

# APNIC IPv6 Program

IPv6 – Technology and Application, 31/5 – 01/06/2012

Hanoi, Vietnam

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**APNIC**



# Overview

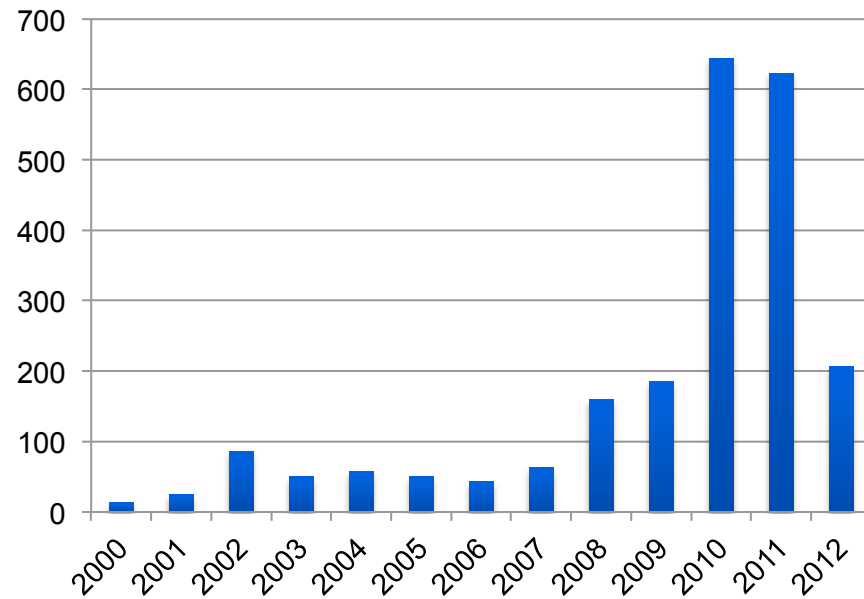
- About APNIC IPv6 Program
- IPv6 in 2012
  - Address allocation data
  - IPv6 prefix announcement
  - Where are we now?
- Way Forward

# About APNIC IPv6 Program

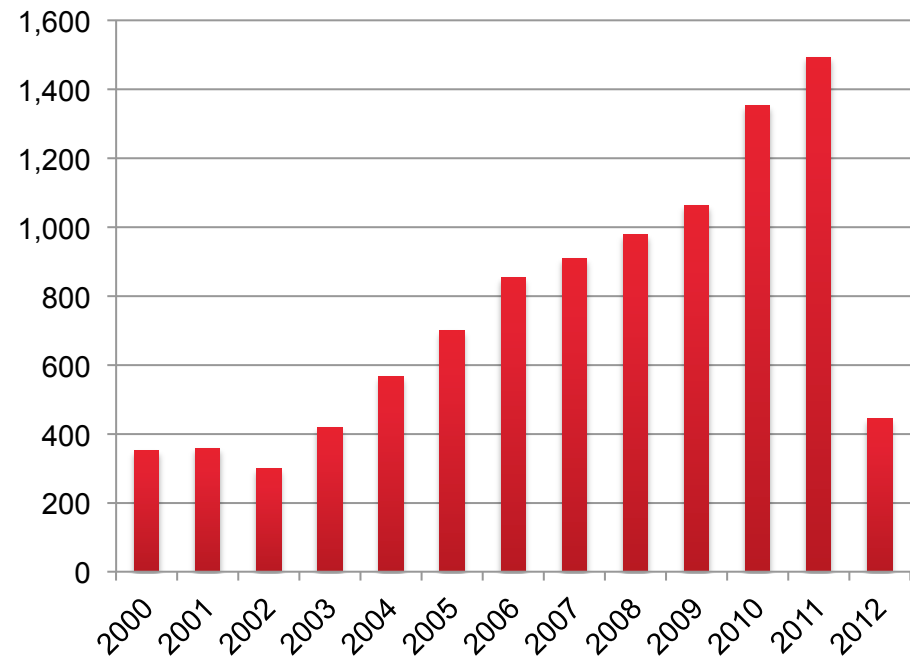
- **Assist:** REAL and TANGIBLE IPv6 deployment
- **Outreach:** Share timely, useful and customized information on IPv6 with Internet stakeholders
- **Monitor:** IPv6 technical development and BCP, deployment statistics, challenges, and solutions
- **Facilitate:** Encourage proactive communication and discussion among Internet stakeholders on IPv6 deployment
- Manage APIIPv6TF Secretariat

