

Policy Proposal 109

Standardize IP Reassignment Registration Requirements

ARIN XXV

18 April, 2010 – Toronto, Ontario

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Current SWIP Requirement

- IPv4 /29 (and IPv6 /56s) and larger nets assigned must be SWIPped (or RWHOIS) [“registered” in IPv6, no mention of WHOIS, SWIP or RWHOIS]
- Organizational information required [not codified in policy]
 - Organization name
 - Street address (Street Name and Number, City, State, Zip, Country)
 - POC info (All of the above, plus, name, email and phone)
- Record to be created within 7 days of issuance of network [IPv4 only]
- All data visible via WHOIS (RWHOIS) [IPv4 only – IPv6 requires registration “in a database”]

Current Exception

- Residential Customers
 - ISP may substitute their own name for the customer's name
 - Customer's street address may read "Private Residence" (city, state, zip, country required)
 - Record must display ISP's Abuse and Tech POCs

2010-3 Change to Policy

- Exception extended at ISP's option to all customers.
 - ISP's name instead of customer name.
 - ISP's contact information.
 - Actual customer information must be provided to ARIN on request and held in strictest confidence.

PP 109 – Part 1: Definitions

- Defines “organizational information”
 - Legal name, city, state, zip, Tech and/or Abuse POC (email required, phone number optional)
 - Defines “residential customer”
 - Individual person (not organization) at place of residence
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2.3. Organizational Information

When required, organization Information must include at a minimum: Legal name, city, state, zip code equivalent and at least one valid technical or abuse POC; inclusion of street address is highly encouraged. The POC shall be designated by the organization and must include at least one verifiable email address, inclusion of a phone number is highly encouraged.

2.12. Residential Customer

End-users who are individual persons and not organizations and who receive service at a place of residence are considered residential customers.

PP 109 – Part 2: IPv4

- Demonstrate efficient use
- /29 and larger networks
- Organizational Information
- Within 7 days
- Residential market areas (taken from 4.2.6)
 - ISPs with residential market areas
 - Space assigned to market area (not customers)
 - Only if less than a /29 per customer
 - 50% Utilization considered Efficient
 - Only from most recent allocation
- Residential privacy policy
 - Mirrors current policy

4.2.6. Cable Address Space Policy

- In most cases, ISPs that have residential cable subscribers assign address space to their cable infrastructure to which their customers connect rather than to individual subscribers. This assignment information regarding each market area holding an address block should be entered via the SWIP template (or by using RWHOIS) with the network name used to identify each market area. Initial allocations are based on total number of homes that could purchase the service in a given market area.
- Using SWIP or RWHOIS, cable ISPs must show that they have reassigned at least 80% of their current address space, with a 50 to 80% utilization rate, in order to request additional addresses.
- Each assignment to a specific end-user (if holding /29 and larger blocks) requires the submission of a SWIP template or use of an RWHOIS server. Requesters will also be asked to provide detailed plans for use of the newly requested space.

Current IPv4 Policy

4.2.3.7. Reassignment information

- **4.2.3.7.1. Customer organization information**

ISPs are required to demonstrate efficient use of IP address space allocations by providing appropriate documentation, including assignment histories, showing their efficient use. SWIP and RWHOIS reassignments should show each client's organizational information.

- **4.2.3.7.2. /29s and larger nets**

ISPs must provide reassignment information on the entire previously allocated block(s) via SWIP or RWHOIS server for /29 or larger blocks. For blocks smaller than /29 and for internal space, ISPs should provide utilization data via SWIP or RWHOIS server or by using the format described in Section 4.2.3.7.5.

- **4.2.3.7.3. Submit within 7 days**

Any time an ISP receives a new block of address space, reassignment information should be submitted within 7 days of issuance of the new space. This information is used to demonstrate that the address space received is being efficiently utilized. Also, it will be reviewed to determine an ISP's and its downstream customers' utilization effectiveness if and when additional space is requested in the future.

- **4.2.3.7.4. Visible via WHOIS**

This information must be visible via WHOIS prior to submitting a request for a new allocation. For further information on reassigning IP address space, please see RFC 2050.

- **4.2.3.7.5. Accounting for additional utilization**

The following format should be used to provide the required information for utilization of blocks smaller than /29 and for describing internal networks when either SWIP or RWHOIS server is not used:

*CityWhich IP Addresses AssignedNo. of PortsNo. of Dial-up Clients
CityWhich IP Addresses AssignedNo. of Internal MachinesPurpose
Which IP Addresses AssignedList URLs for Websites*

- **4.2.3.7.6. Residential Customer Privacy**

To maintain the privacy of their residential customers, an organization with downstream residential customers may substitute that organization's name for the customer's name, e.g. 'Private Customer - XYZ Network', and the customer's street address may read 'Private Residence'. Each private downstream residential reassignment must have accurate upstream Abuse and Technical POCs visible on the WHOIS record for that block.

Proposed IPv4 Policy

4.2.3.7. Registration

ISPs are required to demonstrate efficient use of IP address space allocations by providing appropriate documentation, including assignment histories, showing their efficient use.

