



Supporting Internet growth and evolution: The Transition to IPv6

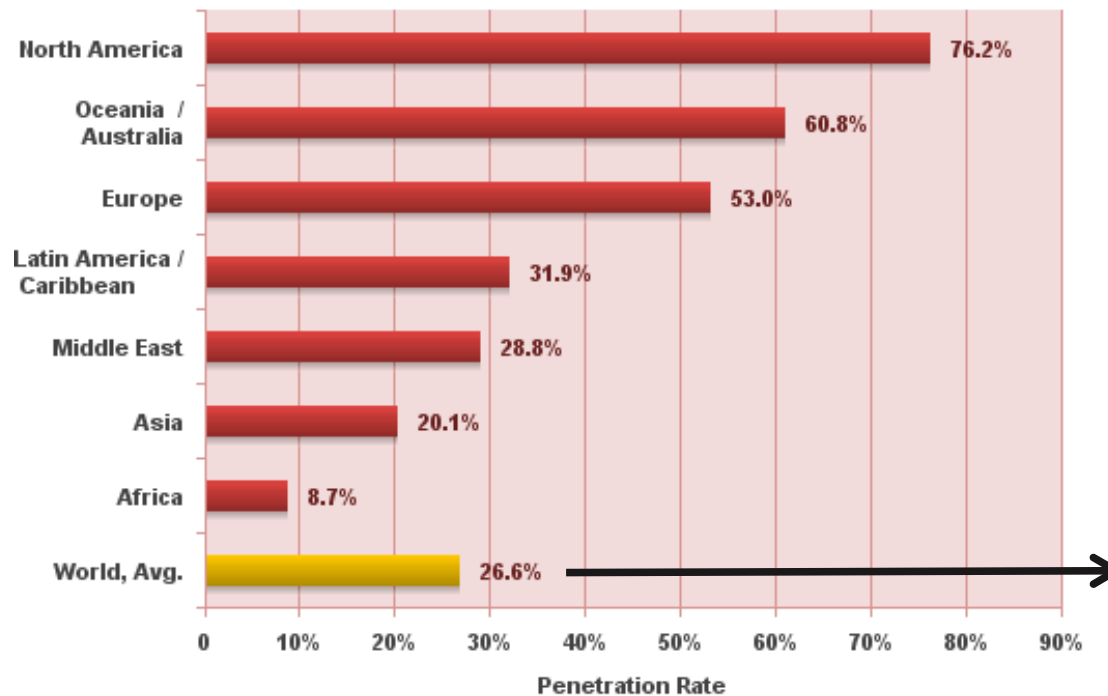
APTLD meeting, Colombo – Sri Lanka
28 June 2010