# APNIC IP Delegations

## IPv6 Delegation Count

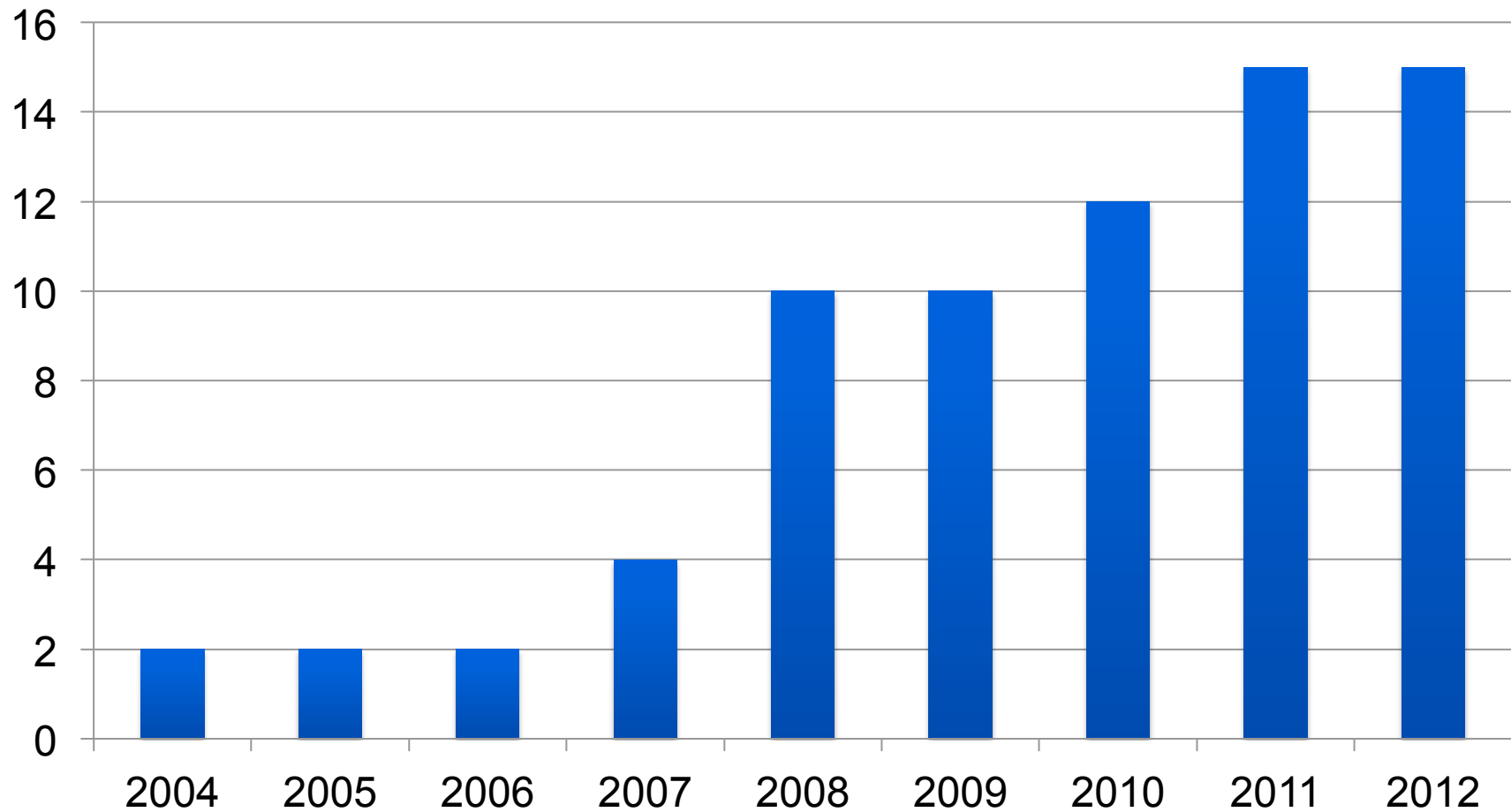


## IPv4 Delegation Count



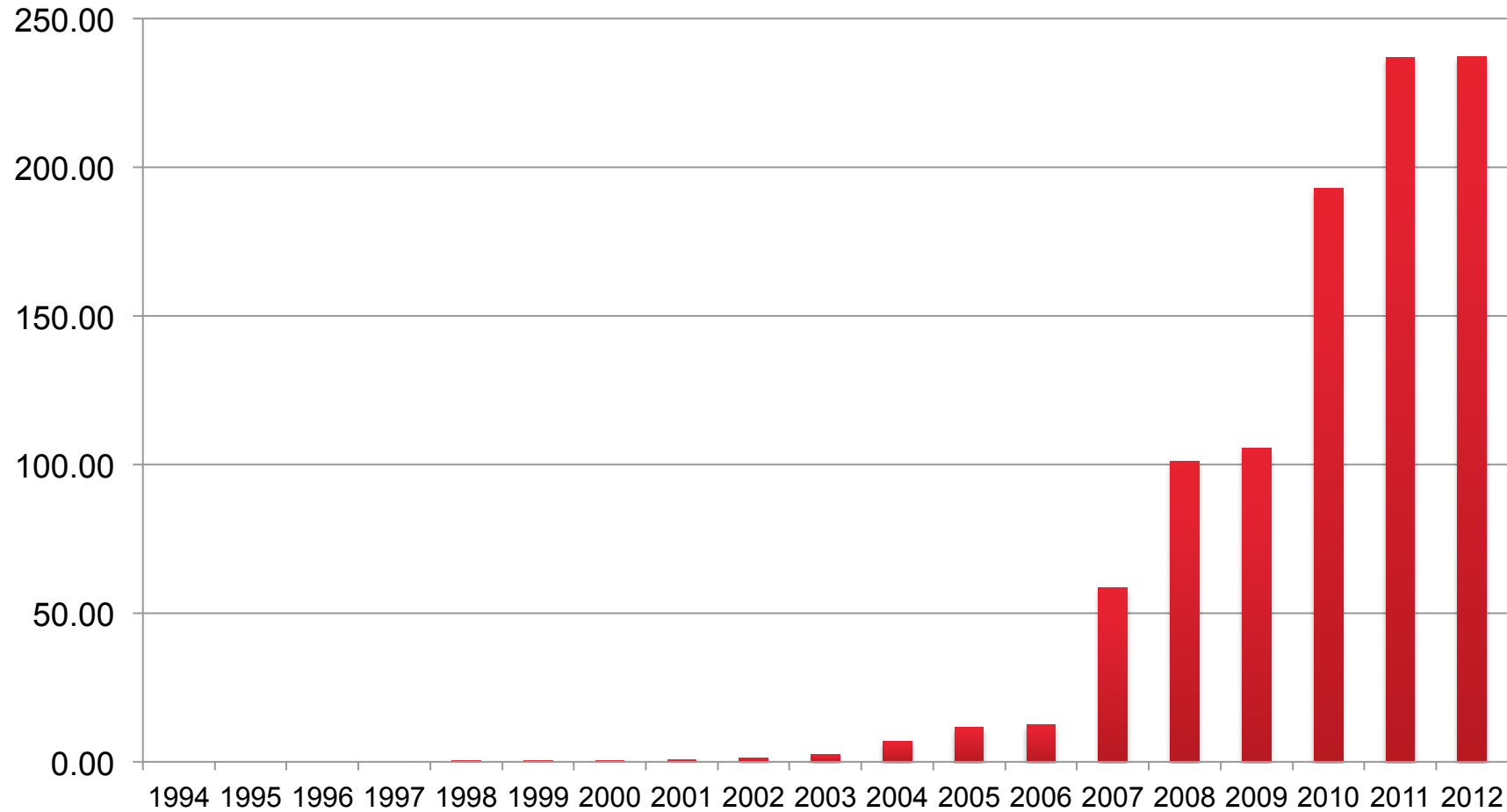
APNIC statistics data as of 18/05/2012

# APNIC IPv6 Delegation to VN Cumulative (/32)



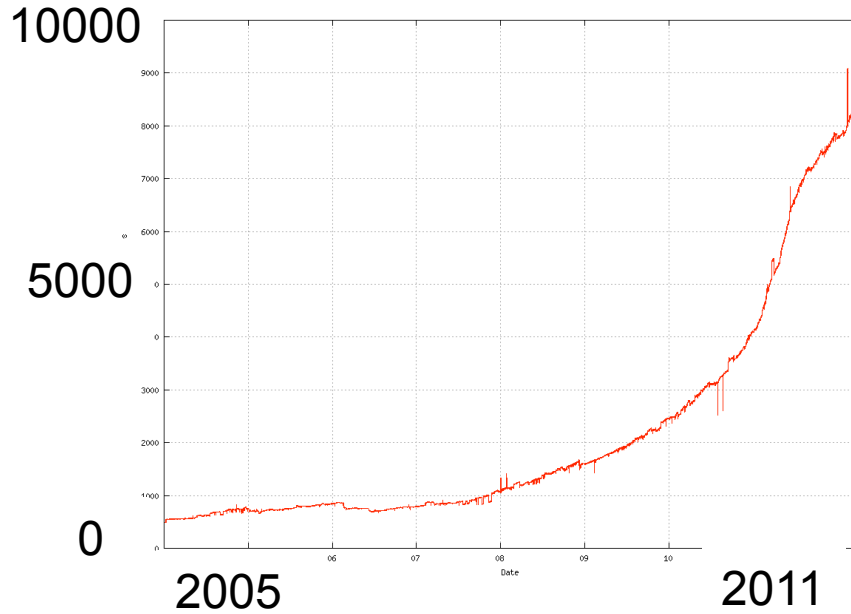
APNIC statistics data as of 18/05/2012

# APNIC IPv4 Delegation to VN Cumulative (/16)



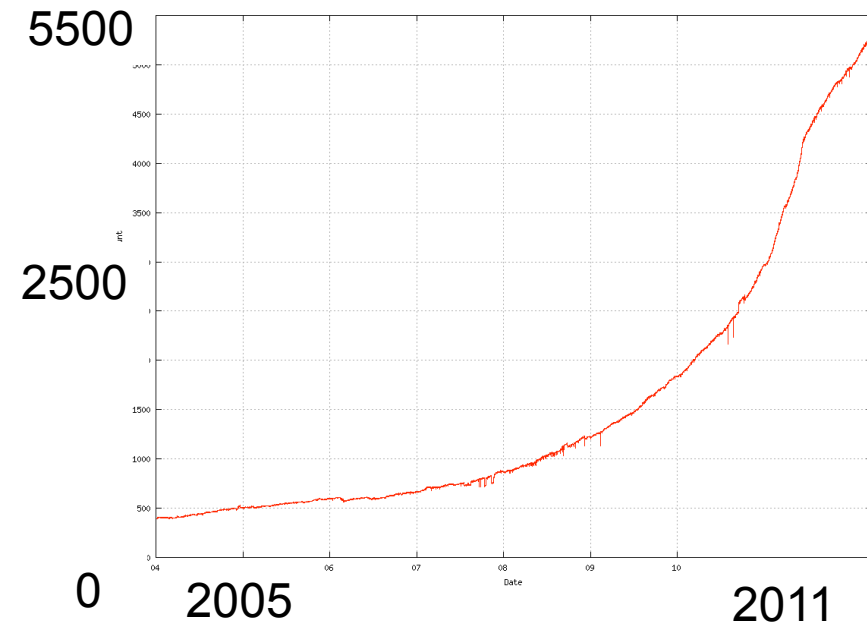
