AFRINIC 34 ONLINE

9:00 - 13:00 UTC 15-18th NOVEMBER 2021

AFRINIC Number Resources Transfer Policy

AFPUB-2020-GEN-006-DRAFT02

AUTHORS :
Adeola A. P. Aina
Gregoire Olaotan Ehoumi
Mukhangu Noah Maina

Summary of the problem statement

❑ AFRINIC IPv4 pool is expected to run out soon. Some entities may need IPv4 space to support their IPv6 deployments,

❑ The current Intra-RIR transfer policy allows all types of IPv4 allocations/assignments to be transferred, including IPv4 from special purpose blocks (reserved blocks for IXPs and DNS root ops, Last /8, etc.)

❑ The current intra-RIR transfer policy does not cover ASNs

❑ Considering the limited IPv4 space initially made available to AFRINIC (AFRINIC manages only 7.23 /8s with a very low ratio of IPv4 addresses per Internet user), **there will therefore be a need to allow for unused IPv4 from other regions to move into the AFRINIC service region – this without necessarily depleting AFRINIC's slim amount of IPv4 addresses by transferring space out of the region.**
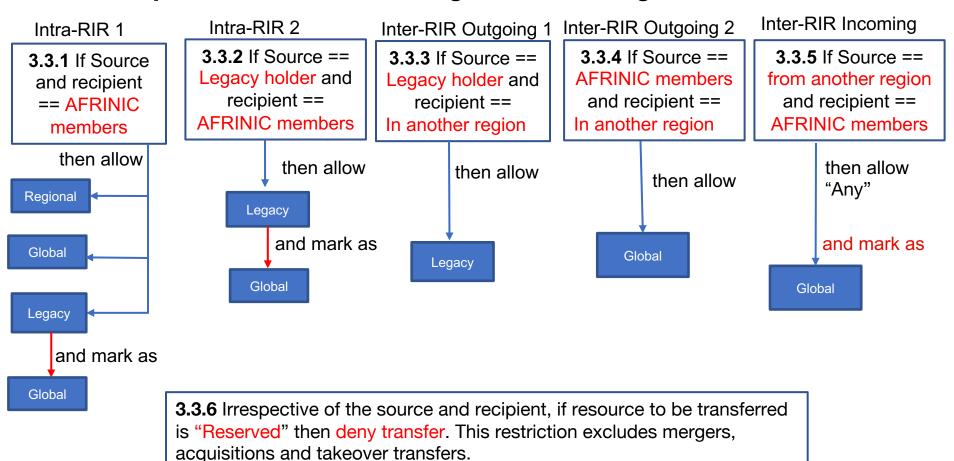
Summary of how the proposal addresses the problem

❑   This new policy defines a set of rules to allow transfer of IPv4 addresses and ASNs .

❑   The policy segregates resources in different categories and defines which transfer rules apply to each category.

❑   Legacy resources and resources transferred IN from other regions will be transferable out of the AFRINIC service region.

Definitions and marking in section 3

3.2 Marking of the resources

AFRINIC pool == **Regional** **;**
Special-Purpose pool == **Reserved** **;**
Legacy == **Legacy** **;**
Others == **Global** **;**

Rules and procedures for selecting resources eligible for transfers

Intra-RIR 1

3.3.1 If Source and recipient == AFRINIC members

then allow

Regional

Global

Legacy

and mark as

Global

Intra-RIR 2

3.3.2 If Source == Legacy holder and recipient == AFRINIC members

then allow

Legacy

and mark as

Global

Inter-RIR Outgoing 1

3.3.3 If Source == Legacy holder and recipient == In another region

then allow

Legacy

Inter-RIR Outgoing 2

3.3.4 If Source == AFRINIC members and recipient == In another region

then allow

Global

Inter-RIR Incoming

3.3.5 If Source == from another region and recipient == AFRINIC members

then allow "Any"

and mark as

Global

3.3.6 Irrespective of the source and recipient, if resource to be transferred is "Reserved" then deny transfer. This restriction excludes mergers, acquisitions and takeover transfers.

Conditions

3.4 Conditions on resources to be transferred

❑ The size of the IPv4 address prefix should be a minimum of /24.

❑ The resource must qualify for type of transfer requested.

❑ The resource will be covered by AFRINIC policies after transfer into the region.

3.5 Conditions on the source

❑ Must be right holder of the resources to be transferred with no disputes.

❑ If the source is from other regions, conditions on the source are defined in the counterpart RIRs transfer policy.

3.6 Conditions on the recipient

❑ Will be subject to current AFRINIC policies and must sign RSA.

❑ Condition for Recipient that does not have prior resources

❑ Condition for Recipient with prior resources

❑ If the recipient is in another region, the conditions on the recipient are defined in the counterpart's RIR transfer policy.

Other Provisions

The policy also makes the following provisions:

❑ Number resources are non-transferable and are not assignable to any other organization unless AFRINIC has expressly and in writing approved a request for transfer. AFRINIC is tasked with making prudent decisions on whether to approve the transfer of number resources.

