Read full article at:
http://pubs.cs.uct.ac.za/archive/00001144/01/aphokeer_africomm_lamedns_paper.pdf

- "A survey of anti-spam mechanisms and their usage from a Regional Internet Registry's perspective": Phokeer and Aina IST-Africa Week Conference, 2016, IEEE, 2016.

This paper specifically deals with the different policies and technical frameworks at a Regional Internet Registry (RIR) level in terms of anti-spam measures. It also exposes the issue of spam from an Internet registry perspective, as an important element of the Internet technical infrastructure. We found out that, an RIR itself is not mandated to fight spam but it maintains a registry that is of paramount importance for traceability of Internet Number Resources ownership information. The paper starts with describing the challenges faced by operators followed by the different sources of spam. It then exposes the different mechanisms deployed by RIRs but importantly, this paper shows how those mechanisms either technical or policy-oriented are mostly underutilised, although they are operational. The latter is achieved by taking AFRINIC, the African RIR as case study.

Read the full article at:
http://ieeexplore.ieee.org/document/7530604/?reload=true

- "Migrating an OpenDNSSEC Signer": Njuki, Phokeer, Velvindron and Aina

The goal of this article is to share with the community AFRINIC's experience in migrating a signer from an older version to a newer version of OpenDNSSEC. This, without breaking the validity of zones at any time. Migration was scheduled and was executed over several days while zones were kept secure.

Read full article at:
https://afrinic.net/blog/images/DNSSEC-MigratinganOpenDNSSECsigner-040216-1522-43.pdf

# Research Collaboration

## African Internet Measurement Observatory (AIMO)

AFRINIC participated in a consortium of academic and research institutions (University of Cambridge, Queen Mary University of London, King's College London, Princeton University, Research ICT Africa and Internet Society) to propose a novel Internet measurement platform to understand the African telecommunication and Internet infrastructure at different levels. The proposal is currently under review by the UK EPSRC, the Grant Awarding body.

## Research ICT Africa (RIA)

During 2016, AFRINIC and RIA, a thinktank in ICT policy-oriented research, worked on the defining research strategy, projects and deliverables to measure Broadband Performance in different African countries and to understand the underlying infrastructure and needs for Cloud Computing in Africa. Work will continue on this throughout 2017.

## African Internet Measurement Initiative

The African Internet Measurement Initiative was launched in 2014 to build large-scale measurement network and analyse interconnectivity and networking in Africa and beyond. To achieve this, AFRINIC joined efforts with the RIPE NCC's RIPE Atlas project, a global network of measurement probes and anchors. Throughout 2016, AFRINIC continued to work in collaboration with the RIPE NCC to expand the network of probes and anchors throughout Africa. In 2016, with the help of our partner organisation the Internet Society, two anchors were deployed in the region, one at TESPOK (Kenya) and the other at the Tanzania Internet eXchange (TIX).

Find out more about the this initiative at:
https://www.afrinic.net/en/initiatives/afrinicripe-atlas

# Cooperation & Development

As part of its commitment to capacity building on the continent, AFRINIC plays a leading role in cooperation and development activities.

## The FIRE Africa Grants & Awards Programme

A crucial part of AFRINIC's capacity building and education efforts, the Fund for Internet Research and Education (FIRE Africa) Programme was set up in 2007 to provide financial support to innovative ICT projects that contribute to social and technical development throughout Africa.

FIRE Africa provides funds in the form of Grants and Awards for projects, initiatives, tools and platforms that harness the power of the Internet to empower the local and regional community to solve the region's unique online communications problems. In 2016, over US$ 252,000 of funding was allocated to 13 projects.

We thank the sponsors of the FIRE Programme, IDRC, Google and ISOC.

Detailed overviews of all of the winning projects are available at:
www.fireafrica.org/grant-awards-winners-2016

You can also read about how the projects are progressing on the AFRINIC Blog at:
http://www.afrinic.net/blog/component/tags/tag/fire

Find out more about the FIRE Africa Program:
www.fireafrica.org

## Seed Alliance

AFRINIC is part of the Seed Alliance, a multi-stakeholder partnership supporting the allocation of small grants and awards across the global south. Support is channeled through three regional programmes: FIRE Africa (AFRINIC/Africa), FRIDA (LACNIC/Latin America and the Caribbean) and ISIF Asia (APNIC/Asia Pacific). Since 2012, the Seed Alliance programme partners have supported 151 projects from over 60 economies with over US$ 2.5 million of funding helping to strengthen and promote the information society throughout these regions.
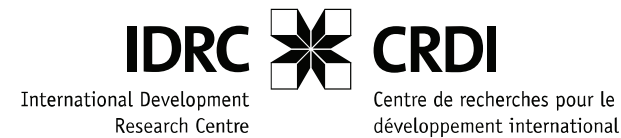
## FIRE Award Winners

FIRE Award winners received a US$ 3,000 cash prize, plus a full travel grant for one representative of each project to attend the Seed Alliance Awards ceremony and participate in sessions at the 2016 Internet Governance Forum (IGF).



*Tobetsa and WiFi TV Extension Project*
Tshwane Free WiFi, South Africa



**Google FIRE Award Winner**



*Prenatal Care for Communities and Remote Ultrasound Imaging*
DocmeUp, Ghana



*Kids Comp Camp*
Kids Comp Camp, Kenya



 *All Girls Tech Camp*
Give1Project, The Gambia

# COOPERATION & DEVELOPMENT

## FIRE Grant Winners 2016

Grants and Scale-up Grants were awarded for projects that are to be implemented within a 12-16 month period.

### Technical Innovation Scale up Grant



*Libre Router*
University of the Western Cape, South Africa
Grant: US$ 30,000

### Community Development Grants



*eTrash2Cash*
Nigeria
Grant: US$ 12,500



*AfChix : Boosting the Pipeline of Women in Technology Through Role-Modelling and Information Dissemination*
AfChix, Kenya
Grant: US$ 25,000

### Governance Enhancement Grant



*Rwanda GBV Monitor*
*Association Pour l'Encadrement Sûr des Enfants Orphelins et Autres Enfants Vulnérables de Kivumu*
*(Association for the Safeguarding of Children and Orphans and Other Vulnerable Children in Kivumu), Rwanda*
Grant: US$ 25,000

### Education Scale up Grants



*The NatiV Project*
Purple Zoom, Zimbabwe
Grant: US$ 30,000



*Library for blind and sight impaired people*
Bibliotheque le Pavillion Blanc, Cameroon
Grant: US$ 25,000



*Ubongo Kids Gamified Lesson and Quizzes for Dumbphones and Smartphones!*
Ubongo, Tanzania
Grant: US$ 30,000

## Internet Society Africa Grant Winners





*Expanding Bosco Uganda*
Internet/Intranet Network Access to the Rural Remote Communities in Northern Uganda
Bosco Uganda, Uganda
Grant: US$ 25,000



*The 21st Century Digital Farmer!*
Mucho Mangoes Ltd, Kenya
Grant: US$ 25,000

## Workshops

FIRE Africa facilitates workshops and mentoring as well as providing educational resources and travel grants for recipients to attend relevant conferences. In 2016, two workshops were held, with 20 project-leaders receiving training:



### *Project Management, Business Management & Marketing, AIS'16 / AFRINIC-24, Gaborone, Botswana*

The goal of this workshop was to provide participants with the skills required to seek funding from potential donors with effective grant proposals.

The three-day workshop covered a range of topics relevant to project management as well as a session on Business Management, and Marketing. The FIRE Programme encourages innovative approaches to Internet infrastructure development in Africa by using the small grants funding mechanism to enable localised organisations to implement creative initiatives. FIRE programme recipients are encouraged to share their knowledge and learned experiences, so others can benefit from applying innovative solutions to their unique challenges. Another benefit for FIRE programme project teams is the exposure to a wider group of potential partners and donors, as the success of each initiative may bring projects to a larger scale. Effective management of projects is a critical skill needed by any team wishing to bring their initiative to the next level.

## Africa DNS Business Exchange and Mentorship Programme

Launched by ICANN in partnership with AFRINIC in 2015, the DNS Business Exchange and Mentorship Programme aims to facilitate capacity building for registrars and registries in Africa to boost the African domain name business. In February 2016, five interns from Burkina Faso, Cameroon, Gabon, Ivory Coast and Madagascar completed the programme ATI, Tunisia.

### *Leadership Skills, Project Management & Business pitching, AFRINIC-25, Mauritius*

Nine project leaders from the 2016 grantees were identified to receive the training. The goal of the workshop was to provide the grant recipients with skills required to seek funding from potential donors and scale up their operations. The two-day workshop covered a range of topics relevant to innovators and entrepreneurs. It helped the Grantees network with each other, and also network with Internet leaders and entrepreneurs within the African continent.

# Outreach and Internet Governance

### Regional and Global Community Outreach

AFRINIC sends its staff to local, regional and global events to facilitate partnerships and outreach efforts. In 2016, 31 events were attended by staff to represent the interests of the AFRINIC membership, from regional and global Internet Governance Forums (IGF), ICANN Meetings, sister RIR Meetings, IETF Meetings, and other ICT events. In 2016, highlights included:

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### AfPIF 2016

AFRINIC has been a proud sponsor of the African Peering and Interconnection Forum (AfPIF) since 2012. Staff attend the event each year to meet with Internet Exchange Point (IXP) staff and talk about the key issues and challenges related to Internet number resources that affect IXPs in Africa and beyond. Find out more about our attendance in our AFRINIC Blog Series:
http://www.afrinic.net/blog/component/tags/tag/afpif16

### IGF 2016, Mexico

AFRINIC and the other four RIRs orgnanise an information booth at the global IGF evens each year. The 2016 Seed Alliance Award Ceremony took place during the IGF 2016 event, with four FIRE Africa Awardees attending to collect their prize (see page 49).

*Full list of events attended in 2016:*

| Event | City | Country |
|---|---|---|
| APRICOT 2016/ APNIC 41 | Aukland | New Zealand |
| ICANN 55 | Marakesh | Morocco |
| WACREN 2016 | Dakar | Senegal |
| 2nd ATU Preparatory Meeting for WTSA-16 | Maputo | Mozambique |
| International Telecommunication Union Cyberdrill for Africa Region | | Mauritius |
| EastAfricaCom | Nairobi | Kenya |
| 96th IETF | Berlin | Germany |
| SdNOG | Khartoum | Sudan |
| ICTAM (ICT Association for Malawi) | Lilongwe | Malawi |
| AfPiF 2016 | Dar-es-Salaam | Tanzania |
| CPR South | Zanzibar | Tanzania |
| iWeek 2016 | Johannesburg | South Africa |
| LACNIC 26 | San Jose | Costa Rica |

### The IANA Oversight Transition

On 14 March 2014, the US Department of Commerce's National Telecommunications and Information Administration (NTIA) announced the intention to transition the oversight of key Internet functions, including the Internet Assigned Numbers Authority (IANA) functions, to the global Internet multi-stakeholder community. Global stakeholders, including AFRINIC and the other four RIR communities, were convened to develop a proposal for the transition of the IANA functions. On 15 January 2015, the Consolidated RIR IANA Stewardship Proposal (CRISP) Team submitted the Internet number community's proposal to the IANA Stewardship Transition Coordination Group (ICG).

On 17 August 2016, the NTIA announced that the IANA Stewardship Proposal had met the required criteria, paving the way for the IANA Oversight transition to go ahead. Finally, on 1 October 2016, the IANA functions contract that had been held between the NTIA and the Internet Corporation for Assigned Names and Numbers (ICANN) expired, representing the final step

in a two-year, multi-stakeholder-driven process. Oversight of the IANA functions is now in the hands of the communities that rely directly on these services - the Names, Numbers and Protocol Parameter communities.

ICANN is now responsible for performing the IANA Numbering Services, which includes assigning IP address space and Autonomous System Numbers (ASNs) to AFRINIC and the other four RIRs and related administrative tasks. ICANN, with consent from the RIRs, has sub-contracted these services to a newly-formed subsidiary called Public Technical Identifiers (PTI). AFRINIC members, other RIR members and end users around the world will not experience any operational differences as a result of the oversight transition.