APNIC statistics data as of 18/05/2012

# IPv6 Prefix Announcements



IPv6 BGP table size

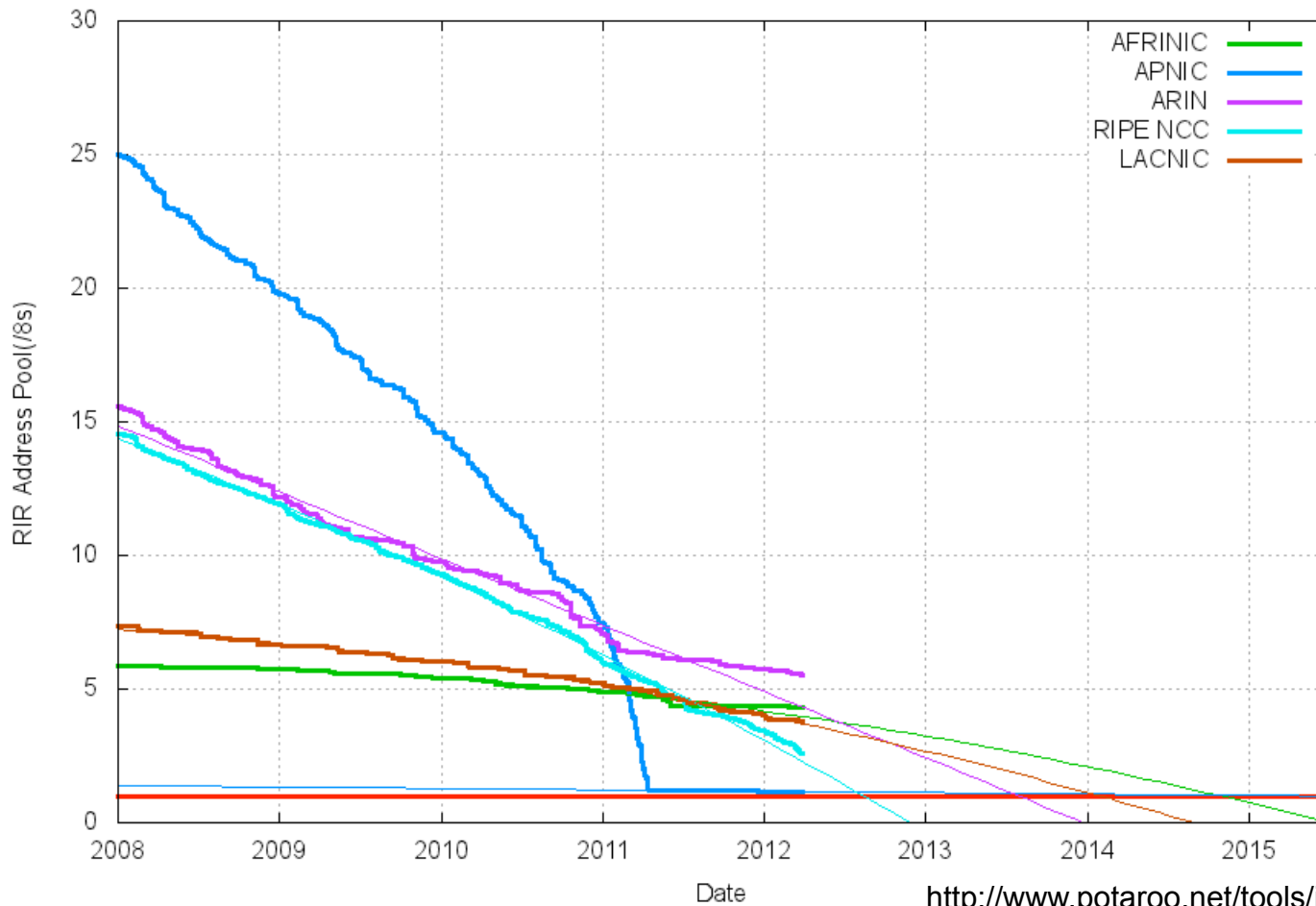
IPv6 AS count



<http://bgp.potaroo.net/stats/nro/v6/>

# IPv4 Address Exhaustion 2012

RIR IPv4 Address Run-Down Model

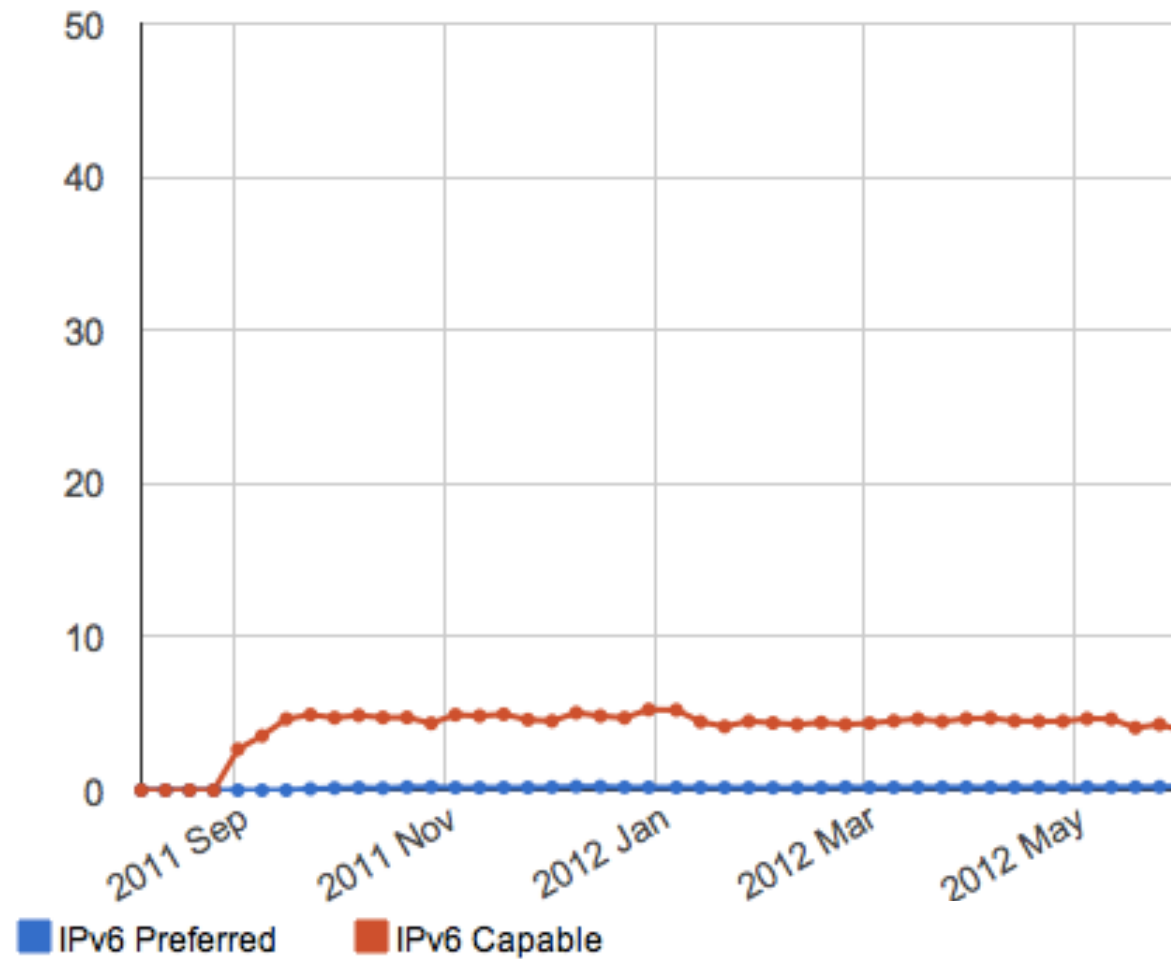


<http://www.potaroo.net/tools/ipv4/plotend.png>



