Recommended Draft Policy ARIN-2017-5:
Improved IPv6 Registration Requirements

Version Date: 11 October 2017

AC's Statement Regarding Policy Text Revision Prior to Last Call:

Based on strong community support - on both the public policy mailing list and in person at ARIN40 during the policy consultation - for replacing the "should" qualifier in section 6.5.5.4 with "shall", the Advisory Council, after careful review and discussion, has made the requested change to the text.

AC's Statement of Conformance with ARIN's Principles of Internet Number Resource Policy:

This proposal is technically sound and enables fair and impartial number policy for easier IPv6 Registrations. The staff and legal review noted a single clarification issue which has been addressed. There is ample support for the proposal on PPML and no concerns have been raised by the community regarding the proposal.

Problem Statement:

Current ARIN policy has different WHOIS directory registration requirements for IPv4 vs IPv6 address assignments. IPv4 registration is triggered for an assignment of any address block equal to or greater than a /29 (i.e., eight IPv4 addresses). In the case of IPv6, registration occurs for an assignment of any block equal to or greater than a /64, which constitutes one entire IPv6 subnet and is the minimum block size for an allocation. Accordingly, there is a significant disparity between IPv4 and IPv6 WHOIS registration thresholds in the case of assignments, resulting in more work in the case of IPv6 than is the case for IPv4. There is no technical or policy rationale for the disparity, which could serve as a deterrent to more rapid IPv6 adoption.

The purpose of this proposal is to eliminate the disparity and corresponding adverse consequences.

Policy statement:

1) Alter section 6.5.5.1 "Reassignment information" of the NRPM to strike "assignment containing a /64 or more addresses" and change to "re-allocation, reassignment containing a /47 or more addresses, or subdelegation of any size that will be individually announced,"

and

2) Alter section 6.5.5.2. "Assignments visible within 7 days" of the NRPM to strike the text "4.2.3.7.1" and change to "6.5.5.1"

and

3) Alter section 6.5.5.3.1. "Residential Customer Privacy" of the NRPM by deleting the phrase "holding /64 and larger blocks"

and

4) Add new section 6.5.5.4 "Registration Requested by Recipient" of the NRPM, to read: "If the downstream recipient of a static assignment of /64 or more addresses requests publishing of that assignment in ARIN's registration database, the ISP shall register that assignment as described in section 6.5.5.1."

Comments:

a. Timetable for implementation:

Policy should be adopted as soon as possible.

Author Comments:

IPv6 should not be more burdensome than the equivalent IPv4 network size. Currently, assignments of /29 or more of IPv4 space (8 addresses) require registration. The greatest majority of ISP customers who have assignments of IPv4 space are of a single IPv4 address which do not trigger any ARIN registration requirement when using IPv4. This is NOT true when these same exact customers use IPv6, as assignments of /64 or more of IPv6 space require registration. Beginning with RFC 3177, it has been standard practice to assign a minimum assignment of /64 to every customer end user site, and less is never used. This means that ALL IPv6 assignments, including those customers that only use a single IPv4 address must be registered with ARIN if they are given the minimum assignment of /64 of IPv6 space. This additional effort may prevent ISP's from giving IPv6 addresses because of the additional expense of registering those addresses with ARIN, which is not required for IPv4. The administrative burden of 100% customer registration of IPv6 customers is unreasonable, when such is not required for those customers receiving only IPv4 connections.