

# Replacing the WHOIS protocol

Tech Day - Boungainvillea room

12 March 2012, 16:40 - 16:55





# The Need to Replace WHOIS

# Problems with WHOIS protocol

Lack of:

1. Support for Internationalized Registration Data and IDNs
2. Standardized query, response and error messages/format.
3. Authentication & Access control mechanisms (tiered-access)
4. Mechanism to discover authoritative WHOIS servers



# An Appealing Solution

# RESTful Whois (RWS)

- Registries and registrars already offer web-based Whois
- Cheap and simple to implement
- Leverages existing infrastructure and expertise.
- Ubiquitous client for humans: web browser
- Uncountable number of implementations, libraries and tools for client and server

# Key properties of REST

## 1. Addressability

- Exposes an URI for each resource

## 2. Stateless

- There is no state keep in the server

## 3. Uniform interface (Safety & Idempotence)

- Uses standard HTTP interface

## 4. Connectedness

- Resources include links to other related resources



# RWS URI example

- Domain names:

- [/domain/example.test](#)

- [/domain/英雄.test](#)

- [/domain/xn--dj1az91b.test](#)

- [/domain/%E8%8B%B1%E9%9B%84.test](#)

- Contacts:

- [/contact/example123-TEST](#)

- Hosts:

- [/host/ns1.example.test](#)

# Alternative RWS URI example

- Domain names:

/domain/ <name>

/domain/ <name> /registration

/domain/ <name> /contacts

/domain/ <name> /contacts/ [registrant |  
admin | tech | billing]

/domain/ <name> /registrar/



# Alternative RWS URI example

- Contacts:

/contact/ <id>

/contact/ <id> /registration

/contact/ <id> /registrar

- Hosts:

/host/ <hostname>

/host/ <hostname> /registration

/host/ <hostname> /registrar

# Output format

- XML, JSON
  - To allow automated processing and almost unlimited transformation capability to other formats
- HTML / XHTML
  - For human consumption
- Text
  - Legacy WHOIS-like style for old tools that depend on it



# Current Developments at the IETF

# WEIRDS Process

- Worthwhile Extensible Internet Registry Data Service
- Broadly aligned with CRISP requirements (RFC 3707)
- REST based web service for easy implementability

# WEIRDS Process

- BOF in Taipei
- Strong agreement to do work on Internet numbers (RIRs)
- Skepticism expressed about work on domain names
- No agreement yet on proposed charters
- Another BOF in Paris

# WEIRDS Challenges

- 2 BoF is the maximum
- If no charter after Paris, no WG
- Little evidence of work on names
  - Numbers have more work done
- We have already been here before
  - CRISP/IRIS
  - RWhois
  - Whois++

# IETF culture

- Promises to do work are not valued
- No promises that anything will result
  - “*Rough consensus and running code*”
- Evidence of work in progress very valuable
  - “*Rough consensus and running code*”

**Work is officially done on the mailing list**

# Participate!

Those showing progress will find a more receptive IETF environment.

If you do the work, your work gets done.

<https://www.ietf.org/mailman/listinfo/weirds>





Thank You

# Draft Roadmap to Implement SAC 051

# 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 at: <http://tinyurl.com/SAC051>
- **15 March 2012:** Public Workshop “Replacement of WHOIS,” Boungainvillea Room, 1300-1400

# WHOIS Taxonomy

- Domain Name Registration Data (DNRD)
- Domain Name Registration Data Access Protocol (DNRD-AP)
- Domain Name Registration Data Directory Service (DNRD-DS)

# 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?
- Negotiate the inclusion of provisions in gTLD registries and registrars' contracts, as appropriate
- Promote adoption of the WHOIS replacement protocol within ccTLDs

# Next Steps

- Draft roadmap for public comment until 18-Mar, reply period ends on 8-Apr:  
<http://tinyurl.com/SAC051>
- It is envisioned to have a second version of the roadmap for public comment, depending on input received
- Roadmap will be finalized for Board and community action by Prague meeting in June 2012
- Public Workshop “Replacement of WHOIS,”  
Bougainvillea Room, Thursday, 1300-1400



Thank You