POLICY IMPLEMENTATION EXPERIENCE REPORT

By

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POINTE NOIRE CONGO

AFRINIC

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28 NOVEMBER - 4 DECEMBER
2015

Conservation - *To maximize the lifetime of the public Internet address space resource, addresses must be distributed according to actual need and on the basis of immediate use. Therefore, stockpiling of address space and maintaining reservations must, in general, be avoided.*

Section 7.3 **Documentation**

In order to properly evaluate requests, an RIR must carefully examine all relevant documentation relating to the networks in question. Such documentation may include network engineering plans, subnetting plans, descriptions of network topology, and descriptions of network routing plans. All documentation should conform to a consistent standard and any estimates and predictions that are documented must be realistic and justifiable.

Applicant organisations submitting initial requests , in which services requiring IP addresses are originating from infrastructure in the AFRINIC service region.

Verification, when such Resource Members request for additional resources, showed that the resources are then used for either other purposes or in facilities located outside the AFRINIC service region.

Change of purpose of usage was not submitted to AFRINIC (in respect for policies in place as well as the RSA that they signed with AFRINIC.

Current Practice

» IP Addressing Plan detailing immediate(0-3 months) and next 12 months needs

- Proof of infrastructure and operation in the AFRINIC service region

- Proof of providing services to end-users

- Evidence of connectivity and operation

Current Practice

AFRINIC Hostmasters submitted their findings to the Resource Members and have not moved forward with the additional requests, unless the change request is submitted and/or clarifications of the change in usage is documented.

Resource Members were informed that they are going against the existing policies & RSA in place.

Increase awareness of necessity to comply with existing policies and other AFRINIC documents (RSA & Bylaws)

AFPUB-2005-v4-001

Reservations are not considered as valid assignments or sub-allocations. It may be useful for internal aggregation to keep some IP blocks free for future growth. These internal reservations are however not counted as valid usage and must be assigned or sub-allocated before requesting for an additional allocation.

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9.4 Reservations not supported

End-users are not permitted to reserve address space based on long term plans. This violates the goal of conservation and fragments the address space when initial forecasts are not met. If an LIR wants to assign address space for customers, it must make the assignments from any unallocated or unassigned address space it currently holds. For the purposes evaluating allocation requests, space reserved by an LIR for other customers is considered unused.

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Issues

Mobile Operators requesting resources to be used a fail-safe/site failover

Amount of IPv4 resources being requested -/12

Resource Members have IP addresses quarantined on their systems

Current Practice

» IP addressing plan verified

» Assignments registered on whois database checked for reservations

» Quarantine IP addresses not considered as valid assignments

» Resource members advised to keep quarantined IPs at a minimum

» Prefix issued do not take into account the "reservation" needs of the resource members

» Resource members requested to use their reserved blocks before getting more IP addresses

» Resource members encouraged to engage their providers

» Teach and Approve

AFPUB-2005-v4-001

AFRINIC is responsible for the allocation of IP (Internet Protocol) address space, AS (Autonomous System) Numbers and management of reverse domain names **within the region**.”

Issues

- Offshore Companies with no infrastructure in the region

- Presence in AFRINIC service region but whole infrastructure is outside the service region

Current Practice

- Legal presence in the AFRINIC service region

- Proof of infrastructure and operation in the AFRINIC

- service region

- Proof of providing services to end-users

- Evidence of connectivity and operation

- License to operate from regulator (where applicable)

- Slow-start as per policy by default, unless justification for more IPs is made(e.g existing network operations)

- Approval delayed until such time above can be submitted

AFPUB-2005-v4-001

8.4 Additional Allocation

*An LIR may receive an additional allocation when about 80% of all the address space currently allocated to it has been used in **valid assignments** and/or sub-allocations. A new allocation can also be made if single assignment or sub-allocation requires more addresses than those currently held by the LIR.*

Issues

- Assignments are not being registered on the whois database

- Member reluctant to give more information about assignments

- Refusal to provide information regarding IP resource utilization unless separate NDA signed

- Policy clear on need to provide proper justification and documentation.

- Inconsistencies noted in historical data provided

- LIR guidelines not followed

- Deployment of entire allocation

- Provisioning not done

- Audit of usage does not demonstrate 80% utilization

Current Practice

- Look at assignments registered in the whois database.

- Verify if 80% utilisation

- Verify validity of assignments (historical data, snapshots of usage data)

- Verify if prefixes in use appear in the internet routing table/Query LIR for reason behind lack of routing info

- Reason for resource request if 80% usage is not yet met

- Teach and approve in certain cases

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AFPUB-2005-v4-001

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Issues

- Regulatory requirements requiring 1 IP per customer in some countries
- LIRs have to comply with such requirements

Current Practice

- IP address allocated to cater for peak hour utilisation and growth for the next 12 months in concurrent connected subscribers

- IPv6 to be deployed to comply with regulatory laws - massive amount of IP addresses

AFPUB-2006-GEN-001

5) End-User Assignment to critical Infrastructure
AfriNIC will make End-User assignment to critical infrastructure providers of the Internet such as public exchange points and core DNS service providers. These allocations will be no longer than a /24 using IPv4. Multiple allocations may be granted in certain situations. - Exchange point assignment MUST be assigned from specific blocks reserved only for this purpose.

