

.nz DNSSEC

ICANN DNSSEC Workshop
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Barry Brailey
Manager, Security Policy

Outline of Presentation

- Background and implementation
- Progress in 2013
- Next Steps

Questions / comments at any time

.nz DNSSEC - timeline

- 2008/2009 - DNSSEC detailed plans started
- 2010 - Policy proposals and other prep work
- 2011 - Implemented for the .nz zone
- 2012 - NZRS completed DNSSEC for .nz 2LD zones
 - Phase implementation through 2012
 - The Practice Statements, Key Generation Procedure, Architecture etc are all in the NZRS site:

<https://nzrs.net.nz/dns/dnssec>

Policy and Registrars

- DNSSEC is voluntary for Registrants and Registrars
- Identified 2 different DNSSEC roles for Registrars
 - ‘Handles DS Records’ or ‘DNSSEC Friendly’
 - We publish this info on DNC Website - Authorised Registrar list
- Policy to cover the transfer of a signed name

9.2 When a change of DNS Operator for a signed domain name is required and both the current and proposed DNS Operators are Registrars, then the cooperation and participation set out in 9.3 is required.

9.3 Domain Names with DNSSEC enabled

9.3.1 Prior to a name server update, the losing DNS Operator must provide the zone information for the domain name when requested to do so, and accept and add the new DNSKEY to the zone for the domain name, re-sign it and continue to serve this until they are notified the change is complete.

9.3.2 The gaining DNS Operator then provides the new DS Record to the losing DNS Operator who provides it to the Registry. The name servers for the domain name can then be updated with the Registry.

9.3.3 Following the name server update, the gaining DNS Operator must delete the old DS Record and DNSKEY provided by the losing DNS Operator.

9.3.4 The losing DNS Operator must remove the domain name from their name servers when requested, but must not remove it before being requested to do so.

Movie quote.....

If you build it, *they* will come.....



If you build it, *they* will come.....

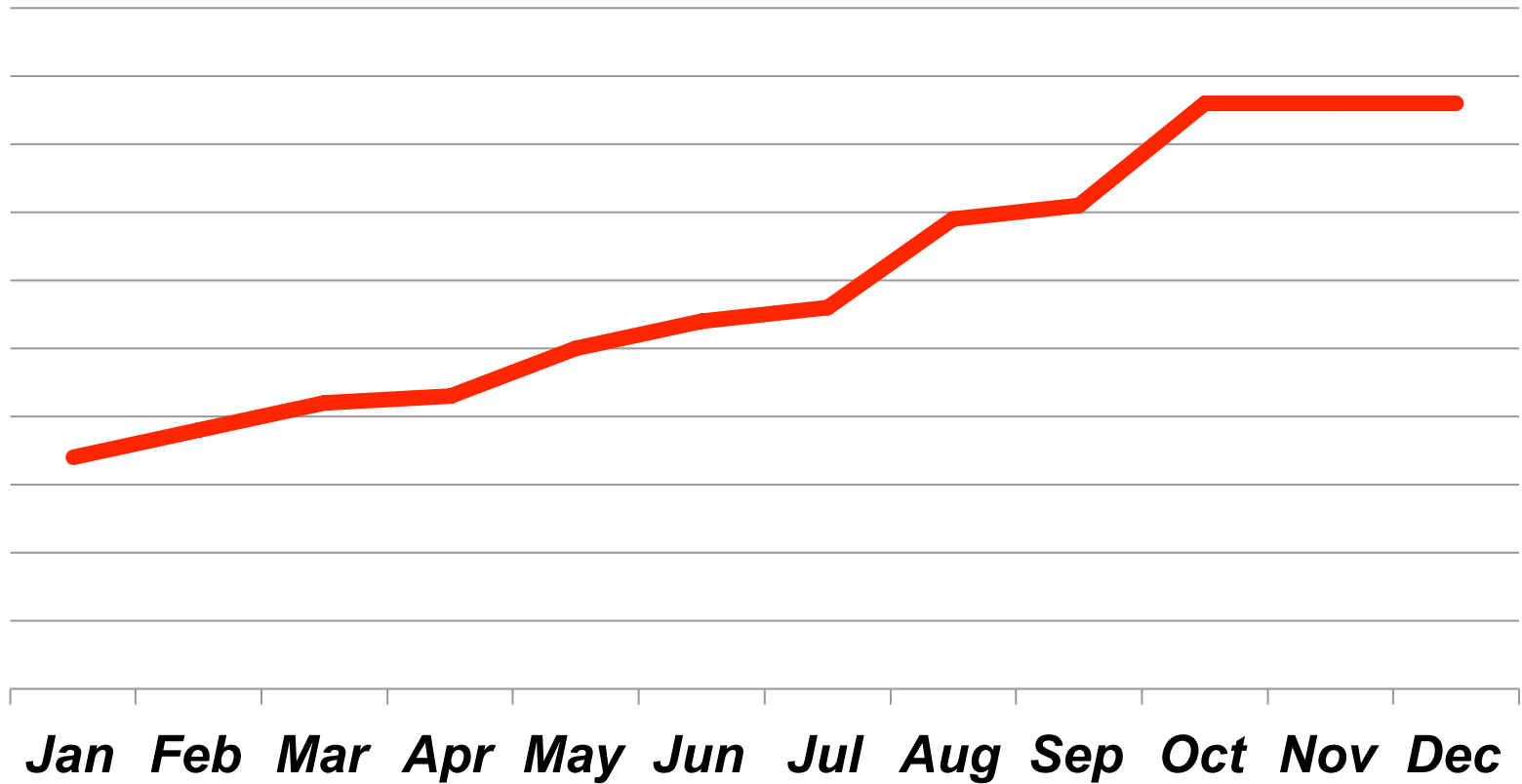
Well.....a few will.....hopefully!