Find out more about the IANA Oversight Transition at:

http://afrinic.net/en/library/news/1911-iana-oversight-transition-completed

### Service Level Agreement

A Service Level Agreement (SLA) between the five RIRs and ICANN defining expectations came into effect on 1 October 2106.

### IANA Numbering Services Review Committee

The IANA Numbering Services Review Committee, selected by the RIR communities, will support the NRO Executive Council when it conducts periodic reviews of IANA's services. AFRINIC has appointed the following people to the Review Committee:

**Fiona Asonga**
(community representative, until 31 December 2016).

**Douglas Onyango**
(community representative, until 31 December 2017).

**Madhvi Gokool**
(staff representative, until further notice).

## Regional IGFs

AFRINIC supports regional IGG initiatives throughout Africa.

- African IGF

- North Africa IGF

- Southern Africa IGF

- East Africa IGF

- Central Africa IGF

- West Africa IGF

## AfGWG

The African Government Working Group (AfGWG) is an initiative that aims to strengthen the collaboration between AFRINIC and African Governments and Regulators to create a dynamic framework toaddress the general Internet governance challenges faced within the region and specifically those related to Internet number resources. The invite-only AfGWG meetings are held twice a year, usually during AFRINIC's Public Policy Meetings. In 2016, AfGWG Meetings were held in Botswana in June and in Mauritius in November.
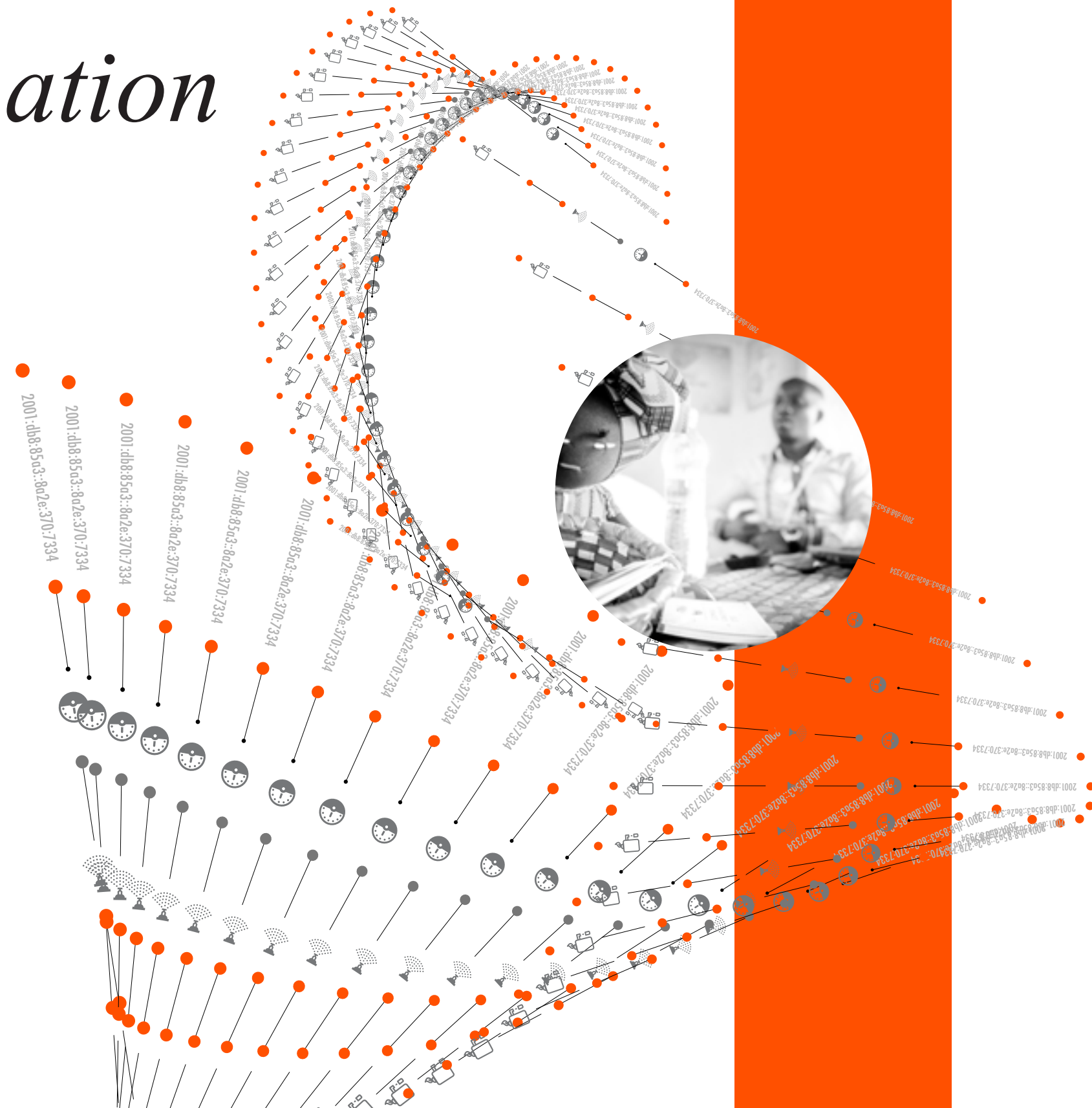Find out more about the AfGWG at:
https://meeting.afrinic.net/afgwg/

# Global Internet Coordination

AFRINIC collaborates with several bodies on matters concerning the coordination of the global Internet.

## The Number Resource Organization (NRO)

The Number Resource Organization (NRO) is a coordinating body for the five RIRs and its mission is to actively contribute to an open, stable and secure Internet. The NRO takes on several joint activities on behalf of the RIRs, including technical projects such as Resource Certification, as well as other projects, including global statistics reports, Internet governance activities, and global policy coordination. In 2016, AFRINIC contributed to various NRO projects including the on-going RPKI project (see page 55) and the IANA Oversight Transition activities (see page 46). In 2016, the IANA Numbering Services Review Committee was set up to support the NRO Executive Council when it conducts periodic reviews of IANA's services (see page 55).

Find out more about the NRO at: www.nro.net/

## The NRO NC and ICANN ASO AC

The Number Resource Orgaization Number Council is comprised of three people from each RIR's local Internet community and acts as an advisory body to the NRO EC. The NRO NC also performs the role of the ICANN Address Supporting Organisation Address Council (ASO AC). The ASO is one of the three supporting organisations required by the ICANN bylaws. The ASO reviews recommendations on global IP address policy and advises the ICANN Board on these matters. In 2016, the representatives from AFRINIC's service region were:
- Fiona Asonga
- Mark Elkins (Board appointee)
- Douglas Onyango

Find out more about the ASO AC at https://aso.icann.org/ and the NRO NC at www.nro.net/about-the-nro/the-nro-number-council/

## IETF Endowment

In July 2016, leading Internet organisations, including AFRINIC, announced a combined commitment of more than US$3 million for the Internet Engineering Task Force (IETF) Endowment. The IETF is the Internet's technical standards body, gathering a large international community of network designers, operators, vendors and researchers concerned with the development and evolution of the Internet technologies and its architecture. The IETF Endowment will provide stable, long-term funding to support the IETF in its mission to make the Internet work better.

Find out more about the IETF Endowment at www.sustainietf.org/

# HR Overview

AFRINIC's staff perform the administrative and technical functions associated with a Regional Internet Registry (RIR). At year-end 2016, AFRINIC had 46 staff in employment from 12 countries. 7 new staff members were hired in 2016. The Human Resources team worked on several projects over the course of the year:

## Staff growth



## Staff Nationalities



Cameroonian: 6.5%
Congolese: 2.2%
French: 2.2%
Ivorian: 4.3%
Kenyan: 4.3%
Malagasy: 2.2%
Malawian: 2.2%
Nigerian: 2.2%
Rwandan: 2.2%
South African: 4.3%
Ugandan: 4.3%
Mauritian: 63.0%
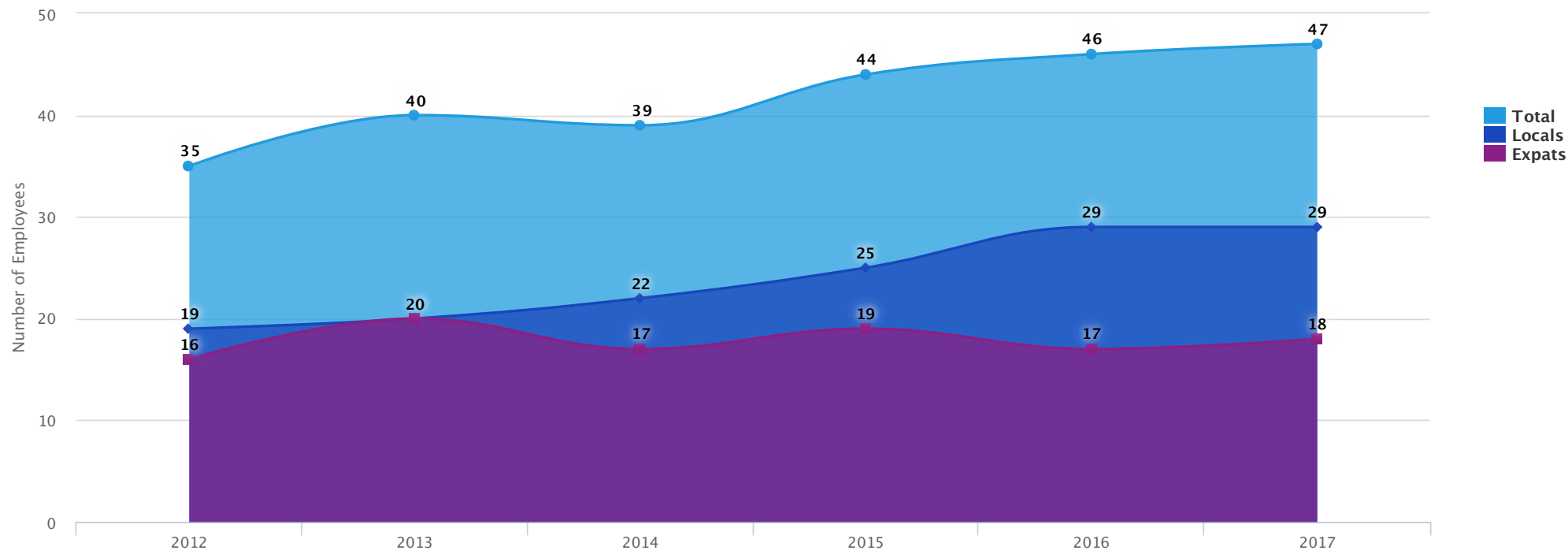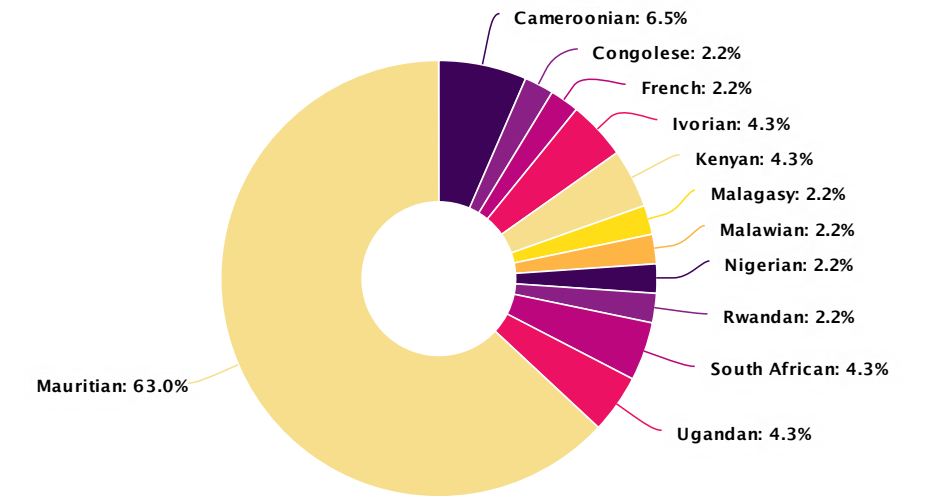
## Distribution of Staff by department



