APNIC Update

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APNIC

Overview

- Registration Services

- Internet Number Policies

- Trainings

- Community Engagement

- Conferences

- Connect

APNIC Corporate Identity

Past

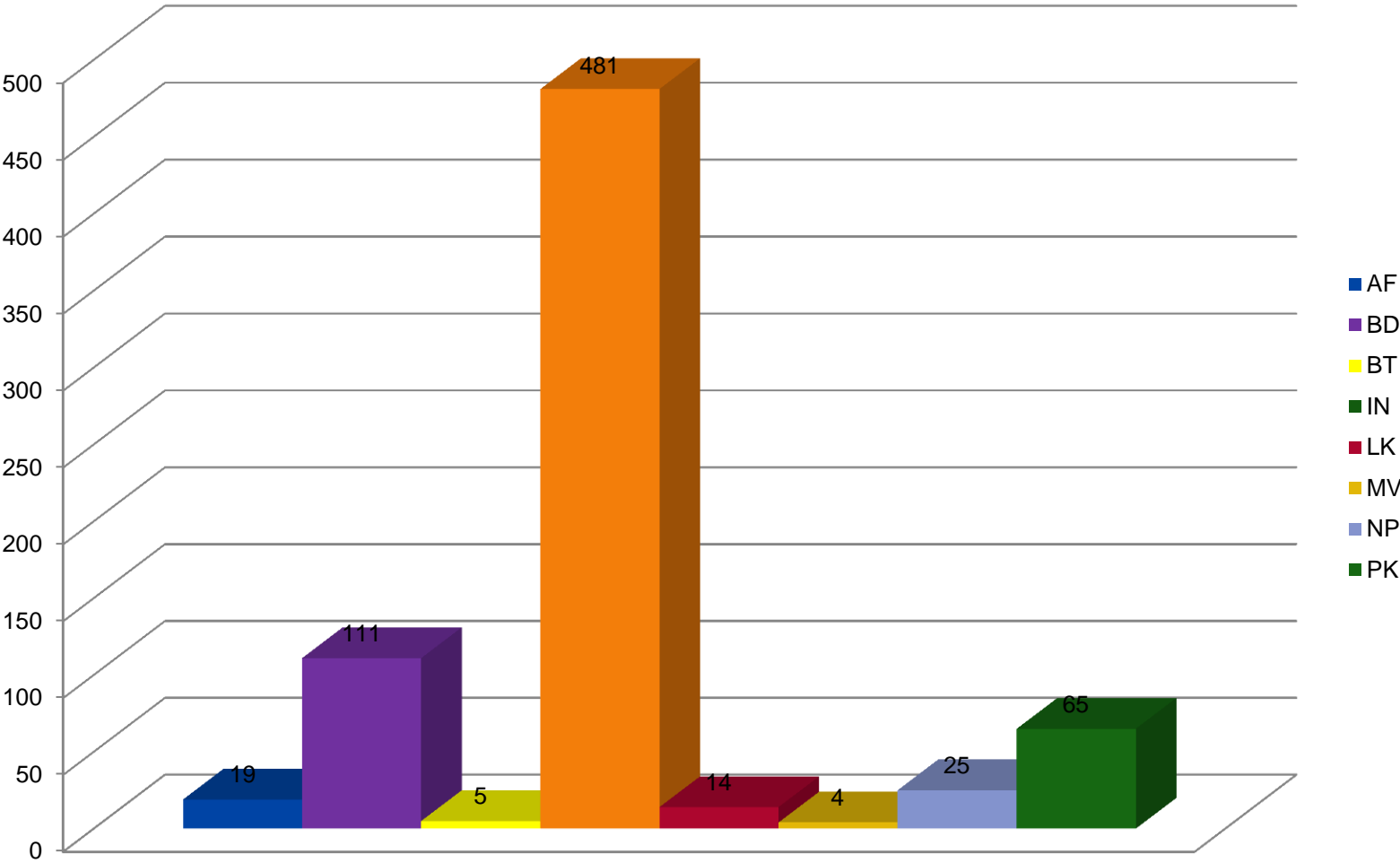**Present**

APNIC LOGOTYPE

A FAMILY OF ICONS

COLOUR SCHEMES

Registration Services

APNIC

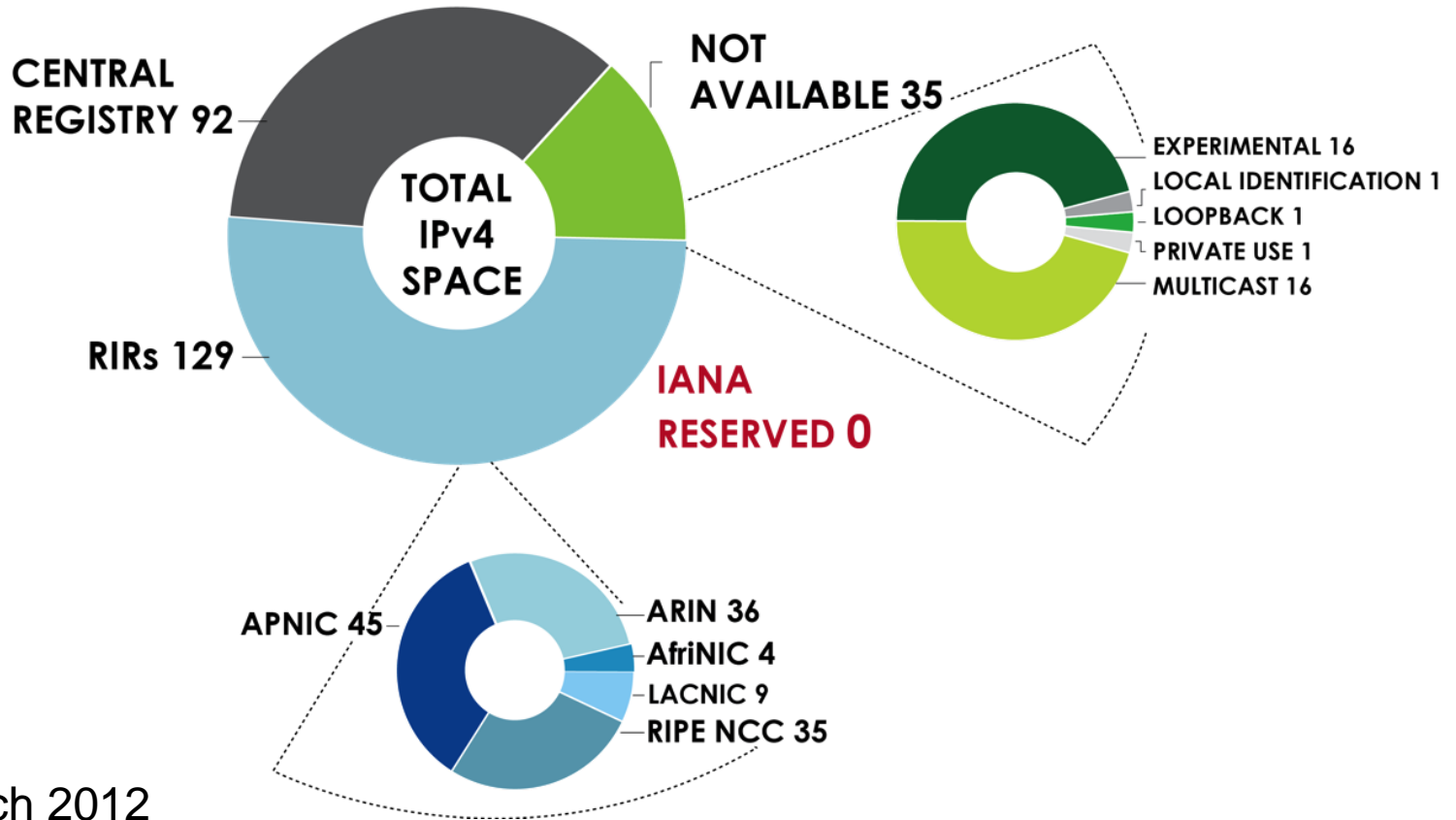# Members in South Asia
As of June 2012

IPv4 Exhaustion

- APNIC reached its final /8 IPv4 block on 15 April 2011

- Now delegating from the final /8 (103/8)
  - Maximum of a /22 per account holder

- IPv4 transfers
  - Pre-approvals
    - Implementation of prop-096
    - Recipient of transferred resources may apply for preapproval by demonstrating need before finding a source

- APNIC secretariat contacted by a few IPv4 brokers
  - Maintains neutrality and ensuring policy compliance
  - Considers pre-approvals and qualified broker listing service

IPv4 Address Space
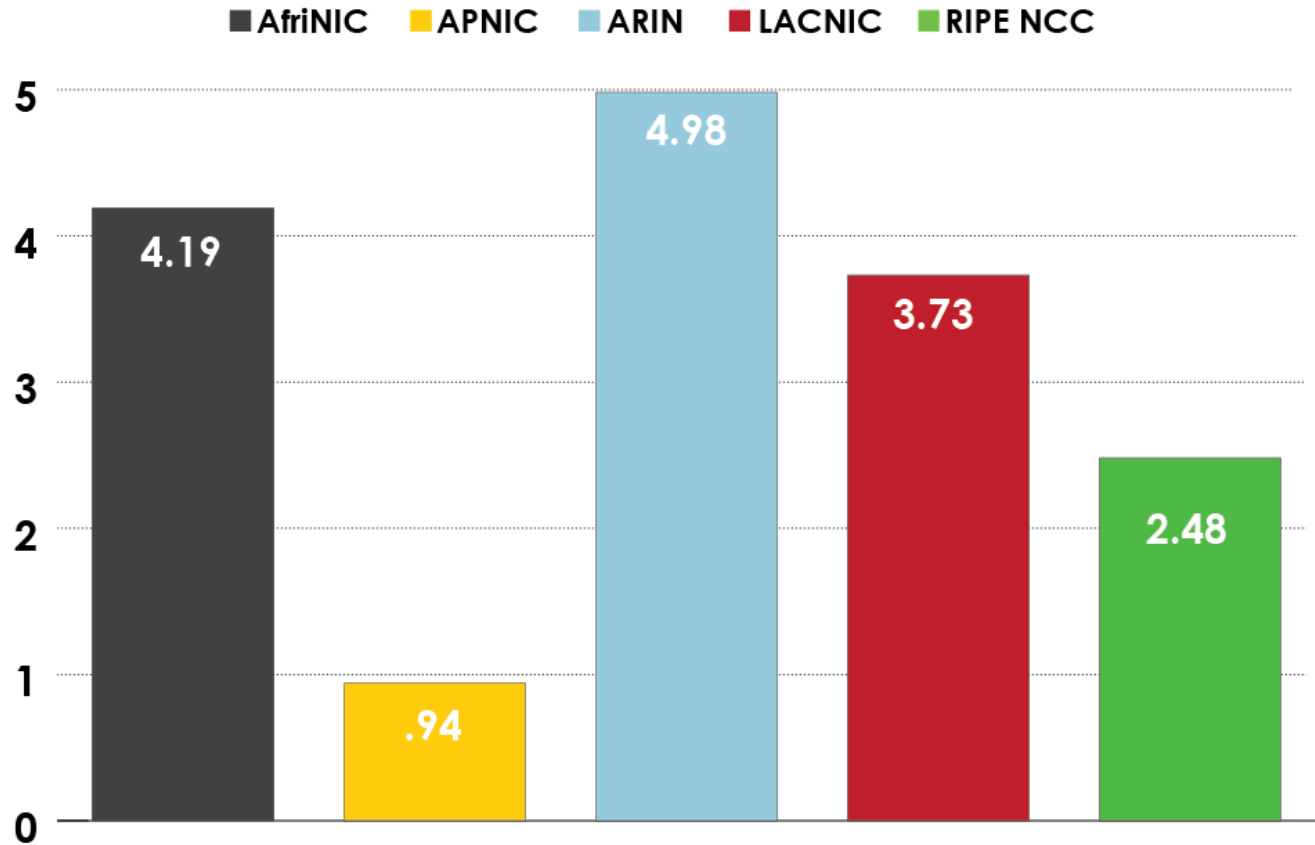## What is the status of each of the 256 /8s?

