

IETF WEIRDS Working Group

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The Need for a New Protocol

- WHOIS (RFC 3912) has never been internationalized
- WHOIS has no data framework
 - Every service you query could present certain data differently
 - No standard for expressing dates or phone numbers, for example

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The Need for a New Protocol

- WHOIS does not have capabilities to support differentiated access
 - All clients look the same
 - Difficult to give particular clients (law enforcement, security vendors) privileged access
 - “Privileged” might only mean faster responses or no rate limits

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IETF WEIRDS (Web Extensible Internet Registration Data Service)

- Chartered to:
 - Standardize a data framework
 - Deliver objects encapsulated in that framework over a RESTful service over HTTP
 - Generally use the requirements from CRISP (RFC 3707) as a guide
 - Produce a simple, easy-to-implement protocol, supporting internationalized registration data

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IETF WEIRDS (Web Extensible Internet Registration Data Service)

- Chartered to:
 - Include capability of differential service based on client authentication
 - Address the needs of both number and name registries



What is RESTful?

- REpresentational State Transfer
 - Uses HTTP (simple interface)
 - Stateless
 - Resources are represented by URIs
 - Can be layered
 - Cacheable

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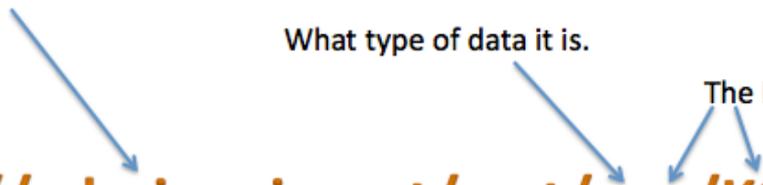


Where the data is.

What type of data it is.

The ID of the data.

<http://whois.arin.net/rest/poc/KOSTE-ARIN>



Running Code, Already?

- Number registries have running code
 - Some (e.g., ARIN) now receive more queries to RESTful service than to traditional port 43 WHOIS

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WG Status

- Working Group Chartered in April 2012
- Working on 5 core RFCs now
 - Use of RDAP over HTTP
 - Query format (a URI)
 - Query reply (JSON)
 - Security considerations
 - Redirects
- Scheduled to complete by December 2013



Process Overview

- WG comes to consensus on document content
- Document is assigned to a *shepherd*
 - Shepherd does a review, solicits outside reviews if needed, runs checklist
- Document referred to sponsoring *Area Director* for review
 - Unless revisions are needed, Area Director initiates IETF-wide Last Call, open for two weeks

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Process Overview

- On completion of Last Call, document is placed on an *IESG* Telechat (every two weeks)
 - IESG is a committee of the fifteen Area Directors
 - IESG may approve or request changes
- Once approved, document enters *RFC Editor* queue (3-6 weeks)
 - Final editing, last chance for changes
- RFC published

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Get Involved

- Next Meeting: IETF 85 -- November 4-9, Atlanta, GA
- <http://datatracker.ietf.org/wg/weirds>
 - Charter
 - Drafts
 - Contact information
 - Mailing list

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SAC 051: *SSAC Report on Domain Name WHOIS Terminology and Structure*

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ICANN



Current environment

- GNSO's WHOIS Service Requirements Report
 - List various requirements, e.g., discoverability, structured queries, standardized replies and error messages, internationalization, security elements
- Joint GNSO-SSAC IRD WG final report
 - Similar recommendation to replace WHOIS
- AoC's Whois Policy Review Team final report
 - Includes a few recommendations (e.g., recommendations 12 to 14) that imply the need to have a protocol that supports internationalized registration data

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Overview

- WHOIS is important for the Internet Community
- SSAC has produced several advisories related to WHOIS (SAC 027, SAC 033, SAC 051)
 - Specifically, SAC051 exposes issues related to taxonomy and problems with the WHOIS protocol
- ICANN Board has requested a roadmap to implement SAC 051 recommendations



Roadmap to Implement SAC 051



- **28 October 2011 Board Directs ICANN Staff to:**
- Produce, in consultation with the community, a roadmap for the coordination of the technical and policy discussions necessary to implement the recommendations outlined in SAC 051.
- Forward SAC 051 to ICANN's Advisory Committees and Supporting Organizations for their advice, if any, with regards to implementing the SSAC recommendations, and to forward SAC 051 to the Whois Review Team.
- **18 February 2012:** Draft roadmap posted for public comment
- **04 June 2012:** Revised Roadmap to Implement SAC 051 posted



SSAC Report on Domain Name WHOIS Terminology and Structure



1. Clarify the taxonomy associated with WHOIS
2. Make observations in light of the taxonomy
3. Offer a set of recommendations aimed at moving efforts at improving WHOIS



Observations



- No uniform data model that exists for domain name registration data
- The WHOIS protocol itself has no standard capacity for handling non-ASCII text
- Directory services do not satisfy legitimate needs for access to different granularities of data



SAC 051 Recommendations

The ICANN community should:

1. Adopt the terminology outlined in SAC051.
2. Evaluate and adopt a replacement domain name registration data access protocol that supports the query and display of Internationalized Domain Name Registration Data (DNRD) as well as addressing the relevant recommendations in SAC 003, SAC 027 and SAC 033.
3. Develop a uniform and standard framework for accessing DNRD that would provide mechanisms to define and implement a range of verification methods, credential services, and access control capabilities.



