Changes you need to know

Elly Tawhai
PacNOG 19 28-11-2016
Outline

• Current IPv4 delegations trends
• Introduction of IPv4 waiting list
• Why IPv6
• Organization objects
Annual IPv4 Delegations

As at 31 October
Current IPv4 Delegation Policy and Practice

• APNIC: Maximum /22 from final /8 (103/8). Requests for /22 from recovered pool put onto waiting list
• RIPE NCC: Maximum /22 from the final /8 pool for each member
• ARIN: All requests put onto the waiting list
• LACNIC: Maximum /22 for each Member every 6 months
• AFRINIC: Expect to hit final /8 early next year
Waiting list – What waiting list?

- 9 June 2016 first approved request from recovered pool couldn’t be processed
- Triggered activation of IPv4 Recovered Pool waiting list
How the Waiting List works?

- Any approved request from recovered pool put onto the waiting list
- Based on request timestamp (oldest to newest)
- Option to remove request from waiting list anytime
- After 12 months request removed from waiting list unless member reconfirms need justification
# Waiting List

## Current Waiting List for Unmet IPv4 Requests

<table>
<thead>
<tr>
<th>Position</th>
<th>Size</th>
<th>Date / Time (UTC +10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/22</td>
<td>2016-09-05 17:30:53</td>
</tr>
<tr>
<td>2</td>
<td>/22</td>
<td>2016-09-05 21:03:06</td>
</tr>
<tr>
<td>3</td>
<td>/22</td>
<td>2016-09-06 13:57:01</td>
</tr>
<tr>
<td>4</td>
<td>/22</td>
<td>2016-09-07 00:33:24</td>
</tr>
<tr>
<td>5</td>
<td>/22</td>
<td>2016-09-07 14:33:03</td>
</tr>
<tr>
<td>6</td>
<td>/22</td>
<td>2016-09-07 19:21:01</td>
</tr>
<tr>
<td>7</td>
<td>/22</td>
<td>2016-09-08 07:32:52</td>
</tr>
<tr>
<td>8</td>
<td>/22</td>
<td>2016-09-08 10:32:43</td>
</tr>
<tr>
<td>9</td>
<td>/22</td>
<td>2016-09-08 11:06:02</td>
</tr>
<tr>
<td>10</td>
<td>/22</td>
<td>2016-09-08 16:09:02</td>
</tr>
</tbody>
</table>

Showing 1 to 10 of 146 entries

https://www.apnic.net/ipv4-waiting-list
Annual IPv4 Transfers

As at 31 October

2016 Projection
Between RIR Regions
Within APNIC Region
Which RIR allows IPv4 inter-RIR Transfers?

- APNIC, ARIN and RIPE NCC implemented inter RIR IPv4 transfer policy
- LACNIC and AFRINIC have no inter-RIR transfer policy
Annual IPv6 Delegations

As at 31 October
Why IPv6?

- IPv4 address supply is exhausted
  - New networks require addresses
  - Stop-gap measures are damaging (NAT)

- The Internet is growing fast
  - Broadband: mobile and wifi
  - “Internet of Things”

- IPv6 is the only viable option we have now
  - Much larger address space than IPv4
Member Resource Holdings

<table>
<thead>
<tr>
<th>% of Members Holding</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ASN</td>
<td>73%</td>
</tr>
<tr>
<td>IPv4</td>
<td>95%</td>
</tr>
<tr>
<td>IPv6</td>
<td>49%</td>
</tr>
</tbody>
</table>

- IPv4 only
- IPv4+IPv6
- ASN+IPv6
- ASN only
- IPv6 only
- ASN+IPv4+IPv6
Whois and Whowas

- Upgrading WHOIS to version 4
  - RDAP code integrated into WHOIS codebase
  - Incorporating ‘Org’ object rules

- WHOWAS – development underway for a public historical information service
  - Testing historical service API system; extending RDAP result format
  - Prototype user interface for
Organization object

organization: APNIC112-AP
org-name: APNIC Pty Ltd
address: 6 Cordelia Street, South Brisbane
country: AU
e-mail: helpdesk@apnic.net
mnt-by: APNIC-HM
last-modified: hm-changed@apnic.net 20160902
source: APNIC
Purpose of Organization object

• Links all resources associated with an Organization
  – Quicker to filter information
  – Contains business information only

• Provides clarity
  – Resource custodianship VS resource usage
  – https://www.apnic.net/get-ip/faqs/organization-object
What’s next for you

• Whois upgrade live March 2017
• Be familiar with Organization object (and how it works)
• Stay tuned to news about Organization object
• Keep us informed if organization details require update
Your all invited!

APRICOT 2017
APNIC 43

Registration will open soon

2017.apricot.net
Questions ?