APNIC Survey 2012 Report on Focus Group Meetings

From 16 March to 16 April 2012, focus group meetings were held in the following cities:

- Delhi, Kolkata and Mumbai, India
- Dhaka, Bangladesh
- Guangzhou and Beijing, China
- Hanoi, Vietnam
- Hong Kong
- Kathmandu, Nepal
- Manila, Philippines
- Phnom Penh, Cambodia
- Seoul, Korea
- Singapore
- Sydney, Australia
- Tokyo, Japan

The focus group meetings were attended by one or both consultants, and by self-selected members and stakeholders who responded to a public invitation. Attendance was not limited, and attendees were free to speak on any matter they chose.

The consultants were prepared to stimulate discussion with a set of questions grouped into nine sections:

- 1. IPv6 deployment
- 2. IPv4 address transfers
- 3. Internet governance
- 4. Corporate (APNIC) governance
- 5. Routing security and RPKI
- 6. Membership development
- 7. Training and development
- 8. APNIC services
- 9. APNIC priorities

The material collected clearly focused on Members' perceptions of their current needs. This allowed the actual survey to be structured appropriately, leading to a response level that is the highest on record.

Key Findings

The outcomes of the Focus Group meetings are summarised as follows, with findings grouped under each of these nine headings. In the interests of consistency, brevity and clarity, each topic follows the same format, which is:

- noting a general consensus or common viewpoint on a the issue,
- noting any widely differing views, and (where possible) whether these differences may have been related to economy, industry sector or development status and
- noting any absence of opinions on the topic if it occurs.

It should be remembered that these focus groups concluded in mid-April 2012 and it may be

that some circumstances and opinions may have changed since that time.

1. IPv6 Deployment

IPv6 was generally not considered an urgent matter. The migration to IPv6 is expected to be costly, and this investment is in many cases not yet being planned.

There was widespread concern about IPv4 shortage, and it is believed that some economies need more IP addresses than others.

Chinese ISPs need more IP addresses as it plans a national rollout of the Internet to elementary and secondary schools. Indian participants saw the shortage as a serious concern, because Internet penetration has not spread to the rural areas and smartphone use has not accelerated yet.

In other developing economies, accelerated demand for IP addresses for mobile Internet services is not yet highly visible.

New entrants into the industry are surprised at getting only /22 so they are looking at IPv6.

On the ground, end-users are starting to ask for IPv6 although they are not sure what it is all about, but have heard that there is no more IPv4 and do not want to be caught out.

There was a perception that vendors want to earn additional revenues from IPv6 deployment, which would add to deployment costs.

Participants suggested that the low demand for IPv6 is due to the following reasons:

- o There are not many content sites that are IPv6 accessible;
- o Customer premises equipment (CPE) are not yet IPv6 compliant;
- Users do not want to upgrade equipment from IPv4 to IPv6, for a range of reasons;
- Even if IPv6 is implemented, there will be a need for dual stacking with IPv4, and an ongoing demand for IPv4 addresses;
- o There is a fear that IPv6 services will incur higher support costs;
- o ISPs do not consider themselves as the "starting point" in resolving the issue.

There were suggestions that APNIC should publish more information about deployment of IPv6. A comparison of deployment by economy could create some competition or "peer pressure" to deploy IPv6.

While some governments in the Asia Pacific region are promoting IPv6 deployment, others see no need for action by them. It was suggested that APNIC work more with governments and assist in IPv6 awareness initiatives to further promote IPv6 adoption.

APNIC was seen to have been doing a good job in educating corporates and end-users. It was suggested that APNIC could provide more teaching materials on IPv6 deployment, including case studies and instructional videos on IPv6 deployment and migration.

Specific technical training on network infrastructure, rather than awareness training, is now needed.

APNIC was seen as the authoritative source of address information by many participants. IPv6 messages need to be clear and strong to avoid confusion.

2. IPv4 Address Transfers

Except for some respondents from Australia and China, most participants were not aware of IPv4 transfer transactions that have taken place. Participants from Australia noted a few IPv4 transfer activities. There were also two cases in China.

There were different views as to APNIC's role in address transfers.

