ARIN
American Registry for Internet Numbers

TO: ARIN Board of Trustees

FROM: John Curran, President & CEO

DATE: 26 February 2021

RE: Petition for Board Adoption Consideration of Recommended Draft Policy ARIN-2020-2: "Reinstatement of Organizations Removed from Waitlist by Implementation of ARIN-2019-16"

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1. Introduction

The ARIN Board of Trustees must now consider the matter of Recommended Draft Policy ARIN-2020-2: "Reinstatement of Organizations Removed from Waitlist by Implementation of ARIN-2019-16" (ARIN-2020-2) for possible adoption. ARIN-2020-2 has been brought before the ARIN Board of Trustees as a result of a successful "Petition for Board of Trustees Consideration", per ARIN's Policy Development Process (ARIN PDP).

This memo provides a summary for the Board of Trustees of the history of ARIN-2020-2 and the principal issues applicable in consideration of its adoption per the ARIN PDP. (Please refer to Appendix A - ARIN-2020-2 Staff Summary for the full policy text and related timeline of events.) It ends with a summary of possible next steps regarding ARIN-2020-2, recognizing that each Trustee will have to make their own determination on this matter.

2. ARIN Waiting List Suspension and Resumption

ARIN's IPv4 Waiting List policy did not establish a maximum size for allocations allowed under the policy, nor did it prevent organizations already holding substantial IPv4 number resources from receiving additional resources. Upon determining that sizeable fraudulent requests had been made under the policy, the ARIN Board of Trustees suspended issuance of additional resources under the policy to those on the waiting list; and referred the suspension of the policy to the ARIN Advisory Council (ARIN AC) and to the ARIN community for review, as required by Section 10.2 of the ARIN PDP. In seeking to revise the waiting list policy so that the issuance of IPv4 number resources could resume in a manner that would reasonably deter the potential for fraudulent requests, the ARIN AC undertook the development of policy ARIN-2019-16, which provided for three major changes to the criteria for waiting list issuance:

- Waiting list requestors may not hold more than a /20 equivalent of IPv4 space;
- Established a /22 maximum size for blocks issued via the waiting list policy; and,
- Set a five-year period before blocks issued via the waiting list may be transferred.

When implementing ARIN-2019-16, staff reasonably interpreted its intent as applying these revised criteria not only to new requests to join the waiting list, but also retrospectively to

requests already approved for issuance and on the waiting list pending availability of number resources. This interpretation was supported by the policy text stating that *"This policy will be applied to all future distributions from the waitlist to include those currently listed."* (emphasis added). As a result of the revised criteria in ARIN-2019-16, 37 organizations that were approved and on the waiting list (awaiting availability of IPv4 number resources) were removed due to already holding more than a /20 equivalent of IPv4 space.

3. **History of ARIN-2020-2: "Reinstatement of Organizations Removed from Waitlist by Implementation of ARIN-2019-16"**

ARIN-2020-2 seeks to restore to the ARIN IPv4 waiting list those organizations that were removed as a result of ARIN-2019-16 implementation and allow these organizations to receive up to a /22 of IPv4 space, under the rationale that: 1) such organizations had already applied and satisfied the applicable criteria at the time of original request; and, 2) that the ARIN-2019-16 policy change to reopen the waiting list under tighter criteria did not consider the impact on those who had already been waiting for some time, nor was it necessary to require application of new, tighter criteria to those already approved and on the waiting list.

ARIN-2020-2 was discussed in June 2020 at the ARIN 45 Public Policy Meeting (PPM). As a result of that discussion, the ARIN AC found the policy to meet the Principles for Internet Number Resource Policy and advanced it to Recommended Draft Policy Status[1] in September 2020 prior to the ARIN 46 PPM. At the ARIN 46 meeting in October 2020, the community expressed support for adoption, and in accordance with the ARIN PDP, the ARIN AC sent the policy to "Last Call" review[2] on the Public Policy Mailing List (PPML) indicating intent to recommend it to the Board of Trustees for adoption. ARIN-2020-2 had significant levels of community discussion on ARIN's PPML during its last call review, with comments both in support and opposed to ARIN-2020-2 moving forward. The ARIN AC then considered the comments received the last call period but could not come to consensus on recommending ARIN-2020-2 to the Board of Trustees for adoption in either of its subsequent meetings[34]. The policy faced automatic reversion to Draft Policy status as a result, within 60 days of the completion of the Last Call review. We recommend the Board review the relevant minutes which are footnoted below.

