

Deploying DNSSEC in .ORG

Implications for Internet Security and Stability

Results of the Registry Services Technical Evaluation Panel Review

ICANN DNSSEC Public Meeting

25 June 2008

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Agenda

- The Registry Services Technical Evaluation Panel
- The PIR proposal for DNSSEC in .ORG
- The RSTEP security and stability review
- PIR's plan for DNSSEC in .ORG

About RSTEP

Evaluate specific proposals for new gTLD registry services with respect to their potential impact on the security and stability of the Internet

- Registry service review process (<http://www.icann.org/registries/rsep/rsep.html>)
 - Registry operator uses on-line tool to submit proposal (<http://www.icann.org/tlds/agreements/org/proposed-org-amendment-23apr08.pdf>)
 - ICANN staff post the proposal for public comment and determine whether or not an RSTEP review is necessary (<http://www.icann.org/registries/rsep/#2008004>)
 - RSTEP review team evaluates the proposal and reports to the ICANN Board (<http://www.icann.org/registries/rsep/rstep-report-pir-dnssec-04jun08.pdf>)
 - Report is posted for public comment (<http://forum.icann.org/lists/pir-dnssec-proposal>)
 - Board decides whether or not to approve the proposal

The PIR Proposal

Introduce the security extensions specified in RFCs 4033, 4034, 4035, and 5155 (NSEC3 & opt-out) to the .ORG zone of the DNS

- Provide DS records for domains in the .ORG zone
- Make changes to the .ORG registry's EPP server to allow registrars to add, change, and remove DS records for their customers
- Show information in WHOIS about the DNSSEC status of domains registered in .ORG

The RSTEP Review

- Technical feasibility
 - the review team is satisfied that PIR could implement the service that they have proposed, in conformance with the relevant Internet standards
- Size and importance of .ORG
 - potential effect on a large user population
 - impact of ICANN's decision on DNSSEC deployment
- Unsigned root zone
 - PIR must distribute and support a trust anchor for .ORG
 - the unsigned root is not, on its own, a sufficient reason to delay or object to PIR's plans

The RSTEP Review

- Principal issues
 - rollover and compromise of the .ORG key signing key
 - consequences of mis-configuration
 - registrar participation and cooperation
 - deployment of major new technology
- Overall assessment
 - PIR's proposal "does create a reasonable risk of a meaningful adverse effect on security and stability, which can be effectively mitigated by policies, decisions, and actions to which PIR either has expressly committed in its proposal or could reasonably be required to commit."