IPv6 Deployment Status

APEC TEL45, 11/04/2012, Da Nang, Vietnam

Miwa Fujii

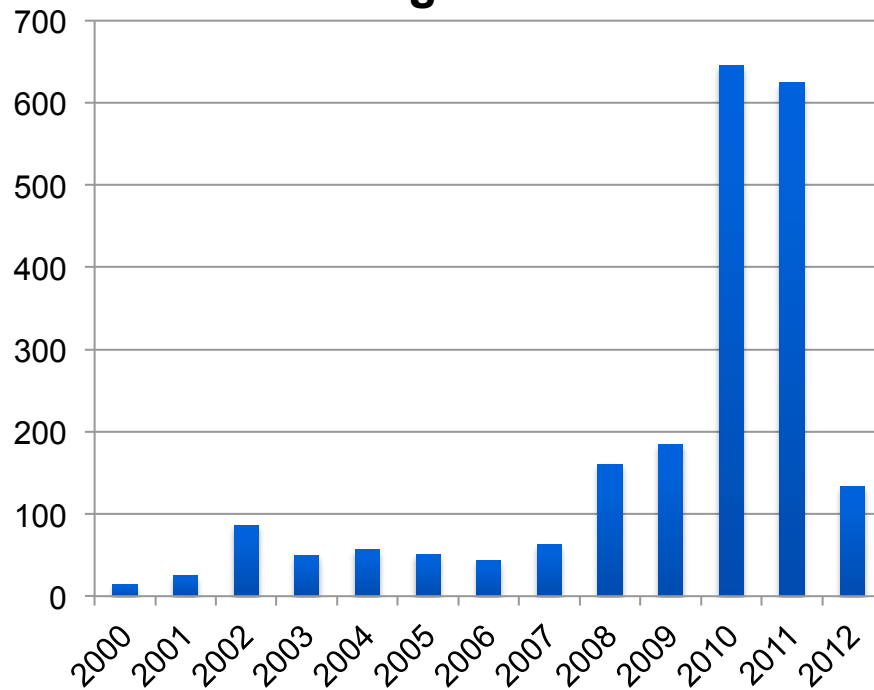APNIC Senior IPv6 Program Specialist

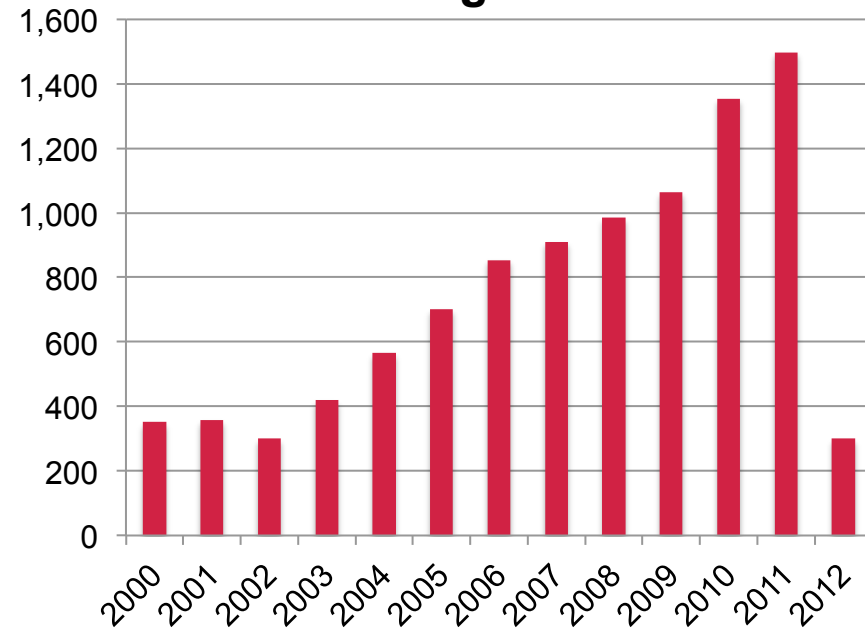**APNIC**

Overview

- IPv6 in 2011
  - Address allocation data
  - IPv6 prefix announcement
  - Where are we now?

