

Asia Pacific IPv6 Task Force Update

24th February 2013

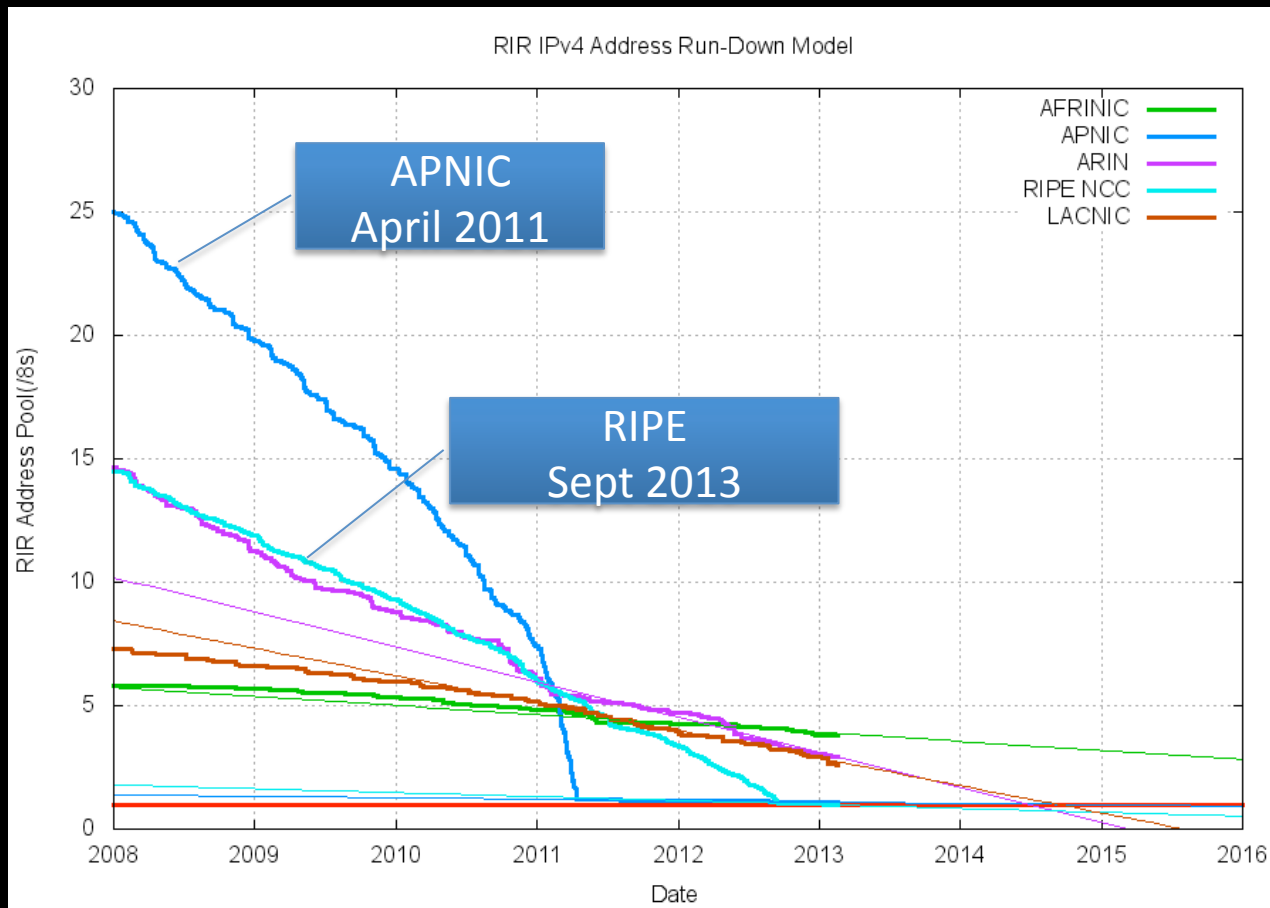
APStar Retreat

By Michael Biber and Miwa Fujii

Agenda

- IPv4 address exhaustion status update
- IPv6 deployment status update
 - Economy update: anecdotal stories
 - IPv6 deployment statistics (by Miwa)
- Way Forward