STATUS OF 256 /8s IPv4 ADDRESS SPACE

TOTAL IPv4 SPACE

CENTRAL REGISTRY 92

NOT AVAILABLE 35

RIRs 129

IANA RESERVED 0

EXPERIMENTAL 16
LOCAL IDENTIFICATION 1
LOOPBACK 1
PRIVATE USE 1
MULTICAST 16

APNIC 45
ARIN 36
AfriNIC 4
LACNIC 9
RIPE NCC 35

As of 31 March 2012

Available IPv4 /8s
As of 31 March 2012

Legend: AfriNIC, APNIC, ARIN, LACNIC, RIPE NCC

- AfriNIC: 4.19
- APNIC: .94
- ARIN: 4.98
- LACNIC: 3.73
- RIPE NCC: 2.48

APNIC
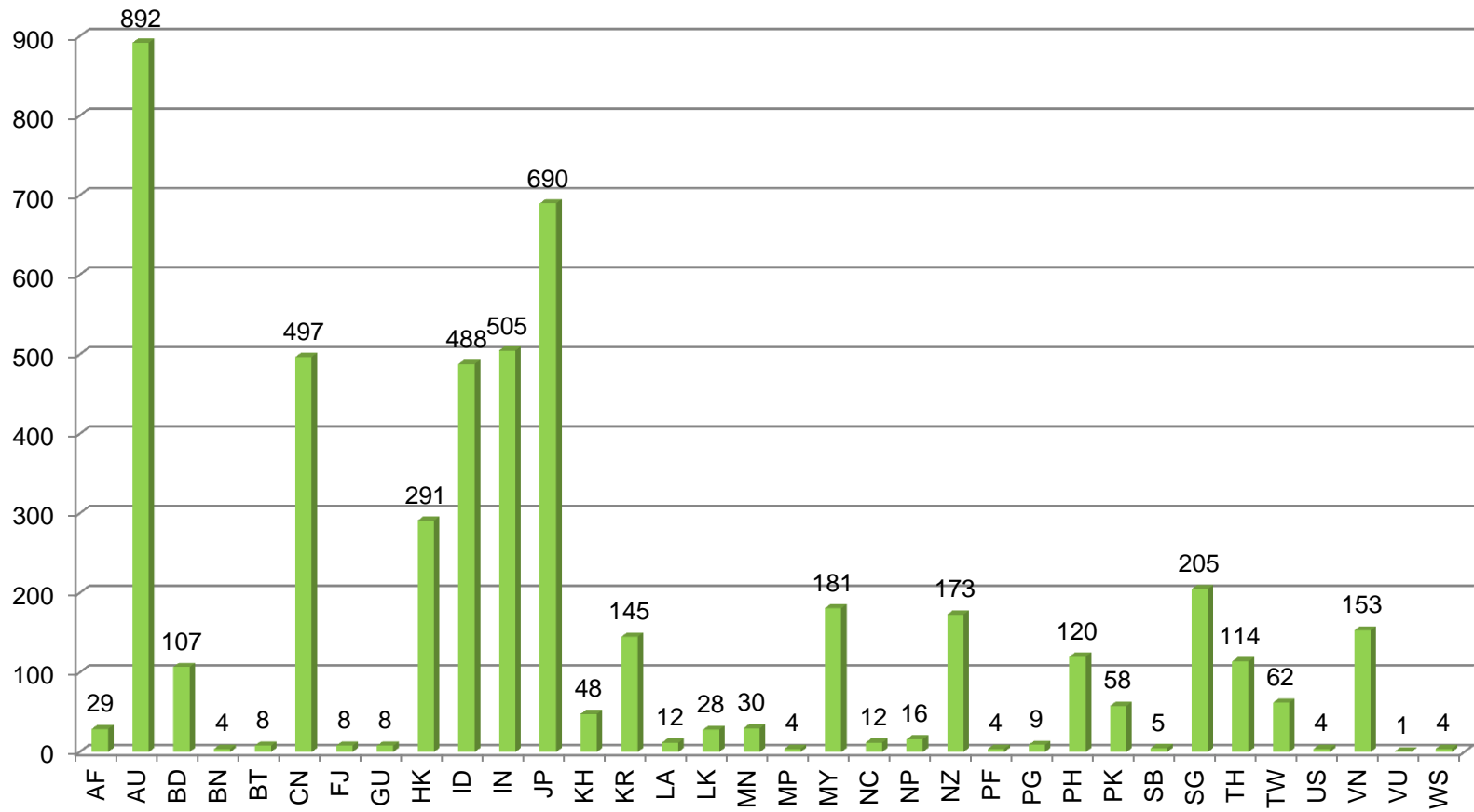
Final /8 Delegations by Economy
in /24s As of 30 June 2012

