

# APNIC Update

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PacNOG 11 02-07-2012

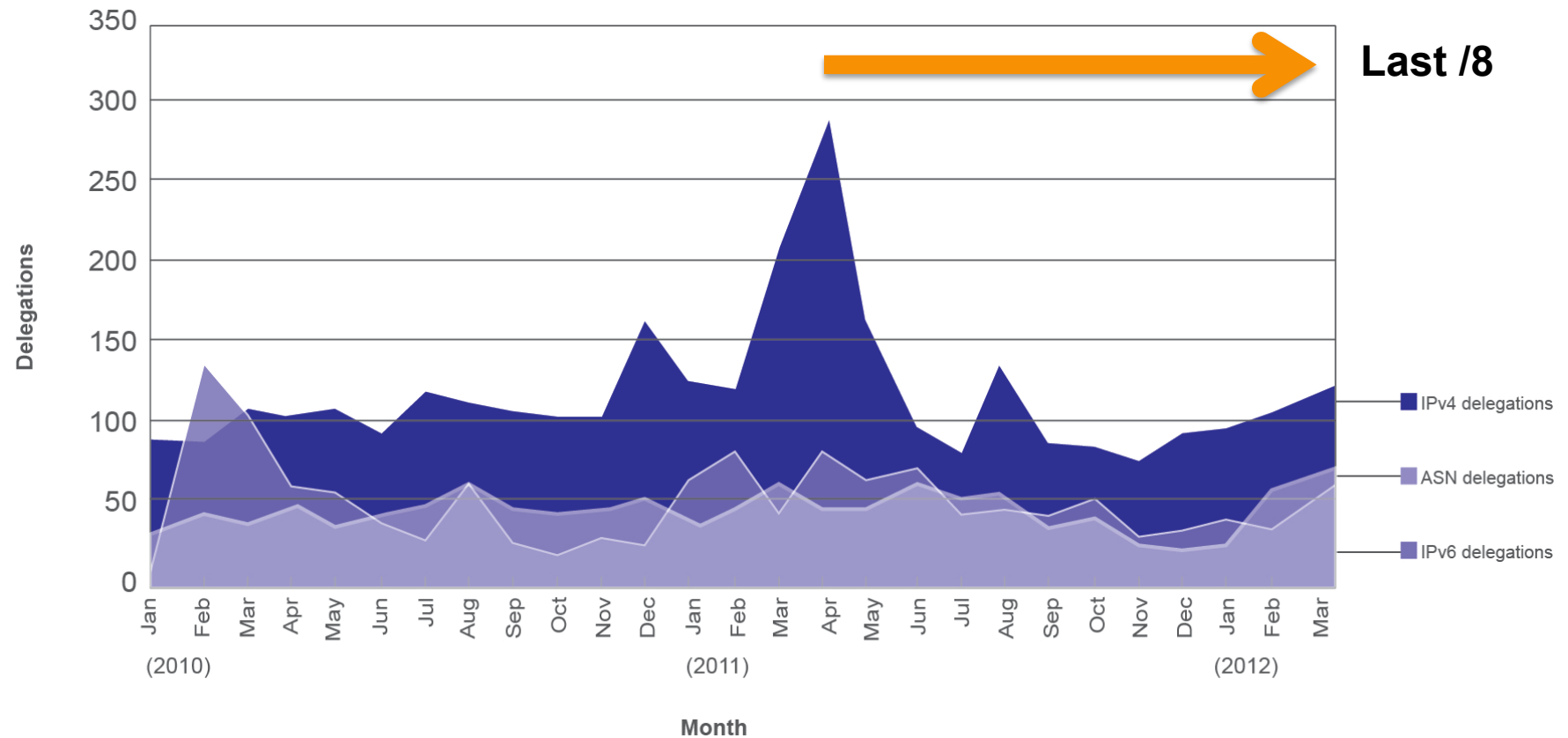
**APNIC**



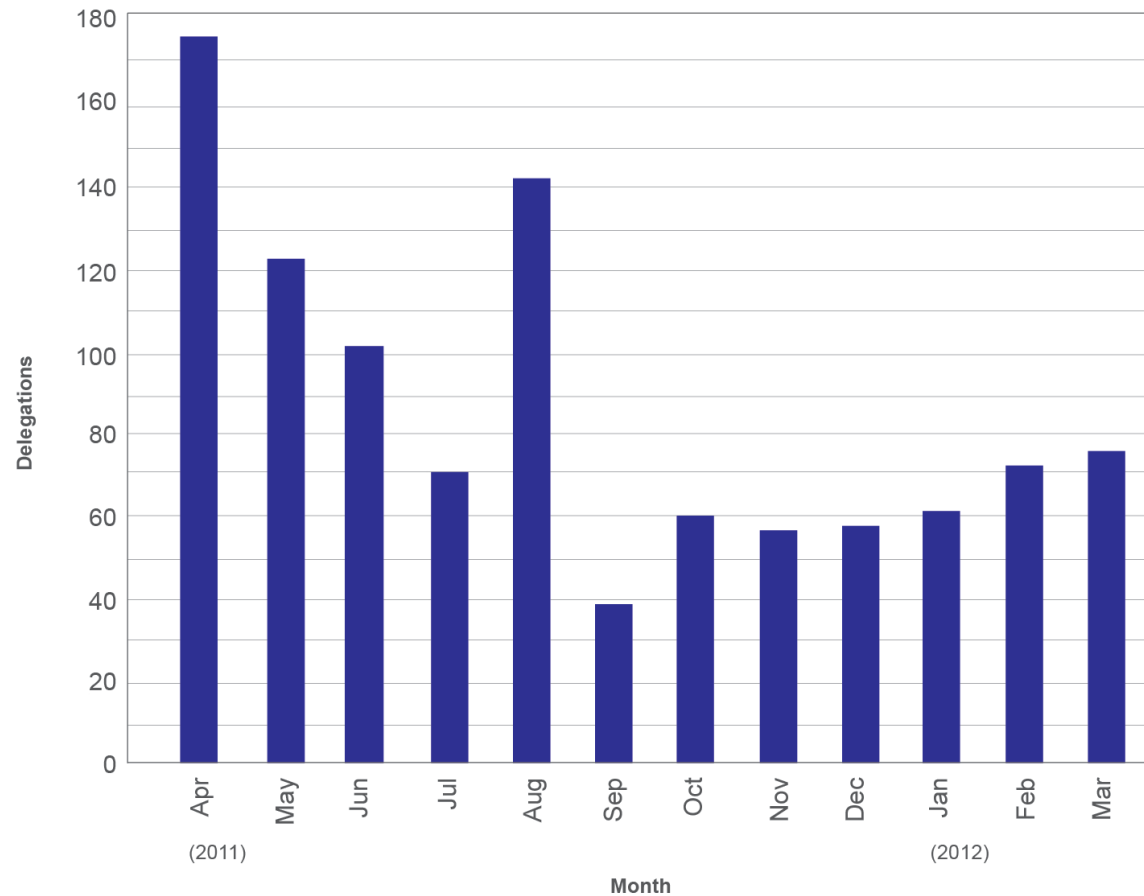
# IPv4 Exhaustion

- Defined 3-stage process
  - Stage 1: normal allocations
  - Stage 2: modified evaluation process
  - Stage 3: “Final /8” policy (rationing)
- Stage 2
  - Strict serialisation of requests and responses
  - Collective evaluation by Hostmaster team
  - Ended on 15 April 2011
  - Approx 180 unfulfilled requests, no ongoing disputes
- Stage 3
  - Maximum allocation now /22 per organisation (from 103/8)

