



Recommended Draft Policy

ARIN-2014-13

Reduce All Minimum Allocation/
Assignment Units to /24

- **2014-13 History**

- Origin: ARIN-prop-208 (Apr 2014)
- AC Shepherd: Kevin Blumberg, Bill Darte
- AC accepted as Draft Policy in May
- AC made Recommended in May
- Text Online & in Discussion Guide
 - https://www.arin.net/policy/proposals/2014_13.html

- **Staff Understanding**

- This policy would reduce the minimum allocation/assignment size to /24 for all networks, whether end user or ISP and whether single or multi-homed.

Additionally, it would eliminate the existing multi-homed policies.

PUBLIC POLICY

CONSULTATION

- **Staff Comments**

- It is not clear in this proposal what criteria would be used to determine any allocation size other than a /24. Current policy provides clear criteria for how to qualify for a /22, /21, and a /20. Would the same criteria still apply for organizations that request more than an initial allocation of a /24?
- Staff uses current criteria defined in 4.2.2.1.1 in conjunction with section 4.2.1.4 (slow start) to establish a de facto /20 maximum initial allocation size for ISPs new to ARIN. Staff recommends that a maximum initial allocation size of a /20 be noted in section 4.2.1.5 to codify existing practice and provide clarity, and that it be renamed to “Minimum and Maximum Allocation”.
- This proposal would benefit smaller ISPs who are unable to qualify currently under IPv4 policies, and particularly would be unable to qualify for 8.3 and 8.4 transfers in a post-depletion world.
*Note, this was a point raised in the policy experience report in Chicago.
- ARIN will likely have many discontinuous /24s as we near depletion and fewer and fewer larger prefixes. This policy would actually allow more organizations to use these smallest prefixes, thus ensuring the efficient run-out of ARIN’s IPv4 address pool.

- **Legal Assessment**
 - This proposal does not appear to pose any legal risk.

- **Presentation by the AC**

ARIN-2014-13

Reduce All Minimum
Allocation/Assignment
Units to /24

Problem Statement

As we approach runout, more and more end users and smaller ISPs will be unable to obtain space from their upstreams and will be seeking space from ARIN. In order to meet these needs to the extent possible and to make policy more fair to a broader range of the ARIN constituency, we should reduce the minimum assignment and allocation units for IPv4 to /24 across the board.

Policy Statement

- Remove all references to minimum allocations /20 and /22 replacing them with the term allocation or with /24 when referencing minimum size blocks.
- Change the title of 4.2.2.1 to "ISP Requirements" with revised text stating:
 - All ISP organizations must satisfy the following requirements...thus eliminating the entire Multi-homed section and subsections along with other superfluous example text.
- Delete the special case allocations/assignments for the Caribbean as the new /24 minimums are an improvement.

Discussion

- Do you support the policy as written?
- Do the changes outlined create any additional unforeseen issues?
- Should maximum allocation sizes for initial requests be re-inserted?
- Questions, Comments?

Redline Text Changes

4.2.1.5. Minimum allocation

In general, ARIN allocates **/20 /24** and larger IP address prefixes to ISPs. If allocations smaller than **/20 /24** are needed, ISPs should request address space from their upstream provider. **For multihomed ISPs, ARIN allocates /22 and larger IP address prefixes. If allocations smaller than /22 are needed, multihomed ISPs should request address space from their upstream provider.**

4.2.2.1. Standard or non-multihomed ISP Requirements

All ISP Organizations that do not meet the requirements described in the multihomed section below (Section 4.2.2.2) must satisfy the following requirements:

4.2.2.1.1. Use of /20 /24

- The efficient utilization of an entire previously allocated /20 /24 from their upstream ISP. This /20 allocation may have been provided by an ISP's upstream provider(s), and does not have to be contiguous address space. **The organization must meet the requirement of efficient use of 16 /24s.** For example, if an organization holds a smaller allocation, such as 12 /24s, from its upstream provider, the organization would not meet the minimum utilization requirements of a /20.

4.2.2.1.4. Renumber and return

ISPs receiving a new **/20 allocation** may wish to renumber out of their previously allocated space. In this case, an ISP must use the new **/20 allocation** to renumber out of that previously allocated block of address space and must return the space to its upstream provider.

4.2.2.2. Multihomed

- When prefixes are allocated which are smaller than /20, they will be from a block reserved for that purpose. In order to receive an initial allocation from ARIN, organizations applying under the multihomed policy must:
 - When requesting a /22, demonstrate the efficient utilization of a minimum contiguous or noncontiguous /23 (two /24s) from an upstream.
 - When requesting a /21, demonstrate the efficient utilization of a minimum contiguous or noncontiguous /22 (four /24s) from an upstream.
 - When requesting a /20, demonstrate the efficient utilization of a minimum contiguous or noncontiguous /21 (eight /24s) from an upstream.

4.2.2.2 Multihomed (cont'd)

4.2.2.2.1. Efficient utilization

Provide reassignment information for /29 and larger blocks using the Shared Whois Project (SWIP) or by providing the same information fields in an RWhois server. If additional address space is later requested, this information must be available at the time of the request. Utilization for blocks smaller than /29 can be documented via SWIP or RWhois server or by providing detailed utilization information.

4.2.2.2.2. Three months

Provide information showing that the requested IP address space will be utilized within three months and demonstrating an intent to announce the requested space in a multihomed fashion.

4.2.2.2.3. Renumber and return

Agree that the newly requested IP address space will be used to renumber out of the current addresses which will be returned to their upstream provider(s).

4.2.2.2.4. Additional requests following the initial allocation

To receive additional address space following the initial allocation, multihomed organizations must have returned the original IP address space to its provider in its entirety and must provide justification for a new allocation as described above in the section titled Requirements for Requesting Initial Address Space.

4.3.2. Minimum assignment

4.3.2.1 Single Connection

The minimum block of IP address space assigned by ARIN to end-users is a /20 /24. If assignments smaller than /20 /24 are needed, end-users should contact their upstream provider.

4.3.2.2 Multihomed Connection

For multihomed end-users who demonstrate an intent to announce the requested space in a multihomed fashion to two or more distinct ASNs not owned or controlled by the end-user, the minimum block of IP address space assigned is a /24. If assignments smaller than a /24 are needed, multihomed end-users should contact their upstream providers. When prefixes are assigned which are smaller than /20, they will be from a block reserved for that purpose so long as that is feasible.

4.9 Minimum Allocation in the Caribbean Region and North Atlantic Islands

The minimum IPv4 allocation size for ISPs from the Caribbean and North Atlantic Islands sector of the ARIN region is /22.

4.9.1. Allocation Criteria

- The requesting organization must show the efficient utilization of an entire previously allocated /22 from their upstream ISP. This allocation (/22) may have been provided by an ISP's upstream provider(s), and does not have to be contiguous address space. The organization must meet the requirement of efficient use of 4 /24s.
- Utilization Reporting and Justification. All other ARIN policies regarding the reporting of justification information for the allocation of IPv4 and IPv6 address space will remain in effect.