<u>**Subject: Appeal against the consensus determination on proposal :**</u> **RPKI ROAs for Unallocated and Unassigned AFRINIC Address Space - AFPUB-2019-GEN-006-DRAFT03.**

Dear Appeal Committee,

I am requesting an appeal against the declaration of consensus made by the PDWG co-chairs during the Virtual Public Policy Meeting at the AIS'21 (https://www.youtube.com/watch?v=mBFqiz6M8fc&list=PLLJRUWAm1GCYuz_-r69s4Qnrdzyq3x-S4&index=4), on **June the 3rd 2021**, and which was confirmed on the RDP mailing list on **June the 4th 2021 (https://lists.afrinic.net/pipermail/rpd/2021/013214.html)**

The main reason of this appeal is the presence of numerous **concerns and objections** that have not been addressed by the author of this policy, and which constitute a valid proof of the **lack of consensus** that this policy has reached.

a.   **Brief description of the topic under appeal.**

Appeal against the confirmation of consensus declared by the PDWG chairs on the RPKI ROAs for Unallocated and Unassigned AFRINIC Address Space Policy.

b.   **Date of the appeal.**

July 22nd, 2021

c.   **Name and email address of complainant.**

Meriem Dayedaye (meriemdayday@gmail.com)

d.   **Names of three (3) persons, other than the complainant, who support the appeal and who participated in the discussions**

a.   Wijdane Goubi (goubi.wijdane@gmail.com)

b.   Elvis Ibeanusi (ibeanusielvis@gmail.com)

c. Christian Orozco (chresgoro@gmail.com)

e.   Date of the decision made by the co-chairs

3rd June 2021

f.   Reference to an announcement of decision which is being appealed

1. 4th June 2021, the co-chairs announced consensus is achieved

(https://lists.afrinic.net/pipermail/rpd/2021/013214.html), which was referenced in the June 3rd session of the AIS'21
(https://www.youtube.com/watch?v=mBFqiz6M8fc&list=PLLJRUWAm1GCYuz_-r69s4Qnrdzyq3x-S4&index=4)

g.   Evidence of a failed attempt to resolve the disagreement through discussion:

This was the announcement of the PWDG Co-chairs regarding the issue:
https://lists.afrinic.net/pipermail/rpd/2021/013214.html

Listed below are the arguments that were ignored by the Chairs:
Anthony Ubah (*Sun Jun 6 15:46:54 UTC 2021*)
i.   https://lists.afrinic.net/pipermail/rpd/2021/013216.html

Aziz Halim
ii. (*Sun Jun 6 17:24:32 UTC 2021*)
https://lists.afrinic.net/pipermail/rpd/2021/013218.html

Elvis Ibeanusi
iii. (*Mon Jun 7 11:04:54 UTC 2021*)
https://lists.afrinic.net/pipermail/rpd/2021/013234.html

Meriem Dayedaye
iv. (*Mon Jun 7 16:42:06 UTC 2021*)
https://lists.afrinic.net/pipermail/rpd/2021/013237.html

Aziz Halim
i.   *(Mon Jun 7 16:47:07 UTC 2021)*

https://lists.afrinic.net/pipermail/rpd/2021/013238.html

Daniel Yakmut

    ii.   (*Mon Jun 7 22:14:46 UTC 2021*)

        https://lists.afrinic.net/pipermail/rpd/2021/013243.html

            Note : response to Jordi Palet

        (https://lists.afrinic.net/pipermail/rpd/2021/013240.html)

        (*Mon Jun 7 22:45:41 UTC 2021*)

        https://lists.afrinic.net/pipermail/rpd/2021/013245.html

            Note: response to Fernando Frediani

            (https://lists.afrinic.net/pipermail/rpd/2021/013244.html)

Meriem Dayedaye

    iii. *Tue Jun 8 14:58:40 UTC 2021*

        https://lists.afrinic.net/pipermail/rpd/2021/013281.html

Mark Tinka

    iv.   (*Fri Jun 11 16:49:26 UTC 2021*)

        https://lists.afrinic.net/pipermail/rpd/2021/013301.html

Job Snijders

    i.   (*Mon Jun 14 11:12:24 UTC 2021*)

        https://lists.afrinic.net/pipermail/rpd/2021/013312.html

Fredrik Korsback

    ii. (*Mon Jun 14 20:24:38 UTC 2021*)

      https://lists.afrinic.net/pipermail/rpd/2021/013314.html

          Note: In concurrence with Mark Tinka

          (https://lists.afrinic.net/pipermail/rpd/2021/013321.html)