The ARIN PDP allows for any member of the community to initiate a Board of Trustees Consideration Petition against that automatic reversion to Draft Policy status – with a successful petition causing adoption consideration by the ARIN Board of Trustees. The threshold for success of such a petition is the support of least 25 different people from 25

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[1] "Meeting of the ARIN Advisory Council - 17 September 2020", https://www.arin.net/about/welcome/ac/meetings/2020_0917/

[2] "Meeting of the ARIN Advisory Council - 15 October 2020 ", https://www.arin.net/about/welcome/ac/meetings/2020_1015/

[3] "Meeting of the ARIN Advisory Council - 19 November 2020", https://www.arin.net/about/welcome/ac/meetings/2020_1119/

[4] "Meeting of the ARIN Advisory Council - 17 December 2020", https://www.arin.net/about/welcome/ac/meetings/2020_1217/

different organizations. A petition for Board of Trustees consideration of ARIN-2020-2 was initiated on 11 January 2021; and the petition achieved the required level of support by the end of the petition period on 16 January 2021.

Therefore, the ARIN Board of Trustees is now required to consider ARIN-2020-2 for potential adoption, which is generally warranted for those policy changes that meet the Principles of Internet Number Resource Policy specified within the ARIN PDP. It is worth noting that (unlike past policy changes coming to the Board) that ARIN-2020-2 comes before the Board without a recommendation from the ARIN AC, since the ARIN AC's original determination (that it met the necessary criteria and should be recommended to the ARIN Board of Trustees) was not sustained after the Last Call review period.

4. **ARIN Board of Trustees Criteria for Policy Changes**

The ARIN Board of Trustees has adopted specific criteria for consideration of number resource policy changes, as specified in the ARIN PDP in Part I, Section 5:

> *"5. ARIN Board of Trustees Criteria for Policy Changes*
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> *In order to maintain fidelity to the duty performed by ARIN on behalf of the Internet community, changes to Internet number resource policy must meet two specific criteria before being adopted by the ARIN Board of Trustees: 1) in compliance with law and ARIN's mission, and 2) developed via open and transparent processes.*
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> *5.1. In Compliance with Law and ARIN's Mission*
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> *Policies developed through the PDP must advance ARIN's mission, not create unreasonable fiduciary or liability risk, and must be consistent with ARIN's Articles of Incorporation, Bylaws, and all applicable laws and regulations.*
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> *5.2. Developed by Open, Transparent, and Inclusive Processes*
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> *Changes to policy must be developed via open and transparent processes that provide for participation by all. Policies must be considered in an open, publicly accessible forum as part of the adoption process. Policy discussions in the ARIN region are conducted on the Public Policy Mail List (PPML) and via Public Policy Consultation (PPC). There are no requirements for participation other than adherence to the guidelines of behavior and decorum, and anyone interested in following the process may subscribe to the PPML or may participate without charge in Public Policy Consultations via in person or remote participation methods. All aspects of the PDP are documented and publicly available via the ARIN website. The PPML is archived. The proceedings of each PPM are published. All policies are documented in the Number Resource Policy Manual (NRPM). All Draft Policies are cross referenced to the original Policy Proposal, the archives of the PPML, all related PPC proceedings, and the minutes of the appropriate Advisory Council and the ARIN Board of Trustees meetings. The procedures that are developed to implement the policy are documented, publicly available, and followed by the ARIN staff. The Policy Development Process itself may only be changed by the ARIN Board of Trustees after a public consultation period to consider the proposed changes."*

The application of these criteria to ARIN-2020-2 will be addressed via two documents – the first criteria (*5.1 - In Compliance with Law and ARIN's Mission*) is addressed by briefing material from ARIN's General Counsel, while consideration of the second criteria (5.2 -

Developed by Open, Transparent, and Inclusive Processes) will be addressed in the remainder of this memo.

