Overview

- APNIC's Mission

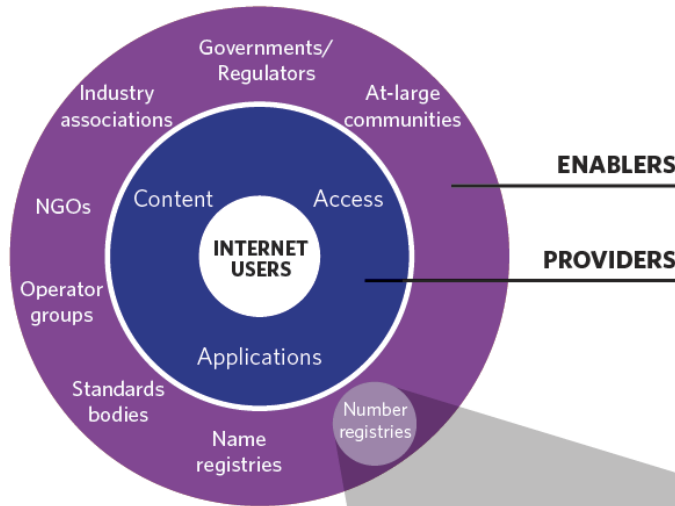- APNIC Activities

- Internet Governance

Our Vision:

A global, open, stable, and secure Internet that serves the entire Asia Pacific community
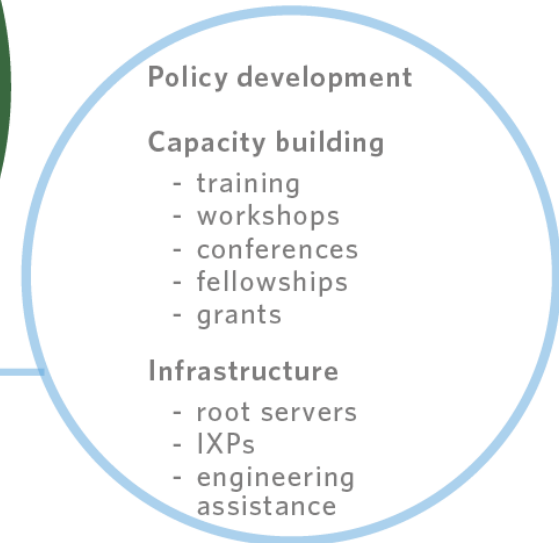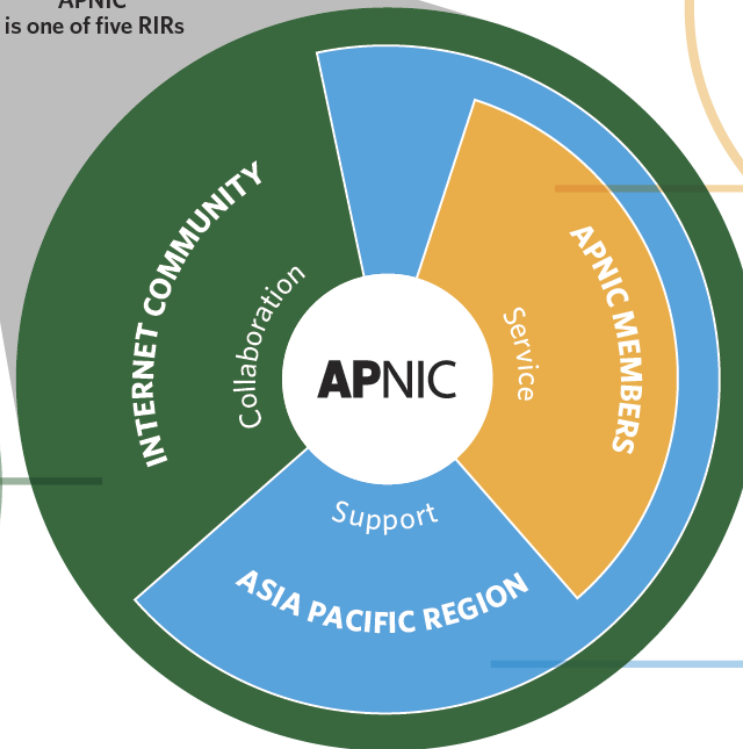
APNIC