Mark Tinka

    iii. (*Tue Jun 15 14:44:41 UTC 2021*)

        https://lists.afrinic.net/pipermail/rpd/2021/013321.html

Job Snijders

    iv.   (*Tue Jun 15 18:45:58 UTC 2021*)

        https://lists.afrinic.net/pipermail/rpd/2021/013327.html

v. *Tue Jun 15 18:59:05 UTC 2021*
https://lists.afrinic.net/pipermail/rpd/2021/013328.html
Note: Response to Noah
(https://lists.afrinic.net/pipermail/rpd/2021/013326.html)

URL to the PWDG Co-Chairs' responses:
Vincent Ngundi & Darwin Da Costa
v. (*Tue Jun 8 13:58:08 UTC 2021*)
https://lists.afrinic.net/pipermail/rpd/2021/013273.html
vi. (*Thu Jun 17 15:17:42 UTC 2021*) – *Last Call*
https://lists.afrinic.net/pipermail/rpd/2021/013339.html

h.   Detailed appeal submission

1. The following appeal addresses the fact that a full consensus on the RPKI ROAs for Unallocated and Unassigned AFRINIC Address Space policy proposal has not been reached. According to the CPM, if consensus is not reached, the concerned policy cannot be ratified, and an appeal shall take place. Normally, the policy shall be discussed and debated. Nevertheless, many concerns have not been addressed by the author which implies that a full consensus has not been reached. In this situation, we are in the obligation to submit an appeal for the staff to reconsider our point of view.

2. The co-chairs ignored a multitude of concerns, that were clearly voiced out and were explicitly discussed on the chat box, which contradicts the values of fairness and openness. We noticed that the PDWG neglected the opinion of several participants and made false assumptions about their affiliation and their knowledge of the matter. In this appeal, we will stress the reasons why this policy should not be passed.

3. This policy misinterprets the vocation of RIRs. In other words, RIRs cannot interfere in resource routing process, it is not their mission to do so. Their only mission is to manage the registration and distribution of number resources. That said, Routing is out of their mandated scope. Given the above, if this policy gets ratified, it will increase the chances

that AFRINIC commits routing errors, which can potentially hinder networks functioning. Additionally, AFRINIC staff has a history committing such technical mistakes. Consequently, I think that AFRINIC should stay out of the routing procedure, since it is not a part of their competences, since it will only make them lose their credibility and will create disappointment among members.

4. On another hand, enabling AS0 is not a policy issue. Therefore, it should be handled by a specialized team. In fact, resource holders cannot create AS0/ROA, since it can create numerous invalid prefixes in the routing table.

5. Implementing this policy will require Afrinic to create a new Trust Anchor certification.

6. Concerning the restriction of operators' choice due to RPKI not being an opt-in service, we oppose it because operators are going to lose their right to choose and decide. Consequently, stating that those added elements are included in the opt in service will only confuse the operators, who might not agree with what has been added. As a result, this behavior jeopardizes the values of transparency and fairness.

7. To some extent, this policy does not provide a precise time interval between the revocation and the reallocation of resources, which can be misleading and can potentially create chaos. That said, it lacks operational information and a clear process that frames this operation.

8. The policy introduces additional failure points in the routing process, and thus unnecessary risks. Additionally, this proposal should be optional, and the risks outweigh the benefit. The focus should be getting RPKI widely deployed instead, rather than a campaign for AS0.

9. The deployment of AS 0 TALs decreases the overall reliability of the Internet, therefore the policy is a misapplication of the RPKI technology and represents a major risk,

especially that future incidents will definitely occur due to AFRINIC's history of mistakes and incidents, because we can't build perfect software.

10. Another major concern is that the risk in error when assigning AS0 includes the creation of Network Blackhole, as incoming or outgoing traffic is silently dropped, without feedback. This failure will be hard to detect.