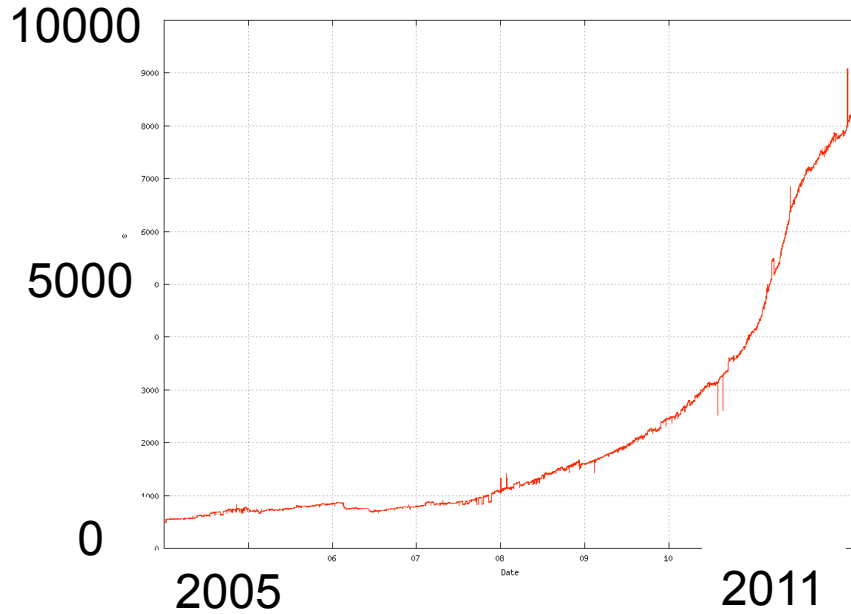- Way Forward

APNIC IP Delegations

IPv6 Delegation Count

IPv4 Delegation Count
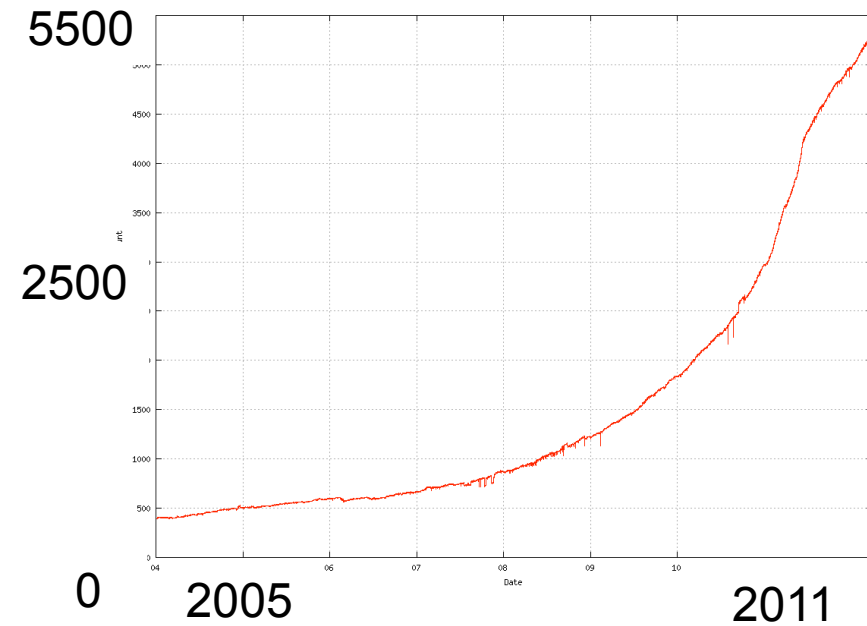
APNIC statistics data sa of 02/04/2012

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IPv6 Prefix Announcements

IPv6 BGP table size

IPv6 AS count

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IPv4 Address Exhaustion 2012