# Resource Delegations



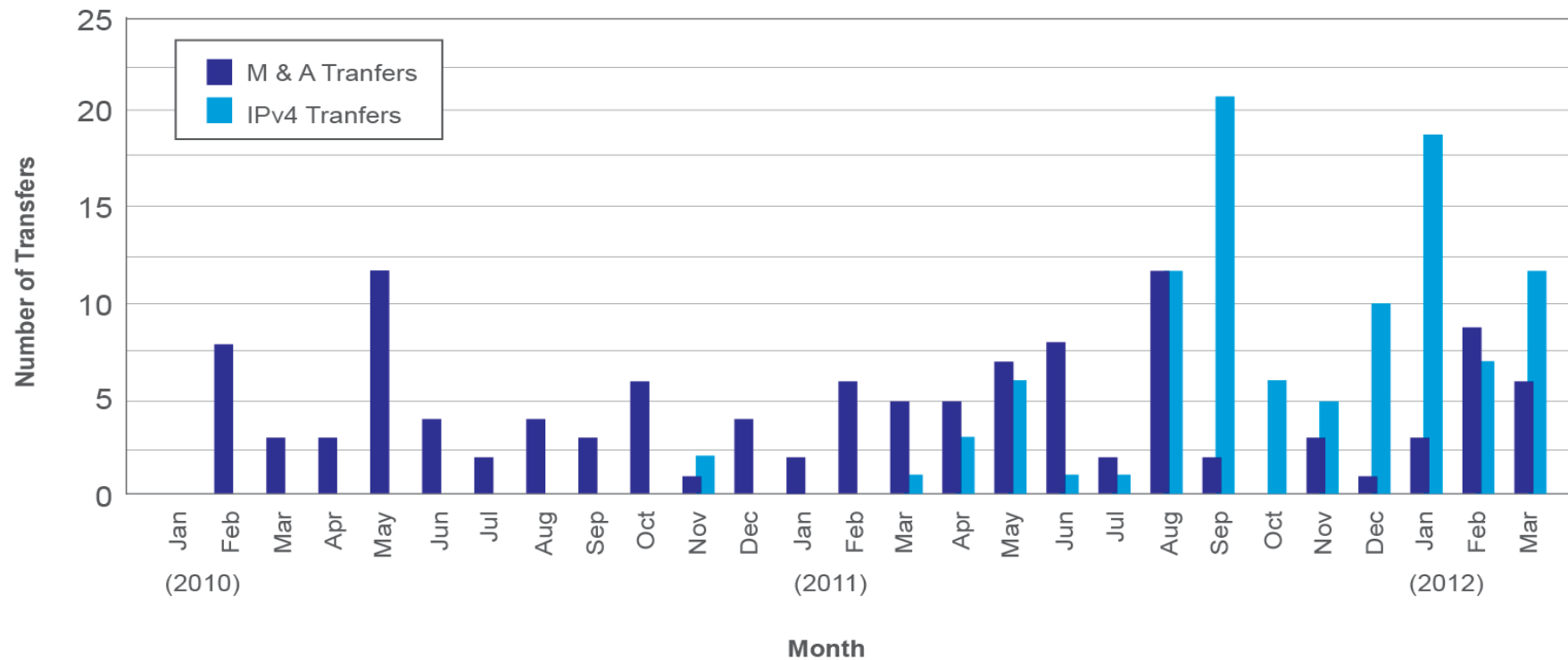
# Last /8 IPv4 Delegations



# IPv4 Transfers

- Demonstrated need now required
  - prop-096 implemented November 2011
  - Except routine M&A transfers
- Pre-approval requests
  - Can be sought prior to transfer
  - Request process identical to traditional IPv4 address request
  - Pre-approval when granted is valid for 1 year
- Broker contract/agreement
  - Requires commitment to APNIC policies in all transactions
  - Contracted brokers will be listed and “recognised”
- Inter-regional transfers
  - prop-095 implemented August 2011
  - Requires counterpart RIR with compatible policy

# IPv4 Transfers



# Resource Quality Assurance

- Reachability testing
  - Applied to /8s received from IANA
  - E.g. 1/8
- Whois cleanup project
  - 155,618 unreferenced objects removed
  - 49,542 errors fixed
  - Campaign to update mnt-irt object attributes
- Outreach activities
  - APNIC meetings and NOGs
  - <http://meetings.apnic.net/33/program/bof>