IPv4 address exhaustion



Projected RIR address exhaustion dates

- ARIN: Sept 2014
- LACNIC: July 2014
- AfriNIC: Oct 2020

<http://www.potaroo.net/tools/ipv4/index.html> 18/02/2013

APIPv6TF Objectives

- To support IPv6 deployment in the industry
- To encourage international discussion and collaboration
- Facilitating the means to promote IPv6
- Developing guidelines
- Investigating and publicising IPv6 deployment status
- Promoting high-level awareness activities

IPv6 deployment status

- Some economy updates
 - Chinese government released their mandate to the industry in Nov 2011:
 - “China will put Internet Protocol version 6 (IPv6) into small-scale commercial pilot use and form a mature business model by the end of 2013, the State Council recently said at an executive meeting about the main goals and road map for the China Next Generation Internet project” (People’s Daily Online, Jan 2012)
 - Service providers in China are responding to this mandate

IPv6 deployment status

- The HK Government sponsored the Internet Society Hong Kong to organise the "IPv6 in Action!" project to support IPv6 transition by the industry.
 - IPv6 website was launched in March 2012
 - “IPv6 Consumer Guide” published in June 2012
 - To promote IPv6 awareness among end users
 - <http://www.ipv6now.hk/en/WhatisIPv6.php>

IPv6 deployment status

- The Taiwan government's initiative to execute "Taiwan IPv6 UP Program"
 - Support smooth IPv6 transition in the Government Service Network (GSN)
 - Enable IPv6 in the first 50% of public services: 2012-2013
 - Encourage further R&D activities to develop more IPv6 enabled applications and services
 - Encourage to develop "Intelligent IPv6 applications"

IPv6 deployment status

- The Australian Government Information Management Office initiative to bring IPv6 to all federal Australian government departments:
 - All Departments reporting on their IPv6 readiness
 - 40% deployed in production networks/gateways
 - 16 complete (end 2012) Remaining 32/110 >50%
- Large Australian enterprises have IPv6 adoption in their governance profiles

Supporting IPv6 deployment in the region

- Providing a forum to exchange positive IPv6 stories at APIIPv6TF Meeting
 - 2 meetings in a year in conjunction with APRICOT and APNIC conferences
 - <http://www.ap-ipv6tf.org/events>
 - APRICOT2012 and APNIC33, New Delhi, India, Feb 2012
 - APNIC34, Phnom Penh, Cambodia, Aug 2012
 - Shared positive IPv6 stories and experiences from the Internet multi stakeholders of many economies in the AP region

Supporting IPv6 activities in the region in 2012

- Supported IPv6 activities in the region by representing view of APIIPv6TF
 - IPv6 – Application and Technology for Vietnam, May 2012, Vietnam
 - ISOC HK: World IPv6 Launch, HK, June 2012
 - Australian IPv6 Summit, Oct 2012