❑ IPv4 addresses and ASNs can be transferred only in accordance with this policy.

❑ AFRINIC does not recognize transfers outside of approved transfer policies and requires organizations holding such resources to return them to the appropriate registries.

Compatibility/reciprocity

Regarding the last compatibility/reciprocity
https://lists.afrinic.net/pipermail/rpd/2020/011942.html

- RIPE and LACNIC said proposal is ok for compatibility/reciprocity
- APNIC and ARIN have some reserves

Staff Assessment

Staff concerns	Authors responses
Since "Resource" means IPv4, IPv6, and ASN in general, it is suggested that; **3.1 Definitions**	Reworded to: 3.1 Definitions applicable to this section of the proposal
Under the heading "Rules and procedures for selecting resources eligible for transfers", more precisely under sub-paragraph 3.3.5, the term **"Any" appears to be vague**; to avoid present assumptions and potential future misinterpretation, it would be important to have a specific definition	Reworded to: 3.3.5 the term "Any" should have been "others"
Bullet point 2 of Section 3.4 of the proposal reads "The resource must qualify for the type of transfer requested." This use of **"type of transfer" is ambiguous** since there are no transfer types defined in the proposal and is open to misinterpretation. Since a definition exists in Section 2, the authors may consider including the types of transfers in Section 3 of the proposal.	Reworded to: 3.4 The resource must qualify for the type of transfer requested as defined in 3.3.
Under the under heading "Conditions on the source", more precisely with respect to the first bullet under paragraph 3.5 of the policy **Must be the right holder of the resources to be transferred with no disputes.** proposal, same to be rephrased as follows	Reworded to: 3.5 The source holder must be the rightful holder of the resources being the subject of the transfer and that the resources must not be the subject of any dispute, known or contemplated.

Staff Assessment

Staff concerns	Authors responses
Absence of "hold down" time of new allocations/assignments and transferred resources **may lead to abuse of the registry** before a resource can be put to an effective justified need.	Section 3.6 Conditions on the recipient said ..must demonstrate a detailed plan for the use of the transferred resources We don't want to put concrete to justify the need for people building network in the region
Under the heading "Definitions", more precisely under sub-paragraph 3.1.5, the term **"Others" appears to be vague**. The authors may wish to reformulate so that the definition also mentions that incoming legacy resources lose their legacy status after the transfer.	Others is well defined 3.1.5 "Others" means resources transferred from other regions through Inter-RIR transfers. 3.4 said: The resource will be covered by AFRINIC policies after transfer into the region.
The author may wish to update Section 3 of the proposal with " **Resources deemed to be transferred without AFRINIC's prior approval will be deemed non-compliant with the policy and shall be reclaimed"**	Section 2.0 said: AFRINIC does not recognize transfers outside of approved transfer policies and requires organizations holding such resources to return them to the **appropriate registries.**

Staff Assessment

Staff concerns	Authors responses
In regard to the inbound transfer of legacy resources into the AFRINIC's region and whilst clause 3.6 of the proposed policy will require the recipient to sign an RSA, it is not clear in the proposed policy whether the concerned IPv4 legacy resource will lose its legacy status upon transfer into the AFRINIC's service region in as much as the current RSA is not presently tailored for that purpose. Further, it is also important to clarify whether, in case of inbound transfers of legacy resources, AFRINIC will be able to execute its RSA with the obvious risk of the concerned IP number resources being reclaimed by AFRINIC in case of subsequent breach of the RSA, despite that the recipient organisation would have most probably paid good consideration (financial value) for such transfers.	3.4 said The resource will be covered by AFRINIC policies after transfer into the region. 3.6 Conditions on the recipient Will be subject to current AFRINIC policies. Must sign RSA.

**Thank you
Merci
Questions ?**

**AFRINIC 34
ONLINE**

9:00 - 13:00 UTC
15-18th NOVEMBER 2021

AFRINIC-34 Website:

https://meeting.afrinic.net/afrinic-34

Contact us: meeting@afrinic.net

ORGANISER

EXTRA SLIDES

NRO Statistics 2021 – Inter-RIR IPv4 Transfer
https://www.nro.net/wp-content/uploads/NRO-Statistics-2021-Q3-FINAL.pdf

Inter-RIR IPv4 Transfers

Total number of IPv4 transfers between RIRs

Recipient RIR

Source RIR		AFRINIC	APNIC	ARIN	LACNIC	RIPE NCC
	AFRINIC		0	0	0	0
	APNIC	0		77	0	137
	ARIN	0	357		8	400
	LACNIC	0	1	11		14
	RIPE NCC	0	116	155	5	

NRO

14

Inter-RIR Transferred IPv4 Addresses

Total number of IPv4 addresses transferred between RIRs

Recipient RIR

	AFRINIC	APNIC	ARIN	LACNIC	RIPE NCC
AFRINIC		0	0	0	0
APNIC	0		215.55K	0	1.391M
ARIN	0	19.207M		2560	9.723M
LACNIC	0	16384	32.506k		250.63K
RIPE NCC	0	2.211M	828.43K	3532	

Source RIR

NRO