# Where Are We Now?

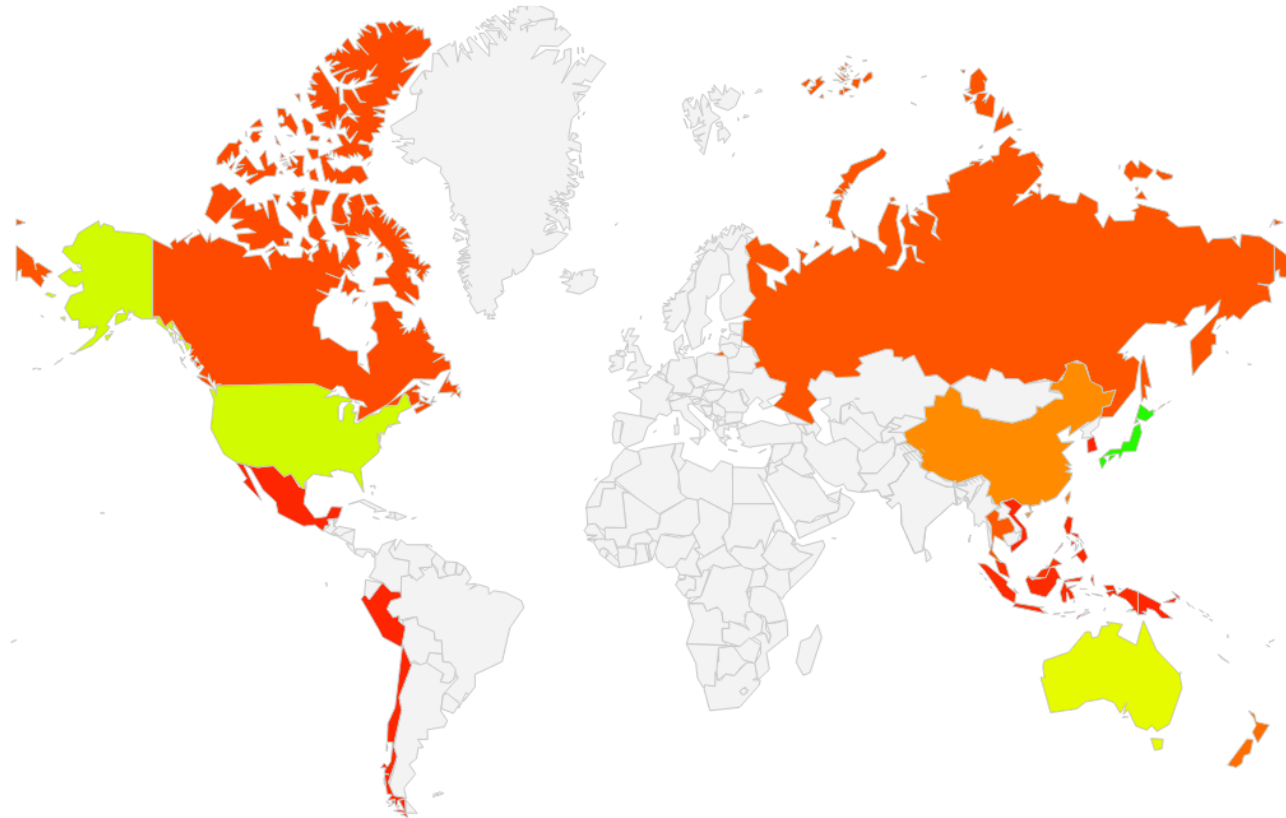
## APEC 21 member economies



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

# Where Are We Now?

## APEC 21 member economies



0 2 %

Level of IPv6 preference

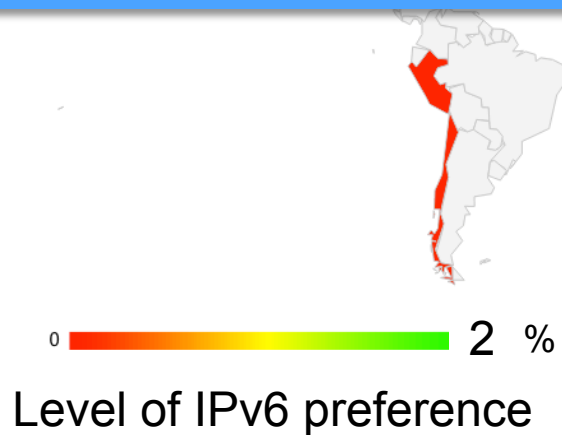
Level of IPv6 Preference in VN = 0.0096

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

# 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.



Level of IPv6 Preference in VN = 0.0096

