Why IPv6 Support by Domain Registrars is Important

Leo Vegoda
leo.vegoda@icann.org
And lucrative?
Overview

- Timeline
- Market Growth
- Technical Need
When do we run out of IPv4?
Q2 2011
IANA Free Pool Empty

Q3 2012
RIR Free Pools Empty

Putting it in words
And then we’re out?

- Unused IPv4 space at ISPs
- Unused IPv4 space on customers’ networks
- But... expensive
Market Growth
In contrast to the IPv4 pools
Count the people connect

- 1 billion connected by start of 2007
  - Rapid growth
  - Demand for domain registration
  - Demand for low registration charges
An unfortunate mismatch

- Anyone connecting from 2011 onwards
  - Will want to join the big, big network
  - Will find IPv4 more expensive, or
  - Won’t have an IPv4 option available

- But will want to register and use domains
Technical Need
IPv6 and domain registration

- IPv4 glue? You’ll need IPv6 too.
- Registrars will need to support
  - IPv6 in DNS
  - User management interfaces
- User support
Alternatives to registrar support

- Switch registrar
- Personal support by engineering staff
- Switch to a ccTLD
Alternatives to IPv6?

- High density NAT can support large client bases, but...
- It doesn’t scale well when apps open dozens or hundreds of simultaneous connections
- NAT cannot support large server deployments
References

- Geoff Huston’s IPv4 Address Report
- Takashi Arano’s IPv4 Exhaustion Gadget
- Sixxs’ list of registrars supporting IPv6 glue
  - http://www.sixxs.net/faq/dns/?faq=ipv6glue
Thank You!