## Staff Age Group



51–60 Years: 4.3%
41–50 Years: 8.7%
21–30 Years: 30.4%
31–40 Years: 56.5%
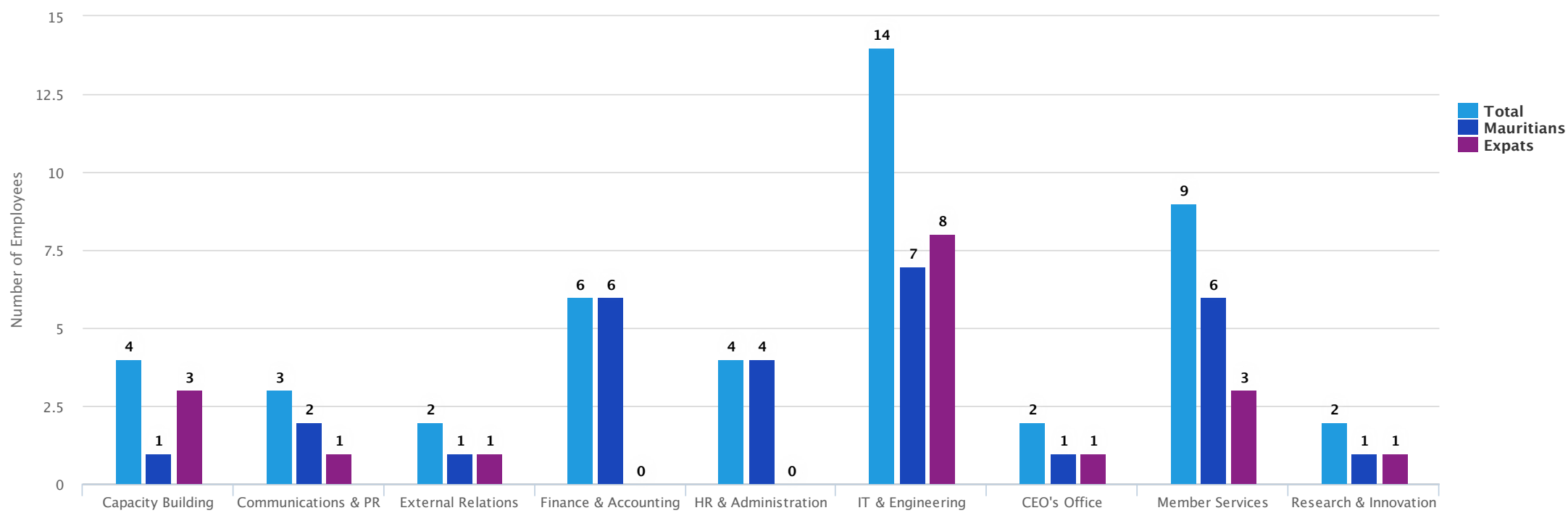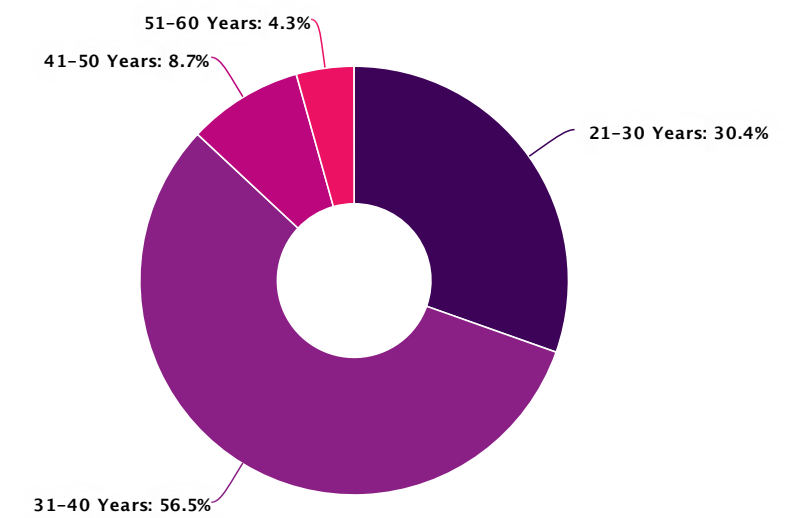
## Leadership Training

Throughout the year, 21 staff took the "Seven Habits of Highly Effective People" Training Course by Franklin Covey

## Induction Programme

The team implemented a programme to help new staff settle into their roles. The programme includes information on individual roles and department roles, AFRINIC's history and role as a Regional Internet Registry, office health & safety basics, internal policies and procedures, the global Internet environment as well as on life in Mauritius if the new employee is an expat.

## Alignment and Definition of OKRs

The management team took part in a retreat to define organisational priorities based on AFRINIC's strategic plan. All staff then participated in an organisation-wide retreat to define organisational and departmental objectives and key results (OKRs). OKRs form the basis of performance management and are aligned to the organisation's overall strategy, goals and objectives.

## Employee Engagement Survey

The HR team developed a staff survey during 2016 to assess organisation/strategic alignment, management roles, team and work environment, and self development. The survey will be conducted in 2017.

## Staff Welfare Committee

In 2016, AFRINIC implemented its Staff Welfare Committee. The committee is cross departmental and works to improve staff benefits and internal communication. The committee also organised team building activities and works on office-wide projects, such as redesigning a new office layout.

## Operational Excellence

The HR team worked to improve operational excellence and to transition to ISO 9001 : 2015. The aim is train key staff in effective process management (Lean Six Sigma) and transition to the 2015 version by the end of 2017. In 2016, work on this transition began.

# FINANCIAL REPORT 2016

## OVERVIEW

- Record surplus.

- Improved bank balance.

- Increased Reserves.

The 2016 operational results continue to show improvements which started in 2015. The net surplus for the year of $930K recorded reflected a 231% increase over the previous year. Closing cash position showed a 150% increase over 2015.
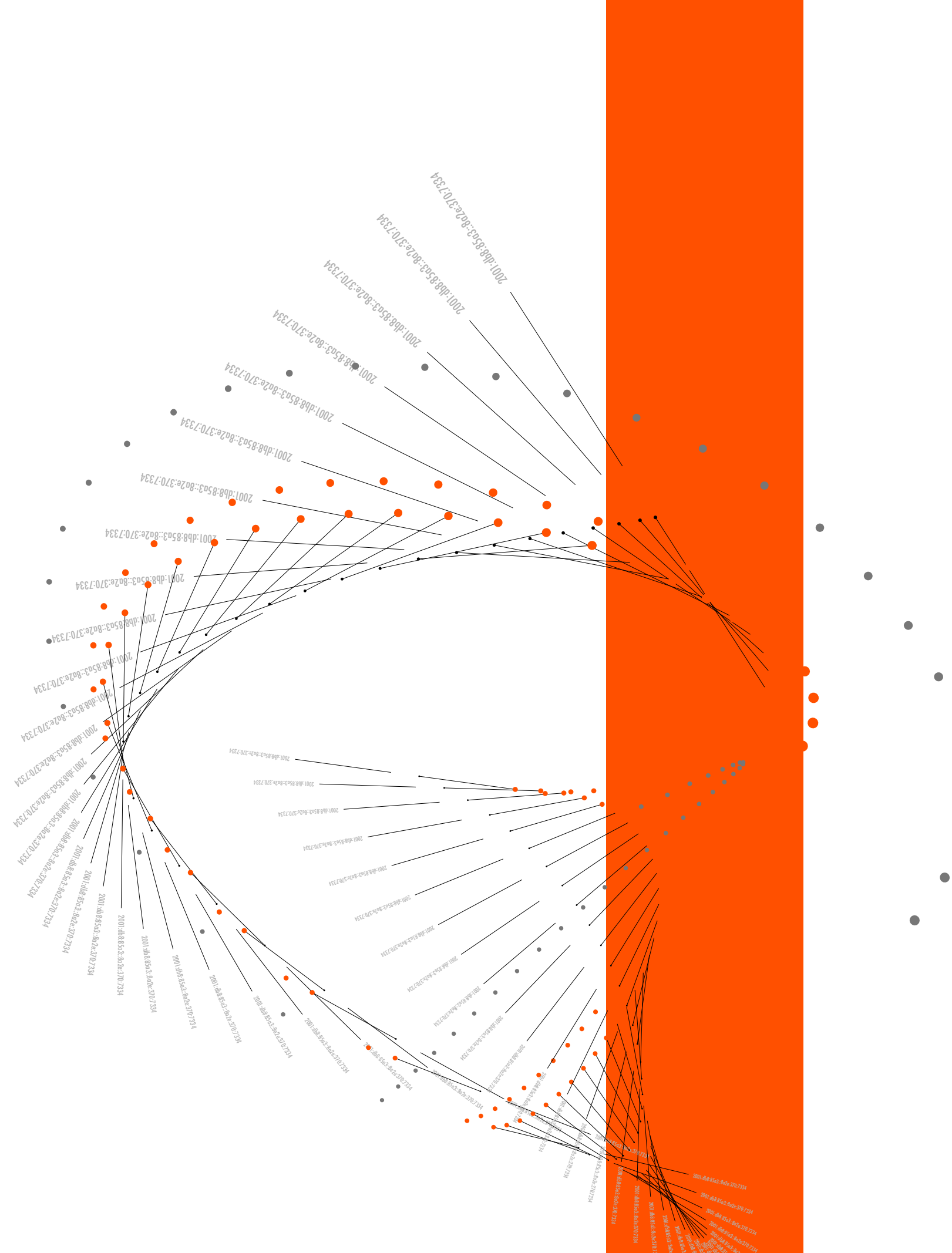
## Revenue: Membership Fee Income

Membership Fees from members continue to be the primary source of revenue. Fees comprise of annual membership renewals and allocations and assignments fee collected from new members. During the year under review, a new fee was introduced which became applicable to all existing members obtaining additional resources.

For the financial year to December 2016, total Membership fee income grew by 12.4% (2015: 11%) from $3,937,795 in 2015 to $ 4,427,239. The growth could be attributed to three major factors: increased number of new members recorded, additional revenue recorded from new fee introduced in July 2016 and Late Payment Penalties. As we approach the last /8 of IPv4 space, the increased in requests, both from existing members and new members, is expected to continue into the next period. The continued efforts of the team in speeding up our evaluation of resource requests together with improved member relations is paying dividends. $165K was raised through Late Payment Penalties whilst AFRINIC support to Research & Educational Institutions and Critical Infrastructures in the region amounted to $148K via discounted fees. AFRINIC benefited from generous partners through sponsorships of our events, contributed to an increase in sponsorship level.

The following graph shows the membership fees income evolution since 2005.

### Historical Fee Revenue Levels
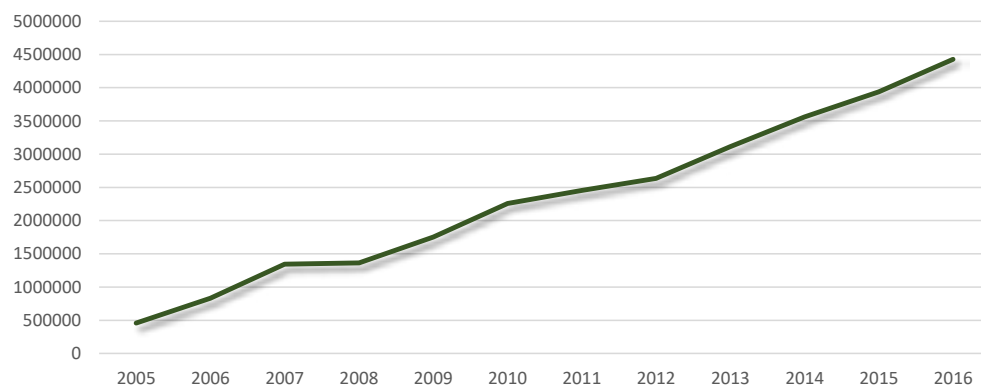


The above chart shows that the Fee Income has displayed a steady growth over the years which has permitted a marked improvement in operational activities and the growth of the organisation

## Costs: Operating Costs

Total operating costs for 2016 was maintained at the same level as the previous year; closing at $3,624,020 in 2016 from $3,621,124 in 2015. Total costs closed lower than expected and the drop can be attributed to lower Human Resources Costs, reduced Travel Expenses and ongoing cautious spending during the year. Operational costs is, once again, dominated by Human Resources costs, accounting for 55% of total operating costs (2015: 54%). The US$/MUR exchange rate has been reasonably stable during the year resulting in little influence on costs level.