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

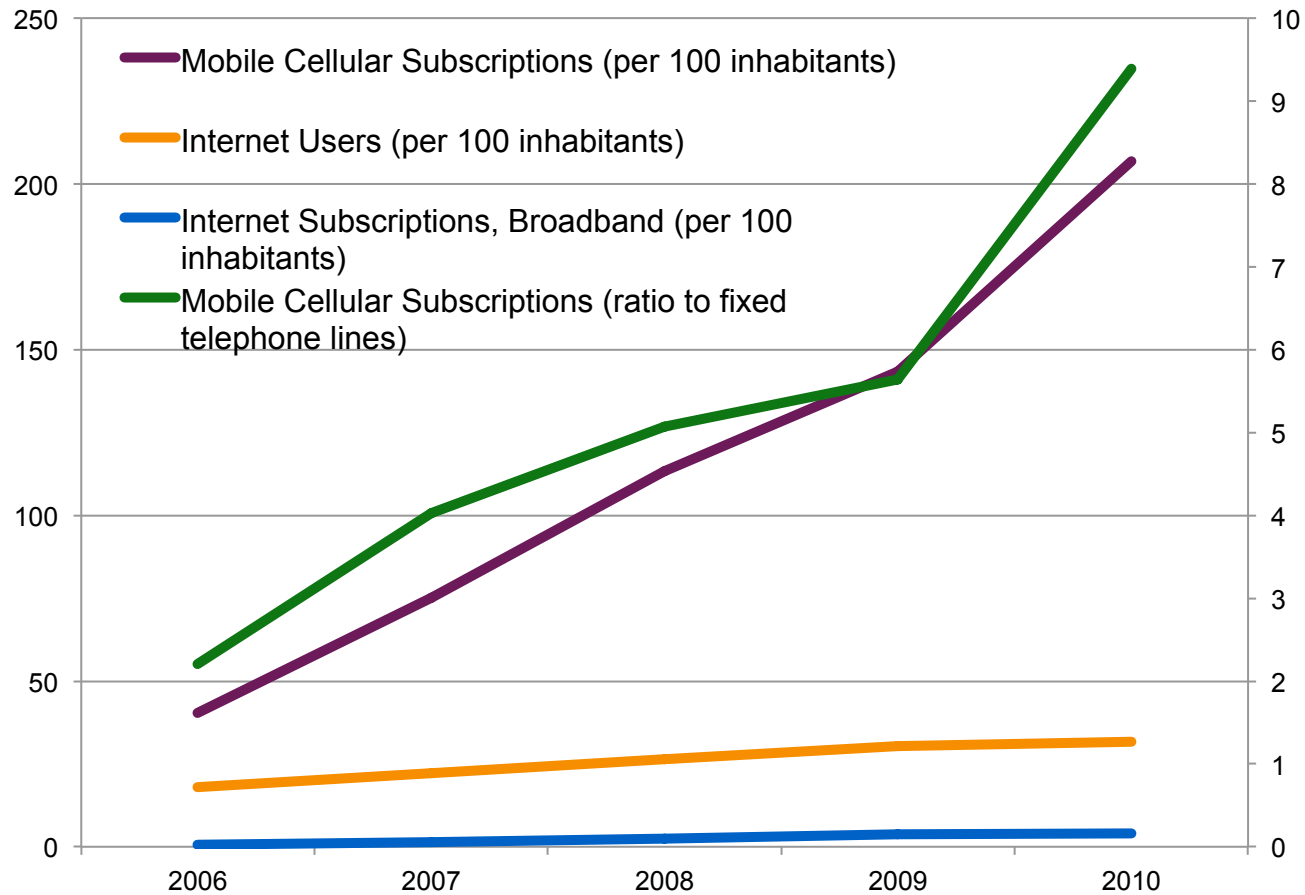
# Way Forward

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

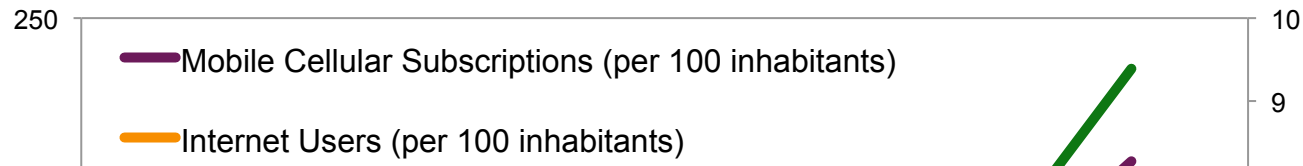
[https://www.bcgperspectives.com/content/articles/media\\_entertainment\\_strategic\\_planning\\_4\\_2\\_trillion\\_opportunity\\_internet\\_economy\\_g20