5. Development of ARIN-2020-2 and The Task Before the Board

ARIN staff has confirmed that the development of ARIN-2020-2 has been in accordance with the ARIN PDP; and this process meets the requirements for openness, transparency, and inclusiveness required by the criteria specified by the ARIN Board of Trustees.

As such, adoption of the ARIN-2020-2 would normally be a straightforward matter, as by design ARIN's PDP calls for recommended policy changes to come before the Board of Trustees with an accompanying recommendation for adoption from the ARIN AC which includes a statement of conformance to the *"Principles of Internet Number Resource Policy"* (Principles) contained within ARIN PDP. In this manner, ARIN's PDP establishes high standards for ARIN's number resource policy but otherwise mitigates the routine administrative burden of evaluation of policy changes through the diligent efforts of the ARIN AC.

The sole exception by which a recommended draft policy change may be considered by the Board of Trustees, without a recommendation for adoption from the ARIN AC, is via the petition process, and indeed ARIN-2020-2 represents the first time that a recommended draft policy has been brought before the Board in this manner.

Absent an explicit statement of conformance to the Principles of Internet Number Resource Policy specified by the PDP, the task of the evaluation of the proposed policy against those Principles falls to the ARIN Board of Trustees. If the Board of Trustees determines that Recommended Draft Policy ARIN-2020-2 satisfies the Principles, then it should proceed with timely adoption. If the Board determines that ARIN-2020-2 does not conform to the Principles and decides against adoption, then by default, the Recommended Draft Policy will revert to Draft Policy status and allow for continued work by the ARIN AC towards conformance. (As an aside, if the Board were to determine that one or more aspects of ARIN-2020-2 would preclude it from conforming to the Principles, then such a determination would be important to convey to the ARIN AC so as to inform their further work on the policy.)

6. Conformance to the "Principles of Internet Number Resource Policy"

Part I, Section 4, the ARIN PDP specifies that Internet number resource policy must satisfy three important principles. Specifically: 1) enabling fair and impartial number resource administration, 2) be technically sound (providing for uniqueness and usability of number resources), and 3) be supported by the community.

Of the three principles, the second one (Technically Sound) is the clearest to evaluate. Specifically, the ARIN PDP provides the following elaboration regarding the principle of "Technically Sound":

> *"4.2. Technically Sound*
> *Policies for Internet number resource management must be evaluated for soundness against three overarching technical requirements: conservation, aggregation, and registration. More specifically, policies for managing Internet number resources must:*
> *Support both conservation and efficient utilization of Internet number resources to the extent feasible. Policy should maximize number resource availability to parties with operational need.*
> *Support the aggregation of Internet number resources in a hierarchical manner to the extent feasible. Policy should permit the routing scalability that is necessary for continued Internet growth. (Note that neither ARIN, nor its policies, can guarantee routability of any particular Internet number resource as that is dependent on the actions of the individual Internet operators.)*
> *Support the unique registration of Internet number resources. Policy should prevent to the extent feasible any unknown or duplicate use of Internet number resources that could disrupt Internet communications. Policies must achieve a technically sound balance of these requirements, and support for these technical requirements must be documented in the assessment of the policy change."*

Adoption of Recommended Draft Policy ARIN-2020-2 would mean that a small number of additional customers who were on the waiting list at the time of suspension, but disallowed to receive resources under the new ARIN-2019-16 policy due to total holdings, would be able to receive resources. As the blocks issued would be under the same, newly tightened constraints under which many more waiting list recipients are presently receiving new blocks, it is not a credible challenge to claim that such allocations would somehow pose unique conservation, aggregation, or registration concerns. As such, ARIN-2020-2 likely can be found to satisfy the principle of "Technically Sound" as specified by the ARIN PDP.

