ICANN IPv6 Update

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Channeling…

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Overview

‣ ICANN’s IPv6 Commitments
‣ Our Responsibilities
‣ Managing the Transition
Commitments
Formal Board Commitment

“Resolved (2008.02.15.13), the Board requests that ICANN staff produce a plan to implement IPv6-capable services, and deploy IPv6 across ICANN’s infrastructure as part of the 2008-09 operating plan and budget. The Board further requests that ICANN staff provide regular feedback to the community on progress and lessons learned.”

http://www.icann.org/minutes/resolutions-15feb08.htm
Visible IPv6 Deployment
Other IPv6 Services

- 3 web sites
- Some DNS servers
- Some mail servers
Root DNS Services

- 6 root DNS servers’ IPv6 addresses added in February
- L-root’s IPv6 transport in place. Address to be added to root.hints soon.
Responsibilities
IANA’s IPv6 Registries

IPv6 Registry

Unicast               Multicast

Special

NOT TO SCALE
Plans for improvement

- XML for registries
  - IPv4 Address Space Registry now available
  - All IANA registries available in June
- Better interfaces and documentation
  - New IPv6 multicast request form
  - Improved IPv4 multicast request form
  - Better guidance for applicants
Domain registration

- Domain registry and registrar IPv6 support
  - Both need to support IPv6 in glue
  - Update interface support
  - DNS, web, Whois interfaces over IPv6 transport
- ICANN provides a forum for the discussion
- ICANN encourages IPv6 deployment
Transition
Reclamation activities

- 14/8 reclaimed in January
- 3 other /8s returned last year
- but 13 /8s allocated
Transition Period

- 41 IPv4 /8s left
  - Some used despite being unallocated
  - Possible to measure DNS queries for unallocated addresses
  - Commissioned research into the problem using DITL data
More Measurement

- Participated in CAIDA and OARC’s “Day in the Life of the Internet” project
    - Measuring DNS query transport type
    - Among many other things
Thank you