



Growing the Internet Through the 21st Century: Some views on IP Addressing

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4 Sep. 2008

Congratulations to Us!

- Over 1.4 billion people use the Internet¹
- The Internet has changed the way people live, work, play, and learn
- The methods and address allocation models used to get us thus far have worked remarkably well.
- But we are not without our challenges

[1]: internetworldstats.com



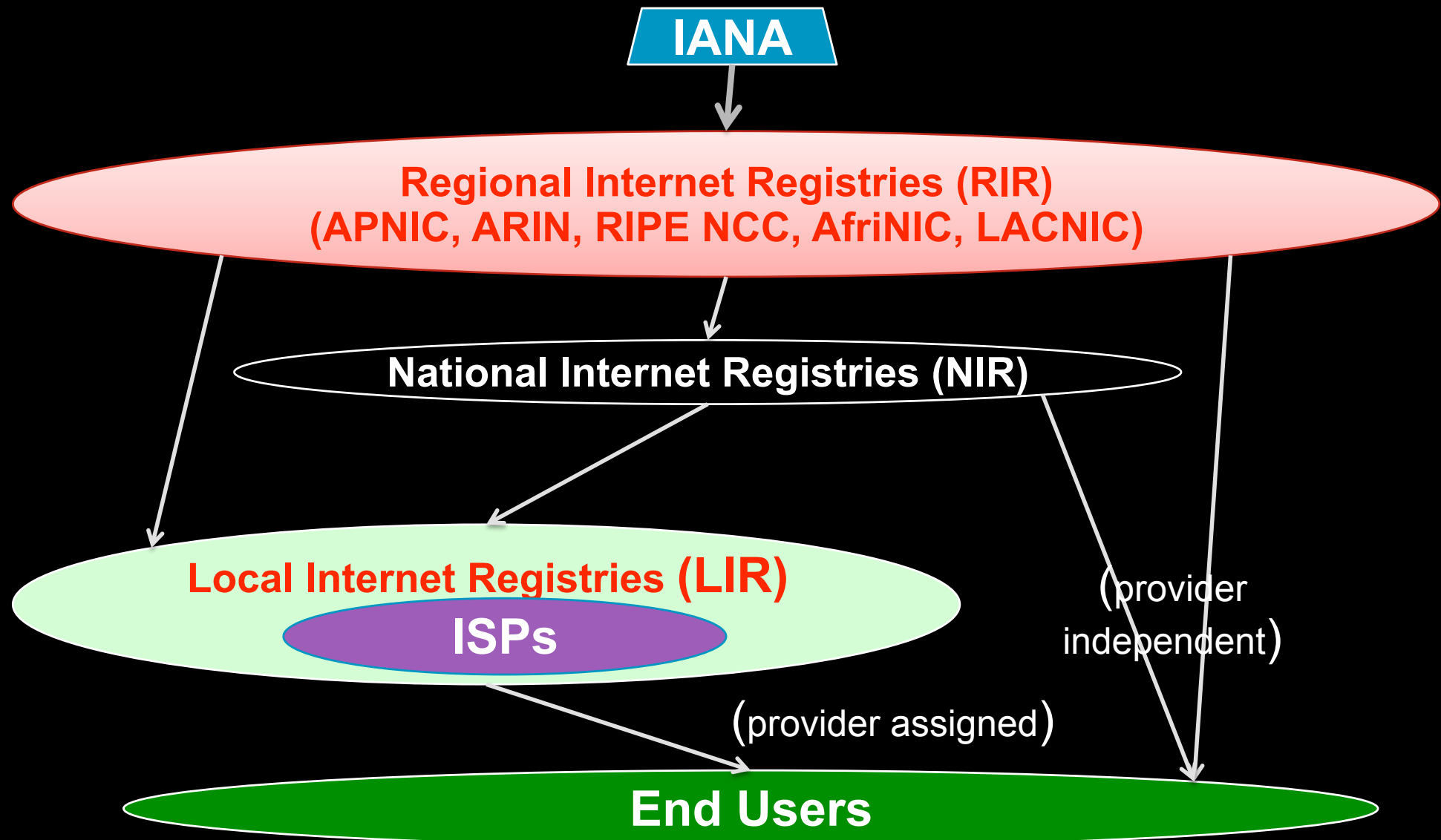
Mariss Jansons

The IP Address Ideal: Use and return

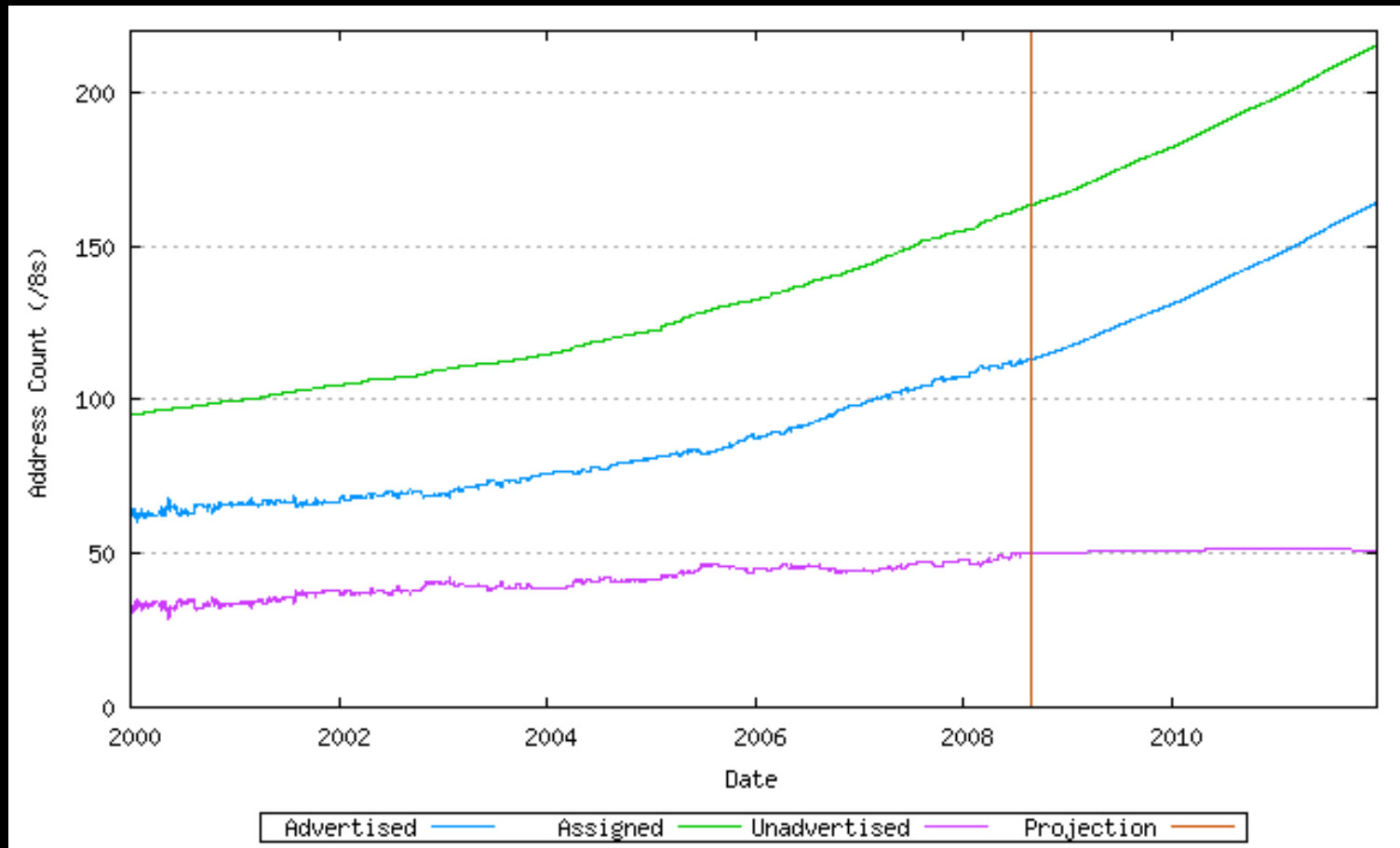


(Amsterdam)