Champika Wijayatunga
Training Manager, APNIC

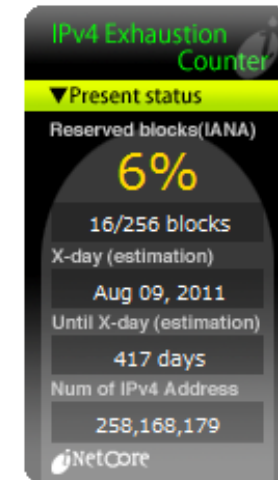


World Internet Penetration

World Internet Penetration Rates
by Geographic Regions - 2009



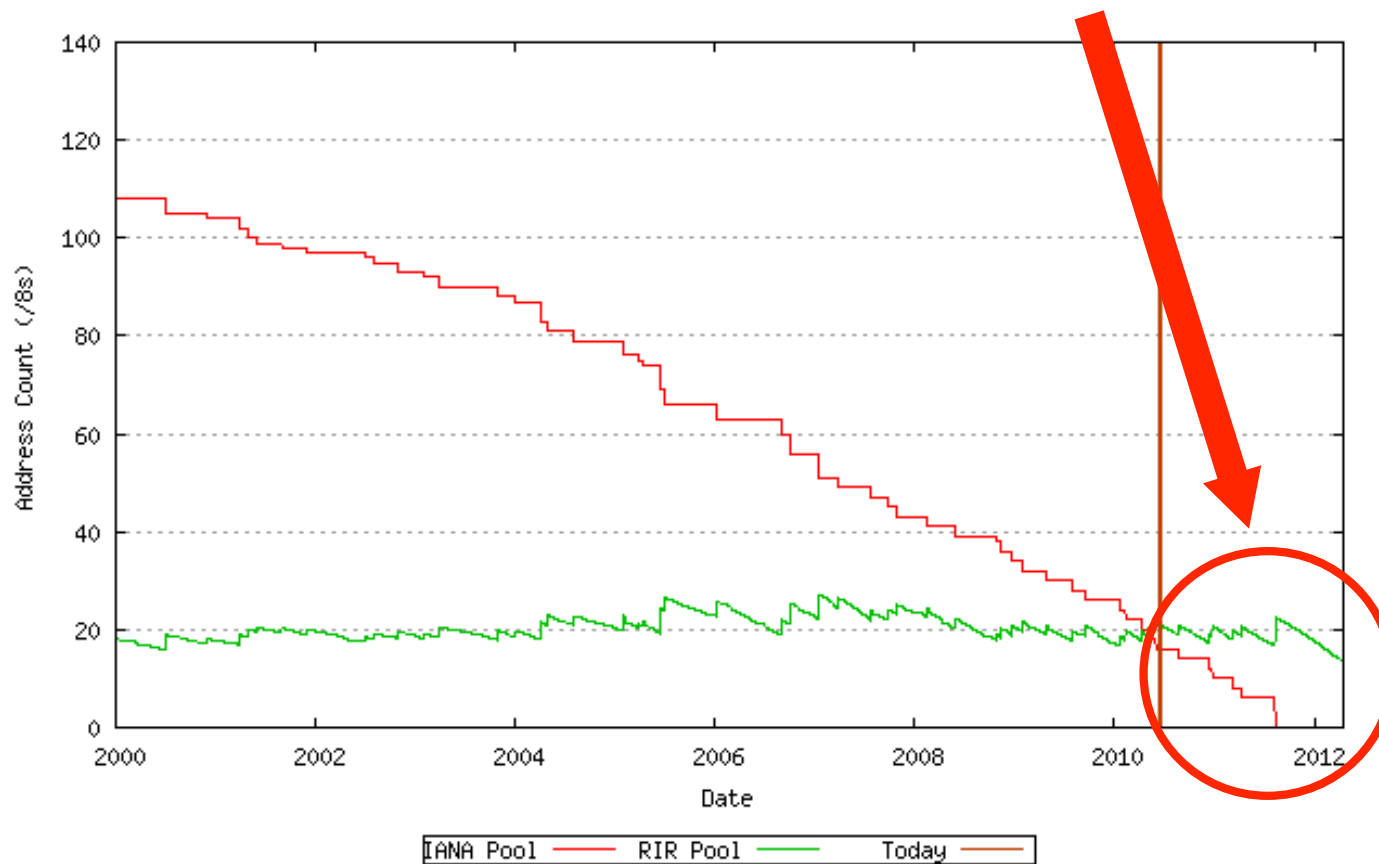
Source: Internet World Stats - www.internetworldstats.com/stats.htm
 Penetration Rates are based on a world population of 6,767,805,208 and 1,802,330,457 estimated Internet users for December 31, 2010.
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Internet Penetration is only at 26.6%, but IPv4 address is running out already with only 6% remaining