APNIC's Mission – 2013

- **Function as the RIR** for the Asia Pacific, in the **service** of the community of Members and others

- Provide Internet registry services to the highest possible standards of **trust, neutrality, and accuracy**

- Provide **information, training, and supporting services** to assist the community in building and managing the Internet

- Support **critical Internet infrastructure** to assist in creating and maintaining a robust Internet environment

- Facilitate **regional Internet development** as needed throughout the APNIC community

- Provide **leadership and advocacy** in support of APNIC's vision and the community
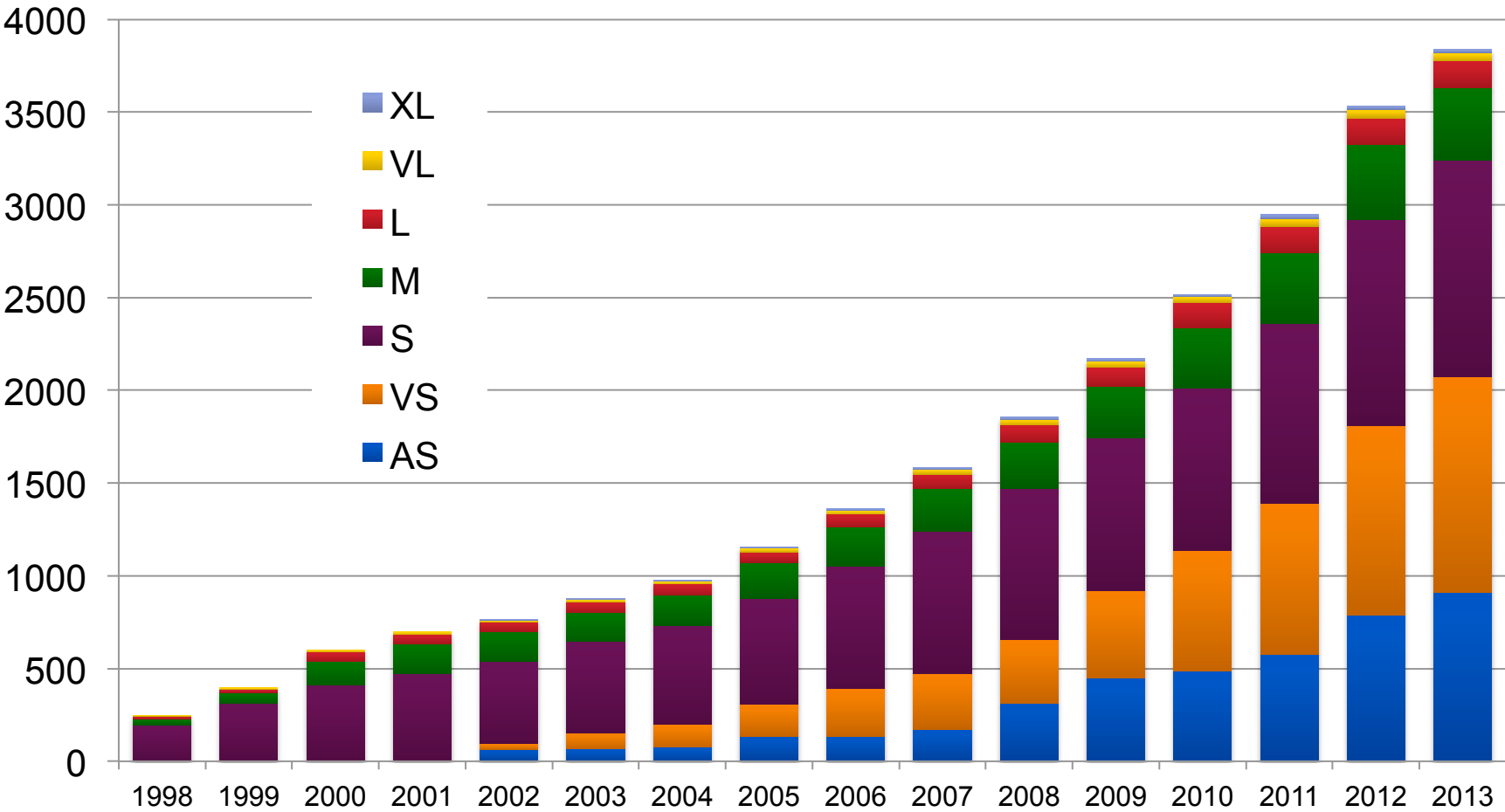
APNIC

addressing the Internet in the Asia Pacific

Internet Users diagram:

