Scaling a global, open, stable, and secure Internet

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Agenda

- About APNIC
- Partnerships 4 Development
- Building a bigger Internet
- APNIC Labs measurement
- Other measurement resources





About APNIC

- What is an RIR?
 - Number distribution
 - Registry Services
- Supporting the region:
 - Research and information
 - Capacity building
 - Grants for development
 - Internet Infrastructure
 - Collaboration and partnerships

APNIC's Vision: "A global, open, stable, and secure Internet that serves the entire Asia Pacific community"

APNIC

APNIC Members build IP networks

Membership structure

- APNIC membership is open to all
- All members can access IP address services
 - But: Must demonstrate need in order to receive addresses
- Annual fees determined by address holdings
 - Min AUD300/annum approx for lowest level (no addresses)

Type of members

- Internet service providers (including telcos, ISPs, data centres etc)
- IP network operators (companies, NGOs, government agencies, universities etc)
- Critical infrastructure (DNS operators, IXPs, NIRs etc)
- Anyone with an interest (even if no need for addresses)



Partnerships 4 Internet development

- Internet Organizations
 - APCERT, APIA, APIX, APNG, APTLD, ICANN, IETF, ISC, ISOC, NRO
- Network & ISP Operator Groups (NOG)
 - APRICOT, AusNOG, CNNOG, CNICP, ISPAB, ISPAI, ISPAN, ISPAK, NZNOG, PACNOG, PhNOG, SANOG, SGNOG etc, etc. (newly formed bdNOG)
- National Internet Registries
 - APJII, CNNIC, IRINN, JPNIC, KISA, TWNIC, VNNIC
- Intergovernmental Organizations
 - APEC TEL, APT, ITU-D, OECD, PITA, SPC
- Academic Institutions
 - ASTI, Bii, Dhaka University, ICIT, USM
- Internet Governance Forum: global, regional, and country level
- Law Enforcement Agencies: outreach and training
- Information Society Innovation Fund (ISIF Asia)
 - IDRC, Sida, ISOC, DotAsia

* This list is not exhaustive



A shared vision of the Internet

- Why build a bigger Internet?
 Developmental Objectives
 - Productivity growth
 - Entrepreneurship & innovation
 - Improved Government services
 - Economic growth
 - Social benefits
 - Education
 - Health & Safety

- - Ubiquitous access
 - Open and affordable
 - Secure and robust
 - Sustainable growth
 - Sustainable maintenance





Building a bigger Internet

- A successful Internet
 - Has end-to-end connectivity
 - Is globally interoperable
 - This requires:
 - Unique global addressing
 - Ubiquitous device-independent, standards-based technologies
- Delaying IPv6 deployment: Translation not transition
 - Breaks end-to-end connectivity
 - Consequences for security, some application types
 - Significant scalability concerns
 - Long-term cost and complexity





APNIC Labs Measurements

APNIC



Can your browser do IPv6?



APNIC

[This image is only accessible over IPv6]

http://labs.apnic.net/measureipv6/

Can your browser do IPv6?



APNIC

http://labs.apnic.net/measureipv6/

Can your browser do IPv6?



APNIC

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APNIC Labs Measuring IPv6

Economy	v6pref 🔻
<u>CH</u>	10.99%
<u>R0</u>	10.31%
LU	9.41%
EU	5.75%
<u>FR</u>	5.31%
DE	4.90%
JP	4.71%
US	4.61%
BE	4.11%
PE	3.59%
SG	2.93%
<u>CZ</u>	1.76%
<u>NO</u>	1.71%
NL	0.90%
<u>UA</u>	0.83%
GR	0.82%
PT	0.72%
CN	0.67%
LT	0.60%
SK.	0.58%

World rankings by IPv6 Preference

http://labs.apnic.net/ipv6-measurement/Economies/

IPv6 Measurements by UN Region

Small island developing States

IPv6 Preference by Month



http://labs.apnic.net/ipv6-measurement/Regions/

Other Measurement Resources

APNIC



IPv6-enabled web servers



http://www.vyncke.org/ipv6status/



IPv6-enabled mail servers



http://www.vyncke.org/ipv6status/





IPv6-enabled DNS servers



http://www.vyncke.org/ipv6status/





Active IPv6 networks by country



(**() P**fitfedafit)

IPv6-Ready Internet Backbone: World



IPv6-Ready Internet Backbone: Asia



100

http://6lab.cisco.com/stats/index.php



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Thank You

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