

WEIRDS

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What is WEIRDS?

- Web
- Extensible
- Internet
- Registration
- Data
- Service

What is WEIRDS?

- Replacement for WHOIS
- RESTful
- Structured, extensible data model
- Differentiated access
- Internationalised

WHOIS

Ken Harrenstien
Vic White
Network Information Center
SRI International

RFC-812
1 March 1982

NICNAME/WHOIS

INTRODUCTION

The NICNAME/WHOIS Server is an NCP/TCP transaction based query/response server, running on the SRI-NIC machine, that provides netwide directory service to ARPANET users. It is one of a series of ARPANET/Internet name services maintained by the Network Information Center (NIC) at SRI International on behalf of the Defense Communications Agency (DCA). The server is accessible across the ARPANET from user programs running on local hosts, and it delivers the full name, U.S. mailing address, telephone number, and network mailbox for ARPANET users.

WHOIS

- One of the oldest protocols still in use ('82)
- Lacks:
 - Privacy
 - Machine-readability
 - Discoverability
 - Internationalisation

IRIS

- Proposed as a replacement for WHOIS
- Overly complex
- Almost no deployment

WEIRDS

- IETF Working group chartered April 2012
- Keep It Simple!

WEIRDS is RESTful

- Uses HTTP (GET) as a transport protocol
- Reuses HTTP request semantics and response codes
- Everything is a URI
- Authentication, TLS
- Redirection
- Character encoding
- Response format negotiation
- IL8N

WEIRDS is RESTful

- Common URI patterns, eg
 - <http://www.example.com/ip/192.0.2.0/24>
 - <http://www.example.com/autnum/65551>
 - <http://www.example.com/domain/example.com>
 - <http://www.example.com/entity/contact-id>

Differentiated Access

- Authentication via HTTP authentication or certificate
 - Basic, rate-limited access for anonymous users
 - Access to more data for LIRs, registrars etc
 - Additional access for law enforcement, anti-abuse, etc

Structured Data

- JSON
- XML
- Plain Text
- Negotiated using “Accept” request header
- Extensible

Redirection

- IANA => RIR => LIR
- IANA => TLD => Registrar

Internationalisation

- Accept-Language
- Accept-Encoding

Prototypes

- ARIN RESTful whois (Whois-RWS)
- Verisign DNRD-AP

Timeline

November 2012	Common infrastructure RFC
February 2013	Numbers URL format RFC
March 2013	Numbers response format RFC
July 2013	Names URL format RFC
August 2013	Names response format RFC(s)

Challenges

- Solution to fit both names and numbers
- Avoid being too open
- Avoid being too closed
- Avoid embedding policy in protocol
 - e.g. gTLDs vs ccTLDs
- Usual IETF cat herding

Get Involved!

<http://tools.ietf.org/wg/weirds/>