Number of IPv4 /24s per Economy South Asia

Economy
- AF
- BD
- BT
- IN
- LK
- MV
- NP
- PK

135,581
96
3,535
410
20,252
1,851
210
2,086

APNIC
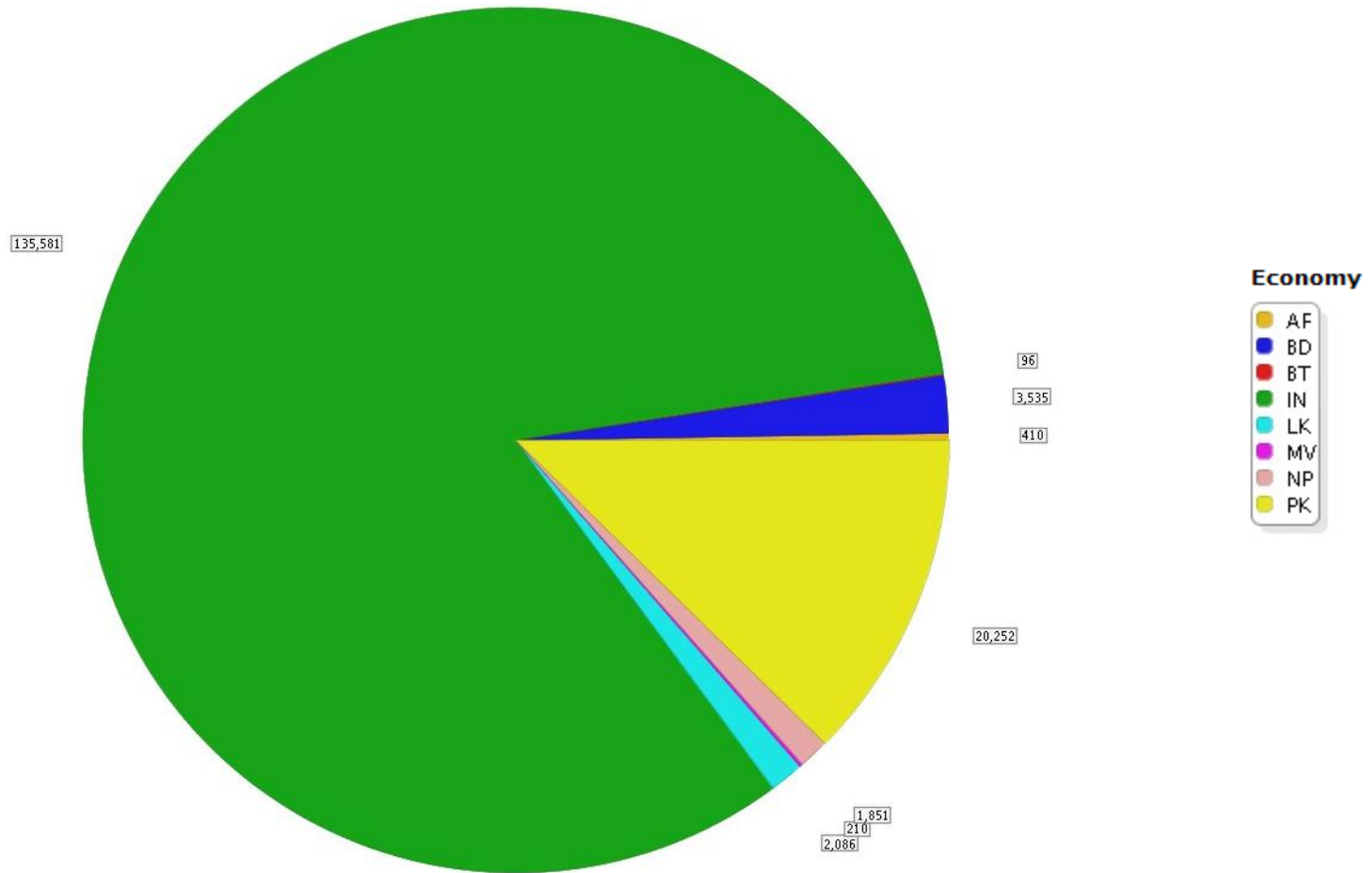
IPv6 Address Space
Allocated to the RIRs
As of 31 March 2012

ALL IPv6 SPACE

/0

/3

GLOBAL UNICAST

IANA RESERVE
506 /12s

Miscellaneous
1 /12

RIRs 5 /12s (October 2006)

