

ARIN Policies How to Qualify for Number Resources

Leslie Nobile Director, Registration Services



ARIN Policies IPv4 IPv6 ASN



Terms

• Allocate

- to issue number resources to ISPs (LIRs) for internal networks and for further subdelegation to customers
- Assign
 - to issue number resources to end-users for internal networks only

Multi-homed

 connectivity to more than one ISP (or peer) and the same prefix announced by at least two of them

IPv4 – Initial Allocation to ISPs

- Standard Policy Criteria
 - /20 reassigned from upstream (efficiently utilized)
 - Minimum allocation is /20
 - Based on 3 month need
- Multi-homed Policy Criteria
 - /23 reassigned from upstream (efficiently utilized)
 - Must be multi-homed or intend to multi-home
 - Must agree to renumber
 - Minimum allocation is /22
 - Based on 3 month need



Minimum Allocation in the Caribbean Region

- Criteria
 - Applies to ISPs only
 - Minimum allocation is /22
 - Single homed orgs must have /22 reassigned from upstream and efficiently used
 - Multi-homed orgs must have /23 reassigned from upstream and efficiently used



IPv4 – Additional Allocations to ISPs

• Criteria

- 80% efficient utilization of most recent allocation and 100% of all previous allocations
- Returned space to upstream (if applicable)
- Must show reassignment information (swip, Rwhois, spreadsheet)
- Based on three month need (12 months if subscriber has been an ARIN member for longer than a year)



IPv4 – Initial Assignments to End-users

Standard Policy Criteria

- Show 25% utilization now and plan for 50% within 1 year
- Based on 12 month need
- Minimum allocation is /20
- Multi-homed Policy Criteria
 - Must be multi-homed or intend to multi-home
 - Show 25% utilization now and plan for 50% within 1 year
 - Based on 12 month need
 - Minimum allocation is /22

IPv4 – Additional Assignments to End-users

Criteria

- Demonstrate 80% efficient utilization of all previous assignments
- Based on 12 month need (using 25% immediate and 50% within 1 year criteria)



Immediate Need

- Criteria
 - Provide justification to show address space will be used within 30 days
 - Examples of justification
 - Signed customer contracts
 - Network topology plan
 - Network deployment schedule
 - Equipment receipts
 - Connectivity contracts
- /16 is largest block issued under this policy



Micro-Allocation

• Criteria

- Must be critical Internet infrastructure provider to qualify
 - Includes public exchange points, core DNS service providers (e.g. ICANN-sanctioned root, gTLD, and ccTLD operators), RIRs, and ICANN
- Exchange point operators must provide justification including: connection policy, location, and the ASN and contact information for at least two other participants
- Allocation size no longer than /24 (v4) or /48 (v6)



IPv6 – Initial Allocation to ISPs

Criteria

- Be an LIR (an ISP), and not an end site
- Plan to provide IPv6 connectivity to organizations and route the aggregate prefix
- Plan to make at least 200 assignments to customers within five years OR be a well known ISP in the ARIN region
- Minimum allocation is /32
 - larger allocations may be justified; based on number of existing v4 users and org's infrastructure

IPv6 – Subsequent Allocation to ISPs

- Criteria
 - ISP must achieve acceptable utilization of its allocated space; measured in terms of /56 assignments using the HD Ratio (RFC 3194) of .94
 - e.g. One /32 has 16,777,216 /56s
 - 6,183,533 /56s would have to be assigned in order to request more IP address space
- Based on 2 year need

IPv6 Assignments to End-users

Criteria

- not be an IPv6 LIR; and
- qualify for an IPv4 assignment or allocation from ARIN under the IPv4 policy currently in effect
- Initial assignment size is /48



ASN

• Criteria

 Be a multi-homed site (or intend to multihome)

OR

- Have a unique routing policy



If You Need Assistance...

- ARIN Registration Services staff
 - Email: hostmaster@arin.net
 - Phone: 703 227-0660
- ARIN Policies (NRPM)

 http://www.arin.net/policy/nrpm.html
- ARIN Quick Guide to Requesting Resources
 - http://www.arin.net/registration/eligibility.ht