AFRINIC operating costs evolved over the years as per the chart below:

### Operating costs per year
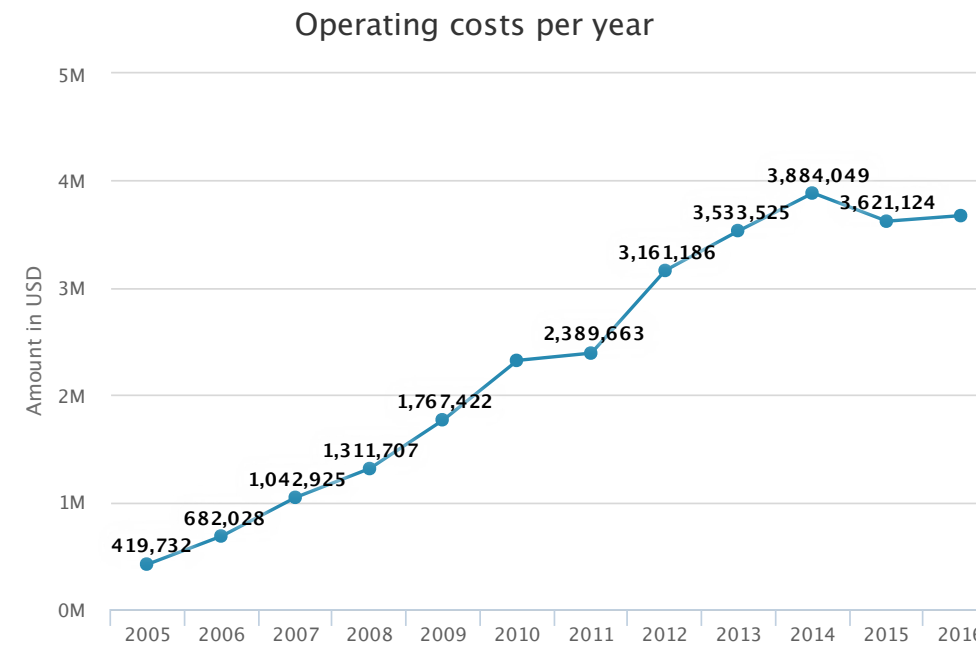


## The Bottom line

The year ended with a record net surplus of US$ 930K (2015: $402K), the highest ever recorded since inception. Total Reserves grew by 55.2% (2015: 31.4%), increasing to $2, 613,642 from $1,683,932. The net surpluses for the last two years, 2015 and 2016, effectively equate the total funds in Reserves over the last 10 years to 2014. A further US$ 300,000 was added to the Strategic Cash Reserve making a total amount of US$ 550K on a Fixed Deposit. The closing set of numbers reflected a marked increase in the Liquidity Ratio from 1.9:1 in December 2015 to 2.8:1 in December 2016.

A strong balance sheet, healthy cash generation backed by a solid and devoted team has positioned the organisation to advance on its growth path as we embrace the transition to IPv6.

PricewaterhouseCoopers were reappointed as the company's external auditors to conduct the statutory audit for the financial year ended December 2016 and a complete set of the Audited Annual Financial Statements and the auditors' report can be found at

https://www.afrinic.net/en/library/news/2081-afrinic-annual-financial-statements-2016

**DETAILED STATEMENT of OPERATING SURPLUS**

YEAR ENDED 31 DECEMBER 2016

| | Budgets 2016 | Actuals 2016 |
|---|---|---|
| **REVENUE** | US$ | US$ |
| Membership Fees | $ 3,824,200 | $ 3,946,739 |
| Allocations and Assignments Fees | $ 290,000 | $ 480,500 |
| Sponsorship and Other Income | $ 300,000 | $ 175,673 |
| **TOTAL REVENUE** | $ 4,414,200 | $ 4,602,912 |
| | | |
| **OPERATING COSTS** | | |
| HR | $2,176,000 | $1,976,770 |
| Telecommunications | $59,220 | $42,491 |
| Computer expenses | $52,820 | $69,539 |
| Office Expenses | $224,300 | $228,162 |
| Motor vehicle expenses | $4,690 | $2,818 |
| Insurance | $14,450 | $10,419 |
| Printing, postage & stationery | $16,600 | $11,871 |
| Bank charges | $35,000 | $55,933 |
| Professional Fees | $10,800 | $9,424 |
| Depreciation | $217,390 | $177,767 |
| Consultancy Fees | $72,860 | $47,936 |
| Marketing & Comms expenses | $36,480 | $6,371 |
| Bad debts | $60,000 | $39,199 |
| Meeting expenses | $310,300 | $279,223 |
| Members Training | $106,520 | $65,866 |
| Travelling expenses | $525,400 | $414,386 |
| Research & Development | $7,500 | $7,500 |
| Outreach Initiatives | $50,000 | $19,757 |
| Community Support | $189,000 | $138,230 |
| Remote Sites Operations Costs | $20,000 | $17,491 |
| | $4,189,330 | $3,621,153 |
| Other Costs | $30,000 | $52,050 |
| **TOTAL OPERATING COSTS** | $4,219,330 | $3,673,203 |
| **OPERATING SURPLUS** | $194,870 | $929,709 |



Top 16 contributors to Fees Revenue 2016
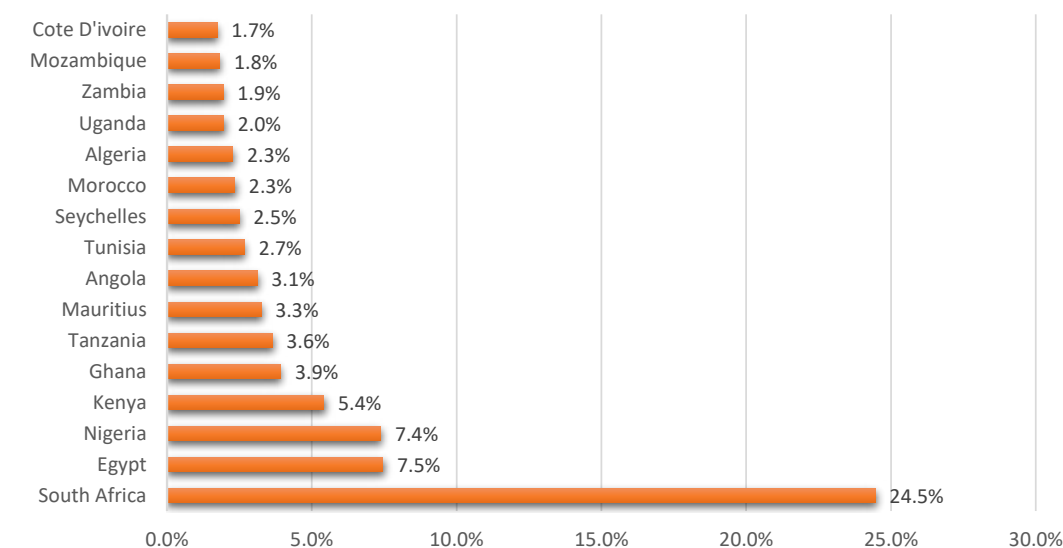
The above chart shows that the top16 economies contributed 76% of AFRINIC membership fees for the year to December 2016.