RIR	IPv6 ADDRESS
AfriNIC	2C00:0000::/12
APNIC	2400:0000::/12
ARIN	2600:0000::/12
LACNIC	2800:0000::/12
RIPE NCC	2A00:0000::/12
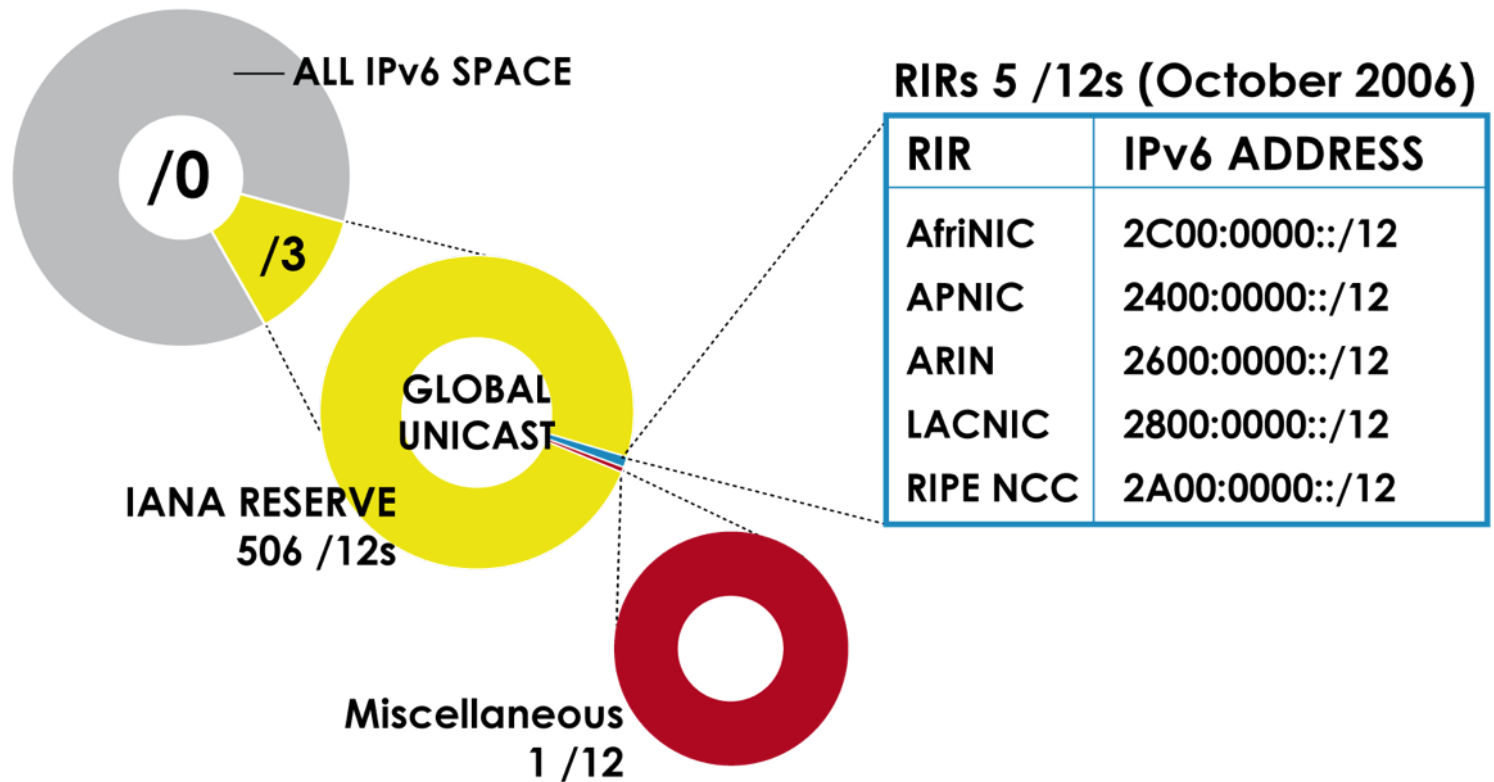
IPv6 Allocations by RIRs
As of 31 March 2012
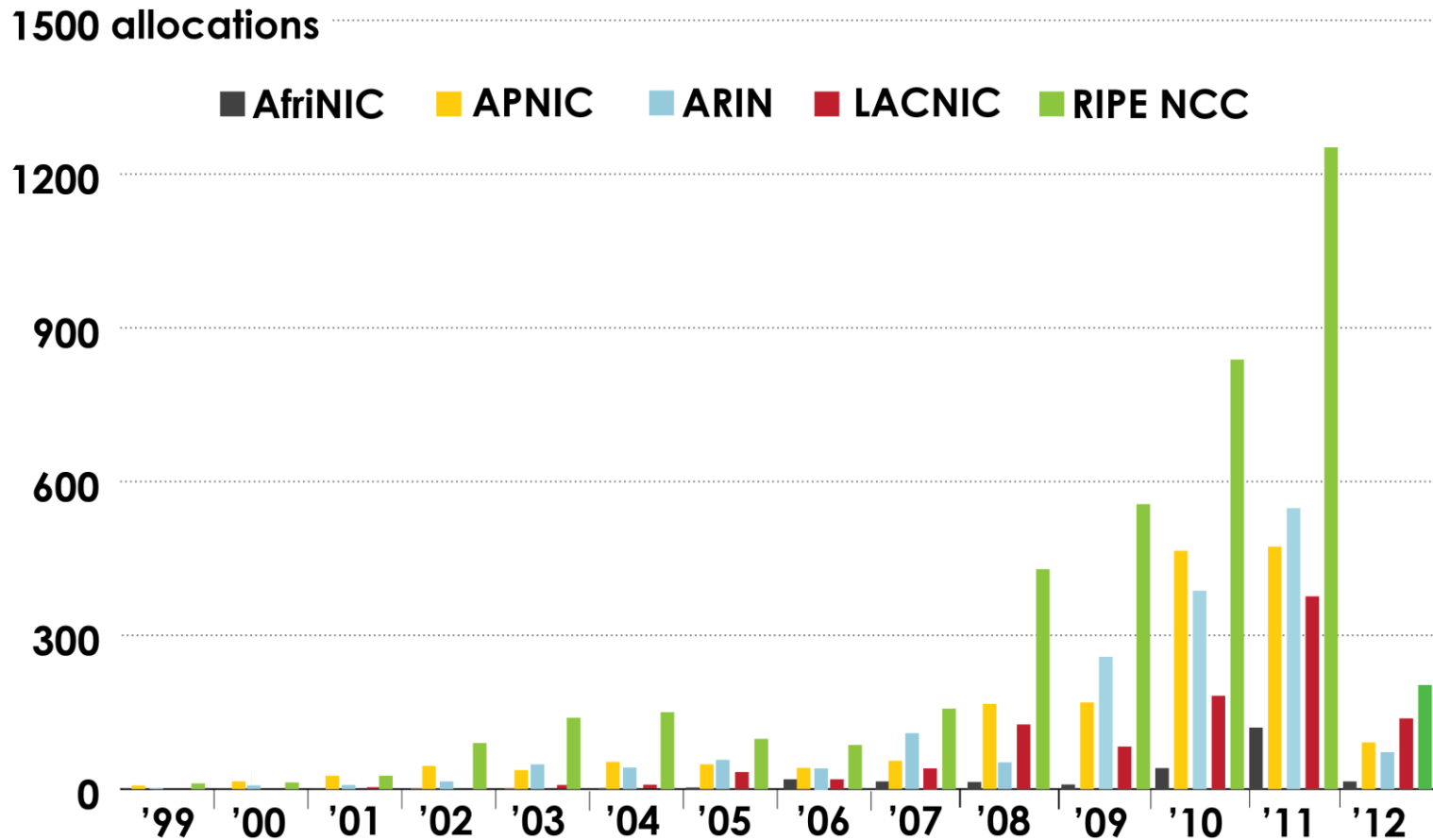
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IPv6 Allocations by RIR
(Jan 1999 – Mar 2012)