11. According to other RIRs, this policy is described as unnecessary. This type of resource allocation is not adequate to other RIRs rules. For the simple reason that, some RIRs detain much bigger resource space, and ISPs using RPKI can invalidate unused resources with a minimal code, which proves the inefficiency of the policy. To sum up, this proposal does not integrate operational details, which are of extreme importance to assess its impact. To clarify, the policy should verify post-implementation to mitigate accidental/malicious DOS, the possibility of using it against a member who is yet to pay dues, and the conflict with AFRINIC's current duties involving their members.

12. It introduces new failure modes that previously did not exist. It introduces failure modes that do not *need* to exist. A relevant example from a few months ago, at another RIR:

    "On Wednesday, 16 December 2020 from 18:00-19:00 (UTC+1), some legacy resources lost their contractual status in our internal systems. The result of this was that the RPKI ROAs for these resources were revoked."

    It is of course suboptimal to lose your ROAs for a period of time, because during that period of time you are not enjoying the protection of BGP Origin Validation. But it is an entirely different matter if in such a situation not only your ROAs disappear, but your resources are added to the AS 0 TAL automatically, and the internet starts rejecting your BGP routes. Deregistration (for ANY reason) - leads to IP blackholing. When analyzing cybersecurity proposals, we have to gauge the reward/risk ratio, and based on my experiences so far with RPKI, this policy does not look good. We should not create a

situation where the consequences of small errors are amplified into internet-wide outages.

13. We do not see how this proposal moves the RPKI needle forward in a meaningful and impactful way. This policy is a nice-to-have, for which solutions that are well-documented are already in sufficient existence. We would prefer that we did not encourage thought processes that could turn RPKI into a loaded gun that may very well lead to unintended consequences. We suggest we focus our efforts on actually getting RPKI more widely deployed. A case of "crawl before we can run", type-thing. We tend to prefer achieving the objective with the least amount of effort. Pushing multiple TAL's from a single RIR will only escalate the confusion surface area, which is more than likely to have a negative impact on the progression of deployment of a global RPKI, or worse, mis-deployment that may be touted as a BCP for generations to come. A policy such as this could set a precedent for significantly more (well-intentioned, but) disastrous use-cases for the RPKI. I'd err on the side of avoiding situations where centralized control of gratuitous blackouts of part or all of the Internet, on purpose or by mistake, are not given roots to emerge.

14. Additionally, once an RIR automatically, creates AS0 ROAs for unallocated/unassigned space, any database incidents where the registration status of a resource accidentally (and temporarily) lapses, which can result in blocklisting via AS0.

15. Another thing is that, a direct and automatic migration would certainly pose a problem, and which is certainly an argument against immediate automation without an intermediate ROA "does not exist" state.

16. As pointed out on the list, the Internet is a series of clever fail-open fail-safe mechanisms, the policy proposal strikes at the heart of the design of the global Internet routing system and converts a fail-open into a fail-closed

17. The policy proposal fails to act efficiently and usefully against 'hacking', or 'spamming' and does nothing productive against BGP hijacking: the only problematic BGP hijacks, are the ones where someone hijacks IP space that someone else already was using for an Internet service. Even worse, the proposal puts RPKI's reputation at risk, so in an indirect way the policy proposal might make BGP hijacking worse.

18. The proposal fails to increase RIR Registry accuracy, because it deals exclusively with unassigned and unallocated space.

19. The proposal has non-technical problems that affect entire countries, such as sanctions. When an entire country is banned from conducting business with the rest of the world, taking away their internet is an awful thing that goes against the essence and whole purpose of the global internet.

20. Based on the co-chairs' action of declaring consensus on the concerned policy, which is done with no regards to other community's opinion, it is safe to conclude that the consensus is biased and far from being reached. Based on the above, I urge the Appeal committee to investigate this serious matter and resolve this appeal by standing with what is right and fair.

List of additional materials that the complainant will rely on, if any

All of the materials and references that have been used to support this appeal has been added in the above discussions.

I would like to ask you to kindly take into consideration all of the concerns and objections mentioned above, and help resolve this matter by stopping this policy from passing to the implementation phase and return it back to the discussion list, so that every concern gets

addressed and each flaw gets corrected for the improvement of the policy, and the good of the community.

Thank you!

Meriem Dayedaye (meriemdayday@gmail.com)