How Revenue generated was applied 2016
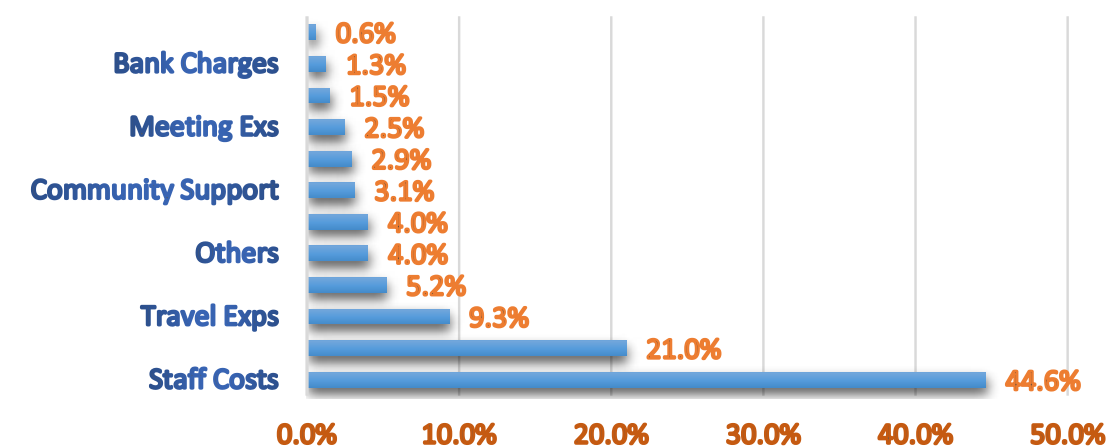
## AFRINIC Historical Liquidity Ratio
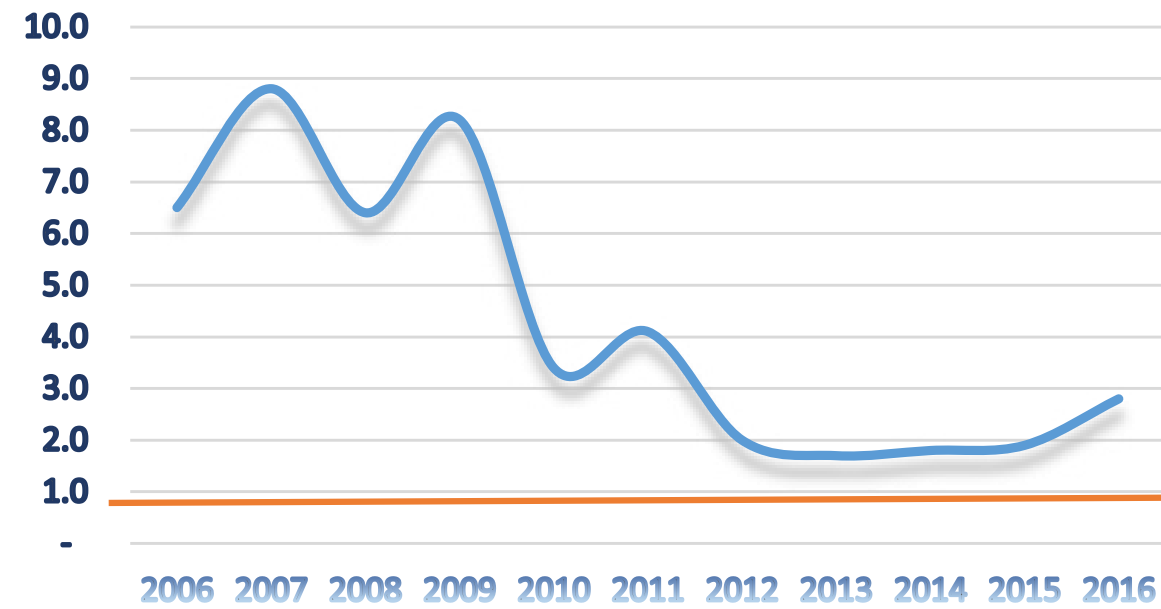
## AFRINIC Historical Reserves
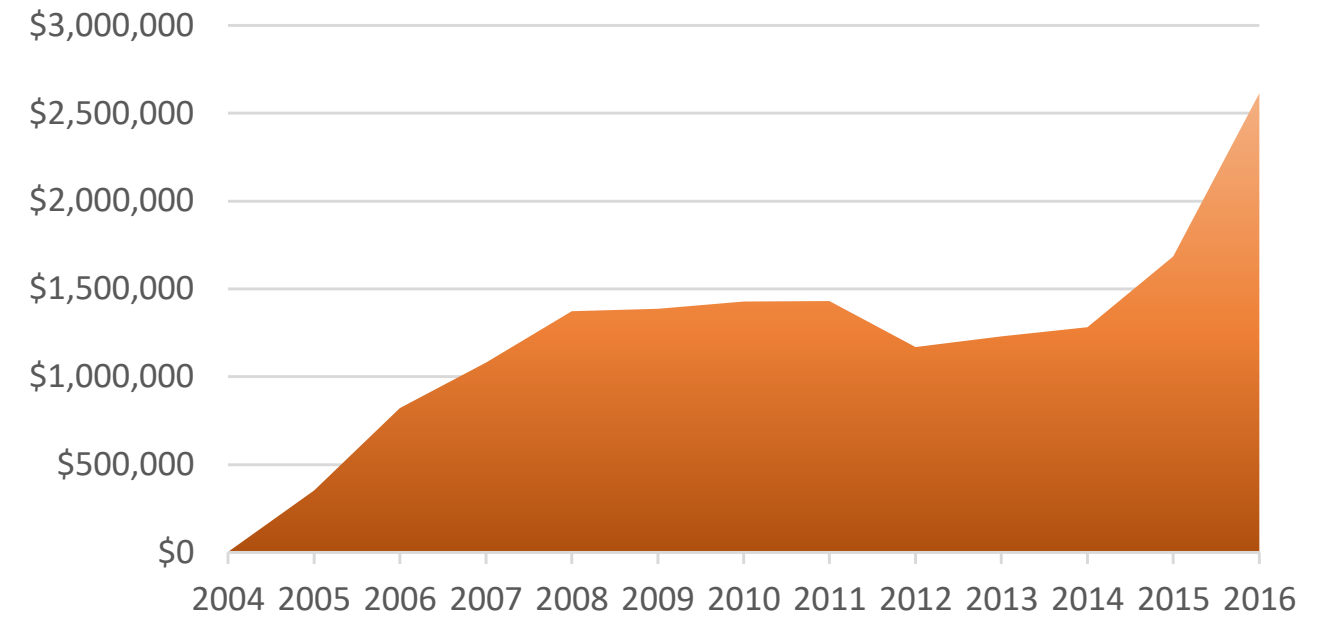
## AFRINIC Historical Closing Cash Holdings
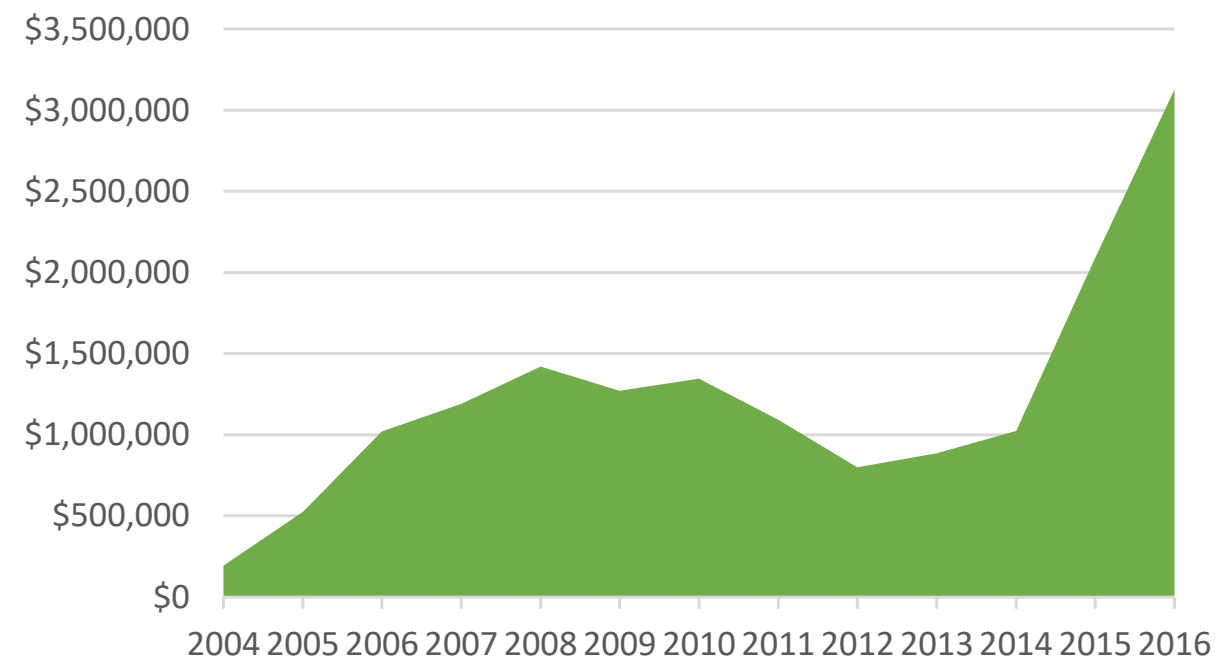
# FINANCIAL REPORT 2016

The financial report and audited accounts for 2016 can be found here:

**https://www.afrinic.net/en/library/corporate-documents/financial-documents**

The report is reprinted on the following pages.

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**

**ANNUAL REPORT AND FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED**

**DECEMBER 31, 2016**

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**INDEX**

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**ANNUAL REPORT**

**FOR THE YEAR ENDED DECEMBER 31, 2016**                                   1.

The directors are pleased to present the annual report and audited financial statements of AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) Ltd (the "Company") for the year ended 31 December 2016.

**Principal activity**

The Company is the Regional Registry for Internet Number Resources for Africa and the Indian Ocean. The Company is a not-for-profit organisation.

**Results**

The results for the year are shown on page 8 to 30.

**Office bearers and resignations**

Directors holding office at 31 December 2016 are listed below:

- Sunday FOLAYAN
- Krishna SEEBURN
- Christian D BOPE
- Vivegananda T PADAYATCHY (resigned on 19th February 2016)
- Andrew ALSTON
- Aminata AMADOU GARBA (up to 30 June 2016)
- Ojedeji OLUWASEUN (appointed on 1 July 2016)
- Haitham Z El NAKHAL
- Alan Peter BARRETT
- Lucky MASILELA
- Abibu NTAHIGIYE

**Statement of directors' responsibility in respect of the financial statements**

The Company's directors are responsible for the preparation and fair presentation of the financial statements, comprising the statement of financial position as at 31 December 2016, and the statement of comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended and the notes to the financial statements, which include a summary of significant accounting policies and other explanatory notes, in accordance with International Financial Reporting Standards and in compliance with the requirements of the Mauritius Companies Act 2001. The directors' responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of these financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**ANNUAL REPORT (CONTINUED)**

**FOR THE YEAR ENDED DECEMBER 31, 2016**                                   2.

**Remuneration and benefits**

Total emoluments and other benefits given to directors by the Company during the year were as follows:

|  | 2016 | 2015 |
|---|---|---|
|  | USD | USD |
| Executive Directors | 164,727 | 74,492 |

**Community Support and Engagement**

During 2016, AFRINIC provided support to related regional and global organisations and community members amounting to USD **138,230** (2015: USD 99,575).

**Auditors**

Messrs PricewaterhouseCoopers were appointed as the auditors of the Company for the year. The directors approved the following as payable for services rendered during the year:

|  | 2016 | 2015 |
|---|---|---|
|  | USD | USD |
| Audit | 8,820 | 10,000 |

By order of the Board

Director
Date: 1 9 APR 2017

Director
Date: 1 9 APR 2017

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**

**CERTIFICATE FROM THE COMPANY SECRETARY**                      3.

I certify that, to the best of any knowledge and belief, African Network Information Centre (AfriNIC) Ltd (the "Company") has lodged with the Registrar of Companies all such returns as are required of the Company under the Companies Act 2001 for the year ended December 31, 2016.

**EXECUTIVE SERVICES LIMITED**
Per Didier ANGSEESING
Company Secretary

Date: 19 APR 2017

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**pwc**

## Independent Auditor's Report

### To the Members of
### African Network Information Centre (AfriNIC) Ltd

*Report on the Audit of the Financial Statements*

*Our Opinion*

In our opinion, the financial statements give a true and fair view of the financial position of African Network Information Centre (AfriNIC) Ltd (the "Company") as at 31 December 2016, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards and in compliance with the Mauritian Companies Act 2001.

**What we have audited**

The financial statements of African Network Information Centre (AfriNIC) Ltd set out on pages 8 to 30 comprise:

- the statement of financial position as at 31 December 2016;
- the statement of comprehensive income for the year then ended;
- the statement of changes in equity for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes comprising significant accounting policies and other explanatory information.

*Basis for Opinion*

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Independence**

We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

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**pwc**

## Independent Auditor's Report

### To the Members of
### African Network Information Centre (AfriNIC) Ltd
### (Continued)

*Report on the Audit of the Financial Statements (Continued)*

*Other Information*

The directors are responsible for the other information. The other information comprises the annual report and the secretary's certificate but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

*Responsibilities of the Directors for the Financial Statements*

The directors are responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards and in compliance with the Mauritian Companies Act 2001, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

The directors are responsible for overseeing the financial reporting process.

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**pwc**

## Independent Auditor's Report

### To the Members of
### African Network Information Centre (AfriNIC) Ltd
### (Continued)

*Report on the Audit of the Financial Statements (Continued)*

*Auditor's Responsibilities for the Audit of the Financial Statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

**pwc**

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## Independent Auditor's Report

### To the Members of
### African Network Information Centre (AfriNIC) Ltd
### (Continued)

#### Report on the Audit of the Financial Statements (Continued)

*Auditor's Responsibilities for the Audit of the Financial Statements (Continued)*

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

#### Report on Other Legal and Regulatory Requirements

**Mauritian Companies Act 2001**

The Mauritian Companies Act 2001 requires that in carrying out our audit we consider and report to you on the following matters. We confirm that:

(a) we have no relationship with or interests in the Company other than in our capacity as auditor;

(b) we have obtained all the information and explanations we have required; and

(c) in our opinion, proper accounting records have been kept by the Company as far as appears from our examination of those records.

#### Other Matter

This report, including the opinion, has been prepared for and only for the Company's members, as a body, in accordance with Section 205 of the Mauritian Companies Act 2001 and for no other purpose. We do not, in giving this opinion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

PricewaterhouseCoopers

Olivier Rey, licensed by FRC

19 April 2017

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## AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD

### STATEMENT OF FINANCIAL POSITION AS AT DECEMBER 31, 2016

8.

| | Notes | 2016 | 2015 |
|---|---|---|---|
| | | USD | USD |
| **ASSETS** | | | |
| **Non-current assets** | | | |
| Plant and equipment | 4 | 254,562 | 384,546 |
| Intangible assets | 5 | 78,374 | 97,485 |
| | | 332,936 | 482,031 |
| **Current assets** | | | |
| Trade and other receivables | 6 | 418,094 | 446,046 |
| Cash and cash equivalents | 7 | 3,123,359 | 2,090,269 |
| | | 3,541,453 | 2,536,315 |
| **Total assets** | | 3,874,389 | 3,018,346 |
| | | | |
| **RESERVES AND LIABILITIES** | | | |
| **Reserves** | | | |
| Revenue reserve | 8 | 2,613,642 | 1,683,932 |
| Net assets attributable to members | | 2,613,642 | 1,683,932 |
| **Non current liabilities** | | | |
| Finance lease obligation | 9 | - | 8,078 |
| Deferred income | 12 | 2,350 | 3,300 |
| | | 2,350 | 11,378 |
| **Current liabilities** | | | |
| Finance lease obligation | 9 | 7,997 | 8,760 |
| Trade and other payables | 10 | 1,249,450 | 1,311,101 |
| Deferred income | 12 | 950 | 3,175 |
| | | 1,258,397 | 1,323,036 |
| **Total liabilities** | | 1,260,747 | 1,334,414 |
| **Total reserves and liabilities** | | 3,874,389 | 3,018,346 |

These financial statements have been approved by the board of directors on 1 9 APR 2017

| Name of directors | | Signature |
|---|---|---|
| (1) | A. P. BARRETT | |
| (2) | S. A. Folayan | |