RIPE NCC 4,048

allocations

AfriNIC 238

LACNIC 942

APNIC 1,651

ARIN 1,761
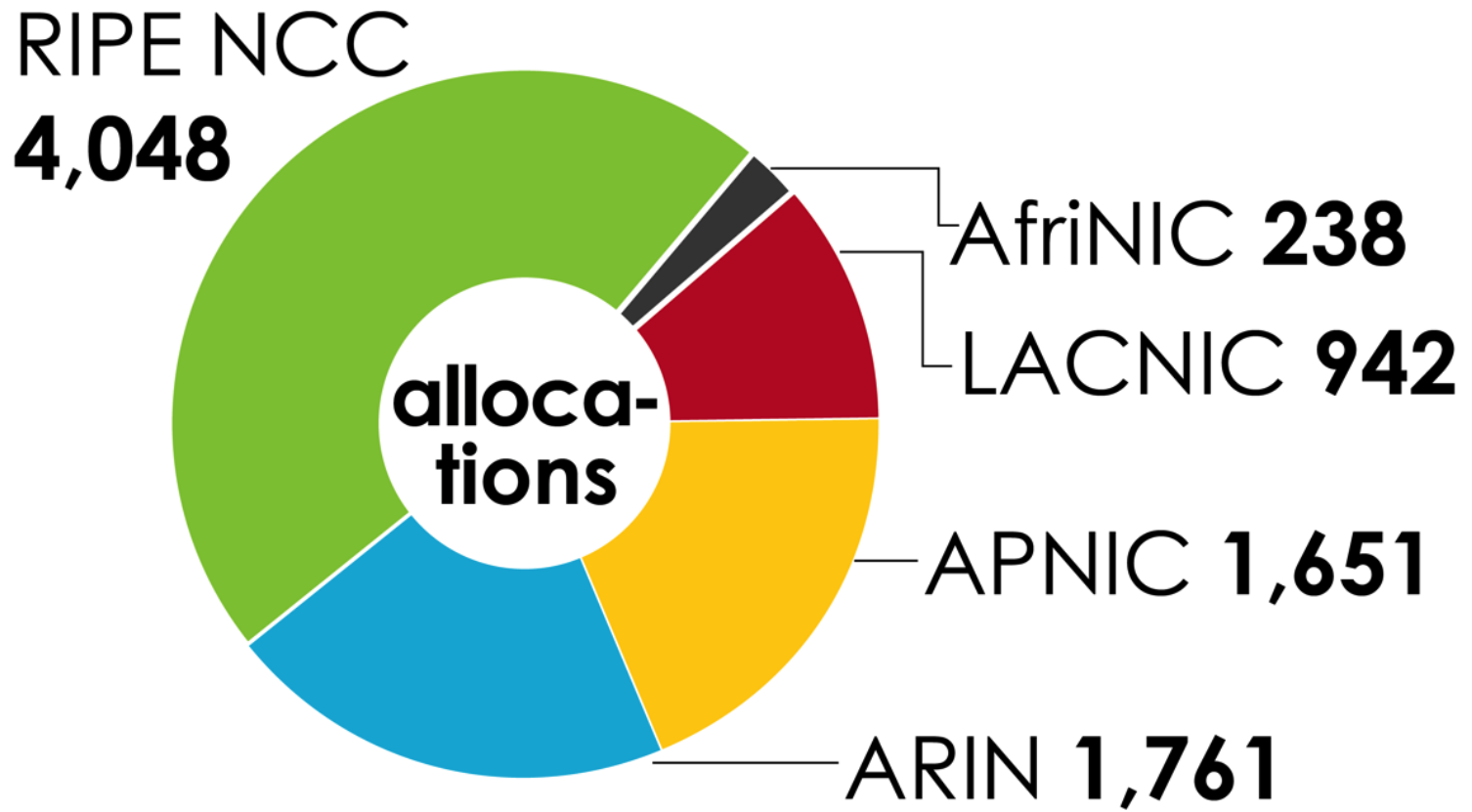
Number of IPv6 /32s per Economy South Asia