Most participants supported transfers and some expressed the view that APNIC should play the role of referee and policy-setting, and not be involved in any commercial aspect of the transaction. Other roles for APNIC discussed included: keeping track of IP address transfers, sharing statistics, matching of buyers and sellers, and providing pre-approval for recipients.

It was suggested by some participants that transfers should not be a focus, and that the community should aim for IPv6 rather than continuing to drag out the use of IPv4.

Participants in India also expressed the view that the community should be more forward looking and aim for IPv6 rather than attempting any kind of patchwork to continue to support IPv4.

3. Internet Governance

Most participants supported involvement by APNIC in Internet governance-related activities. A small number expressed the view that the system works so there is no need for active involvement by APNIC.

Some felt that APNIC needs to participate in all the debates and represent APNIC members' positions on all issues related to Internet Governments.

There should be a balance between the government representing the public interest and telecom.

APNIC should continue to represent members' interests and to ensure the continuity of the present model. There should be dialogue with government and regulators but not interference by them.

APNIC's approach and involvement with APECTEL is a good example of education and information sharing. A similar approach could be adopted wherever opportunities present.

APNIC could develop a list of best practices so that ISPs, members and governments can learn from each other.

4. Corporate (APNIC) Governance

APNIC is recognised as a transparent and well-run organisation. Most participants are aware of the mechanisms that APNIC has put in place for holding open debates on any issues.

A few participants expressed the view that APNIC should create more opportunities for representation and acknowledge the importance of government and private sector working together. APNIC should take advantage of the expertise in the community by forming a public-private advisory committee.

It was also suggested by some participants that APNIC should get regional feedback on meeting agenda before the meetings are held.

5. Routing Security and RPKI

Most participants felt that security will continue to grow as a major issue. RPKI was seen as an important step toward improving routing security.

Most ISPs have not implemented RPKI. The LDCs appear to be in greater need of training in implementation.

There were suggestions that APNIC should take the lead and ensure that members are informed and their interests are protected within the region.

APNIC could share best practices and provide more training in routing security and RPKI

6. Membership Development

Most participants had no comments to make regarding how APNIC should conduct outreach to increase its membership base.

It was suggested by some participants that a new category of membership for the government agencies be established.

Some felt that there should be a local representative of APNIC who could help with membership development. APNIC should disseminate more information about its services.

APNIC should provide more support to the Network Operators Groups but should be careful not to step on the toes of local bodies that are engaged in similar work.

7. Training and Development

Training development was recognised as a very serious issue for the region. APNIC should play an active role.

Most participants said that they wanted more video-on-demand training with an advanced training curriculum on IPv6, infrastructure, routing and security.

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There were suggestions that APNIC should expand outreach to high school teachers to impart greater understanding about the IP addressing to high school students.

APNIC should act as the resource centre for trainers, and develop a train-the-local-trainers program. APNIC should collaborate with APNIC members to produce and deliver local versions of training material.

A few participants also suggested that APNIC should offer competence certification. APNIC was seen as a respected and neutral brand within the Internet community.

8. APNIC Services

Overall, the focus group participants were satisfied with the various services provided by APNIC. APNIC training was viewed very positively as being of high quality and yet affordable.

Focus group participants suggested the following areas where services could be added or improved upon:

- 24x7 technical support for root server mirrors and reverse DNS,
- Increase the time range of support for South Asia including weekends,
- More multilingual support,
- Clearly define the services on MyAPNIC,
- Improve documentation and provide online training materials on APNIC whois database, and
- Use social media to communicate and disseminate good research information.

9. APNIC Priorities

There was a strong sense that APNIC should play a very constructive role in the facilitation of IPv6 deployment in the region. A key way of supporting this would be by sharing best practice information and experience with stakeholders and providing adequate support to take up IPv6.

Other priorities emerging from the focus group meetings (not listed in any order of importance below) include:

- Routing security
- o IPv4 transfers
 - APNIC should help members get more IPv4 addresses and provide a satisfactory transfer mechanism
- Training and development
 - Train local trainers to reach out to a larger audience to promote technical knowledge about the Internet
 - Provide more information for smaller organisations who will want to be involved and be more knowledgeable due to address shortage
- o RPKI
- o APNIC services
 - Increased provision of technical support to less developed economies

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- o Internet governance
 - Continued coordination between ITU and APNIC
- o Membership development.