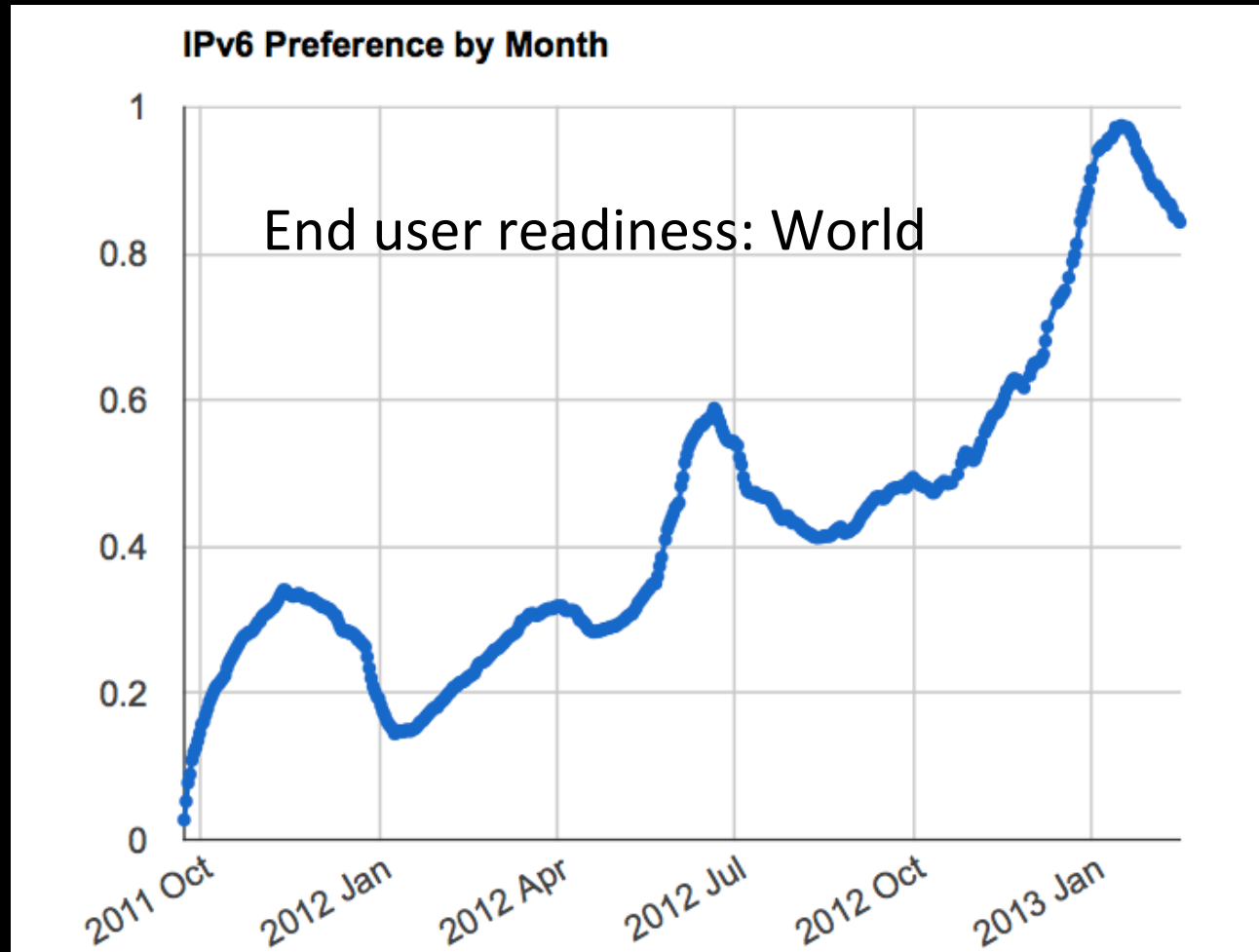
Observation on World IPv6 Launch (June 2013)

- While in 2011 most website operators only temporarily enabled IPv6 reachability to their website
 - In 2012, it wasn't temporary anymore
- About 3,000 content providers ready with IPv6 including major global content providers (Alexa: the top 30 website in the world)
 - Google, Facebook, Yahoo, Wikipedia, and Bing
 - IPv6 enabled websites reached roughly 4% and it is still increasing

Observation on World IPv6 Launch (June 2013)