Issues

- IXPs do not have publicly available info on their peering policy, such as a website
- IXPs do not clearly specify the purpose for which they are requesting resources - peering or management or other

Current Practice

- Engaging IXPs (AFPIF , AF-IX)

- Teach and Approve

- Online documentation/guidelines (in progress)

AFPUB-2004-ASN-001

In order to qualify for an AS number, the requesting organization must fulfill the following requirements:

A unique routing policy (its policy differs from its border gateway peers).

A multi-homed site.

An organization will also be eligible if it can demonstrate that it will meet the above criteria upon receiving an ASN (or within a reasonably short time thereafter).

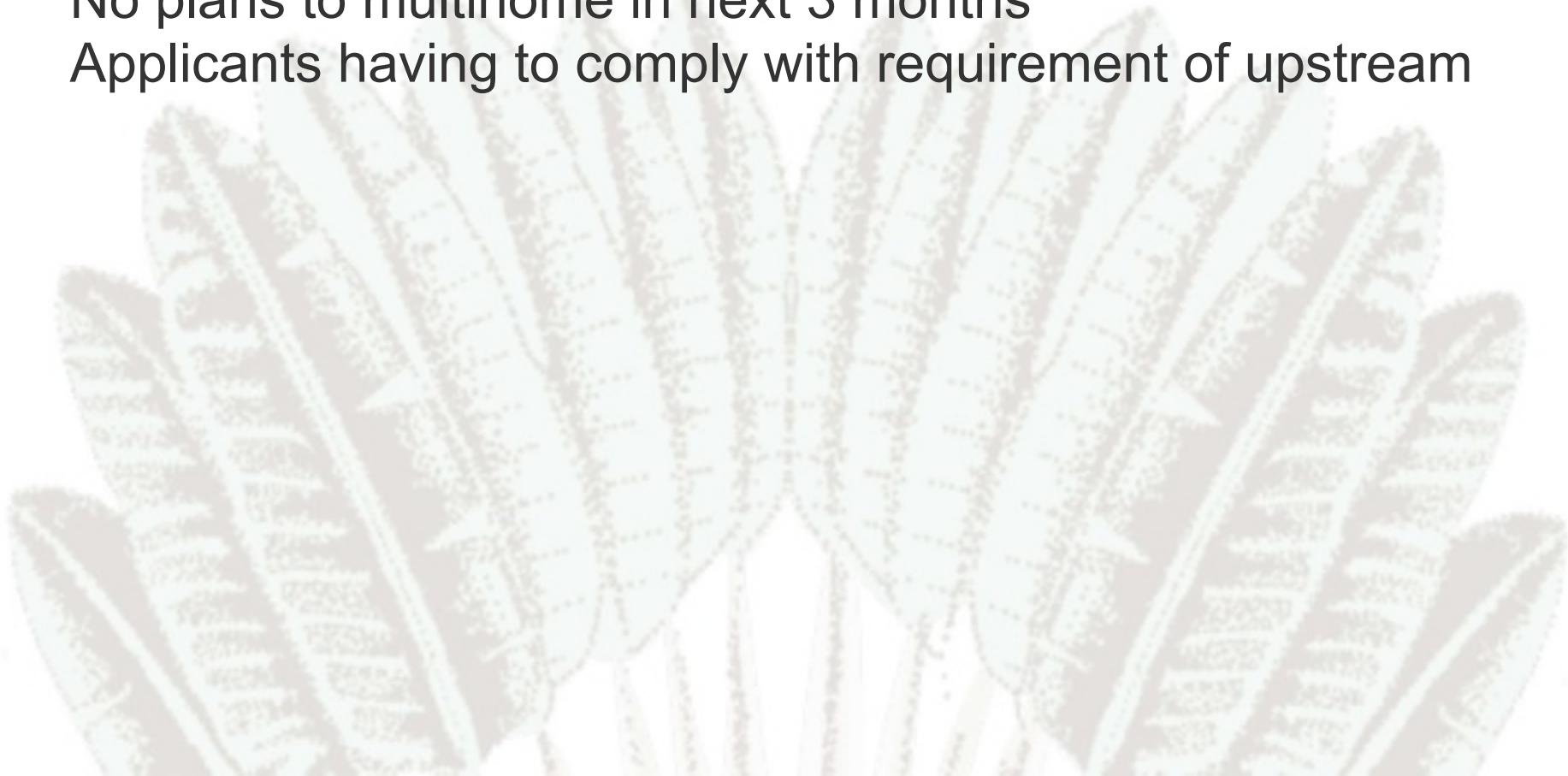*Be an AFRINIC member in a good standing (End-User or LIR type)*

Issues

Single homing
No plans to multihome in next 3 months
Applicants having to comply with requirement of upstream

Current Practice

- Hostmasters use Teach & Approve principle

- ASNs approved only if BGP peers confirm established of peering agreements or negotiations taking place

- ASNs approved if Resource member is connecting to an Internet Exchange Point

AFPUB-2012-DNS-001

"**AfriNIC may remove reverse delegation of any LIRs allocation beginning 12 (twelve) months from the date of the reminder.**"

Issues

136 Resource members not compliant

Shall AFRINIC remove the rDNS of the non-compliant members?

Current Practice

- AFRINIC hostmasters assist resource members who are unable to register the reverse delegations

- Teach ,hand-hold registration of Assignments

- AFRINIC hostmasters shall verify policy compliance of Resource members when they request resources or service assistance (can be implemented to ensure that 100% of AFRINIC members are compliant)

Request to the Community

Should AFRINIC Registration Services carry on with the current practices?

CONCLUSION

Please come forward with your suggestions or on the Policy Discussion Mailing List rpd@afrinic.net

Thank you for your Attention

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