DNSKEY Management

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ITSEC, EPFL, Prof. Janson

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Outline

Introduction

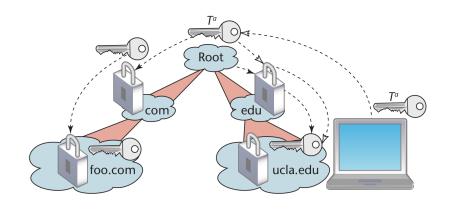
Current DNSSEC Deployment

DNSKEY Management

Case-Study: Switzerland

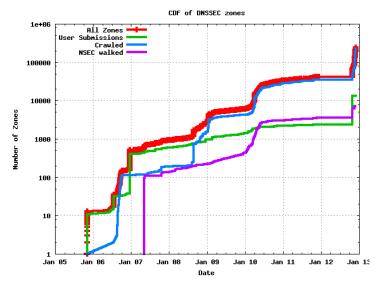
DNSSEC Chain of Trust

How are DNSKEYs verified?



DNSSEC Production Zones

How many DNSSEC zones are deployed?

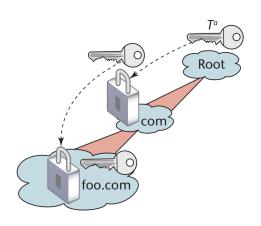


How many are properly signed?

Root Zone

- Signed July 15, 2010
- < 50% zones properly chained

- Stores trusted keys
- Orthogonal to DNSSEC key chain

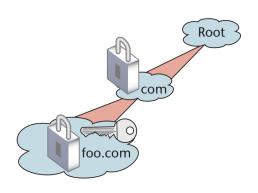


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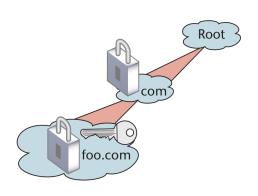


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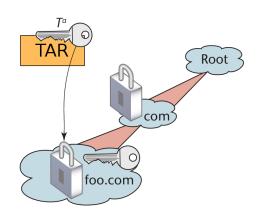


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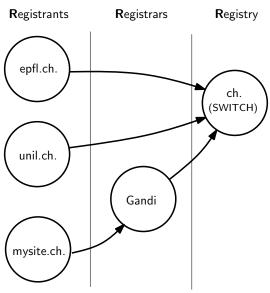
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The three Rs

Who's involved?



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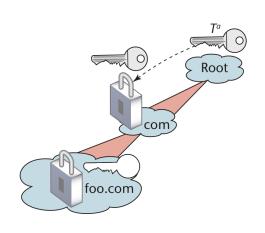
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- Generate key
- Parent signs key

Key Rollover

- Generate new key
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- Remove old key

Disable DNSSEC



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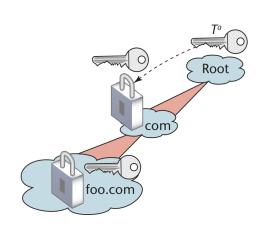
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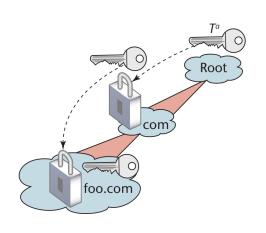
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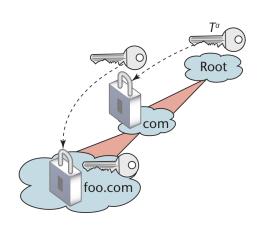
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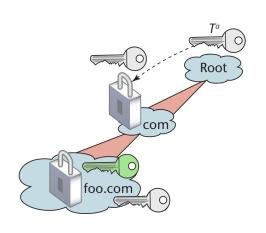
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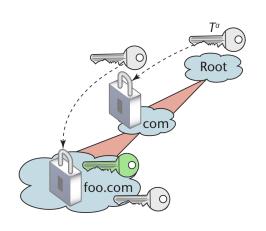
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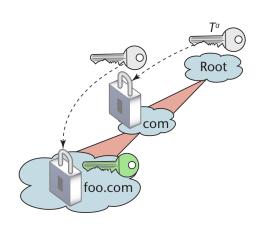
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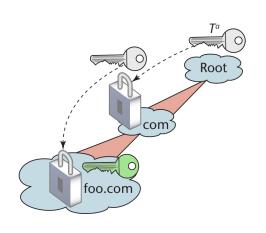
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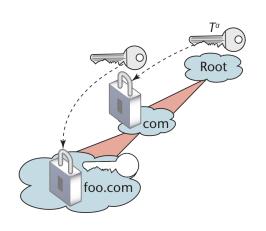
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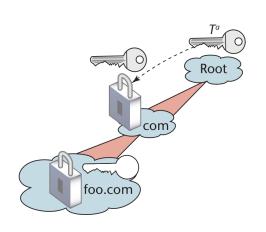
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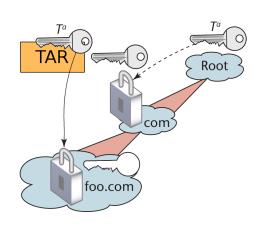
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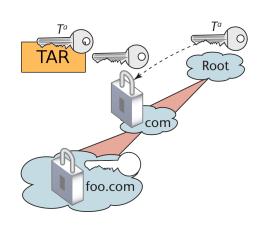
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Situation in Switzerland SWITCH

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- ch. zone securely delegated
- Very low penetration (370 / 1.7 mio.)
- DNSSEC for free

Key Management

- Enable/Disable keys in web-interface
- Partners (Registrars): EPP

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