The next principle for the ARIN Board of Trustees to consider is that of "Supported by the Community" as detailed by the ARIN PDP:

> *"4.3. Supported by the Community*
> *Changes to policy must be shown to have a strong level of support in the community in order to be adopted. The determination of support for the policy change is done by polling the community for support during a Public Policy Consultation (PPC). The Policy Development Process, as a consensus-based collaborative development process, encourages incorporation of feedback received from participants where possible with the goal of increasing community support for policy changes.*
> *A strong level of community support for a policy change does not mean unanimous; it may be demonstrated by a subset of the community, as long as the policy change enjoys substantially more support than opposition in the community active in the discussion."*

In summary, the requirement to show a strong level of community support specifies that the measurement that is to be considered is the poll of support taken as part of a formal Public Policy Consultation (PPC) on the proposed policy. PPCs are specified as those interactive discussions held as part of the ARIN PPM, and in the case of the ARIN-2020-2, the last PPC held was on 14 October 2021 during ARIN 46. That poll of support indicated 42 participants in favor of proceeding, and 14 participants against proceeding. While not without some opposition to the policy, it is also clear that "substantially more" support for proceeding was present, and thus, the Board of Trustees can reasonably choose to find that ARIN-2020-2 satisfied the "Supported by the Community" principle as specified in the ARIN PDP.

While some might suggest that an ad-hoc summary of the last call mailing list discussion might provide a potential indicator of community support or opposition, it is not possible to

perform such an evaluation in a consistent manner given the wide-ranging character of the email discussion, and this is precisely why the ARIN PDP sets the normal measurement of support to be a poll taken immediately after an interactive discussion of the policy at an ARIN PPM.

The final principle necessary for the ARIN Board of Trustees to consider is that of "Enabling Fair and Impartial Number Resource Administration" as detailed by the ARIN PDP:

> *"4.1. Enabling Fair and Impartial Number Resource Administration*
> *Internet number resources must be managed with appropriate stewardship and care. Internet number resource policy must provide for fair and impartial management of resources according to unambiguous guidelines and criteria. All policy statements must be clear, complete, and concise, and any criteria that are defined in policy must be simple and obtainable. Policy statements must be unambiguous and not subject to varying degrees of interpretation."*

There are several aspects to this principle as specified in the ARIN PDP. It clearly requires that policy facilitate impartial administration of number resources based upon straightforward and unambiguous criteria. It is less clear how the requirement that policy provide for the "fair" management of number resources should be interpreted. In particular, ARIN has a proven body of existing policy that provides for issuance of different amounts of number resources to requestors who are in different circumstances (such as their operational need, existing resources held, and even the specific technical use of the resources in some cases.) It is apparent that the requirement of "fair" administration of number resources cannot reasonably be interpreted to mean equal issuance for all parties, but rather policy can include criteria and outcomes related to the requestor and their relationship to ARIN. As an example, a policy which has the effect of removing any pending waiting list requests for a party receiving number resources disproportionately affects one segment of the community (those with waiting list requests), but the effect is deemed fair because it is predicated upon clear criteria germane to these requestors' relationship to the Registry rather than any factors of an arbitrary or discriminatory nature.

ARIN-2020-2 contains clear, complete, and concise criteria that enables unambiguous number resource administration, and therefore, the Board can find that the "impartial" requirement for policy is upheld. As to the question of "fairness" of the policy, the recommended draft policy would provide for an outcome that affects only one segment of the community, but the segment affected is specified by clear criteria that is both germane to these requestors' relationship to ARIN and to the purpose of the policy. As such, it would be challenging to deem ARIN-2020-2 not "fair" without similarly deeming any and all policies that affect a relatively small number of customers (e.g., micro-allocations) also not fair.