Revised Roadmap to Implement SAC 051

*Francisco Arias/Steve Sheng,
ICANN*

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Path Forward/ New Terminology

1. Small implementation assistance group to develop an updated proposal on terminology within a short deadline.



Path Forward/ New Terminology



2. Prepare a one-page summary of the recommended terminology to be shared within staff and stakeholders, through SO/AC chairpersons
3. Transition to the preferred terminology in documents over a period of time by incorporating them into working documents accompanied by definitions.

Path Forward/ Replacing WHOIS

- Promote participation of ccTLD and gTLD registries and registrars in the development of a protocol to replace WHOIS within the IETF
- Initiate a GNSO PDP with ccNSO, SSAC and ALAC participation to replace the WHOIS protocol

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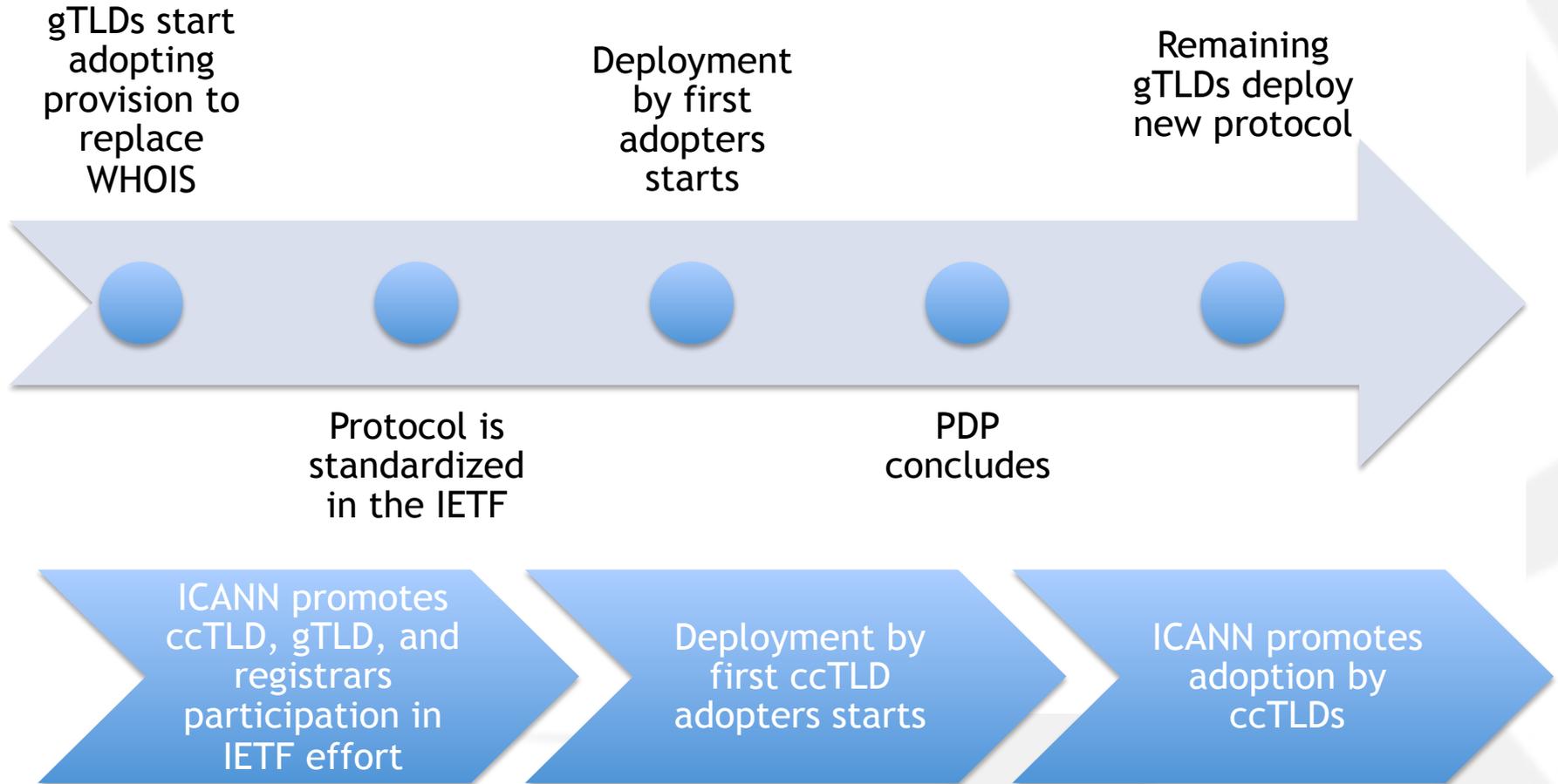
Path Forward/ Replacing WHOIS



- Negotiate the inclusion of provisions in gTLD registries and registrars' contracts, as appropriate
- Establish/contribute to a project to develop an open-source implementation of the new protocol
- Promote adoption of the WHOIS replacement protocol within ccTLDs



Roadmap to Implement SAC 051



Thank You



Questions

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