

Recommended Draft Policy ARIN-2019-3 Update 4.10 – IPv6 Deployment Block

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Current Text (20 November 2018)

AC Assessment of Conformance with the Principles of Internet Number Resource Policy:

Because it will better enable fair number distribution, provide improved clarity and compatibility with existing systems, is technically sound, has received the support of the community, and there are no material legal issues related to implementation, the ARIN Advisory Council moved draft policy 2019-3 to recommended draft status.

Problem Statement:

ARIN staff has noted that the current 4.10 policy is causing problems in its implementation.

The current policy specifies a /28 minimum. However, ARIN can only allocated a /24 as its minimum size. ARIN's current tools only support a minimum of /24 for reverse DNS.

The current RPKI landscape is also an impediment to using smaller block sizes. Furthermore, a /28 practically is unroutable, so an organization if they were to receive a /28 would be unable to functionally interoperate with most IPv4 end points, for applications which were noted examples in the original policy. (At the time of writing the original policy, it was hoped that by creating a policy with a smaller block size other RIRs and network operators would embrace the routing of blocks smaller than a /24.)

Updating ARINs tools to allow smaller than a /24 for reverse DNS (such as RFC2317) would likely be a large cost compared value received by the community. This value is further diminished because the purpose of an IPv4 block to facilitate IPv6 deployment is that it be routable to the rest of the IPv4 Internet.

This policy attempts to address these issues, by raising the minimum size to a /24 and limits total amount an organization can receive to a /21. It also removes the requirement for return and renumber, since that was primarily added to allow organizations to obtain larger blocks if that was necessary. The policy also clarifies the utilization requirements by placing them directly in this section rather than a reference to the utilization requirements of end users.

Policy Statement:

Replace current 4.10 with the following updated section

4.10 Dedicated IPv4 block to facilitate IPv6 Deployment

ARIN shall allocate a contiguous /10 from its last /8 IPv4 allocation from IANA. This IPv4 block will be set aside and dedicated to facilitate IPv6 deployment. Allocations and assignments from this block must be justified by immediate IPv6 deployment requirements. Examples of such

needs include: IPv4 addresses for key dual stack DNS servers, and NAT-PT or NAT464 translators. ARIN staff will use their discretion when evaluating justifications.

This block will be subject to a minimum and maximum size allocation of /24. ARIN should use sparse allocation when possible within that /10 block.

In order to receive an allocation or assignment under this policy:

- the applicant may not have received resources under this policy in the preceding six months and cannot receive more than a /21 under this policy section;
- previous allocations/assignments under this policy must continue to meet the justification requirements of this policy;
- previous allocations/assignments under this policy must be utilized to at least 80% to obtain an additional allocation or assignment;
- the applicant must demonstrate that no other allocations or assignments will meet this need.

Timetable for Implementation: Immediate

Staff and Legal Review (10 July 2019)

Summary (Staff Understanding)

Draft Policy ARIN-2019-3: Update 4.10 – IPv6 Deployment Block It is clearly stated that the minimum and maximum block to be issued from this reserved pool is a /24. Organizations may only receive one /24 every six months and cannot have any other allocation/assignment that can otherwise meet their needs. Utilization requirements for each previous allocation/assignment under this policy must continue to be used for the same purpose and must be 80% utilized before an additional allocation/assignment can be approved. It is also staff understanding that no organization can receive more than a /21 from this reserved pool.

Comments

ARIN Staff Comments

The new text is clear and easily understood.

ARIN General Counsel – Legal Assessment

There are no material legal issues regarding this proposal.

Resource Impact

Implementation of this policy would have minimum resource impact. It is estimated that implementation would occur within 3 months after ratification by the ARIN Board of Trustees.

The following would be needed in order to implement:

- Staff training
- Updated guidelines and internal procedures
- Updated documentation on website

Proposal/Draft Policy Text Assessed: 26 February 2019 Version

History and Earlier Versions

History	
Action	Date
<u>Proposal</u>	11 February 2019
<u>Draft Policy</u>	26 February 2019
<u>Recommended Draft Policy</u>	20 August 2019
Last Call	5 November 2019