ENABLERS
- Governments/Regulators
- At-large communities
- Industry associations
- NGOs
- Operator groups
- Standards bodies
- Name registries
- Number registries

PROVIDERS
- Content
- Access
- Applications

INTERNET USERS

APNIC is one of five RIRs

APNIC diagram:

INTERNET COMMUNITY
- Collaboration
- Service
- Support

APNIC MEMBERS

ASIA PACIFIC REGION

APNIC

Resource distribution
- IP addresses
- AS numbers

Registration services
- reverse DNS
- Internet routing registry
- resource certification
- whois registry

Policy development

Capacity building
- training
- workshops
- conferences
- fellowships
- grants

Infrastructure
- root servers
- IXPs
- engineering assistance

Original research

Data collection and measurements

Publications

Local/regional/global events

Internet governance

Internet security

APNIC Activities

Membership growth

IPv4 Availability

- "Last /8" allocations
  - Maximum allocation of /22 per organisation
  - Available supply for 15+ years

- IPv4 transfers
  - IPv4 transfers can be registered
  - Recipient must demonstrate their need
  - Inter-regional transfers available with ARIN

- Return and redistribution
  - Legacy addresses returned to IANA
  - Reallocations will occur when needed

IPv4: Last /8 delegations
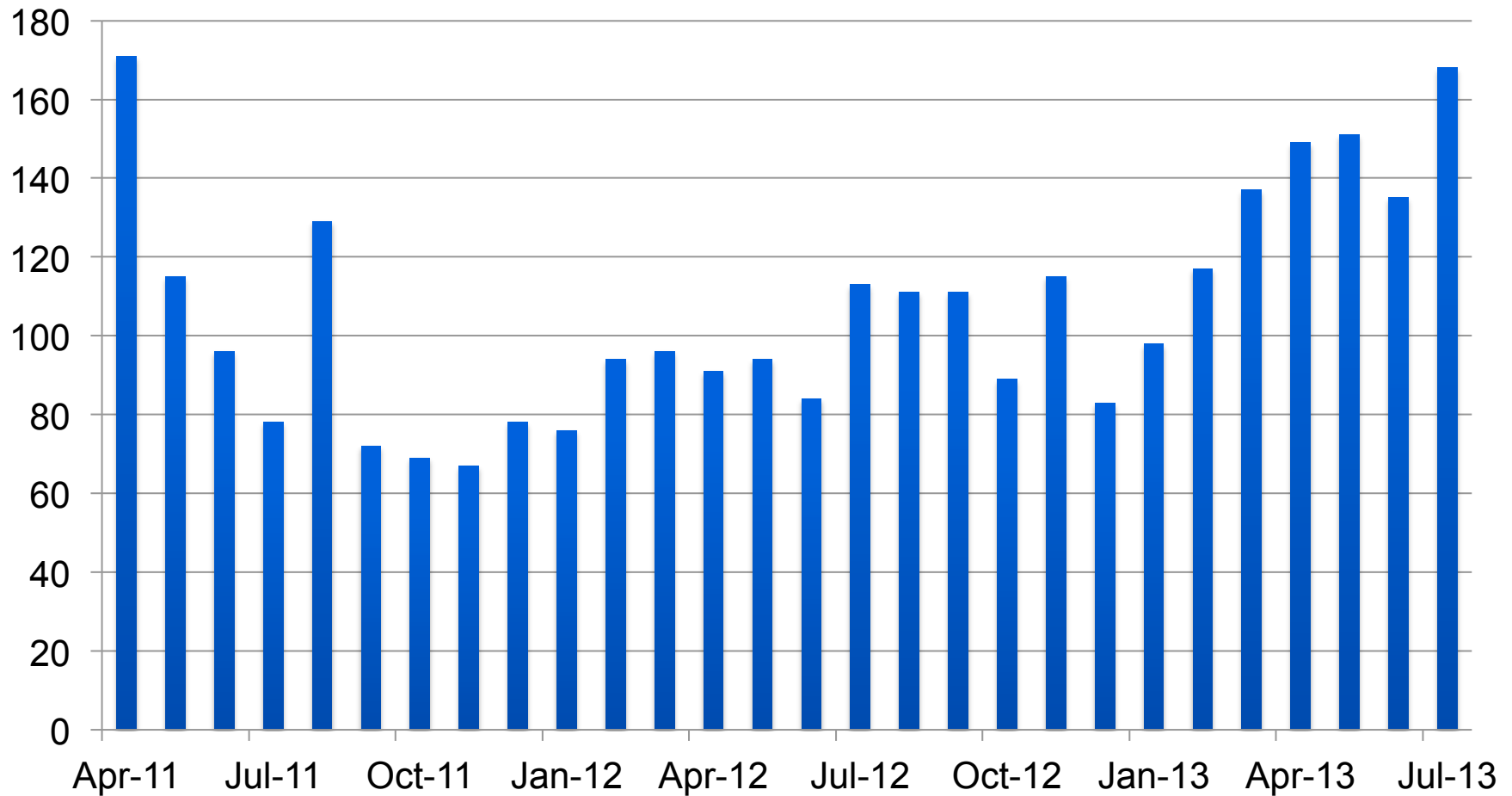
IPv4 market transfers
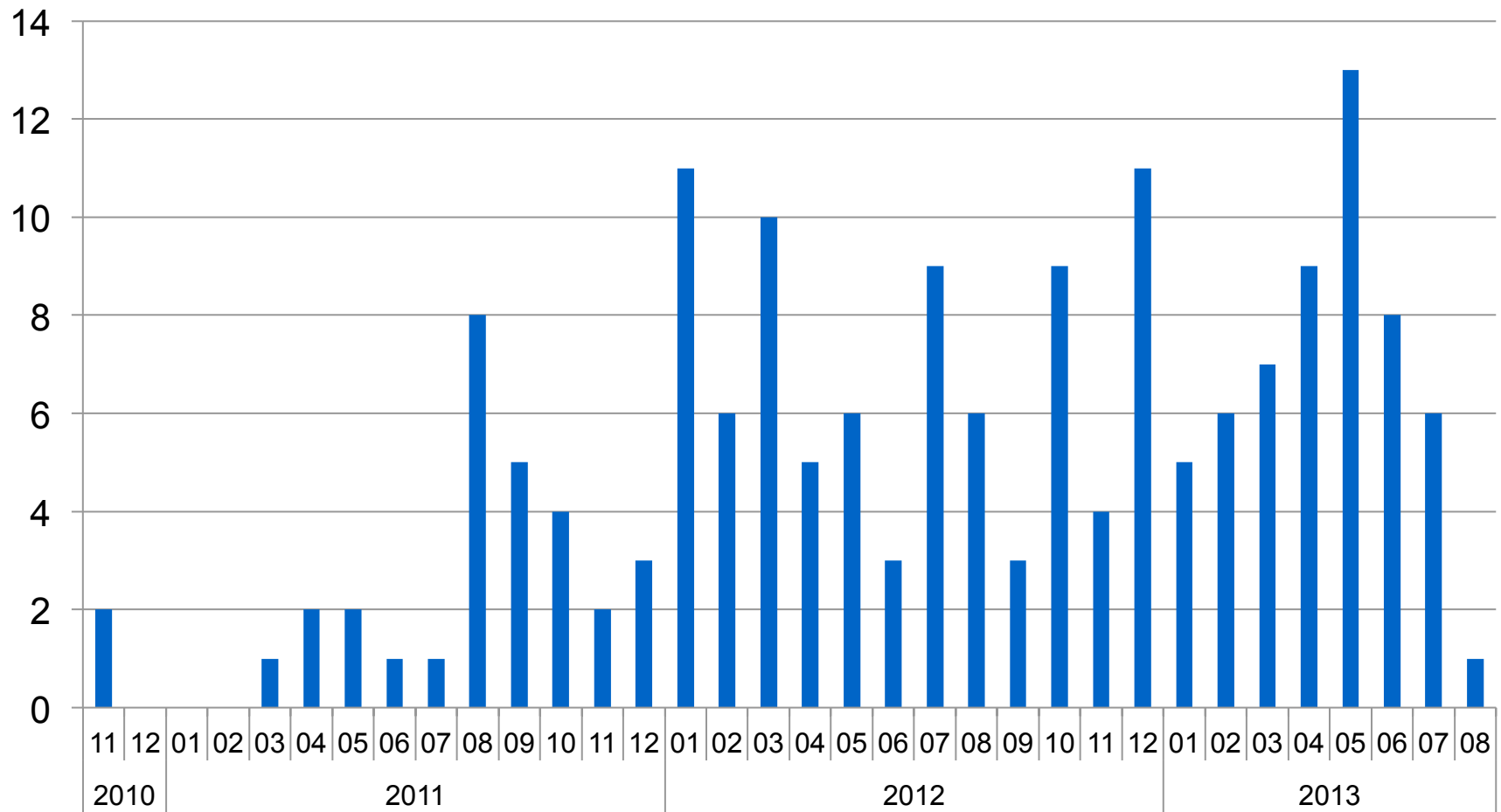
16 August 2013