RIR IPv4 Address Run-Down Model

http://www.potaroo.net/tools/ipv4/plotend.png
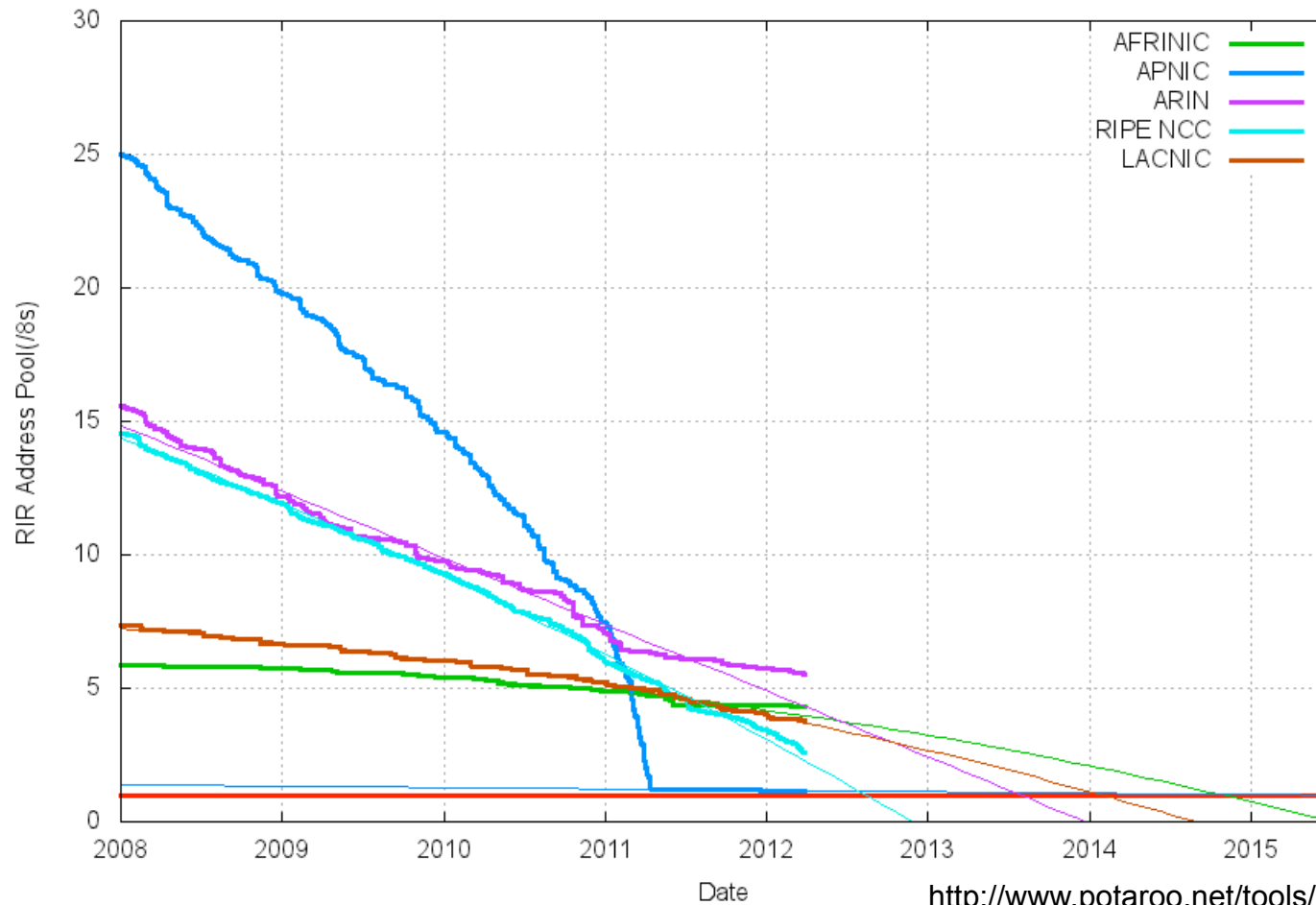
Where are We Now?