# Learning and Development

- New Area established 2011
  - Directed by Dr Philip Smith (you know him)
- Increased focus on IPv6
- eLearning (WebEx)
  - One-hour “live” training sessions
  - Delivered fortnightly to three time zones
- Training lab
  - For online, remote access during training
  - Equipped with IPv6, 4-byte AS Numbers
  - ISP-like topology with multiple operating regions
  - Hands-on environment with core, edge, and access networks



# Training in 2011

- Face-to-Face “IRM” and other
  - 67 courses in 36 locations
  - 1,813 total participants
- eLearning
  - 76 courses
  - 786 total participants
- IPv6 courses
  - 27 locations
  - 1,147 total participants

# APNIC Labs

- IPv6 Capability measurement
  - Google ad data collection (thanks to Google)
  - Code snippet enables website-specific data collection
  - 600,000+ measurements per day
  - Analysis by source economy, ASN, and more
- IPv4 address report
  - IPv4 free pool address exhaustion
- <http://labs.apnic.net>
- <http://blabs.apnic.net>

# IPv6 Programme

- Regional events and activities
  - Pacific Telecommunications Council (PTC), Hawaii, January 2011
  - Philippines IPv6 Conference, Manila, January 2011
  - IPv6 Transition conference, APRICOT 2011, Hong Kong
  - Seminar for DNS community, ICANN 41, Singapore
  - China IPv6 Summit, Beijing, April 2011
  - ITU/APNIC IPv6 Workshop, Bangkok, July 2011
  - World IPv6 Day, 8 June 2011
  - IPv6 Transition Plenary, APNIC 32, Busan
  - Asia Pacific Top Level Domain (APTLD), Busan, September 2011
  - Australia IPv6 Summit, Melbourne, October 2011
  - China Mobile MIRACLE 2011, Beijing, November 2011
  - Singapore iDA IPv6 Executive Briefing, Singapore, November 2011
  - Taiwan IPv6 Summit, Taipei, November 2011
- APIIPv6 Task Force
  - APNIC providing Secretariat services

# IPv6 and Governments

- Work with regulators, policymakers, and government
  - IPv6 technical and policy issues
  - IPv6 deployment capacity building in dev economies
- Events
  - 11th APT Policy and Regulators Forum
  - APEC TEL 43 and 44
  - Policy and Regulations Forum for the Pacific
  - Pacific Telecommunications Council (PTC)
  - Pacific Islands ICT Ministerial Meeting
  - Hong Kong Office of the Government CIO
  - China Ministry of Industry and Information Technology (MIIT)
  - Singapore iDA

# Internet Governance Forum

- IGF 7
  - 2011 in Nairobi, Kenya
  - Sponsored one remote hub - University of the South Pacific, Fiji
  - Total of 18 participants
- Regional IGF events
  - Inaugural Pacific IGF (PacIGF), New Caledonia
  - Asia Pacific Regional IGF (APrIGF), Singapore
  - APrIGF 2012, Japan, July 2012
- Multi-stakeholder Advisory Group (MAG)
  - Paul Wilson serving from May 2012
  - with Paul Rendek (RIPE NCC) and Raul Echeberria (LACNIC)

# Information Society Innovation Fund

- ISIF is now part of the Seed Alliance
  - Alliance for Internet development and digital innovation
  - Joint effort with LACNIC and AfriNIC
  - Ongoing support by IDRC (CAD \$1.3m)
- New round launching soon
- <http://www.isif.asia>



# 2012 Survey

- Focus groups
  - Held during April 2012
  - 17 face-to-face meetings in 13 economies
  - Content to be reflected in the final survey report
- Online survey form
  - APNIC Members, regional, and global stakeholders
  - Questions specific to stakeholder groups
  - Held during May 2012
- Results
  - Due in August 2012 (APNIC 34, Phnom Penh)
  - Feeding directly into planning for 2013

# Coming up ...

- APNIC 34, Phnom Penh, Cambodia
  - 21-31 August 2012
  - New: Workshop week!



- APNIC 35, Singapore
  - 20 February - 1 March 2013 (with APRICOT 2013)
- <http://www.apnic.net/meetings>



# Thanks

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**APNIC**

