Draft Policy ARIN-2022-2:

Remove Barrier to BGP Uptake in ASN Policy

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Draft Policy ARIN-2022-2

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History:

Proposal	11 March 2022
Draft Policy	2 May 2022
Revised	13 September 2022

Draft Policy ARIN-2022-2

Latest Staff and Legal Review (16 September 2022)

- **Staff Understanding**
  - ARIN-2022-2 would rewrite ARIN's Autonomous System Numbers policy, reducing its overall size and specifying single-ASN issuance as the default action.
  - The text is clear and understandable.

Draft Policy ARIN-2022-2

Latest Staff and Legal Review (16 September 2022)

- **Implementable as Written?:** Yes
- **Impact on ARIN Registry Operations and Services:** None. The Draft Policy deals with issuance and manually-vetted request documentation requirements, which have no significant registry impacts as a result of implementation.
- **Legal Review:** No material legal issue
- **Implementation Timeframe Estimate:** 3 months
- **Implementation Requirements:**
  - Staff training
  - Updates to public documentation
  - Updates to internal procedures and guidelines

Draft Policy ARIN-2022-2

Current Text (13 September 2022)

- **Problem Statement (1/3):**
  - The current requirements for getting an ASN have resulted in confusion particularly for new entrants, who have their hands more than full with the mechanics of getting BGP up and running. The availability of 32-bit ASNs provides an opportunity for the removal of unnecessary constraints and processes for the allocation of ASNs.
  - ARIN does not provide guidance to use RFC1918 space if possible and likewise ARIN should not require the use of private ASNs in preference to public ASNs.

Draft Policy ARIN-2022-2

Current Text (13 September 2022)

- **Problem Statement (2/3):**

  Further Technical Rationale:

  Four octet (32-bit) ASNs were defined in May 2007 in RFC 4893. It has taken several years for routing equipment in general use to catch up, but today 32-bit ASNs are generally accepted and it is rare that an organization which has been issued a 32-bit ASN comes back to ARIN and says they need a 16-bit ASN instead.

  The austerity measure of requiring extensive documentation to get an ASN is left over from the days of 16-bit ASNs (total space 65000). It is no longer appropriate and we should align our conservation requirements with those found in other 32-bit spaces (total space four billion).

Draft Policy ARIN-2022-2

Current Text (13 September 2022)

- **Problem Statement (3/3):**

  Consider:

  A /32 of IPv6 space is the default allocation and will be assigned to any ISP that requests it.

  Temporary assignment of a /32 of IPv4 space can be acquired on most residential ISPs by issuing a DHCP request.

  We propose making issuance of the first 32-bit ASN for any ORGID (or each site for organizations that have number resources under multiple discrete networks policy) be pro-forma upon request. If an org's technical people think they need a public ASN, they probably do!

  Vetting as embodied in existing policy or evolved in ARIN-2021-3 should be reserved for those requesting more than one ASN per organization or discrete network.

Draft Policy ARIN-2022-2

Current Text (13 September 2022)

- **Policy Statement (1/3):**
- Replace the entirety of Section 5, which currently reads:

There are a limited number of available Autonomous System Numbers (AS Numbers), therefore, it is important to determine which sites require unique ASNs and which do not. If a unique ASN is not required for a given network design, one or more of the ASN reserved for private use should be utilized. Those numbers are: 64512 through 65534 and 4200000000 through 4294967294 inclusive.

Draft Policy ARIN-2022-2

Current Text (13 September 2022)

- **Policy Statement (2/3):**

In order to be assigned an ASN, each requesting organization must provide ARIN with verification that it requires a unique routing policy, such as a plan:

To originate announcement of IP Number Resources via an accepted protocol (such as Border Gateway Protocol) from an ASN different than that of its upstream provider;

To multihome a site with one or more Autonomous Systems; or

To use an ASN to interconnect with other Autonomous Systems.

ASNs are issued based on current need, as set out in this section 5.

Draft Policy ARIN-2022-2

Current Text (13 September 2022)

- **Policy Statement (3/3):**

…With the following new Section 5:

Any organization may be issued a single Autonomous System Number (ASN) upon request. Organizations that have space issued under Multiple Discrete Networks policy may be issued one ASN per discrete network upon request.

Additional ASN requests should include proof of the requestor's need for a unique routing policy, or other technical justification for the need for more than one ASN.

- **Timetable for Implementation:** Any

Draft Policy ARIN-2022-2

Questions for the Community

1. Do you support this policy as written?
2. Are there any suggestions or recommendations?

Any Questions

Discussion