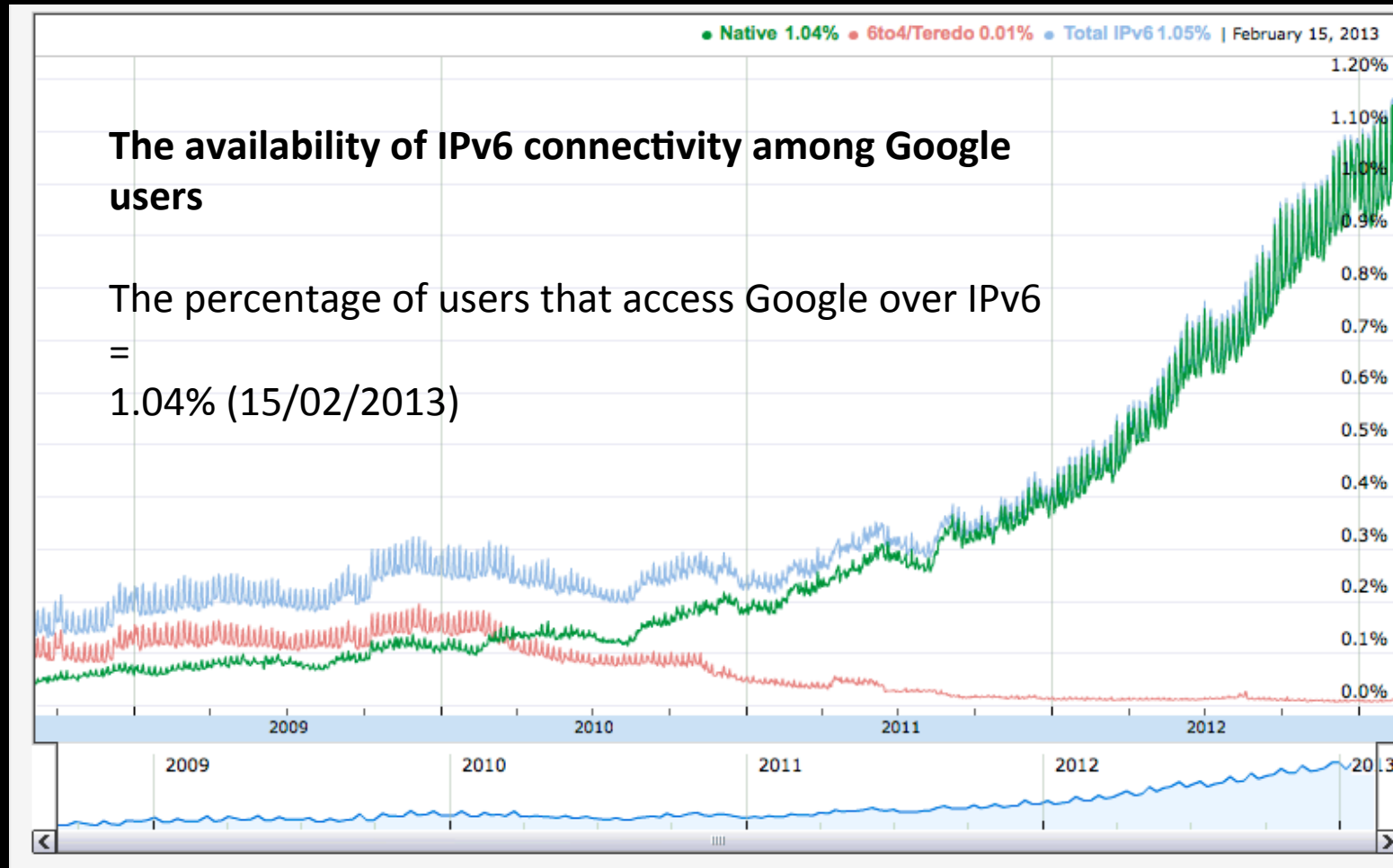
- Target to achieve 1% traffic on IPv6, many achieved much higher level
 - Free (France): 17.35% => current 17.63%
 - RCS & RDS (Romania): 17.46%
 - KDD1 (Japan): 10.93% => current 13.63%
 - Verizon Wireless (USA): 12.05%

IPv6 measurement by labs.apnic.net



<http://labs.apnic.net/ipv6-measurement/Regions/001%20World/> as of 18/02/2013

IPv6 deployment measurement by Google



<http://www.google.com/intl/en/ipv6/statistics.html#tab=ipv6-adoption> as of 18/02/2013

Way forward

- International knowledge and information sharing
 - Especially IPv6 in Mobile Networks
- Avoid reinventing the wheel
 - Including reaching out to other stakeholders than the technical stakeholder
- Possible international collaboration, e.g.,
 - Support economies without IPv6 organizations such as IPv6 TF

Thank you!

Secretary: Miwa Fujii miwa@apnic.net

A/Chair: Mike Biber

mbiber@ipv6forum.com.au