



## DNSSEC in .at (and beyond)

Panel discussion "DNSSEC activities in Europe" DNSSEC workshop

Jun 25 2014 London, UK

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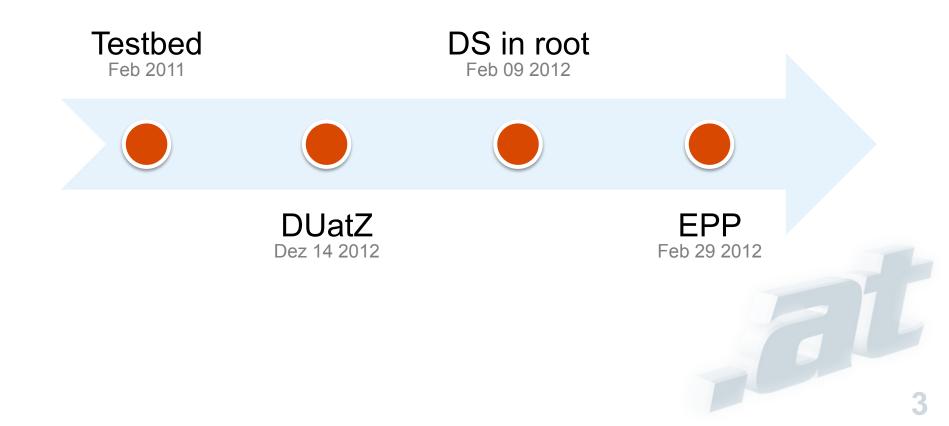
## **DNSSEC Services**

- ccTLD: .at
  - DNSSEC in production since Feb 2012
- Registry-in-a-Box: 7+ new gTLDs
  - DNSSEC mandatory
- RcodeZero Anycast DNS
  - Bump-in-the-wire signing





### .at Timeline







# PR "fallout"

- DS-record "handover" to IANA staff
  - In person during CENTR meeting Salzburg
- Press release with first DNSSEC customer
  - austria.at (tourism company)
- DNSSECCO ③
- 4 articles in newspapers and IT magazines







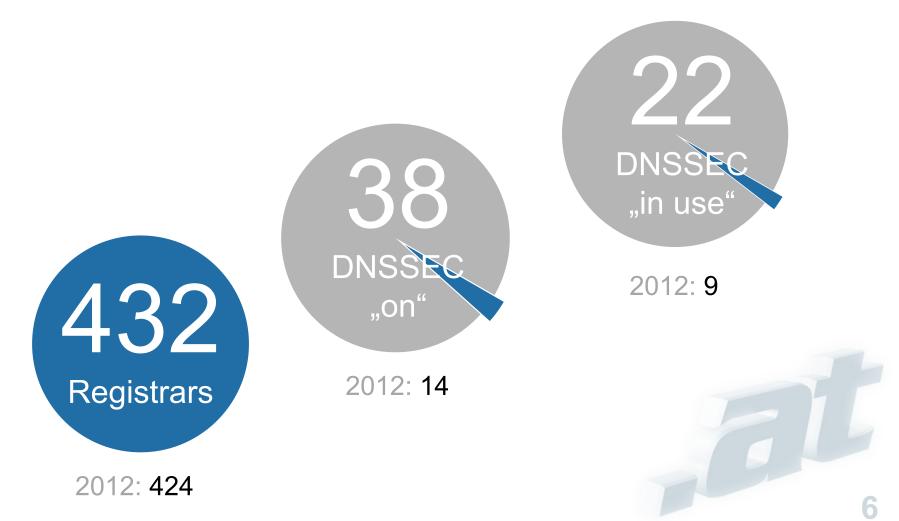


# .at Specifics (technical)

- Software: OpenDNSSEC
  - HSMs: Thales
  - 2 independent signing/validation chains
- Additional Emergency Key for TLDs
  - DS in the root (but not currently used for signing)
  - Completely independent Infrastructure
- Multiple "validation" mechanisms on the Zone
  - Prevent publication of broken/incomplete zone
- Pre-generated emergency zone
  - "now + one week" serial with today's contents
- EPP: Domain Transfer optionally removes DS
  - Unless gaining registrar has indicated to be DNSSEC aware

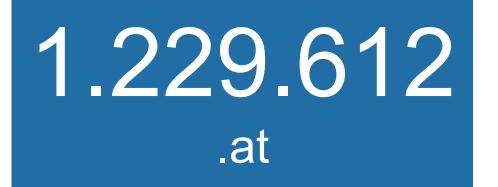


## Registrar Stats Jun 17 2014





## Domain Stats Jun 17 2014



**987**DNSSEC

2012: 57

2012: 1.146.176





# New gTLDs: Registry-in-a-Box

- Signing setup identical to .at
  - Separate Signing Chains
  - EPP: Transfer does never remove DS
- Figures:
  - TLDs delegated: 7
  - 2nd-Level domains signed: 2 (across all 7 TLDs)







## **RcodeZero Anycast DNS**

- Commercial Anycast service
  - Two services: TLD / Registrars
- Registrar-DNS DNSSEC
  - "Bump in the Wire" signing
  - Allows for full outsourcing of key management
  - Registry interaction remains with the Registrar
- Available since Q1/2014









## Thanks for your time!



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http://www.nic.at/en/service/technical\_information/dnssec/