



DNSSEC @ Neustar

ICANN 45, Toronto

Wednesday 17th, October

James Anderson
Product Manager
Neustar, Inc.

DNSSEC @ Neustar

Neustar
Registry Services

Neustar
UltraDNS

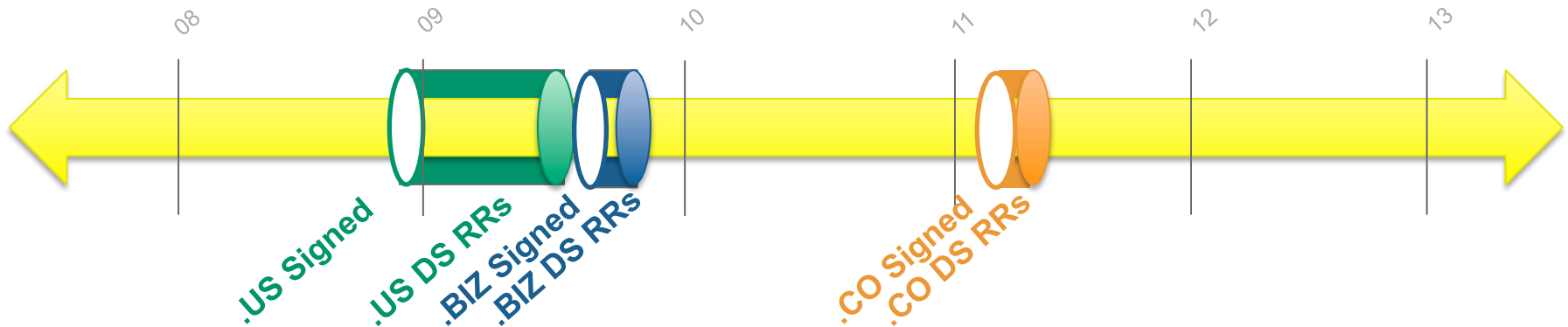
- » Preparing a platform that will make it simple to adopt
- » Goals – make it painless as possible for the user/organization
 - » e.g. “set it and forget it”

Neustar Domain Name Registry

.US

.biz

.CO



- » **.US** zone is signed
- » **.US** zone accepts DS records
- » **.BIZ** zone is signed
- » **.BIZ** zone accepts DS records
- » **.CO** zone signed
- » **.CO** accepts DS records

- December 2009
- June 2010
- July 2010
- August 2010
- Feb 2011
- March 2011

Neustar UltraDNS

- » Design goals: operational simplicity with an abundance of caution
- » Services:
 - » DNS Master
 - » DNS Secondary
 - » API
- » Challenges
 - » Automatic management of DS resource records
 - » Advanced DNS Services: Geo Location, Monitored DNS

The screenshot displays the UltraDNS Managed Services Portal interface. The top navigation bar includes 'Dashboard', 'Domain Services', 'Reports', 'Accounts & Permissions', 'Audit', and 'Premium UltraTools'. A search bar is located on the right, and the user is identified as 'James Anderson'. The main content area is titled 'DNSSEC' and shows the configuration for the domain 'dnssec.test'. It includes sections for 'Zone Status' (Secured with DNSSEC), 'DNSSEC Policies' (listing signing and secure parameters), 'Key Signing Key (KSK)' (showing current and next keys), 'DS Resource Records' (listing DS records for the zone), and 'Zone Signing Key (ZSK)' (showing current and next keys).

Status	Algorithm	Key Size	Effectivity Period (days)	Created	Next Roll	Key ID
Current	RSA_SHA256	2048	365	2012/08/03 10:56 GMT-05:00	2013/08/03 10:56 GMT-05:00	50965

Status	Algorithm	Key Size	Effectivity Period (days)	Created	Next Roll	Key ID
Current	RSA_SHA256	1024	90	2012/08/03 10:56 GMT-05:00	2012/11/01 10:56 GMT-05:00	52455



Lessons learned...

1. Rarely are we asked for a specific policy; customers usually want to know capability and leave specifics to the vendor...
2. There may be costs to the customer...
3. Re-signing effort - records vs. zone
4. Frequency of key rolls – ZSK 30 days to 90 days
5. NSEC vs. NSEC3 and customer profile / use cases
6. Slow adoption may be an advantage -- e.g. shaking out operational issues; observing industry challenges and solutions
7. DNSSEC is a component of an overall strategy of securing the Internet. Critical, but only one piece.



Thank you!

James Anderson
james.anderson@neustar.biz