The notes on pages 12 to 30 form an integral part of these financial statements.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**STATEMENT OF COMPREHENSIVE INCOME**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                                    **9.**

| | Notes | 2016 | 2015 |
|---|---|---|---|
| | | **USD** | USD |
| Income | 11 | **4,602,912** | 4,084,709 |
| Distribution expenses | | **(988,022)** | (923,832) |
| Administrative expenses | | **(2,635,997)** | (2,697,292) |
| **Surplus of income over expenditure** | 13 | **978,893** | 463,585 |
| Finance income | 14 | **2,931** | 28,701 |
| Finance costs | 14 | **(52,114)** | (90,041) |
| **Finance Cost – Net** | | **(49,183)** | (61,340) |
| **Surplus before taxation** | | **929,710** | 402,245 |
| Taxation | 15 | **-** | - |
| **Surplus for the year** | | **929,710** | 402,245 |
| **Other comprehensive income** | | **-** | - |
| **Total comprehensive income for the year** | | **929,710** | 402,245 |

The notes on pages 12 to 30 form an integral part of these financial statements.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**STATEMENT OF CHANGES IN EQUITY**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                                    **10.**

| | Revenue reserve | Total |
|---|---|---|
| | **USD** | **USD** |
| At January 1, 2015 | 1,281,687 | 1,281,687 |
| Surplus for the year | 402,245 | 402,245 |
| At December 31, 2015 | 1,683,932 | 1,683,932 |
| At January 1, 2016 | **1,683,932** | 1,683,932 |
| Surplus for the year | **929,710** | 929,710 |
| **At December 31, 2016** | **2,613,642** | 2,613,642 |

The notes on pages 12 to 30 form an integral part of these financial statements.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**STATEMENT OF CASH FLOWS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                                      **11.**

| | Notes | 2016 | 2015 |
|---|---|---|---|
| | | **USD** | USD |
| **Cash flows from operating activities** | | | |
| | | | |
| Surplus for the year | | **929,710** | 402,245 |
| | | | |
| Adjustments for: | | | |
| Depreciation | 4 | **158,657** | 161,287 |
| Amortisation | 5 | **19,111** | 19,111 |
| Impairment loss and write-off on trade receivables | | **39,199** | 26,098 |
| Interest payable | | **1,421** | 2,454 |
| Unrealised foreign exchange gain / loss | 14 | **(50,693)** | (24,620) |
| Sundry adjustments | | **11,494** | - |
| Interest receivable | | **(1,271)** | (4,081) |
| | | | |
| | | **1,107,628** | 582,494 |
| **Changes in:** | | | |
| Decrease in trade and other receivables | | **27,952** | 56,452 |
| Increase in trade and other payables | | **(61,651)** | 499,376 |
| Decrease in deferred income | | **(3,175)** | (22,100) |
| | | **1,070,754** | 1,116,222 |
| Interest paid | | **(1,421)** | (2,454) |
| | | | |
| **Net cash from operating activities** | | **1,069,333** | 1,113,768 |
| | | | |
| **Cash flows from investing activities** | | | |
| Purchase of plant and equipment | 4 | **(28,673)** | (19,985) |
| Purchase of intangible assets | 5 | **-** | (19,896) |
| Interest received | | **1,271** | 4,081 |
| | | | |
| **Net cash used in investing activities** | | **(27,402)** | (35,800) |
| | | | |
| **Cash flows from financing activities** | | | |
| Payment of finance lease liabilities | | **(8,841)** | (12,846) |
| | | | |
| **Net cash used in financing activities** | | **(8,841)** | (12,846) |
| | | | |
| **Net movement in cash and cash equivalents** | | **1,033,090** | 1,065,122 |
| Cash and cash equivalent as at January 01, | | **2,090,269** | 1,025,147 |
| | | | |
| **Cash and cash equivalent as at December 31,** | 7 | **3,123,359** | 2,090,269 |

The notes on pages 12 to 30 form an integral part of these financial statements.

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                                      **12.**

**1.   CORPORATE INFORMATION**

African Network Information Centre (AfriNIC) Ltd, (the "Company") is a private company limited by guarantee incorporated in the Republic of Mauritius. Its registered address and place of business is situated at 11th Floor, Raffles Tower, Cybercity, Ebène, Republic of Mauritius. The principal activity has remained unchanged during the year and consists of being the Regional Registry for Internet Number Resources for Africa and the Indian Ocean. The Company is a not-for-profit organisation.

The financial statements of the Company for the year ended December 31, 2016 were authorised for issue in accordance with a resolution of the directors on ⋯⋯ 1 9 APR 2017 ⋯⋯⋯⋯

**2.   BASIS OF PREPARATION**

**(a)  Statement of compliance**

The financial statements are prepared in accordance with and comply with International Financial Reporting Standards ("IFRS") and comply with the Mauritian Companies Act 2001.

**(b)  Basis of measurement**

The financial statements have been prepared under the historical cost convention.

**(c)  Functional and presentational currency**

The financial statements are presented in United States dollars ("USD"), which is the Company's functional currency. All financial information presented in United States dollars has been rounded to the nearest USD, unless otherwise stated. The average exchange rate for USD to MUR as at December, 31 2016 as provided by the State Bank of Mauritius is MUR 36.404 (2015: MUR 36.0385).

**(d)  Critical accounting estimates and judgements**

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates.

**Estimation and assumptions**

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the financial year are discussed below. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                                    **13.**

**2.    BASIS OF PREPARATION (CONTINUED)**

**(d)   Critical accounting estimates and judgements (continued)**

**Estimation and assumptions (continued)**

**(i) Estimated useful lives and residual values of plant and equipment**

Determining the carrying amounts of plant and equipment requires the estimation of the useful lives and residual values of these assets.  Certain plant and equipment of the Company are separated into their significant parts and estimates of the useful lives and residual values thereof are made for the purposes of calculating depreciation.  The estimates of useful lives and residual values carry a degree of uncertainty. The Directors have used historical information relating to the Company and the relevant industry in which the Company operates in order to best determine the useful lives and residual values of plant and equipment.

**(ii) Impairment of trade and other receivables**

In preparing those financial statements, the Directors have made estimates of the recoverable amounts of trade and other receivables and impaired those receivables where the carrying amounts exceeded recoverable amounts. Those receivables that are impaired are immediately written off. The estimation of recoverable amounts involves an assessment of the financial condition of the receivable concerned and an estimate of the timing and the extent of cash flows likely to be received by the Company.

**3.    SIGNIFICANT ACCOUNTING POLICIES**

The accounting policies set out below have been applied consistently to all periods presented in these financial statements.

**(a)   Revenue**

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured regardless of whether payment is being made. Revenue is measured at the fair value of consideration received or receivable, taking into account contracting defined terms of payment and excluding taxes and duty.

Revenue from services is recognised upon provision of services and customer acceptance, net of Value Added Taxes. Some services span over more than one year. The consideration received is then deferred over the duration of the contract.

**(b)   Finance income and finance costs**

The Company's finance income and finance costs include:

- interest payment on leases. Interest expense is recognised using the effective interest method;
- interest income on deposits. Interest income is recognised using the effective interest method; and
- the foreign currency gain or loss on financial assets and financial liabilities reported on a net basis as either finance income or finance cost depending on whether foreign currency movements are in a net gain or net loss position.

**(c)   Foreign currency transactions**

Transactions in foreign currencies are translated to the USD at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the exchange rate at that date. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated to the functional currency at the exchange rate prevailing when the fair value was determined. Non-monetary items that are measured based on historical cost in a foreign currency are not translated. Foreign currency differences are recognised in profit or loss.

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                                    **14.**

**3.    SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**(d)   Employee benefits**

*Defined contribution plan*

Obligations for contributions to defined contribution plans are expensed to profit or loss as the related service is provided. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in future payments is available.

*State pension plan*

Contributions to the National Pension Fund are expensed in profit or loss.

**(e)   Income tax**

The Company is exempted from income tax by the Mauritian tax authority.

**(f)   Plant and equipment**

*(i) Recognition and measurement*

Items of plant and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses.

Historical cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located and capitalised borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

If significant parts of an item of plant and equipment have different useful lives, then they are accounted for as separate items (major components) of plant and equipment.

Any gain or loss on disposal of an item of plant and equipment are determined by comparing the net proceeds from disposal with the carrying amount of the item, and are recognised in profit or loss.

*(ii) Subsequent expenditure*

Subsequent expenditure is capitalised only if it is probable that the future economic benefits associated with the expenditure will flow to the Company. Ongoing repairs and maintenance are expensed as incurred.

*(iii) Depreciation*

Depreciation is calculated on the straight-line method to write off the cost of each asset to its residual value over its estimated useful life. Residual value is the estimated amount that the Company would currently obtain from disposal of the asset after deducting the estimated cost of disposal and if the asset was already of the age and in the condition expected at the end of its useful life.

The principal annual rates of depreciation are:

|                       | %  |
|-----------------------|----|
| Computer equipment    | 20 |
| Motor vehicles        | 20 |
| Office equipment      | 20 |
| Fixtures & fittings    | 10 |
| Building Improvements | 10 |

Items of plant and equipment are depreciated for the full year in the year of purchase and ready for use and no depreciation is charged in the year of disposal. All plant and equipment have a nil residual value. Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

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**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016** **15.**

**3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**(g) Intangible assets**

*(i) Recognition and measurement*

Intangible assets acquired by the Company have finite useful lives and are measured at cost less accumulated amortisation and any accumulated impairment losses.

*(ii) Subsequent expenditure*

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates.

*(iii) Amortisation*

Amortisation is calculated to write off the cost of intangible assets less their estimated residual values using the straight-line method over their estimated useful lives, and is generally recognised in the profit or loss.

The estimated useful lives for the current and comparative years are as follows:

Computer software: 3 - 5 Years

**(h) Financial instruments**

Financial assets and liabilities are recognised on the statement of financial position when the Company becomes party to the contractual provisions of the financial instruments. Except where stated separately, the carrying amounts of the Company's financial instruments approximate their fair values. The classification of financial instruments depends on the nature and purpose of the financial instrument and is determined at the time of initial recognition.

*(i) Non-derivative financial assets and financial liabilities – recognition and derecognition*

Financial assets in the scope of IAS 39 are classified into the following category: loans and receivables. The Company initially recognises loans and receivables and deposits on the date that they are originated. All other financial assets (including assets designated at fair value through profit or loss) are recognised initially on the trade date, which is the date that the Company becomes a party to the contractual provisions of the instrument. The Company classifies non-derivative financial liabilities into the other financial liabilities category.

The Company derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Company is recognised as a separate asset or liability. The Company derecognises a financial liability when its contractual obligations are discharged, cancelled or expired.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Company has a legal right to offset the amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

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**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016** **16.**

**3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**(h) Financial instruments (continued)**

*(ii) Non-derivative financial assets - measurement*

*Loans and receivables*

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest method, less any impairment losses.

*Cash and cash equivalents*

Cash and cash equivalents include cash in hand, deposits held at call with banks that are highly liquid (with original maturities of three months or less).

*(iii) Non-derivative financial liabilities - Measurement*

Non-derivative financial liabilities are initially recognised at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortised cost using the effective interest method.

**(i) Impairment**

*(i) Non-derivative financial assets*

Financial assets not classified as fair value through profit or loss, are assessed at each reporting date to determine whether there is objective evidence of impairment.

Objective evidence that financial assets are impaired includes:

- default or delinquency by a debtor;
- restructuring of an amount due to the Company on terms that the Company would not consider otherwise;
- indications that a debtor or issuer will enter bankruptcy;
- adverse changes in the payment status of borrowers or issuers;
- the disappearance of an active market for a security; or
observable data indicating that there is measurable decrease in expected cash flows from a group of financial assets.

*ii) Financial assets measured at amortised cost*

The Company considers evidence of impairment for these assets at both an individual asset and a collective level. All individually significant assets are individually assessed for impairment. Those found not to be impaired are then collectively assessed for any impairment that has been incurred but not yet individually identified. Assets that are not individually significant are collectively assessed for impairment. Collective assessment is carried out by grouping together assets with similar risk characteristics.