/](https://www.bcgperspectives.com/content/articles/media_entertainment_strategic_planning_4_2_trillion_opportunity_internet_economy_g20/)

# Statistics Recap Vietnam



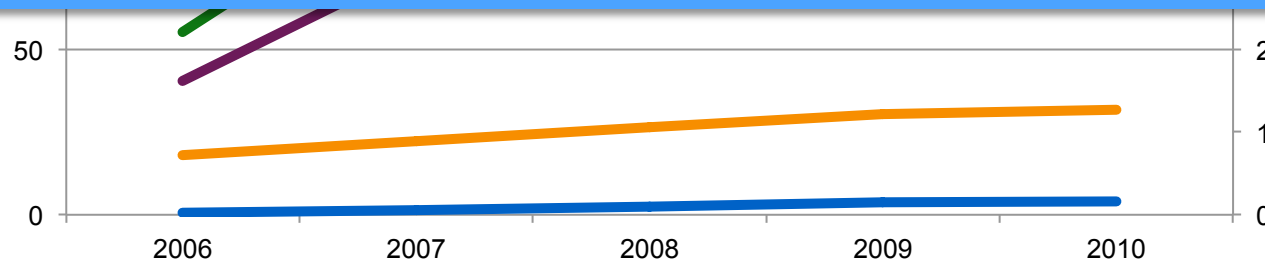
[http://statistics.apec.org/index.php/key\\_indicator/kid\\_result/21](http://statistics.apec.org/index.php/key_indicator/kid_result/21)  
Copyright: APEC, International Telecommunication Union, ICT Eye.

# Statistics Recap Vietnam



Are you ready to cope with the future demand on IP addresses?

What is your business plan for the next 3 – 4 years?



[http://statistics.apec.org/index.php/key\\_indicator/kid\\_result/21](http://statistics.apec.org/index.php/key_indicator/kid_result/21)  
Copyright: APEC, International Telecommunication Union, ICT Eye.

# 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
  - Attempt to turn on IPv6 on 6 June 2012
  - Network engineering initiative from ISPs, ICPs, and vendors

# APNIC Can Support You

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 pros and cons of various IPv6 transition methods
- We work very closely with VNNIC
- Feel free to contact VNNIC and us



# Thank you!

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