IPv6 Status

- IPv6 address allocation
  - "business as usual"

- IPv6 address routing
  - global routing table indicates healthy growth

- IPv6 end-user capacity
  - robust growth, variable by economy

- Other
  - Network operator/backbone readiness
  - Service/Website accessibility

IPv6 Support

- IPv6 events
  - Plenaries at APNIC 36 on strategy for decision makers
  - Workshop at ICANN 46, Beijing
  - IPv6 Summit 2013, Beijing
  - Vietnam IPv6 Plenary, Ho Chi Minh City

- Asia Pacific IPv6 Task Force (APIPv6TF)
  - APNIC continues serve as Secretariat
  - Met at APNIC 35 and 36

- Whitepaper on IPv6 for decision makers

Member Services

- Whois
  - Geolocation and language functions
  - RDAP support to provide unified API
  - Historical data available soon

- RPKI – Resource Public Key Infrastructure
  - UI improvements
  - Public testbed now live
  - Ineroperability testing with RIRs and NIRs

- Training
  - IPv6, Security, Routing
  - Face-face, eLearning, online Lab, workshops
  - New: Engineering assistance on cost-recovery basis

Root servers

- New I-Root in Ulaanbaatar, Mongolia

- F-root upgrades in Chennai, Hong Kong, and Seoul

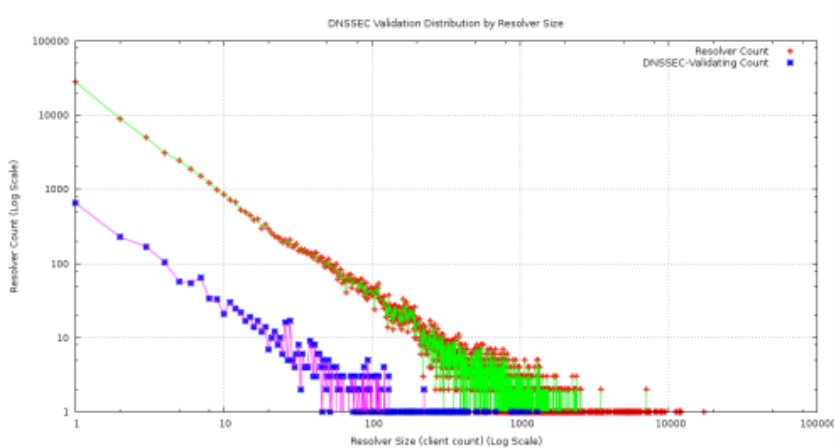- Small node trial in Dhaka

www.apnic.net/rootserver

APNIC Labs

- IPv6 measurements
  - IPv6 client capability per economy, autonomous system, etc

- Resource reporting
  - IPv4, IPv6 and ASN reporting
  - Global RIR statistics

- New: DNS and DNSSEC
  - Measuring the number of clients protected by DNSSEC resolvers
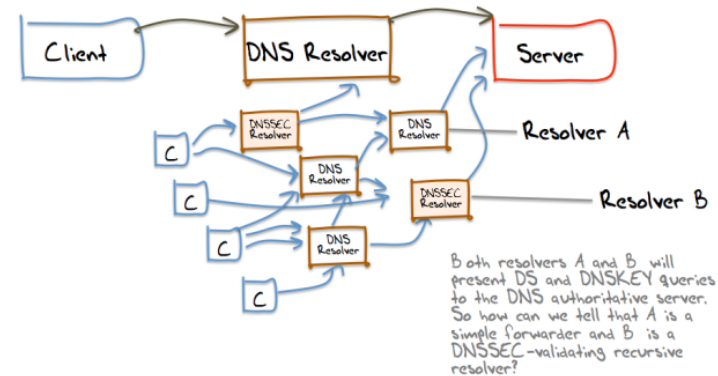 - Cost of DNSSEC in additional delay, packet sizes