IPv4 Consumption: Projection

— Projected IANA exhaustion: 09/08/2011
— Projected RIR exhaustion: 15/05/2012



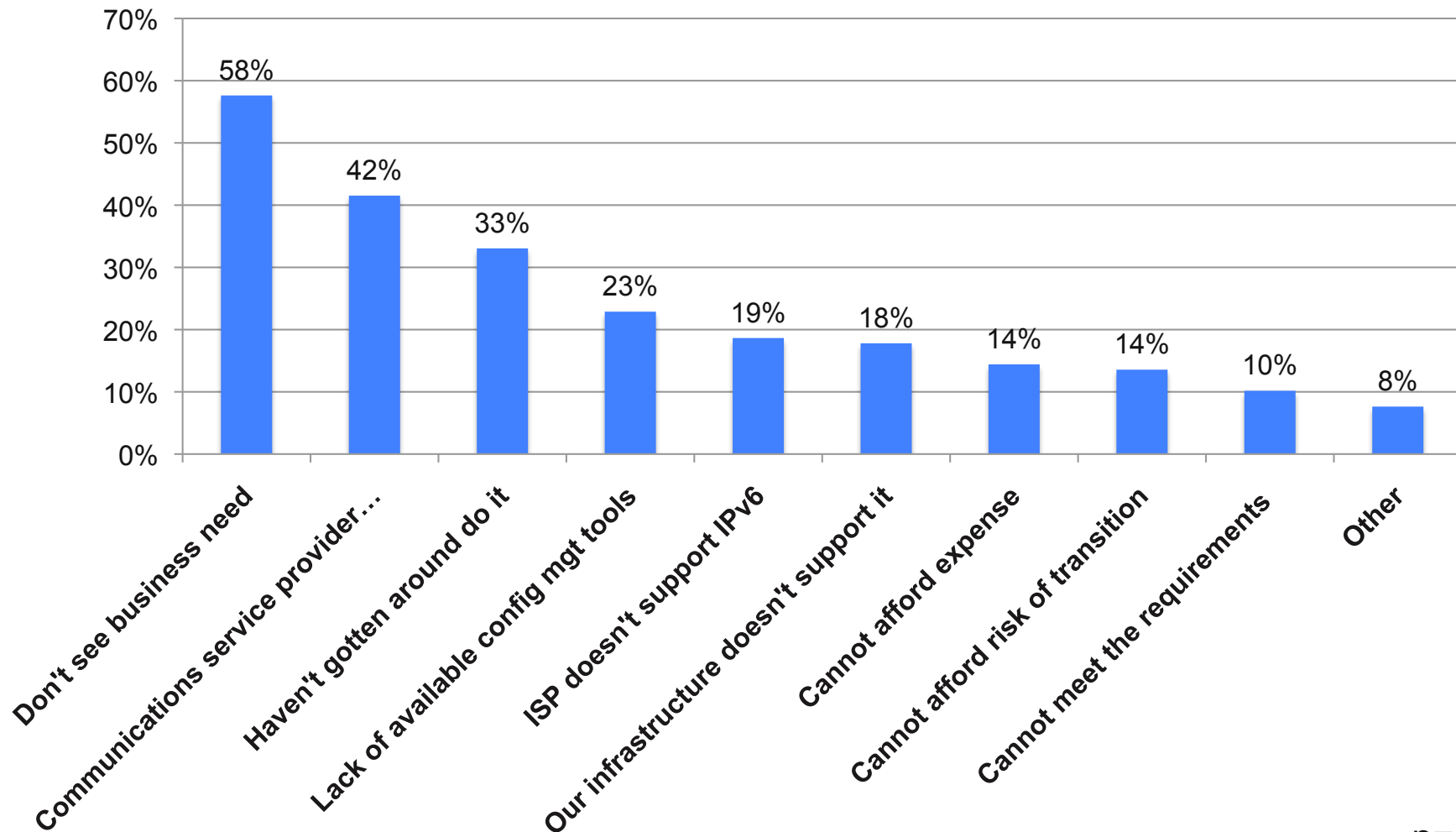


Transition to IPv6

- IPv4 address exhaustion inevitable
 - 4 billion (32 bit) addresses is just not enough!
- IPv6 should be inevitable
 - 340,282,366,920,938,463,463,374,607,431,768,211,456 (128 bit) addresses is big enough
 - The only solution to IPv4 exhaustion
 - IPv6 protocol is mature
 - Increasing usage in the past years
- How far have we come?

APNIC: Survey 2009

If not, why not considering IPv6?





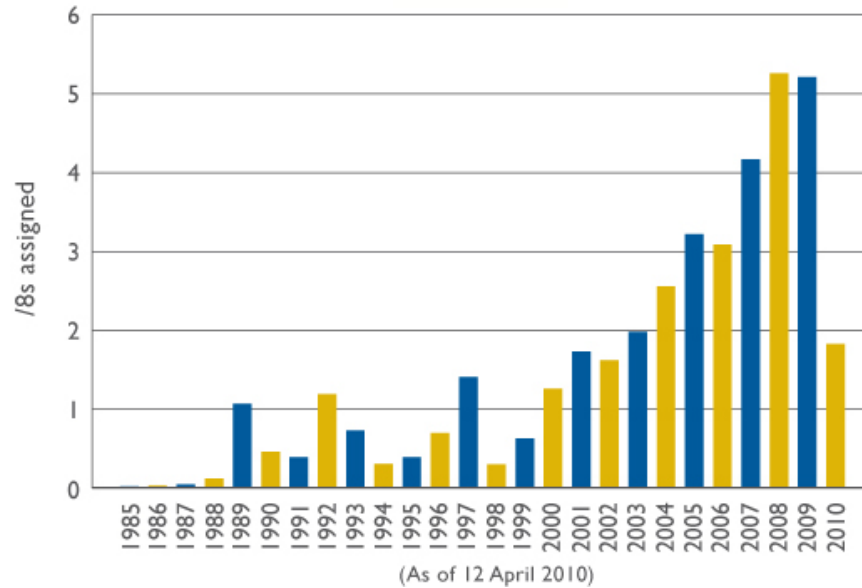
IPv6 address allocations and assignments (ISPs)