Economy
- AF
- BD
- BT
- IN
- LK
- MV
- NP
- PK
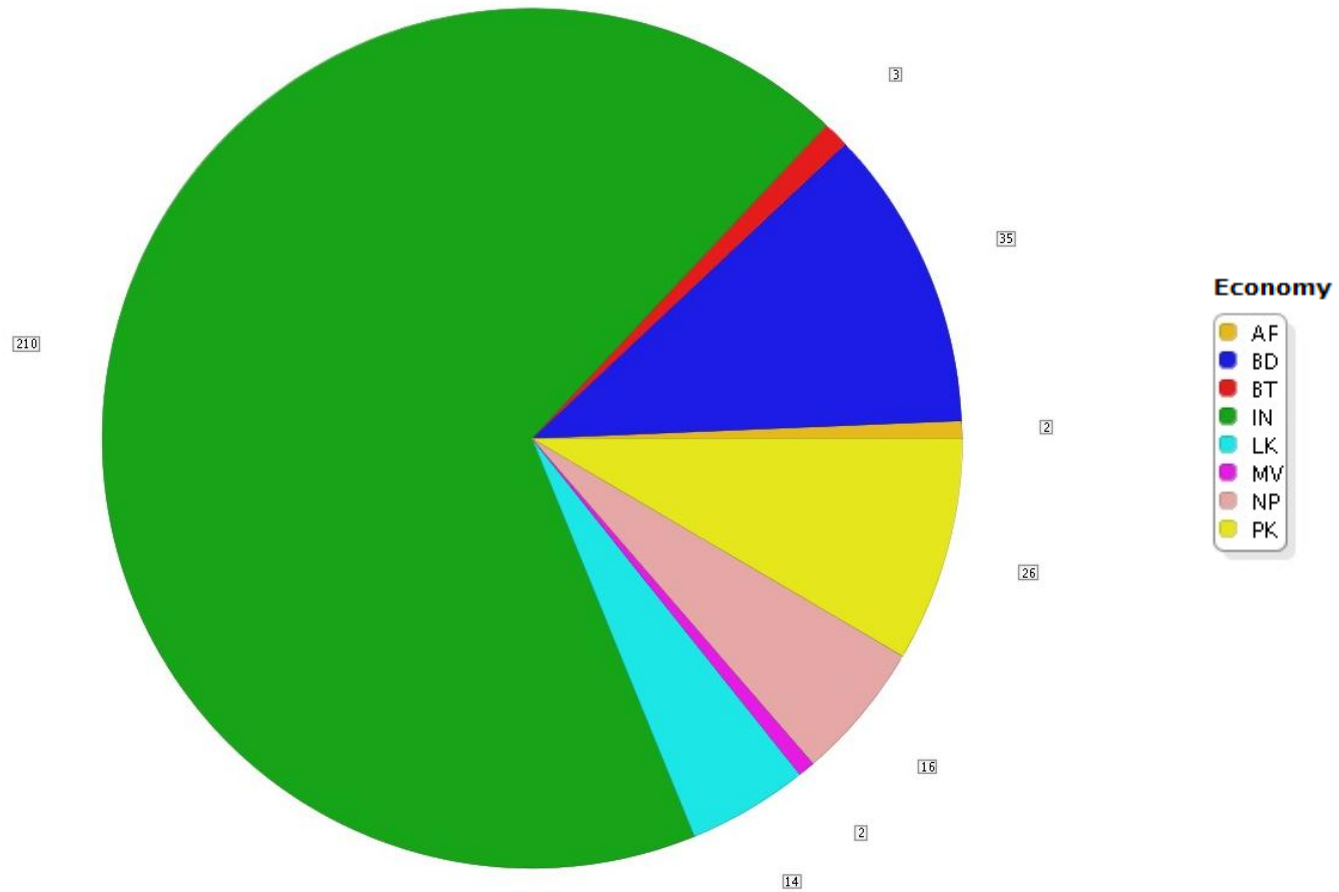
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Percentage of Members with both IPv4 and IPv6
As of 31 March 2012
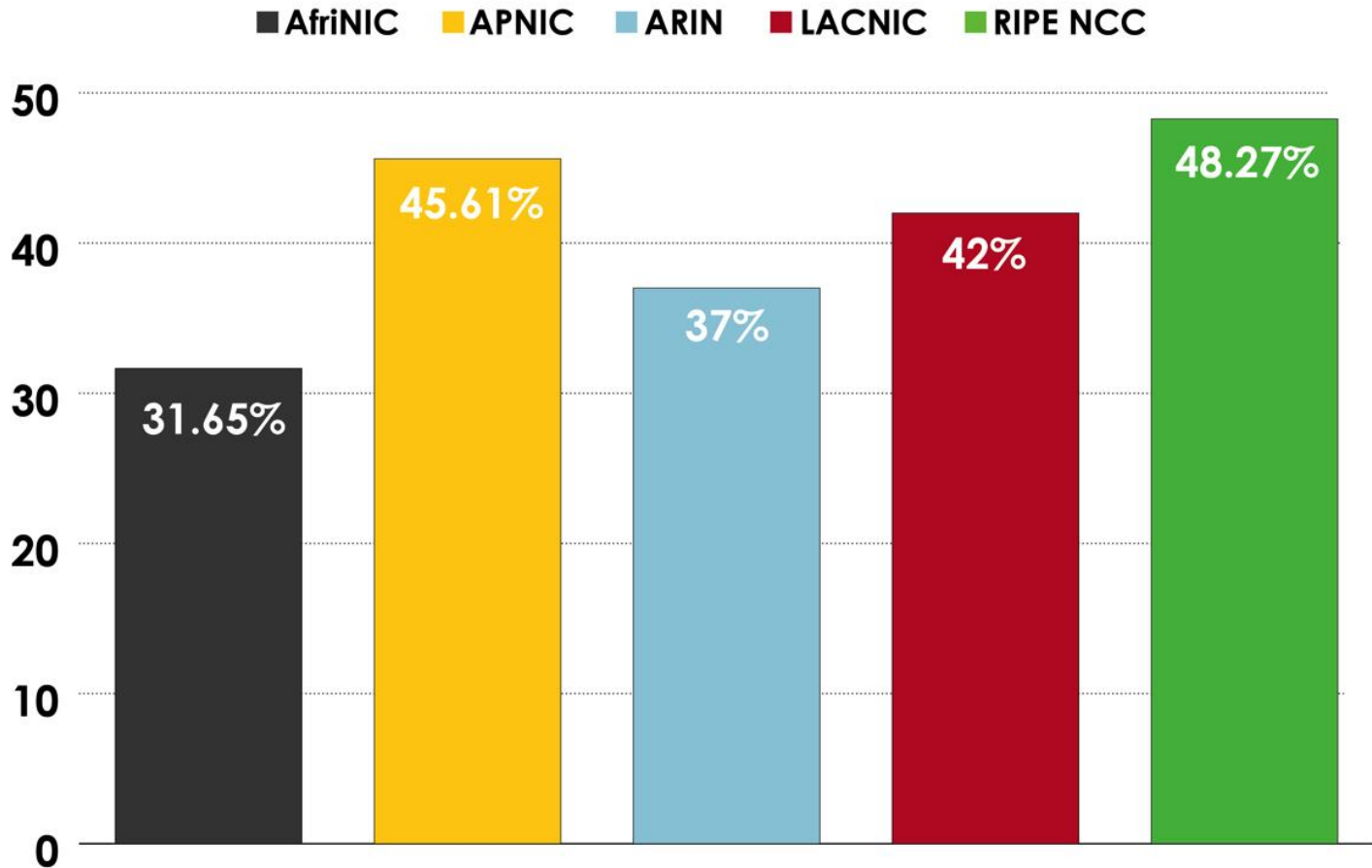
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Internet Number Policies