IP Address Allocation Model



A View of IPv4 Allocation

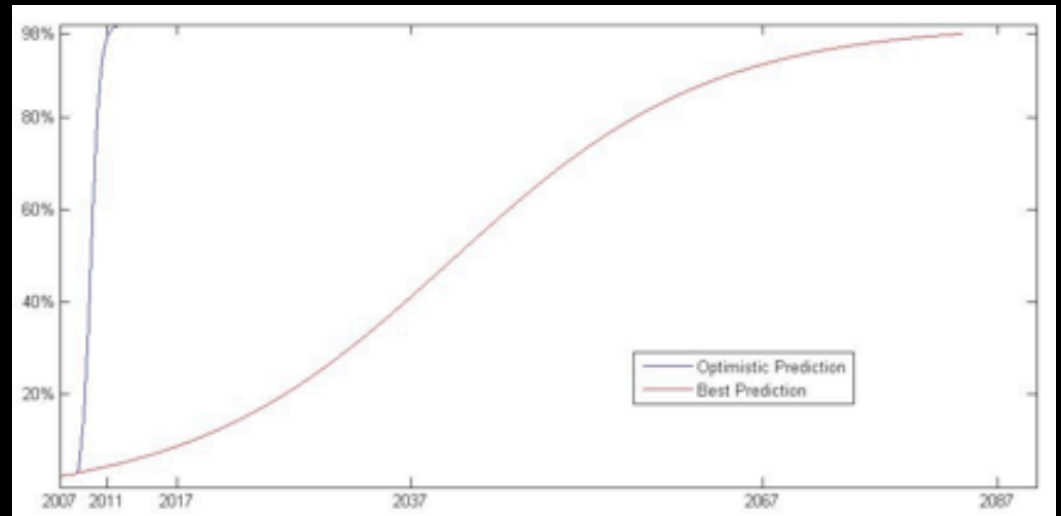


Currently anticipated in 2011²

[2]: ipv4.potaroo.net

Key Issues

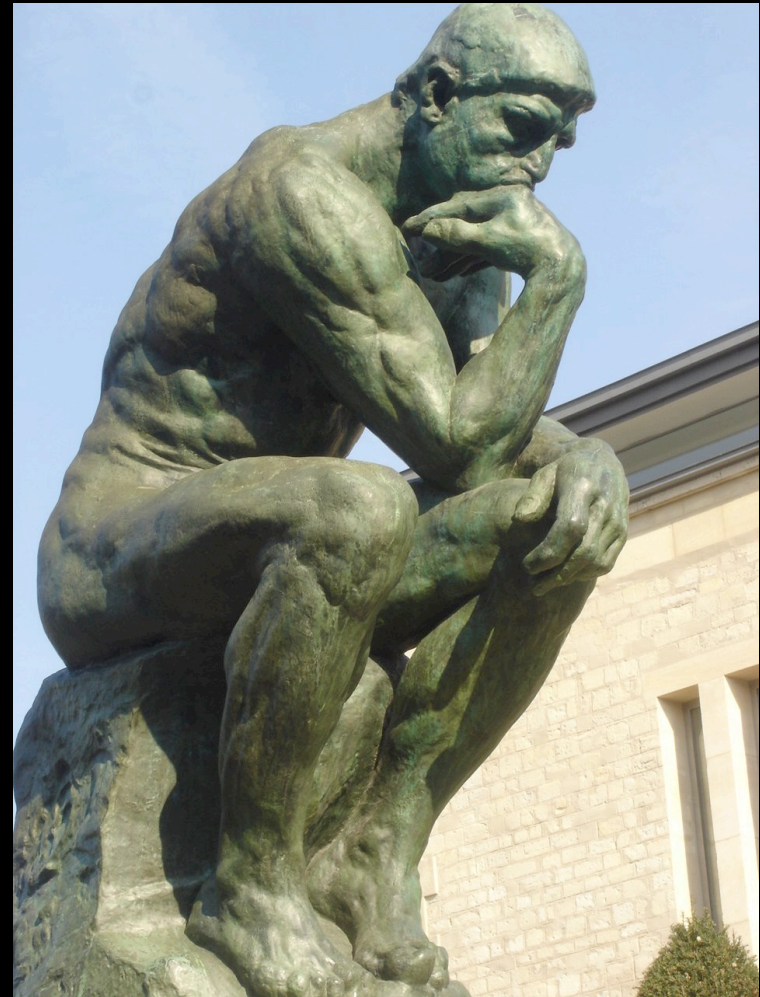
- RIRs will soon need to adjust their IPv4 allocation policies to reflect full allocation
- IPv6 diffusion lags
- Fundamental relationship between routing and addressing remains unchanged
- The role of the RIR may need to evolve



