Progress report on Whois service requirement study

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Background: May 07 Council resolutions

Resolved,

- The GNSO Council requests that Policy Staff, with the assistance of technical staff and GNSO Council members as required, **collect and organize a comprehensive set of requirements for the Whois service policy tools**. These requirements should **reflect** not only the **known deficiencies** in the current service but should **include** any **possible requirements** that may be needed to support various policy initiatives that have been suggested in the past.

- The synthesis of requirements should be done in consultation with the SSAC, ALAC, GAC, the ccNSO and the GNSO and a **strawman proposal should be prepared** for these consultations. The Staff is asked to come back with an estimate of when this would be possible.

Goals

- To collect and organize a set of requirements for community consideration including
  - current service features identified as needing improvement
  - features to support various, past policy proposals
  - features recommended by ICANN SOs, ACs, community
- Prepare a strawman proposal for community consultations
  - GNSO, SSAC, ALAC, GAC, ccNSO and community at large

Current service requirements

- Compilation will include existing Whois requirements (RAA and registry agreements), e.g.,
  - Public query-based access to up-to-date WHOIS
  - Interactive web page for Whois query submission/display
  - Port 43 Whois service
  - Third-party bulk access
  - …

Past policy initiatives

- Compilation will consider past efforts to improve Whois, for example
  - AT&T Internic, 1993
  - VeriSign, RWHOIS, 1994
  - Whois++, 1995
  - IETF CRISP Working Group
    - Federated Internet Registry Service (FIRS)
    - The Internet Registry Information Service (IRIS)

Recommendations from community

- Compilation will consider recent recommendations from SOs, ACs, and community at large, including
  - GNSO
  - ALAC, GAC, CCNSO and SSAC
  - Joint Project Agreements and Affirmation of Commitments
  - Comments resulting from new TLD consultations

List is not exhaustive

Sample study areas to consider

- Quality of domain registration data
- Whois service uniformity
    - Standard formats for queries, responses and error codes
- Registration data completeness
    - Framework to assure that data are available to accommodate and enable policy implementation
- "Internationalize" Whois
    - Standards for submission and display of registration data using characters from local languages and scripts

Quality of registration data

- **Accuracy**
  - Do registration data provide correct contact information?
- **Authenticity**
  - Do registration data accurately identify the registrant?
- **Applicability**
  - Are the data useful or relevant to the user or querying application
- **Completeness**
  - Are the currently collected data sufficient?
- **Currency**
  - Are all of the collected registration data current?

Whois service Uniformity

- Whois services evolved from a protocol that only required text and a CRLF
  - Queries and responses are Whois application or service provider dependent
  - Syntactic, semantic and content differences exist
- Lack of uniformity inhibits usage and innovation
  - Variability makes it difficult to automate Whois processing
  - Even human interpretation of Whois can be challenging
  - Private and proxy registrations add level of indirection

Registration data completeness

- Assure that registration records include all the data necessary to implement service features that enate from policy development

- Data schema
  - Extensible
  - Protocol-agnostic
  - Accommodates automation

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Internationalized registration data

- No standard exists today for handling the submission and display of registration data from local languages and scripts

- Some Whois applications or services
  - May not support domain names in U-labels,
  - Cannot accept or display when characters from sets other than US-ASCII7 are used, and
  - Display in local encodings rather than Unicode, so terminals must be set to correct encodings beforehand.

Methodology

- Gathering service requirements from a review of past Whois work, or works where Whois service is relevant

- NOT gathering policy requirements, NOT recommending policy

  - Purpose of study is to assure that the data and supporting technology exist to enable policies developed via consensus policy process

Sources for inventory of requirements

- Data confidentiality and integrity (SSAC 027)
- Data schema (SSAC 033)
- "Quad-A" security framework (SSAC 033)
  - Authentication, Authorization, Auditing, Accuracy
- Thick Whois (new GTLD application guide book)
- Domain Whowas service (VeriSign, via RSEP)
- Multifactor authentication (VeriSign, via RSEP)
- Registrar Abuse PoC (Malicious conduct report)

Partial list

Project timeline

Nov 2009:

Continue to review and compile current Whois requirements and recommended policy proposals that have been discussed in the past

December 2009:

Complete strawman proposal

January 2010:

Consultation with all SOs/ACs, incorporate input

February 2010:

Draft report

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