APNIC

APNIC Policies

- ## Under Discussion
  - ### prop-099
    - IPv6 Reservation for Large Networks
      - This proposal extends the IPv6 request process to allow large ISPs to request multiple prefixes within a single, contiguous, reserved space.
  - ### prop-101
    - Removing multi-homing requirement for IPv6 portable assignments
      - This a proposal to change the "IPv6 address allocation and assignment policy" to allow portable (that is, provider independent or PI) assignments of IPv6 address blocks to be made by APNIC to any organization with due justification and payment of standard fees, removing the current requirement that the requestor is or plans to be multihomed.
  - ### prop-103
    - A Final IP Address Policy Proposal
      - The APNIC community spends time and resources proposing, discussing, arguing, ... about IP address policies out of habit. The process is no longer relevant to actually coordinating the prudent and high quality operation of the internet.

APNIC Policies

- Pending Implementation
  - prop-102
    - Sparse allocation guidelines for IPv6 resource allocations
      - This proposal formalises the current use of a sparse allocation strategy when allocating IPv6 resources from the APNIC free pool. This also has the effect of bringing the algorithm and its parameters under the oversight of the APNIC policy development process.
        The proposal also seeks to give members some assurance that if they are able to show a growth plan for 5 years upon applying for an initial 2 year assignment, that subsequent assignments will be allocated from a sufficiently sized, sparsely allocated block.

- Recently Abandoned
  - Prop-098
    - Optimizing IPv6 allocation strategies (simplified)
      - This is a proposal to allow for more generous IPv6 allocations to service providers in order to promote better aggregation and easier optimization across their networks as they grow.

APNIC

Current Global Policies

- Allocation of AS Number blocks from IANA to the RIRs

- Allocation of IPv6 address space from IANA to the RIRs

- Allocation of IPv4 address space from IANA to the RIRs
    - Pre-exhaustion and at exhaustion (final five /8s)
    - Not covering post-exhaustion

New Global Policy

- GPP-IPv4-2011
  - Global Policy Proposal for Post Exhaustion IPv4 Allocation Mechanisms by IANA

- Describes how IANA will re-allocate returned IPv4 resources

- Ratified by ICANN Board: 15 May 2012
  - Pending implementation by IANA

- Resources returned by two RIRs
  - RIPE
  - ARIN

Training

Training in 2011

- New: Learning and Development Area

- Increased focus on IPv6 deployment

- eLearning sessions (WebEx)
  - One-hour modules
  - Delivered fortnightly to three time zones
  - More courses added in Q1 2012