Source: Elmore, Camp, Stephenson (WEIS08)

Cisco has a key interest in this area

- Ongoing Support of the RIRs (training, leadership, sponsorship)
- Held workshop in March of this year
Representation by AfriNIC, LACNIC, ARIN, IANA, ISOC, ISPs, Academia, OECD
- Participation in Workshop on the Economics of Information Security
- Collaboration with academia on work to be presented this month
- IPv6 development leadership
- Improve interdomain routing system technologies



Good Progress Thus Far

- OECD has published extensively on this subject

Ministerial meeting held in Korea

- Several RIR proposals

ARIN 2008_2, 2008_5, APNIC prop-50, others

- Good engagement with the community at large and economists
- Interdomain routing research alive and well



(Falstaff)

Next Steps

- Improved IPv6 products from all parties
- ASPs/ISPs start offering IPv6
- More work within the community to analyze and refine RIR proposals
- Continued development of Interdomain routing technologies within IRTF, IETF, and possibly ACM / IEEE
- Improved IPv4-IPv6 co-existence mechanisms from the IETF

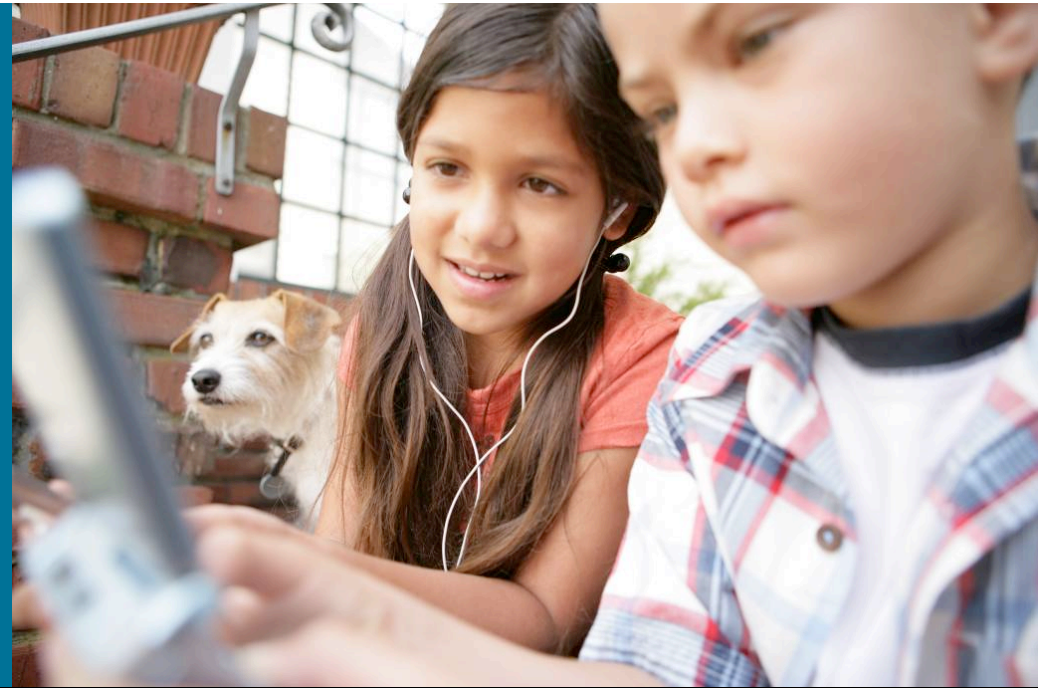
(interim meeting in Montreal in October)

- Review based on the 3 year timeline of the OECD

For more information and participation

- ... about Cisco and IPv6, please see <http://www.cisco.com/ipv6>
- ... about ARIN policies, please see <http://www.arin.net/policy/>
- ... about RIPE addressing policy, please see <http://www.ripe.net/ripe/wg/address-policy/index.html>
- ... about APNIC policies, please see <http://www.apnic.net/policies/>
- ... about LACNIC polices, please see <http://lacnic.net/en/politicas/index.html>
- ... about AfriNIC policies, please see <http://www.afrinic.net/policy.htm>

Thank you for your
time.



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CISCO