As ARIN-2020-2 seeks to change a relatively small aspect of recently adopted policy (ARIN-2019-16), it is also possible to evaluate the fairness of its potential outcome by considering if the criteria of ARIN-2020-2 had been part of the recent change - i.e. would ARIN-2019-16 have been considered to provide for unfair administration of number resources if those on the waiting list had originally been specified to be treated differently with respect to the new limit being placed on total resources held? Those who were on waiting list at the time of adoption of ARIN-2019-16 are an identifiable segment of the community that can be

distinguished by clear criteria - i.e. if the ARIN-2019-16 had originally specified that they be treated differently from new requestors, the policy outcome sought would have been consider "fair" at that time. (ARIN-2020-2 is indeed unusual in seeking to overturn an aspect of already-implemented ARIN-2019-16, but ARIN-2019-16 was adopted by an unusually expeditious process, and the change sought can be readily implemented.)

In summary, the ARIN PDP specifies that proper Internet number resource policy must satisfy three important principles, specifically: 1) enabling fair and impartial number resource administration, 2) be technically sound (providing for uniqueness and usability of number resources), and 3) be supported by the community. Upon review, ARIN-2020-2 can be found to meet all of these principles as specified in the PDP, and thus, the ARIN Board of Trustees may adopt it and remain in full compliance with the "*ARIN Board of Trustees Criteria for Policy Changes.*"

7. Additional Considerations

While the ARIN Board of Trustees has the ability to adopt ARIN-2020-2 while maintaining fidelity to ARIN's PDP principles, it is worth reviewing several additional considerations that have arisen in the community during the course of the consideration of this policy.

The most significant issue to be considered is the perception that some of the parties seeking this policy change are doing so for their direct benefit. Due to the small number of organizations affected by ARIN-2020-2, it is inevitable that any party which advocates on behalf of the change, and that would receive resources as a result of adoption, will be portrayed as driven by self-interest. However, the fact that a small number of organizations would be affected, is both beyond the control of those affected and irrelevant when addressing a problem in number resource policy – i.e., a policy proposal that would affect a small number of organizations should not be deterred if it would resolve a defect in address policy, even if advocated by one of the potentially affected parties. ARIN must serve as a forum for the development of sound number resource policy, and that requires dispassionate consideration of policy changes based on the published principles and their implications for the entire ARIN community.

The second issue that has arisen in consideration of ARIN-2020-2 is the potential concern about setting a precedent for consideration of policy proposals that rewrite adopted policy after the fact. While this is a credible concern at face value, it is rather unlikely that similar proposals will occur in the future since it only arose as a result of a perceived flaw in a special emergency policy action (ARIN-2019-16) that was introduced, discussed, adopted and implemented in less than 90 days, and without any PPC held at an ARIN PPM. The ARIN Board and ARIN AC have rarely, and with great reluctance, undertaken emergency policy changes. It is quite reasonable (particularly in light of the expedited community consultation used for emergency policy) that this policy be changed post-adoption to the extent feasible if desired by the community.

8. Summary

The ARIN Board of Trustees has a valid basis for adoption of ARIN-2020-2 – it is fully in compliance with the ARIN Policy Development Process, including the key principles of enabling fair and impartial number resource administration, being technically sound, and having the necessary level of support in the community. The number of organizations affected is quite small (with equally small impact to ARIN's Internet number resources), and the adoption furthers ARIN's overall goal of encouraging efficient utilization of number resources by parties with operational need – i.e., ARIN-2020-2 furthers the same very purpose of the waiting list policy itself by specifying the issuance of small blocks of IPv4 number resources to appropriately qualified parties.

Alternatively, the Board could either remand the policy to the ARIN AC as a Recommended Draft Policy or allow ARIN-2020-2 to revert to Draft Policy status and undergo further work by the ARIN AC. Either course of action would be well considered if there were specific technical or policy concerns that were uncovered during the last call review, but that does not appear have been the case. Rather, the discussion predominantly dealt with varying interpretations of ARIN's number resource policy principles. It is also possible for the ARIN Board of Trustees to reject the policy in its entirety, however, upon review of ARIN-2020-2's compliance to the principles in the PDP as set forth in this memo, I do not see clear basis for doing so and would therefore recommend against such a course of action.

9. Further Steps

The process highlights several possible refinements to our processes as a result of lessons learned over the course of this matter. I will provide a briefing to the Board at a later time with specific recommendations in this regard.