- **4.2.3.7.1. Reassignment Information**

Each IPv4 assignment containing a /29 or more addresses shall be registered in the WHOIS directory via SWIP or a distributed service which meets the standards set forth in section 3.2. Reassignment registrations shall include each client's organizational information, except where specifically exempted by this policy.

- **4.2.3.7.2. Assignments visible within 7 days**

All assignments shall be made visible as required in section 4.2.3.7.1 within seven calendar days of assignment.

- **4.2.3.7.3. Residential Subscribers**

- **4.2.3.7.3.1. Residential Market Area**

ISPs that assign address space to the infrastructure to which their customers connect rather than to individual subscribers must register assignment information regarding each market area holding such an address block. Market area reassignments shall be registered with the network name used to identify each market area. Any assignment to specific end-users holding /29 and larger blocks still requires registration. A >50% utilization rate shall be considered efficient for market area reassignments from the ISPs most recent allocation.

- **4.2.3.7.3.2. Residential Customer Privacy**

To maintain the privacy of their residential customers, an organization with downstream residential customers holding /29 and larger blocks may substitute that organization's name for the customer's name, e.g. 'Private Customer – XYZ Network', and the customer's street address may read 'Private Residence'. Each private downstream residential reassignment must have accurate upstream Abuse and Technical POCs visible on the WHOIS directory record for that block.

PP 109 – Part 3: IPv6

Duplicate policy text for IPv6:

- Demonstrate efficient use
- /56 and larger networks
- Organizational Information
- Within 7 days
- Residential market areas
 - ISPs with residential market areas
 - Space assigned to market area (not customers)
 - Only if less than a /29 per customer
 - 50% Utilization considered Efficient
 - Only from most recent allocation
- Residential privacy policy
 - Mirrors current policy

Current IPv6 Policy

6.5.5. Registration

When an organization holding an IPv6 address allocation makes IPv6 address assignments, it must register assignment information in a database, accessible by RIRs as appropriate (information registered by an RIR may be replaced by a distributed database for registering address management information in future). Information is registered in units of assigned /56 networks. When more than a /56 is assigned to an organization, the assigning organization is responsible for ensuring that the address space is registered in an RIR database.

RIRs will use registered data to calculate the HD-Ratio at the time of application for subsequent allocation and to check for changes in assignments over time.

IRs shall maintain systems and practices that protect the security of personal and commercial information that is used in request evaluation, but which is not required for public registration.

- **6.5.5.1. Residential Customer Privacy**

To maintain the privacy of their residential customers, an organization with downstream residential customers may substitute that organization's name for the customer's name, e.g. 'Private Customer - XYZ Network', and the customer's street address may read 'Private Residence'. Each private downstream residential reassignment must have accurate upstream Abuse and Technical POCs visible on the WHOIS record for that block.

Proposed IPv6 Policy

6.5.5. Registration

ISPs are required to demonstrate efficient use of IP address space allocations by providing appropriate documentation, including assignment histories, showing their efficient use.

- **6.5.5.1. Reassignment information**

Each IPv6 assignment containing a /56 or more addresses shall be registered in the WHOIS directory via SWIP or a distributed service which meets the standards set forth in section 3.2. Reassignment registrations shall include each client's organizational information, except where specifically exempted by this policy.

- **6.5.5.2. Assignments visible within 7 days**

All assignments shall be made visible as required in section 4.2.3.7.1 within seven calendar days of assignment.

- **6.5.5.3. Residential Subscribers**

- **6.5.5.3.1. Residential Market Area**

ISPs that assign address space to the infrastructure to which their customers connect rather than to individual subscribers must register assignment information regarding each market area holding such an address block. Market area reassignments shall be registered with the network name used to identify each market area. Any assignment to specific end-users holding /56 and larger blocks still requires registration. A >50% utilization rate shall be considered efficient for market area reassignments from the ISPs most recent allocation.

- **6.5.5.3.2. Residential Customer Privacy**

To maintain the privacy of their residential customers, an organization with downstream residential customers holding /56 and larger blocks may substitute that organization's name for the customer's name, e.g. 'Private Customer – XYZ Network', and the customer's street address may read 'Private Residence'. Each private downstream residential reassignment must have accurate upstream Abuse and Technical POCs visible on the WHOIS record for that block.

PP 109 Change to Policy

- Telephone numbers optional
- Street number and street name optional
- Extends cable-only policy to all ISPs with residential markets
 - While Residential Customer Privacy is retained, this change removes the need for ISPs to SWIP individual residences (instead the region is SWIPed)
 - Also extends utilization percentage to ISPs with residential customers (50%)

Pros & Cons

- Provides some “customer confidentiality.”
 - Creates a more even playing field for all residential ISPs.
 - Builds parity between IPv6 and IPv4 policy.
 - Adds needed definitions.
- Creates some ambiguity in WHOIS data.
 - Brings utilization policy into directory policy.
 - Substantial changes to existing policy text.
 - Defines some things that are already current practice.

Questions?

Thank You!