IPv6 Preference by Week with Capable/Coercible

Legend: IPv6 preferred · IPv6 capable (right axis) · IPv6 coerceable (right axis)
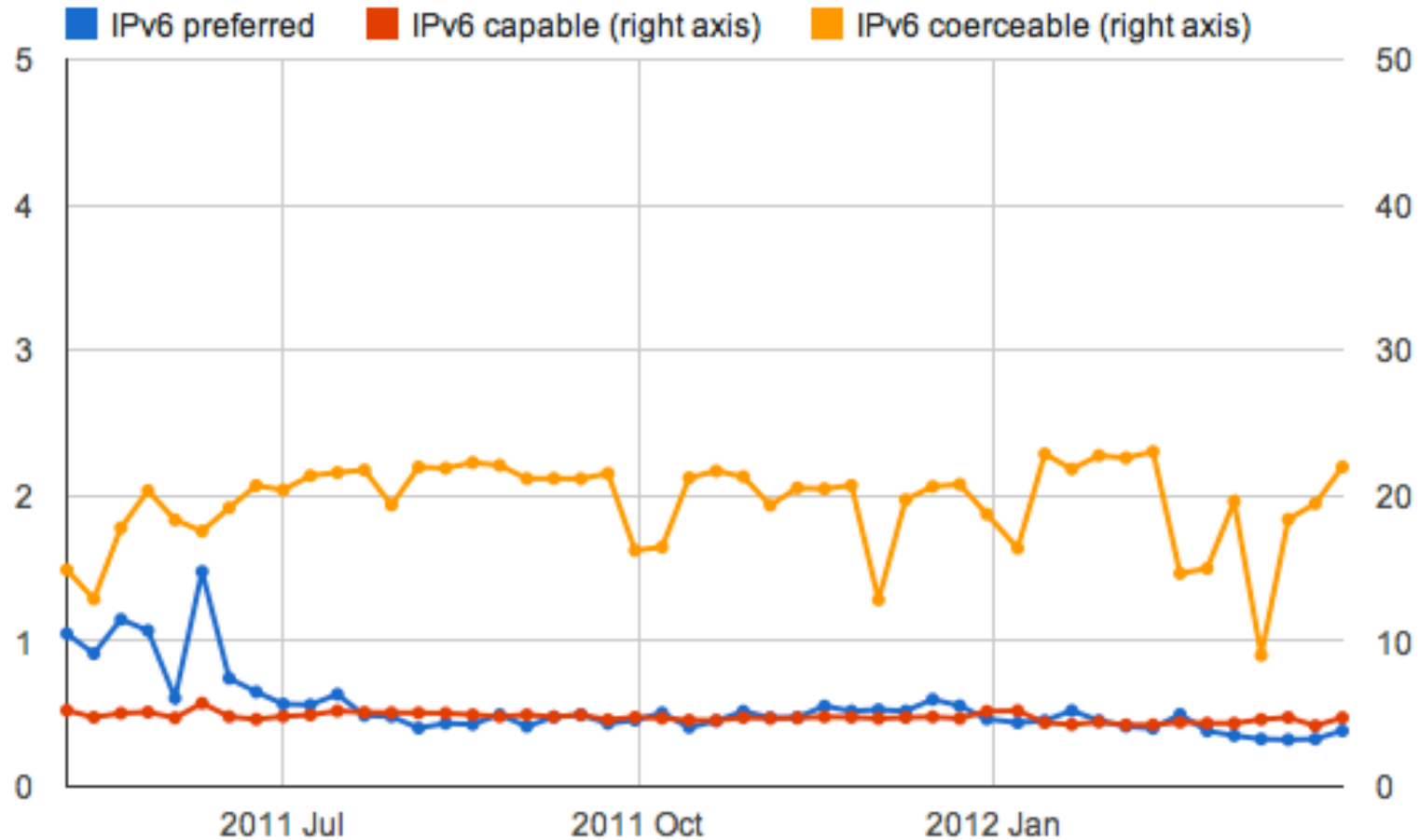
Where are We Now?