In assessing collective impairment, the Company uses historical information on the timing of recoveries and the amount of loss incurred, and makes an adjustment if current economic and credit conditions are such that the actual losses are likely to be greater or lesser than suggested by historical trends.

An impairment loss is calculated as the difference between an asset's carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognised in profit or loss and reflected in an allowance account.

When the Company considers that there are no realistic prospects of recovery of the asset, the relevant amounts are written off. If the amount of impairment loss subsequently decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, then the previously recognised impairment loss is reversed through profit or loss.

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**FOR THE YEAR ENDED DECEMBER 31, 2016**                                                    **17.**

**3.    SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**(i)    Impairment (continued)**

*(iii)    Non-financial assets*

At each reporting date, the Company reviews the carrying amounts of its non-financial assets to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount. Impairment losses are recognised in profit or loss.

An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

**(j)    Leases**

*Determining whether an arrangement contains a lease*

At inception of an arrangement, the Company determines whether the arrangement is or contains a lease.

At inception or on reassessment of an arrangement that contains a lease, the Company separates payments and other consideration required by the arrangement into those for the lease and those for other elements on the basis of their relative fair values. If the Company concludes for a finance lease that it is impracticable to separate the payments reliably, then an asset and a liability are recognised at an amount equal to the fair value of the underlying asset; subsequently, the liability is reduced as payments are made and an imputed finance cost on the liability is recognised using the Company's incremental borrowing rate.

*Leased asset*

Assets held by the Company under leases that transfer to the Company substantially all of the risks and rewards of ownership are classified as finance leases. The leased assets are measured initially at an amount equal to the lower of their fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the assets are accounted for in accordance with the accounting policy applicable to that asset.

Assets held under other leases are classified as operating leases and are not recognised in the Company's statement of financial position.

*Lease payments*

Payments made under operating leases are recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

**(k)    New standards, amendments and interpretations adopted**

There are no standards, interpretations or amendments to existing standards that are effective for the first time for the financial year beginning 01 January 2016 that would be expected to have a material impact on the Company's financial statements.

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
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**FOR THE YEAR ENDED DECEMBER 31, 2016**                                                    **18.**

**3.    SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**(l)    New standards, amendments and interpretations not yet adopted**

A number of new standards and amendments to standards and interpretations are effective for annual periods beginning after 1 January 2016, and have not been applied in preparing these financial statements. None of these is expected to have a significant effect on the Company's financial statements, except the following set out below:

IFRS 9, 'Financial instruments', addresses the classification, measurement and recognition of financial assets and financial liabilities. The complete version of IFRS 9 was issued in July 2014. It replaces the guidance in IAS 39 that relates to the classification and measurement of financial instruments. IFRS 9 retains but simplifies the mixed measurement model and establishes three primary measurement categories for financial assets: amortised cost, fair value through OCI and fair value through P&L. The basis of classification depends on the entity's business model and the contractual cash flow characteristics of the financial asset. Investments in equity instruments are required to be measured at fair value through profit or loss with the irrevocable option at inception to present changes in fair value in OCI not recycling. There is now a new expected credit losses model that replaces the incurred loss impairment model used in IAS 39.

For financial liabilities there were no changes to classification and measurement except for the recognition of changes in own credit risk in other comprehensive income, for liabilities designated at fair value through profit or loss. IFRS 9 relaxes the requirements for hedge effectiveness by replacing the bright line hedge effectiveness tests. It requires an economic relationship between the hedged item and hedging instrument and for the 'hedged ratio' to be the same as the one management actually uses for risk management purposes. Contemporaneous documentation is still required but is different to that currently prepared under IAS 39. The standard is effective for accounting periods beginning on or after 1 January 2018. Early adoption is permitted. The company is yet to assess IFRS 9's full impact.

IFRS 15, 'Revenue from contracts with customers' deals with revenue recognition and establishes principles for reporting useful information to users of financial statements about the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. Revenue is recognised when a customer obtains control of a good or service and thus has the ability to direct the use and obtain the benefits from the good or service. The standard replaces IAS 18 'Revenue' and IAS 11 'Construction contracts' and related interpretations. The standard is effective for annual periods beginning on or after 1 January 2018 and earlier application is permitted. The company is assessing the impact of IFRS 15.

In January 2016, the International Accounting Standards Board (IASB) issued IFRS 16, 'Leases'. IFRS 16 will replace the current IAS 17 standard on leases. The effective date is 01 January 2019. The new standard requires that for lessees all leases, regardless of whether they are operating or financial in nature, will be on the statement of financial position and accounted for as "financial leases". There are some exemptions which could be applied and these relate to leases of 12 months or less (short-term leases), and leases of low-value assets. For such leases, the lease costs will be accounted for in the same way as operating leases are accounted for today. IFRS 16 will significantly change the way lessees account for leases, however lessor accounting remains largely the same and the classification as a finance lease or operating lease is still a consideration. This means that straight-lining of operating leases will remain for lessors. The Company is assessing the impact of IFRS 16.

There are no other IFRSs or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Company.

AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2016                                    19.

**4   PLANT AND EQUIPMENT**

| | Computer Equipment | Motor Vehicles | Office Equipment | Fixtures & Fittings | Building Improvements | Total |
|---|---|---|---|---|---|---|
| | USD | USD | USD | USD | USD | USD |
| **COST** | | | | | | |
| At January 1, 2015 | 690,666 | 63,882 | 75,998 | 57,944 | 273,120 | 1,161,610 |
| Additions | 17,466 | - | 1,157 | - | 1,362 | 19,985 |
| Disposal | (1,970) | - | - | - | - | (1,970) |
| At December 31, 2015 | **706,162** | **63,882** | **77,155** | **57,944** | **274,482** | **1,179,625** |
| Additions | **24,273** | **-** | **4,400** | **-** | **-** | **28,673** |
| **At December 31, 2016** | **730,435** | **63,882** | **81,555** | **57,944** | **274,482** | **1,208,298** |
| | | | | | | |
| **DEPRECIATION** | | | | | | |
| At January 1, 2015 | 368,152 | 38,328 | 65,350 | 29,236 | 133,218 | 634,284 |
| Charge for the year | 114,820 | 8,518 | 5,423 | 5,205 | 27,321 | 161,287 |
| Disposal adjustment | (492) | - | - | - | - | (492) |
| At December 31, 2015 | **482,480** | **46,846** | **70,773** | **34,441** | **160,539** | **795,079** |
| Charge for the year | **113,202** | **8,518** | **4,477** | **5,139** | **27,321** | **158,657** |
| **At December 31, 2016** | **595,682** | **55,364** | **75,250** | **39,580** | **187,860** | **953,736** |
| | | | | | | |
| **CARRYING AMOUNTS** | | | | | | |
| **At December 31, 2016** | **134,753** | **8,518** | **6,305** | **18,364** | **86,622** | **254,562** |
| At December 31, 2015 | 223,682 | 17,036 | 6,382 | 23,503 | 113,943 | 384,546 |

AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2016                                    20.

**4.   PLANT AND EQUIPMENT (CONTINUED)**

**Finance leases**

Included under plant and equipment is the following carrying amount of motor vehicle held under finance lease:

| | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| Cost | **63,882** | 63,882 |
| Accummulated depreciation | **(55,364)** | (46,846) |
| Carrying amount | **8,518** | 17,036 |

**5.   INTANGIBLE ASSETS**

| | Computer Software |
|---|---|
| | USD |
| **COST** | |
| At January 1, 2015 | 147,508 |
| Additions | 19,896 |
| At December 31, 2015 | **167,404** |
| Additions | - |
| **At December 31, 2016** | **167,404** |
| **AMORTISATION** | |
| At January 1, 2015 | 50,808 |
| Charge for the year | 19,111 |
| At December 31, 2015 | **69,919** |
| Charge for the year | **19,111** |
| **At December 31, 2016** | **89,030** |
| **CARRYING AMOUNTS** | |
| **At December 31, 2016** | **78,374** |
| At December 31, 2015 | 97,485 |

AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2016                                    21.

**6.   TRADE AND OTHER RECEIVABLES**

|                              | 2016    | 2015    |
|------------------------------|---------|---------|
|                              | USD     | USD     |
| Trade receivables            | **252,231** | 255,588 |
| *Other receivables*          |         |         |
| - Vat                        | **20,688**  | 7,844   |
| - Prepayments and deposits   | **80,810**  | 127,350 |
| - Other receivables          | **64,365**  | 55,264  |
|                              | **418,094** | 446,046 |

Trade receivables are non-interest bearing and are generally on 30-90 days' terms.
Other receivables are non-interest bearing and are generally on 30-60 days' terms and are neither past due nor impaired.
The ageing analysis of trade receivables is as follows:

|        | Total | Neither past due nor impaired | < 30 days | Past due but not impaired | | > 90 days |
|--------|-------|-------------------------------|-----------|---------|---------|-----------|
|        |       |                               |           | 30 - 60 days | 61 - 90 days |           |
|        | USD   | USD                           | USD       | USD     | USD     | USD       |
| **2016** | **252,231** | **2,740** | **500** | **1,400** | **3,430** | **244,161** |
| 2015   | 255,588 | 1,750 | 1,530 | 1,425 | 22,060 | 228,823 |

At 31 December 2016, trade receivables amounting to **USD 39,199** (2015 : USD 26,098), were impaired and written off during the year.

**7.   CASH AND CASH EQUIVALENTS**

|                          | 2016      | 2015      |
|--------------------------|-----------|-----------|
|                          | USD       | USD       |
| Cash at bank             | **3,116,088** | 2,082,072 |
| Cash in hand             | **7,271**     | 8,197     |
| Cash and cash equivalent | **3,123,359** | 2,090,269 |

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AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2016                                    22.

**7.   CASH AND CASH EQUIVALENTS (CONTINUED)**

The Company maintains a number of bank accounts   to manage its daily operations. The balance of USD 3,123,359 consists of the following balances:

|                          | 2016      | 2015      |
|--------------------------|-----------|-----------|
| *Own Cash Holdings*      | *2,089,123* | *1,038,836* |
| *Fees received in advance* | *839,589* | *764,510* |
| *Cash Held - Project/Other* |         |         |
| *Fire*                   | *184,171* | *223,048* |
| *ICANN*                  | *6,329*   | *2,395*   |
| *AFTLD*                  | *4,147*   | *61,480*  |
|                          | *3,123,359* | *2,090,269* |

As per the board resolution dated 27 November 2016, a fixed deposit of USD 551,271, bearing an interest rate of 1% per annum and a maturity of twelve months from 30 December 2016, has  been set aside as the Strategic Cash Reserve from Afrinic's own cash holdings with the following rules:

(a) that a suitable interest-bearing bank account be created for the Strategic Cash Reserve;

(b) that any expenditure or transfers out of the strategic cash reserve bank account shall require three signatories, comprising the CEO, the financial director and either the chairman or the vice-chairman of the Board; and
(c) that any expenditure or transfers out of the strategic cash reserve shall be authorised by the Board.

**8.   RESERVE**

The Company does not have a share capital.

Funding for the running of the Company shall be realised from the following:
(i) membership fees from members;
(ii) setup fees for bulk registration services;
(iii) assignment/allocation fees for individual address space assignments / allocation;
(iv) maintenance fees for non-contiguous, non ISP address space;
(v) registration fees for individual address space transfers;
(vi) setup fees for autonomous system number ("ASN") assignments;
(vii) grants and/or voluntary donations; and
(viii) such other sources as may be deemed appropriate from time to time by the Board.

The fees mentioned above shall be subject to review from time to time by the Board.

**Revenue reserve**
Revenue reserve refers to the undistributed and accumulated surpluses over the years the Company has been in existence.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
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9. **FINANCE LEASE OBLIGATION**

In 2012, the Company entered into a finance lease agreement for a duration of five years with AXYS Leasing Ltd for the purchase of a motor vehicle for the COO.

| | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| Not later than 1 year | 8,409 | 10,193 |
| Later than 1 year and within 5 years | - | 8,494 |
| Total minimum lease payments | 8,409 | 18,687 |
| Less amounts representing finance charges | (412) | (1,849) |
| Present value of minimum lease payments | 7,997 | 16,838 |

The present value of finance lease liabilities is analysed as follows:

| | Interest rate (%) | Maturity | 2016 | 2015 |
|---|---|---|---|---|
| | | | USD | USD |
| Within one year | 11.1% p.a | 2016 | 7,997 | 8,760 |
| After one year but not more than five years | 11.1% p.a | 2016-2017 | - | 8,078 |
| | | | 7,997 | 16,838 |

Leased liabilities is effectively secured as the rights to the leased assets reverts to the lessor in the event of default.

