21 April 2008

VIA EMAIL ONLY

Lyman Chapin
Chair, Registry Services Technical Evaluation Panel
Email: lyman@interisle.net

RE: Referral of Request for New Registry Service

Dear Lyman,

ICANN has received a proposal under the Registry Services Evaluation Policy from Public Interest
Registry (PIR) to implement DNS Security Extensions (DNSSEC) in .ORG.

On 18 April 2008, ICANN informed PIR of its preliminary determination to submit the Proposal to the
Registry Services Technical Evaluation Panel (RSTEP) for further evaluation. This is because the new
service may create a condition that potentially adversely affects the throughput, response time,
consistency or coherence of responses to Internet servers. PIR has confirmed that it intends to proceed
with the evaluation of the Proposal by the RSTEP. A copy of their response is attached.

Under Section 2.6 of the Policy, "in the event that ICANN reasonably determines during the 15 calendar
day 'preliminary determination' period that the proposed Registry Service might raise significant Security
or Stability issues, ICANN will refer the proposal to the Registry Services Technical Evaluation Panel." This
preliminary review has concluded that the community would benefit from a thorough analysis of the
Security and Stability issues raised by the implementation of DNSSEC in .ORG.

In order to assist the RSTEP in its evaluation, this letter provides background information on DNSSEC and
the PIR Proposal.

Background on DNSSEC

The DNSSEC specification is described in three RFCs published in March 2005:
   • RFC 4033 – DNS Security Introduction and Requirements
   • RFC 4034 – Resource Records for the DNS Security Extensions
   • RFC 4035 – Protocol Modifications for the DNS Security Extensions

There are additional relevant RFCs, including RFC 4310, RFC 4641, and RFC 5155.

In September 2005, Sweden's .SE became the first ccTLD to deploy DNSSEC (see
http://www.iis.se/domains/sednssec). DNSSEC has since been deployed in a number of other ccTLDs,
Bulgaria's .BG, and Brazil's .BR. While DNSSEC has been successfully deployed in ccTLDs, to date,
DNSSEC has not been deployed in any gTLD registry zone.

On 28 January 2008, ICANN's SSAC published SSAC 026, "SSAC Statement to ICANN and Community
on Deployment of DNSSEC" (see http://www.icann.org/committees/security/sac026.pdf). The paper notes
"gTLD registries should study business, technical and financial issues regarding DNSSEC deployment
with ICANN. During these studies, gTLD registries should identify policy and operational issues with
ICANN/IANA, establish a timeline for DNSSEC deployment with ICANN and discuss DNSSEC as an
element of gTLD registry agreements."

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Background on PIR's Proposal

On 2 August 2006, then-PIR CEO Ed Viltz wrote to ICANN "that PIR intends to implement DNSSEC in accordance with IETF standards. While PIR does not yet have a specific timeline, we are actively working to prepare our systems and procedures to provide this service." See http://www.icann.org/correspondence/viltz-to-dam-02aug06.pdf.

On 12 August 2006, Tina Dam (then-Chief gTLD Registry Liaison) replied to Viltz suggesting that PIR submit its request to ICANN through the Registry Services Evaluation Policy (see http://www.icann.org/correspondence/dam-to-viltz-14aug06.pdf).

PIR submitted its proposal to ICANN on 3 April 2008. This submission followed several months of informal discussion between PIR and ICANN staff on wording and questions regarding the implementation proposal.

The proposal includes a modification of the .ORG Registry Agreement to correct wording regarding the escrow of DNSSEC-related material once DNSSEC is implemented.

RSTEP Review

Upon referral of this Proposal to the RSTEP, PIR may submit to the RSTEP additional information or analyses regarding the likely effect of the Proposal on security and stability.

A copy of this referral and the relevant documents related to the PIR proposal will be posted for public comment on the ICANN website. Under the terms of the Policy, the RSTEP shall have 45 calendar days from the date of this letter, until Thursday, 5 June 2008, to prepare a written report regarding the Proposal's effect on security and stability, which report (and a summary of any public comments) will be provided to the ICANN Board. The report shall set forward the opinions of the RSTEP including, but not limited to, a detailed statement of the analysis, reasons and information upon which the panel has relied in reaching their conclusions.

Please let me know if I may be of further assistance.

Sincerely,

Patrick Jones
ICANN

Enclosures

cc: Kurt Pritz
        Craig Schwartz
        Daniel Halloran
        Richard Lamb