0 ▬▬▬▬▬▬▬ 2   %
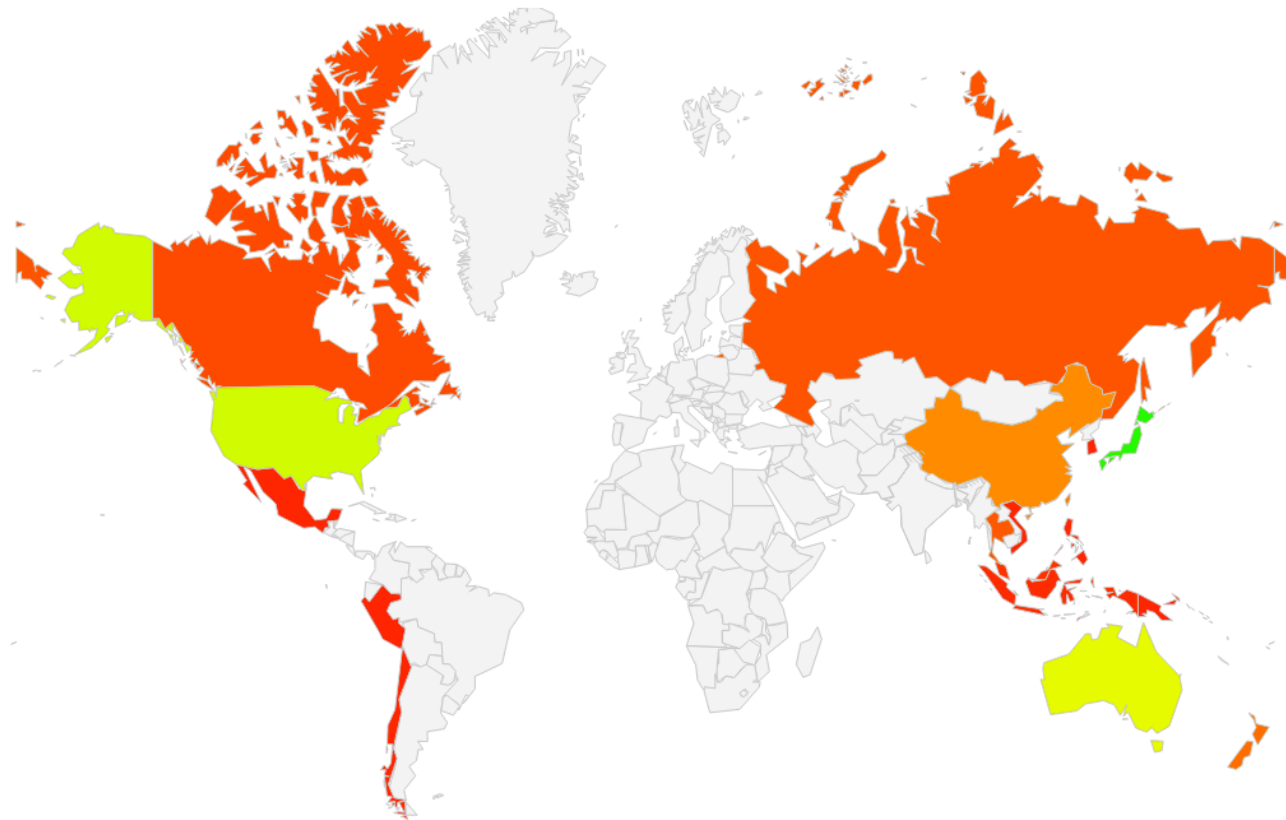
Level of IPv6 preference

Where are We Now?

IPv6 availability for end users does not look good.

Access networks are not ready to provide IPv6 access to end users.

0 ▬▬▬▬▬▬ 2   %

Level of IPv6 preference

http://labs.apnic.net/ipv6-measurement/Organizations/APEC/

Way Forward

The Internet is a catalyst for job creation and growth

- Currently 2 billion Internet users globally
  - By 2016, there will be 3 billion

- Across the G-20, the Internet economy is 4.1% of GDP

- The Internet contributes up to 8% of GDP in some economies, powering growth and creating jobs

- Prediction for Internet access in 2015:
  - via mobile connections will reach 2,134 million users
  - via fixed connections will reach 573 million users

Way Forward

- APEC TELMIN8 Okinawa Declaration
  - "…. and the transition to IPv6 will facilitate the achievement of universal broadband access in the APEC region. We support the IPv6 Guidelines developed by TEL."

  http://www.apec.org/Meeting-Papers/Ministerial-Statements/Telecommunications-and-Information/2010_tel.aspx

- APEC TEL Strategic Action Plan: 2010 – 2015
  - "Develop ICT to Promote New Growth"
  - "Expand networks to achieve universal access to BB in all APEC economy by 2015"

- How can we achieve these goals after IPv4 address exhaustion?

- Need your leadership to enable IPv6 access

Way Forward

- IPv6 deployment among Internet stakeholders such as governments, services providers, content providers, system integrators etc.
  - Need to develop realistic plans to
    - Manage IPv4 address shortage
    - Deploy IPv6 in their access networks
  - Scalability of selected transition technologies is key
  - Next few years will be critical time for IPv6

- World IPv6 Launch
  - Turn on IPv6 on 6 June 2012
  - Network engineering initiative from ISPs, ICPs, and vendors

APNIC Can Support APEC TEL Economies

APNIC is here to support real and tangible IPv6 deployment

- Outreach and training programs are available
    - Practical and useful skill training, advice, and information services

- IPv6 workshops for network engineers with hands-on IPv6 configuration experience

- Review on pro and cons of various IPv6 transition methods

- Feel free to contact us

Thank you!

<miwa@apnic.net>