10. **TRADE AND OTHER PAYABLES**

| | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| Trade payables | 82,281 | 59,900 |
| Other payables | 327,580 | 486,691 |
| Advance receipts from members | 839,589 | 764,510 |
| | 1,249,450 | 1,311,101 |

Trade Payables represent amount owed to trade creditors as well as supplier of goods & services.

Terms and conditions of the above financial liabilities:
- Trade payables are non-interest bearing and are normaly settled on 30-day terms.
- Other payables are non-interest bearing and have an average term of six months.
- Advance receipts from members represent membership fees for 2017 received in 2016.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016** 24.

11 **INCOME**

| | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| *Membership fees* | | |
| Membership renewal fees | 3,946,739 | 3,587,650 |
| Allocation or assignment fees | 480,500 | 350,145 |
| | 4,427,239 | 3,937,795 |
| Sponsorship for Afrinic events | 170,410 | 139,854 |
| Other income | 5,263 | 7,060 |
| | 4,602,912 | 4,084,709 |

| Note on discounts | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| Early settlement | 30,448 | 19,670 |
| Educational & critical Infrastructure | 148,188 | 121,673 |
| | 178,636 | 141,343 |

12 **DEFERRED INCOME**

| | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| Members fees in advance | 3,300 | 6,475 |
| Analysed as follows: | | |
| Current liabilities | 950 | 3,175 |
| Non-current liabilities | 2,350 | 3,300 |
| | 3,300 | 6,475 |

Deferred Income represents fees received in one period relating to future membership years. These are mostly for End Sites members

13. **SURPLUS OF INCOME OVER EXPENDITURE**

| | 2016 | 2015 |
|---|---|---|
| | USD | USD |
| The surplus is arrived at after charging: | | |
| Depreciation on property, plant and equipment | 158,657 | 161,287 |
| Amortisation of intangible assets | 19,111 | 19,111 |
| Meeting expenses | 279,223 | 275,024 |
| Office expenses | 231,029 | 231,837 |
| Travelling expenses | 414,386 | 467,710 |
| Staff cost | 1,858,827 | 1,878,740 |
| **Staff cost is analysed as follows:** | | |
| Salaries | 1,372,440 | 1,368,015 |
| Social security costs and other benefits | 486,387 | 510,725 |

Social Security Costs & other benefits exclude staff Training, Recruitment Expenses & Staff Welfare

AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2016                                    25.

**14    FINANCE INCOME AND COST**

|  | 2016 | 2015 |
|---|---|---|
|  | USD | USD |
| **Finance income** | | |
| Bank interest receivable | **1,271** | 4,081 |
| Realised / Unrealised gain on exchange | **1,660** | 24,620 |
|  | **2,931** | 28,701 |
| **Finance cost** | | |
| Unrealised / Realised loss on exhange | **(50,693)** | (87,587) |
| Finance charges payable under finance lease | **(1,421)** | (2,454) |
|  | **(52,114)** | (90,041) |
| **Net finance costs** | **(49,183)** | (61,340) |

**15.    TAXATION**

The Company has been granted exemption from payment of tax by the Ministry of Finance of the Republic of Mauritius on 16 November 2005.

**16    RELATED PARTY DISCLOSURES**

(a)    Transaction with members.

|  | 2016 | 2015 |
|---|---|---|
|  | USD | USD |
| Membership fees | **4,427,239** | 3,937,795 |

(b)    Transactions of key management personnel (CEO) of the Company:

|  | 2016 | 2015 |
|---|---|---|
|  | USD | USD |
| Short term employee benefit | **164,727** | 74,492 |

**17.    FINANCIAL INSTRUMENTS**

*Fair value of instruments*

Fair value is defined as the amount for which the instrument could be exchanged in a current transaction between knowledgeable willing parties in an arms-length transaction, other than in a forced or liquidation sale. The fair values of the Company's financial instruments, which principally comprise cash and cash equivalents, trade receivables and other receivables, and trade and other payables approximate their carrying values as stated in the statement of financial position.

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AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2016                                    26.

**17.    FINANCIAL INSTRUMENTS (CONTINUED)**

*Fair value of instruments (continued)*

|  | Carrying value | | Fair value | |
|---|---|---|---|---|
|  | 2016 | 2015 | 2016 | 2015 |
|  | USD | USD | USD | USD |
| **Financial assets:-** | | | | |
| Cash and cash equivalents | **3,123,359** | 2,090,269 | **3,123,359** | 2,090,269 |
| Trade and other receivables | **316,596** | 310,852 | **316,596** | 446,046 |
|  | **3,439,955** | 2,401,121 | **3,439,955** | 2,536,315 |

|  | Carrying value | | Fair value | |
|---|---|---|---|---|
|  | 2016 | 2015 | 2016 | 2015 |
|  | USD | USD | USD | USD |
| **Financial liabilities:-** | | | | |
| Finance lease obligation | **7,997** | 16,838 | **7,997** | 16,838 |
| Trade and other payables | **409,861** | 546,591 | **409,861** | 546,591 |
|  | **417,858** | 563,429 | **417,858** | 563,429 |

Advance receipts from members are excluded from Trade and other payables as not considered financial liabilities.
Vat and prepayments have been excluded from trade and other receivables

*Fair value of instruments*

. Disclosure of fair value measurements by level of the following fair value measurement hierarchy

. Quoted prices (unadjusted) in active markets for identical assetes and liabilities (level 1)

. Inputs other than quoted prices included within level 1 that are observable for the asset or liability
  either directly (that is, as prices) or indirectly (that is, derived from prices) (level 2); and

. Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs (level 3)

Trade and other receivables, finance lease obligation and trade and other payables are classified within level 2 whereas cash and cash equivalents are classified within level 1 of the fair value hierarchy.

*Fair value of instruments*

At 31 December 2016, if the USD had strengthened/weakened by 1% against the MUR with all other variables held constant, surplus for the year would have been higher/lower by USD 17,487 (2015 : surplus
will be lower/higher by USD 16,561) mainly as a result of foreign exchange differences on translation of MUR denominated bank balances, net of MUR denominated trade and other payables and net of MUR denominated trade and other receivables.

Deferred income of USD 3,300 (2015: USD 3,175) and advance receipts from members of USD 839,589 (2015 : USD 764,510) have been excluded from financial liabilities.

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                    27.

18.  **FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES**

**Risk Management**

The Company's principal financial liabilities comprise trade and other payables and finance lease obligation. The Company has various financial assets such as trade receivables and cash and cash equivalents which arise directly from its operations.

The main risks arising from the Company's financial instruments are liquidity risk, market risk (including currency risk and interest rate risk) and credit risk. The Board of directors reviews and agrees policies for managing each of these risks which are summarised below.

*Liquidity risk*

Prudent liquidity risk management implies maintaining sufficient cash, the availability of funding through an adequate amount of committed credit facilities. The Company aims at maintaining flexibility in funding by keeping committed credit lines available.

The table below summarises the maturity profile of the Company's financial liabilities at year end based on contractual undiscounted cash flows.

**Contractual cash flows**

|  | Less than 3 months 3 months USD | 3 to 12 months USD | More than 1 year USD | Total USD |
|---|---|---|---|---|
| **December 31, 2016** | | | | |
| **Non-derivative financial liabilities** | | | | |
| Finance lease obligation | **2,322** | **6,087** | - | **8,409** |
| Trade and other payables | **408,248** | **1,613** | - | **409,861** |
|  | **410,570** | **7,700** | - | **418,270** |
| | | | | |
| December 31, 2015 | | | | |
| **Non-derivative financial liabilities** | | | | |
| Finance lease obligation | 2,100 | 8,093 | 8,494 | 18,687 |
| Trade and other payables | 474,104 | 72,487 | - | 546,591 |
|  | 476,204 | 80,580 | 8,494 | 565,278 |

*Market risk*

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates, will affect the Company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                    28.

18   **FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)**
.

**Risk Management (Continued)**

*Foreign currency risk*

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Company operates internationally but is exposed to foreign exchange risks arising primarily with respect to Mauritian rupees ("MUR").

| **Financial assets** | **Trade and other receivables** | **Cash and cash equivalent** | **Total** |
|---|---|---|---|
|  | **2016** | **2016** | **2016** |
|  | **USD** | **USD** | **USD** |
| MUR | - | 52,309 | 52,309 |
| USD | 316,596 | 3,071,050 | 3,387,646 |
|  | 316,596 | 3,123,359 | 3,439,955 |

| **Financial assets** | Trade and other receivables | Cash and cash equivalent | Total |
|---|---|---|---|
|  | 2015 | 2015 | 2015 |
|  | USD | USD | USD |
| MUR | - | 1,095 | 1,095 |
| USD | 446,046 | 2,089,174 | 2,535,220 |
|  | 446,046 | 2,090,269 | 2,536,315 |

| **Financial liabilities** | **Trade and other payables** | **Finance lease obligations** | **Total** |
|---|---|---|---|
|  | **2016** | **2016** | **2016** |
|  | **USD** | **USD** | **USD** |
| MUR | 409,861 | 7,997 | 417,858 |

|  | Trade and other payables | Finance lease obligations | Total |
|---|---|---|---|
|  | 2015 | 2015 | 2015 |
|  | USD | USD | USD |
| MUR | 546,591 | 16,838 | 563,429 |

**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                              **29.**

**18    FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONTINUED)**
.

   **Risk Management (Continued)**

*Credit risk*

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Company is exposed to credit risk from its operating activities, primarily for trade receivables and from its financing activities, including foreign exchange transactions, and other financial instruments.

The Company trades with recognised, creditworthy third parties only. In addition, receivable balances are monitored on an ongoing basis with the result that the Company's exposure to bad debts is not significant.

*Cash and cash equivalents*

The Company only deposits cash surpluses with major banks of high quality credit standing.

*Capital management*

The primary objective of the Company's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximise net assets attributable to its members.

The Company manages its capital structure and makes adjustments to it, in the light of changes in economic conditions.  No changes were made in the objectives, policies or processes during the year ended December 31, 2016. The Company manages the following as its capital:

|  | 2016 | 2015 |
|---|---|---|
|  | USD | USD |
| Reserve revenue | 2,613,642 | 1,683,932 |
| Finance lease obligation | 7,997 | 16,838 |
| Gearing ratio | 0.3% | 1% |

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**AFRICAN NETWORK INFORMATION CENTRE (AfriNIC) LTD**
**NOTES TO THE FINANCIAL STATEMENTS**
**FOR THE YEAR ENDED DECEMBER 31, 2016**                              **30.**

**19.   CONTINGENT LIABILITIES**

(a)   As at 31 December 2016, there were contingent liabilities in respect of guarantees for which no provisions have been made in the financial statements. The guarantees are denominated in Mauritian rupees ("MUR"), and are follows:

|  | 2016 | | 2015 | |
|---|---|---|---|---|
|  | USD | MUR | USD | MUR |
| Bank guarantee | 275 | 10,000 | 277 | 10,000 |

(b)   In 2015, Afrinic Board agreed to participate in The Joint Regional Internet Registry Stability Fund. This is a fund which will be established through voluntary pledges of funds, publicly documented, from individual RIRs. The fund is to be used in case of need, to guarantee the continuity of registry operations and related support activities, the latter prominently including regional and global policy development processes. Any use of funds will be contingent upon having public reporting of audited financial statements. Afrinic has pledged USD 50,000 towards the funds.

# MESSAGE OF THANKS

AFRINIC wishes to sincerely thank the organisations which contributed as sponsors and local hosts, to the success of its 2016 meetings. Their contribution is not only beneficial to AFRINIC but goes a long way in promoting Internet development in the African and Indian Ocean region.
We also thank the sponsors of the FIRE Programme.

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