Replacing WHOIS

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Long history of effort

- Various IETF efforts
  - RFC 1834, WHOIS++, 1995
  - RFC 2167, RWHOIS, 1997
  - RFC 3707, CRISP/IRIS, 2004
- SSAC has had a lot to say about WHOIS
  - SAC003, WHOIS recommendations, 2002
  - SAC027, WHOIS studies, 2008
  - SAC023, WHOIS source for spam, 2007
  - SAC051, WHOIS terminology, 2011

What's wrong with WHOIS?

- No standardisation of data:
  - What data should be represented in WHOIS
  - How the data is represented
  - Problems:
    - Hinders computer readability
    - Hinders comparisons of outputs
- No standardisation of protocol features
  - Advanced queries (e.g. registrar data)
  - Error messages

What's wrong with WHOIS?

- Internationalisation is missing:
  - Tell client character set of response
  - Allow client to specify character set
  - Support for non-US characters in gTLD WHOIS
  - Some ccTLDs have ways around this
    - . dk uses "--charset=latin-1" or "--charset=utf-8"
    - . no use "-c utf-8"
    - .jp uses "/e" to switch from ISO-2022-JP to ASCII
  - But these are not standard

What's wrong with WHOIS?

- Access control
  - IP address management is common
    - Rate limiting / block list / allow list
  - No standard notification of a block
- Authentication
  - Password access to bulk / sensitive data
  - Advanced search features
    - e.g. registrant name

Very different services

- 1. Public lookup of the "public register" details
  - WHOIS

- 2. Controlled access to public register with enhanced search facilities
  - Many offer as part of dispute process

- 3. Controlled access to public register for availability checks
  - Limited data needed here

- 4. Controlled access to "private register"
  - Law enforcement

Terminology

- **Domain Name Registration Data** (DNRD)
  - Data supplied by registrants
- **DNRD Directory Service** (DNRD-DS)
  - <u>Service</u> that WHOIS provides
- **DNRD-DS Data** (DNRD-DSD)
  - Data that WHOIS provides (subset of registration data)
- **DNRD Access Protocol** (DNRD-AP)
  - Technical protocol to access the service

Current work

- Internationalised Registration Data WG
  - Final report now out
  - Recommendations:
    - ICANN community to define DNRD (data)
    - GNSO/SSAC to discuss common language/script?
    - ICANN community to redefine DNRD-AP (WHOIS)
- IETF WEIRDS
  - Looking at replacing DNRD-AP
  - Very much driven by RIR experience

Any questions?

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