- Training Lab infrastructure upgraded
  - 4-byte AS Numbers
  - Topology resembles ISP with multiple operating regions
  - Hands-on environment with core, edge, and access networks
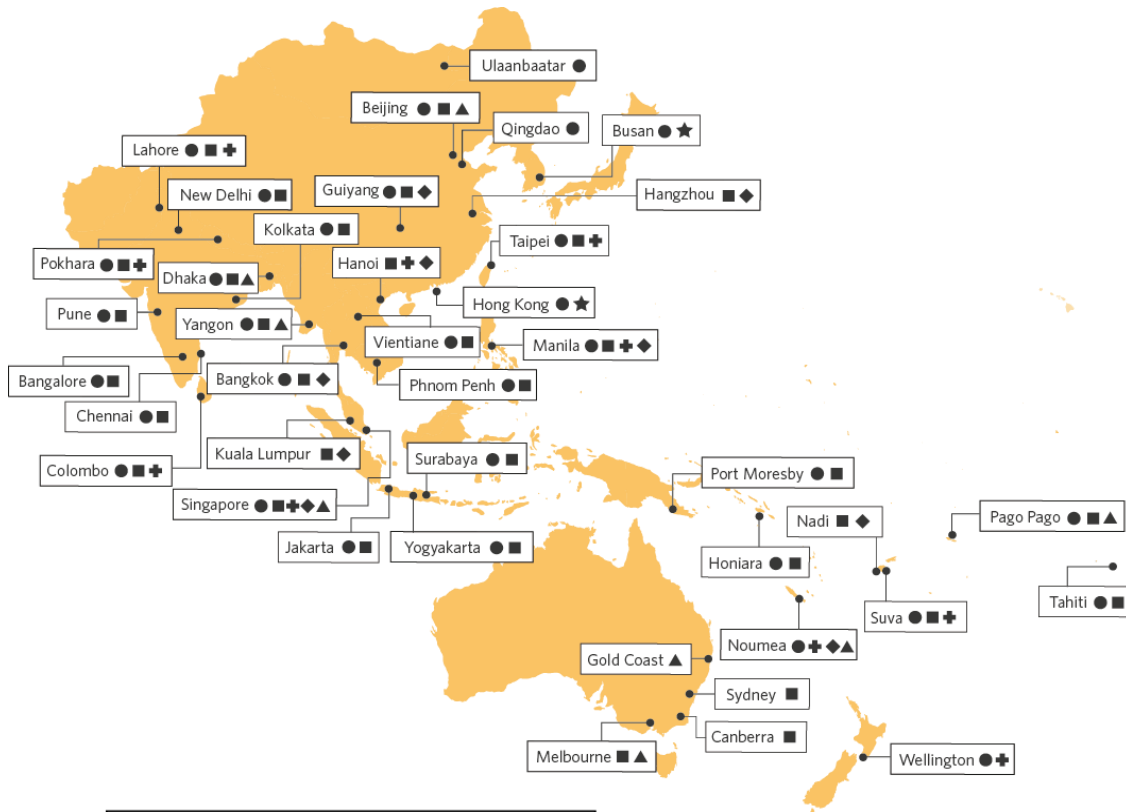
2011 Training Statistics

- Face-to-Face
  - 67 courses in 36 locations
  - 1,813 total participants

- eLearning
  - 76 courses
  - 786 total participants

- IPv6 courses
  - 27 locations in 20 economies
  - 1,147 total participants

Community Engagement

Regional Community Engagement

- 39 cities in 26 economies

- 32 IPv6 events

- 9 NOG and NIR meetings

- 10 governmental and IGF meetings

- 7 other meetings (ICT, IETF, and ICANN etc)

Map labels:

Ulaanbaatar ●
Beijing ● ■ ▲
Qingdao ●
Busan ● ★
Lahore ● ■ ✚
Hangzhou ■ ◆
New Delhi ● ■
Guiyang ● ■ ◆
Kolkata ● ■
Taipei ● ■ ✚
Pokhara ● ■ ✚
Hanoi ■ ✚ ◆
Dhaka ● ■ ▲
Hong Kong ● ★
Pune ● ■
Yangon ● ■ ▲
Vientiane ● ■
Manila ● ■ ✚ ◆
Bangalore ● ■
Bangkok ● ■ ◆
Chennai ● ■
Phnom Penh ● ■
Colombo ● ■ ✚
Kuala Lumpur ■ ◆
Surabaya ● ■
Port Moresby ● ■
Pago Pago ● ■ ▲
Singapore ● ■ ✚ ◆ ▲
Nadi ■ ◆
Jakarta ● ■
Yogyakarta ● ■
Honiara ● ■
Tahiti ● ■
Suva ● ■ ✚
Noumea ● ✚ ◆ ▲
Gold Coast ▲
Sydney ■
Canberra ■
Melbourne ■ ▲
Wellington ● ✚

Legend:

- ★ APNIC CONFERENCES
- ● TRAINING FACE TO FACE
- ■ IPv6 CONFERENCES & WORKSHOPS
- ✚ NOGs AND OPMs
- ◆ GOVERNMENTAL & INTERNET GOVERNANCE
- ▲ OTHER MEETINGS

APNIC

ITU Collaboration

- ITU-D Sector member since 2003

- Maintains ongoing dialogue with the ITU on Internet governance and IPv6 deployment
  - Collaboration via IPv6 Program
  - Attending ITU IPv6 Group meetings as part of the NRO

- IPv6 capacity building in developing economies

- APNIC is following closely the preparatory process for the World Conference on International Telecommunications (WCIT)
  - 3-12 December in Dubai, UAE, just after WTSA

Information Society Innovation Fund

- ISIF has expanded and is now accepting applications for the 2012 Grants cycle.
    - Project will receive up to AUD 30,000
    - New round of funding to be launched late March 2012

- This year, four new categories for ISIF projects.
    - Innovation on access provision
    - Innovation on learning and localization
    - Code for the common good
    - Rights

- http://isif.asia/grant

2012 Member and Stakeholder Survey

- Focus Groups
  - Held during April 2012
  - 17 face-to-face meetings in 13 economies
  - Content to be reflected in the final survey report
  - APNIC Members, regional, and global stakeholders

- Online Survey
  - Launch: May 2012
  - Questions specific to stakeholder groups

- Results
  - Delivery: August 2012 (APNIC 34, Phnom Penh)
  - Feeding directly into planning for 2013

APNIC Conferences

APNIC

Participate Remotely

- APNIC 34, Phnom Penh, Cambodia
  - Workshop week 21-25 August 2012 NEW
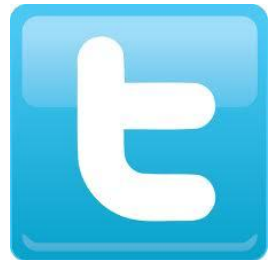 - Conference week 27-31 August 2012
  - Hosted by Mekongnet
  - http://conference.apnic.net/34

Plan to Attend

- APRICOT 2013 and APNIC 35, Singapore
  - 19 February – 1 March 2013
  - Organized by APIA and APNIC
  - Hosted by SGNIC
  - http://www.apricot2013.net/

APRICOT 2013
Singapore
19 February - 1 March 2013

Connect with APNIC

http://www.facebook.com/APNIC

http://twitter.com/APNIC

http://www.youtube.com/apnicmultimedia

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Thanks

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