DNS and DNSSEC

We are measuring the extent of DNSSEC use, and looking at the level of use of DNSSEC validation across resolvers and end clients in the Internet

What are the questions?

1. What proportion of DNS resolvers are DNSSEC-capable?

2. What proportion of users are using DNSSEC-validating DNS resolvers?

3. Where are these users?

4. How long does DNSSEC validation take for a client?

How can we interpret what we are seeing?

Both resolvers A and B will present DS and DNSKEY queries to the DNS authoritative server. So how can we tell that A is a simple forwarder and B is a DNSSEC-validating recursive resolver?

Latest news…

"APNIC must be congratulated on the quality and amount of work undertaken to develop and implement the QMS over many years. There is evidence that staff already have a thorough understanding of the QMS functions, processes, and procedures, and the value that it has has a business tool"

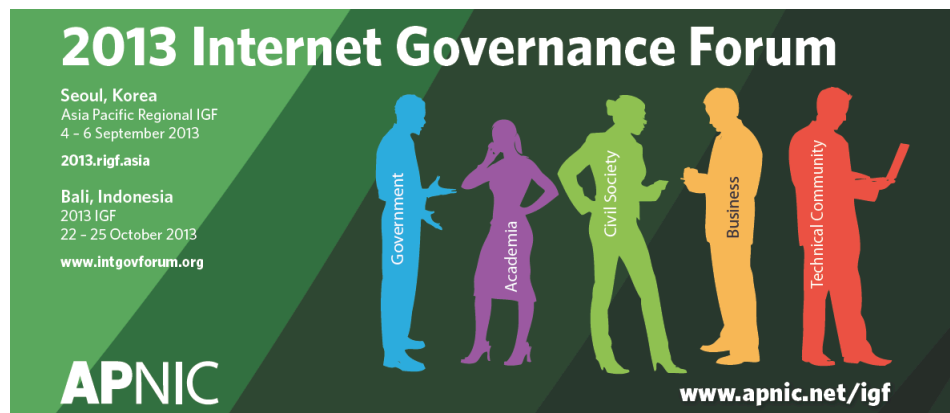*Dan Bromley, Best Practice Auditor*

Internet Governance

"The Internet tradition"

- For thirty years, the Internet and its coordination structures have evolved hand-in-hand
  - Open, bottom-up, multistakeholder processes

- The Internet is now a critical global infrastructure
  - Increasing reliance by all, including Governments
  - Increasing concern about cybercrime et al

- Internet Governance is now a critical issue
  - Many recognize the current successes, others support a different model
  - "Multistakeholder" vs intergovernmental approaches
  - Discussions will continue for many years…

Internet Governance Forum

- **The multistakeholder model in action**
  - Open discussions that can help inform policy making on all aspects of Internet governance

- **Regional IGF** – Seoul, Korea from 4-6 September

- **Global IGF** – Bali, Indonesia from 22-25 October

- National events too
  - IN, AU, NZ…

2013 Internet Governance Forum

Seoul, Korea
Asia Pacific Regional IGF
4 – 6 September 2013
2013.rigf.asia

Bali, Indonesia
2013 IGF
22 – 25 October 2013
www.intgovforum.org

Government Academia Civil Society Business Technical Community

APNIC
www.apnic.net/igf

Finally…

You're invited!

- APNIC celebrates its 20th anniversary!

- Join us for APNIC 36 in Xi'an, where we will be commemorating with special events throughout the conference

- See http://www.apnic.net/meetings

You're invited!

- APRICOT 2014 (with APNIC 37)
  - 18-24 February 2014, Bangkok, Thailand

- See http://www.apricot2014.net

Thank you

pwilson@apnic.net