# 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



64**(...)**10**/640)** 3

## **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**

Position	Size	Date / Time (UTC +10)
1	/22	2016-09-05 17:30:53
2	/22	2016-09-05 21:03:06
3	/22	2016-09-06 13:57:01
4	/22	2016-09-07 00:33:24
5	/22	2016-09-07 14:33:03
6	/22	2016-09-07 19:21:01
7	/22	2016-09-08 07:32:52
8	/22	2016-09-08 10:32:43
9	/22	2016-09-08 11:06:02
10	/22	2016-09-08 16:09:02
Showing 1 to 10 of 14	6 entries	Previous 1 2 3 4 5 15 Next https://www.apnic.net/ipv4-waiting-list

#### **Annual IPv4 Transfers**



As at 31 October

APNIC

/o/();;;)/o/6/©) 8

#### 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

APNIC

#### 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**



APNIC

#### **Whois and Whowas**

PNIC Whois Search			
	To assist you with debugging problems, this whols query was received from IP Address: 2001;d:ch:a00:ch:78eef637;c74b;7:68 If you experience problems with this form, try the legacy search form.		
& APNIC found	the following authoritative answer from: whois.apnic.net		
	.net] opyright terms http://www.apnic.net/db/dbcopyright.html related to 'A54608 – A54864'		
lescr:	AS4600 - AS4864 AMMIC ASM block		
descr: remarks: remarks: idmin-c:	APRIC AN block These AS numbers are further assigned by APRIC to APRIC members and end-users in the APRIC region HPCD-AP		
descr: remarks: remarks: admin-c: tech-c: nnt-by: nnt-lower:	AMIC AD block These AS nubers are further assigned by AMIC to AMIC embers and end-users in the AMIC region MUC-AM AMIC-AMI		
descr: remarks: remarks: admin-c: tech-c: nnt-by: nnt-lower: changed: changed: changed:	APICC ASN block These AS mubers are further assigned by APRIC to APRIC embers and end-users in the APRIC region HROB-AP HROB-AP APRIC-M		
descr: remarks: remarks: ddmin-C: tech-c: nnt-by: nnt-lower: changed: changed: source: role:	AMIC AD block AMIC AD block These AS nubers are further assigned by AMIC region to AMIC embers and end-users in the AMIC region MMC-MD AMIC-MP AMIC-MP AMIC-MP AMIC-MP AMIC-MP AMIC-MP AMIC-MP AMIC-MP AMIC-MP AMIC ADDABASES AMIC AMIC ADDABASES AMIC		
descr: remarks: remarks: admin-c: tech-c: mnt-by: mnt-lower: changed: changed: changed: changed: source: role: address: address:	AMIC AN block AMIC embers are further assigned by AMIC to AMIC embers are further assigned by AMIC to AMIC embers are further assigned by AMIC WE20-AP MMC2-AP AMIC-M hm-changedgaphic.net 200207 hm-changedgaphic.net 200207 hm-changedgaphic.net 200207 hm-changedgaphic.met 200207 hm-c		
as-block: descr: remarks: admin-c: tech-c: mnt-byer: changed: changed: changed: changed: changed: address: addr	AMIC AD block AMIC AD block These AS nubers are further assigned by AMIC to AMIC embers and end-users in the AMIC region Wr0-3-W MRC-MB AMIC-MB AMIC-MB AMIC-MB AMIC-MB AMIC-MB AMIC-MB AMIC AMIC AMIC AMIC AMIC AMIC AMIC AMIC		
descr: remarks: remarks: admin-c: tech-c: mnt-by: mnt-lower: changed: changed: changed: source: role: address: address: address: address: address:	AMIC AD block These AS nubers are further assigned by AMIC to AMIC embers and end-users in the AMIC region improce-b Michael AMIC-M AMIC AMIC AMIC AMIC AMIC AMIC AMIC AMIC AMIC		

- 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

1:1(1:1)(1:1:1:1) 14

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
  - <u>https://www.apnic.net/get-ip/faqs/organization-object</u>

#### 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!



**Registration will open soon** 

2017.apricot.net

APNIC

6/**(11)**/0/00 17

### **Questions ?**