January 2013 Status

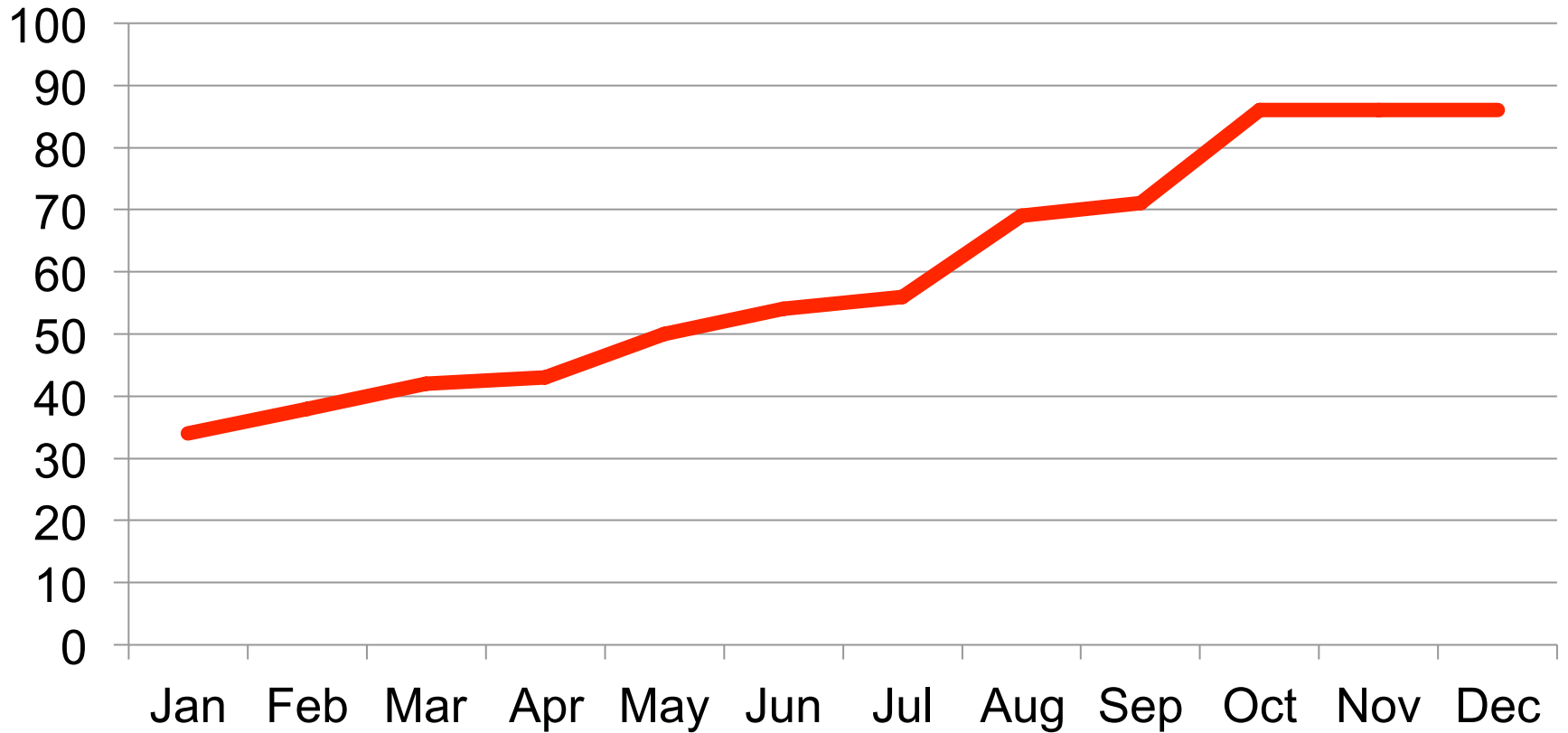
- 2 .nz Registrars very quick to be confirmed as 'DNSSEC Friendly'
 - These first 2 were quite small Registrars
 - We have 80+ Registrars