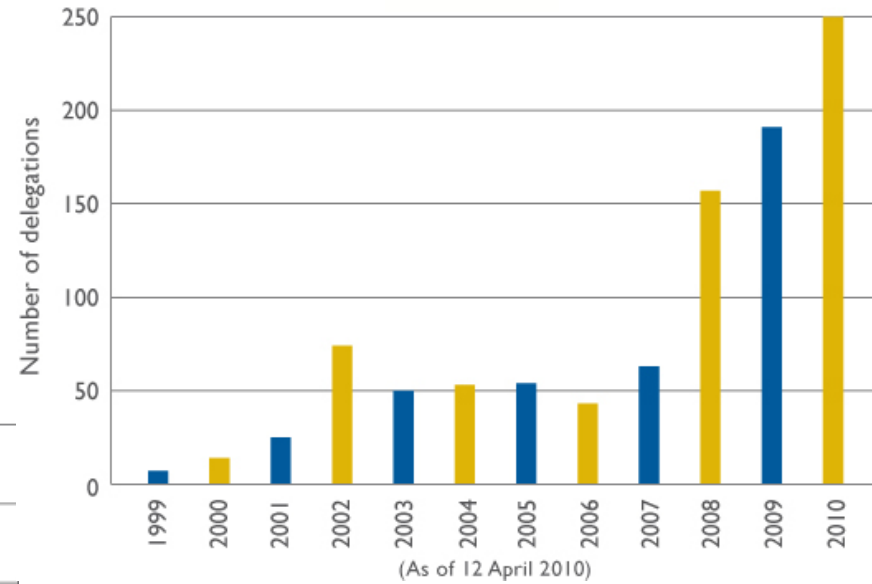
Does your organization have, or consider having an IPv6 allocation and/or assignment? (Sept 2009) n=192

