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American Registry for Internet Numbers (ARIN)

ARIN Policies

How to Qualify for Number Resources from ARIN

September 2008





ARIN Policies

IPv4

IPv6

ASN

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Terms

- **Allocate**
 - to issue number resources to ISPs (LIRs) for internal networks and for further sub-delegation 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

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 multi-home)
 - 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.html>

Thank You

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