Net::RDAP::Server::EPPBackend

A simple way to deploy RDAP

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ICANN83, Prague
09 June 2025

Background

- The process of “smoke testing” (i.e., testing functionality) the Registry System Testing (RST) v2.0 for gTLD service required creating a variety of tools to build test harnesses that can be broken in specific ways. For example, to trigger RST error codes:
  - An EPP server that passes 100% of the test cases, except for the domain <info> test, where it omits a single element;
  - A DNSSEC signer that performs a ZSK rollover every 60 seconds;
  - An RDAP server which gives different answers over IPv4 vs IPv6.
- A few of these tools may be useful to others.
- **Net::RDAP::Server::EPPBackend** is one of them.

- For more information about the RST v2.0 service, visit:

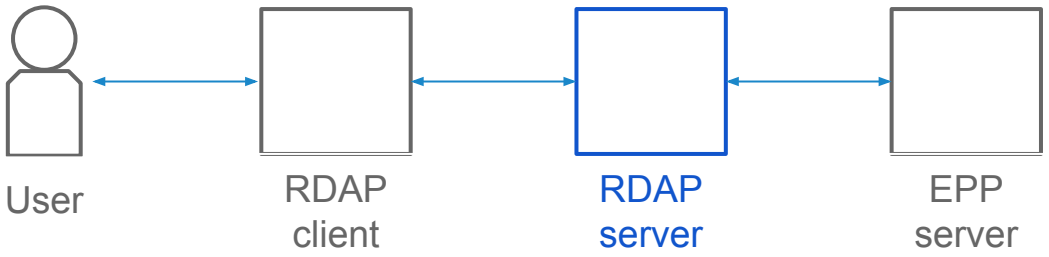
  https://icann.org/resources/registry-system-testing-v2.0/
- The RST v2.0 service has an OT&E environment; anyone who wants to can have access.

Background (ctd)

- I am a lifelong Perl hacker and have maintained several domain-related Perl modules for many years:
  - EPP:
    - Net::EPP
    - Net::EPP::Server
    - App::pepper (CLI EPP client)
  - RDAP:
    - Net::RDAP
    - Net::RDAP::Server
    - App::rdapper (CLI RDAP client)

Net::RDAP::Server::EPPBackend

- `Net::RDAP::Server::EPPBackend` answers RDAP queries by talking to an EPP server and performing `<info>` commands.



- Example: an RDAP `GET /domain/example.com` request causes the server to do an `<info>` command on `example.com`. The response is converted to RDAP and sent back to the client.
- The RDAP server maintains a persistent connection to the EPP server, which is authenticated by username/password and optionally, TLS certificate.
  - The client needs to be authorized to access domain, host and contact objects in the EPP server.
- It is a submodule of `Net::RDAP::Server` and is included in the `Net-RDAP` distribution, which also includes a `Dockerfile` and a `compose.yml`.
- To use it, write a YAML config file and run `docker compose up`.

Potential Uses

- Any registry with an EPP server can deploy RDAP without writing any code!
- Rapid prototyping
- Running a pilot to gauge interest in RDAP vs WHOIS
- Bootstrapping a production system (in a Perl shop)
- Testing RDAP clients

Demo

How To Get It

- Install it using `cpanm`:
  - `cpanm Net::RDAP::Server`
- Then run:
  - `epp-rdap.pl –config=CONFIG.YML`

- or -

- Clone the git repository:
  - `git clone git@github.com:gbxyz/p5-net-rdap-server.git`
- Then run:
  - `docker compose up`

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