APNIC Resource Delegations

IPv4



IPv6





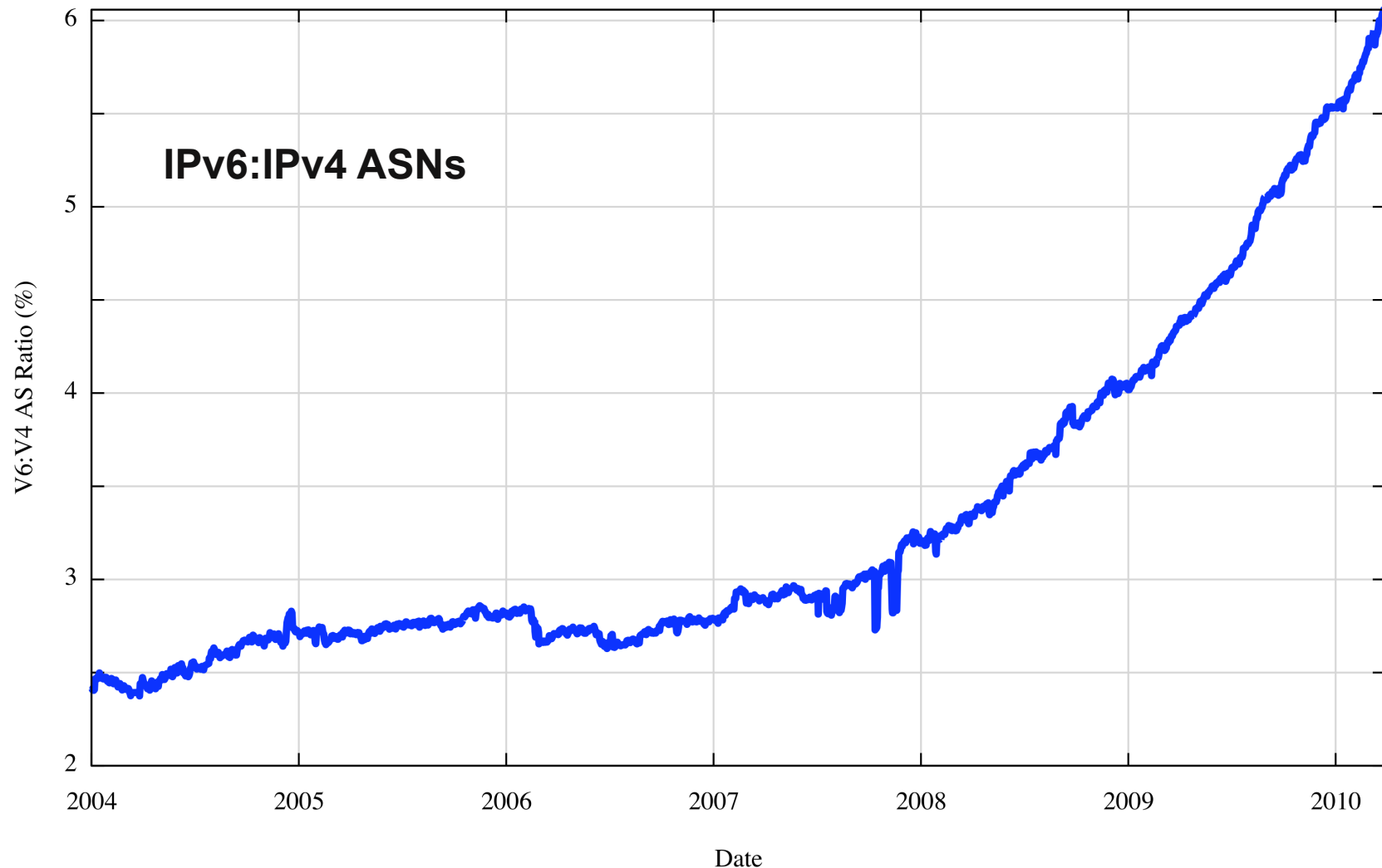
OECD: Latest Report

Figure 19. Number of ISPs offering commercial native IPv6 service per country



ISPs offering commercial native IPv6 service

Ratio of IPv6 to IPv4 ASes

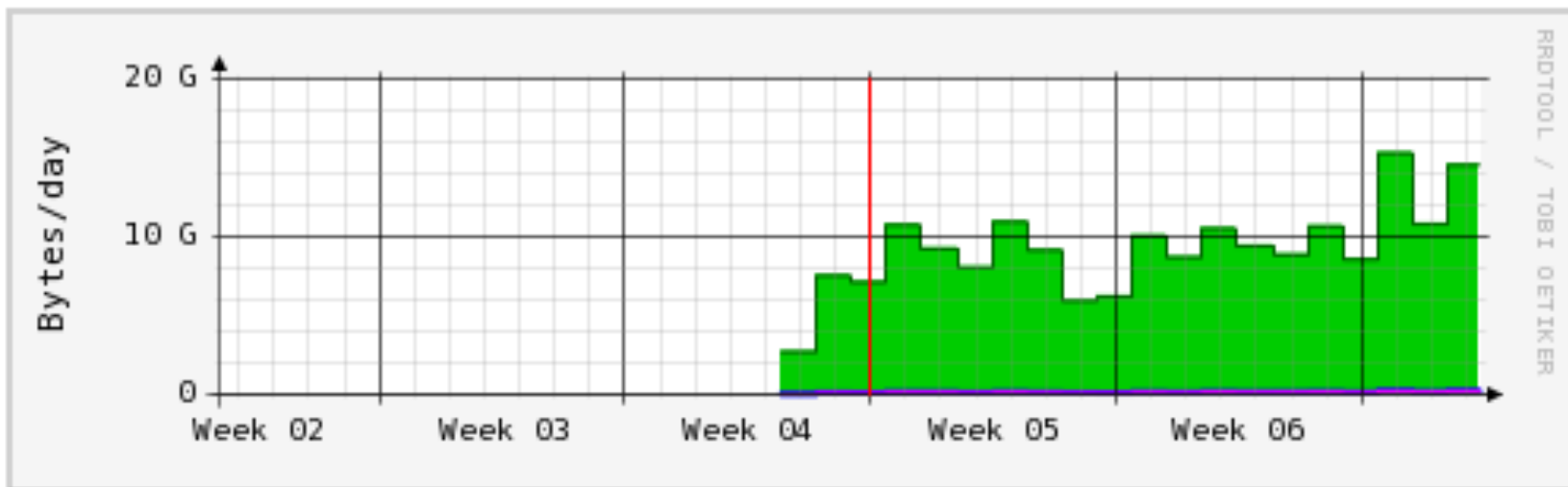


Chicken or Egg?

“Google has quietly turned on IPv6 support for its YouTube video streaming Web site, sending a spike of IPv6 traffic across the Internet...”

– 1 Feb 2010 Networld

- Monash University, Melbourne, Australia:





In Conclusion



Prepare for IPv6 Now

- IPv4 will run out in 2 year's time
- Enable IPv6 in your network
 - Do something small but DO NOT delay



Future-proof your network with IPv6!

“What’s the Killer App for IPv6?”

The Internet !

Thank You!

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