- Quick start with 30 signed Domain Names
 - We knew all these Registrants
 - We had approx. 520 000 .nz Domain Names

Domains with DS record 2013 – Growth (200%)



Domains with DS record 2013 – Growth



At least 2 more to
be added soon!



*Registrar
Honour Roll*

Metaname
Godzone

Gandi
KeySystems
Catalyst

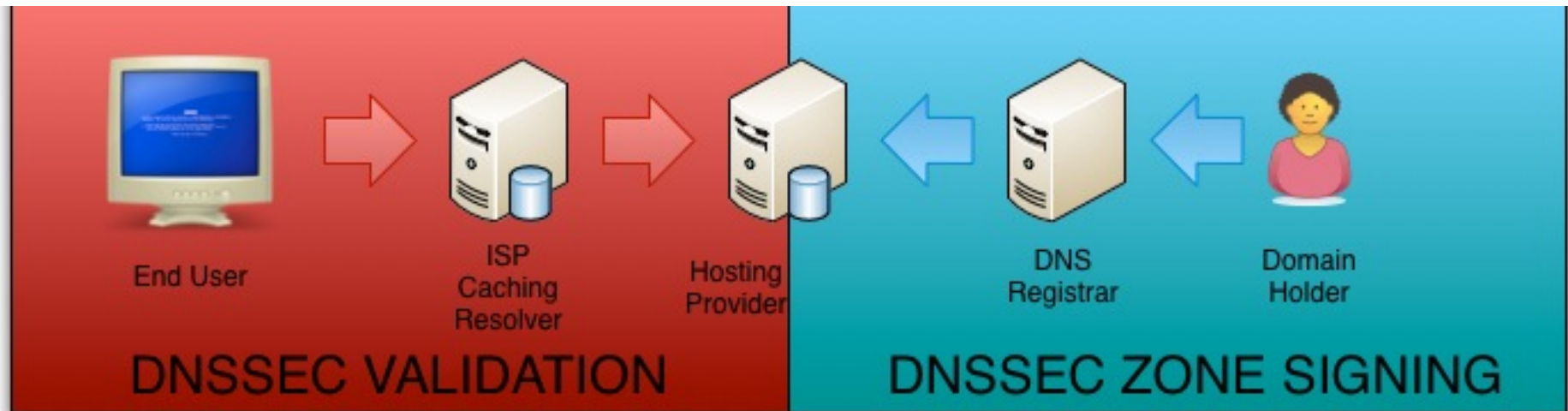
.nz DNSSEC – 2013 Review

- I was tasked to review the situation
 - Looked at APNIC findings
 - Other TLDs
 - Global Adoption
 - ISOC Deploy 360
 - .nz Stats
 - etc

- Success in ccTLDs relied on many things

.nz DNSSEC - Review

- Confirmed we need to consider many things:
 - Persuade more Registrants (popular sites – ‘evangelization’)
 - Government support and adoption
 - More Registrars implementing (‘coverage’)
 - DNSSEC Validation (ISPs)
 - DNSSEC in the Browser / apps
 - Knowledge sharing and technical support
 - Advertising, media campaign, coordination



.nz DNSSEC in 2014

- A small NZRS/DNCL (.nz) team looking for opportunities and next steps (constantly)
- New DNS services for *govt.nz* includes DNSSEC
 - This is something we're looking forward to
- More Registrars implementing presents opportunities
 - *But, RadioNZ demonstrated another option!*

Engaging ISPs

- Attended NZNOG and asked:
 - What does an ISP need to do to prepare its network for implementing DNSSEC validation?
 - How does an ISP need to prepare its support staff and technical staff for the rollout of DNSSEC validation?

(BTW - thanks for the questions)
- Working on paper around how 'painless DNSSEC validation has been'
- Considering other 'BCOP like' material

Final Points

- A multi-pronged approach probably necessary
- Dedicated resources may be worth considering
- There is no ‘burning platform’ - so generating demand (and persuasion) are a must
- We have not yet considered financial or policy ‘incentives’

info@dnc.org.nz
misp@dnc.org.nz