



How It Works: ROW Topics

November 2016

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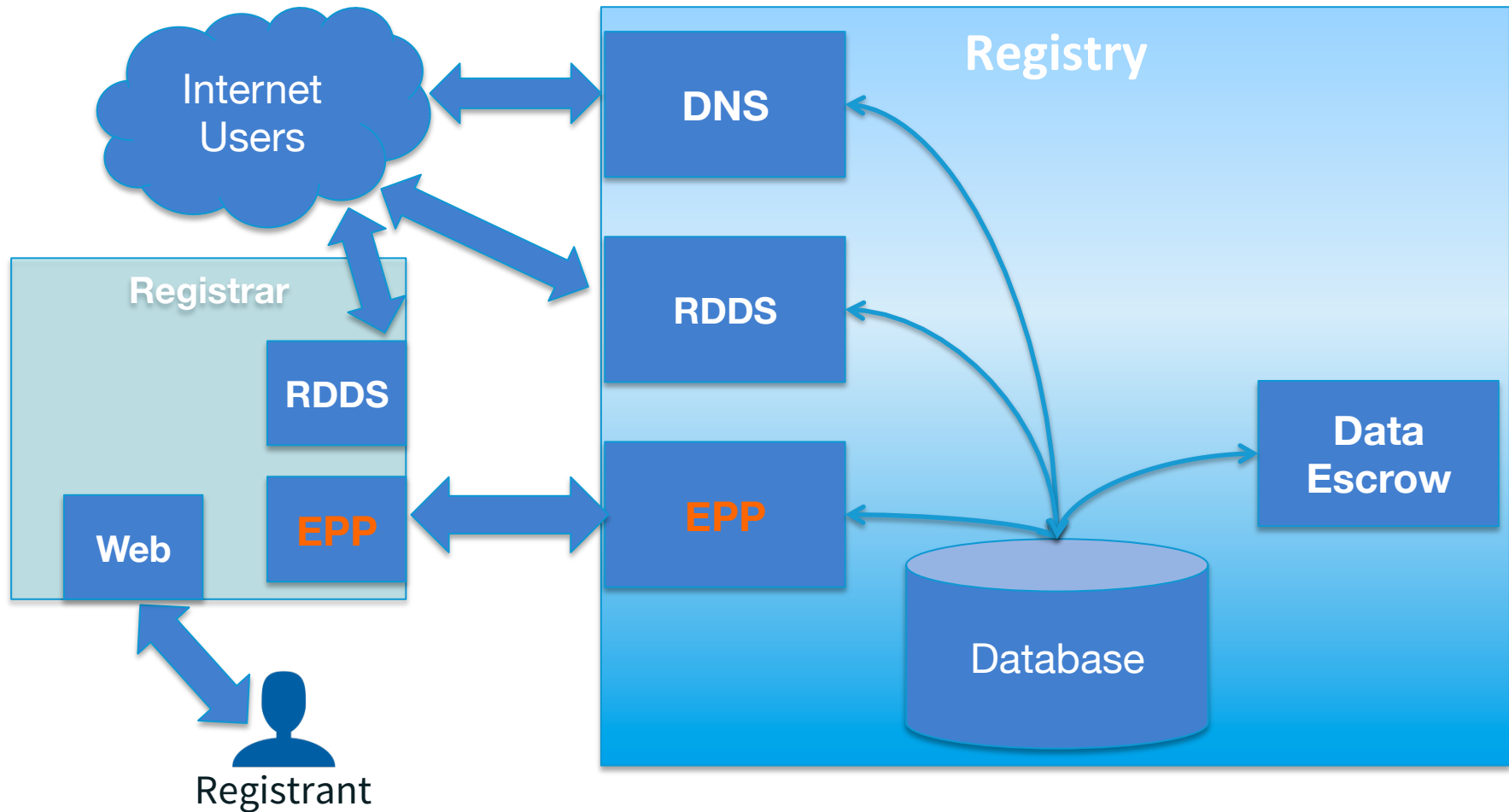
Registration Data Access Protocol

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Q & A

Extensible Provisioning Protocol

Registry-Registrar Functions



What is Extensible Provisioning Protocol (EPP)?

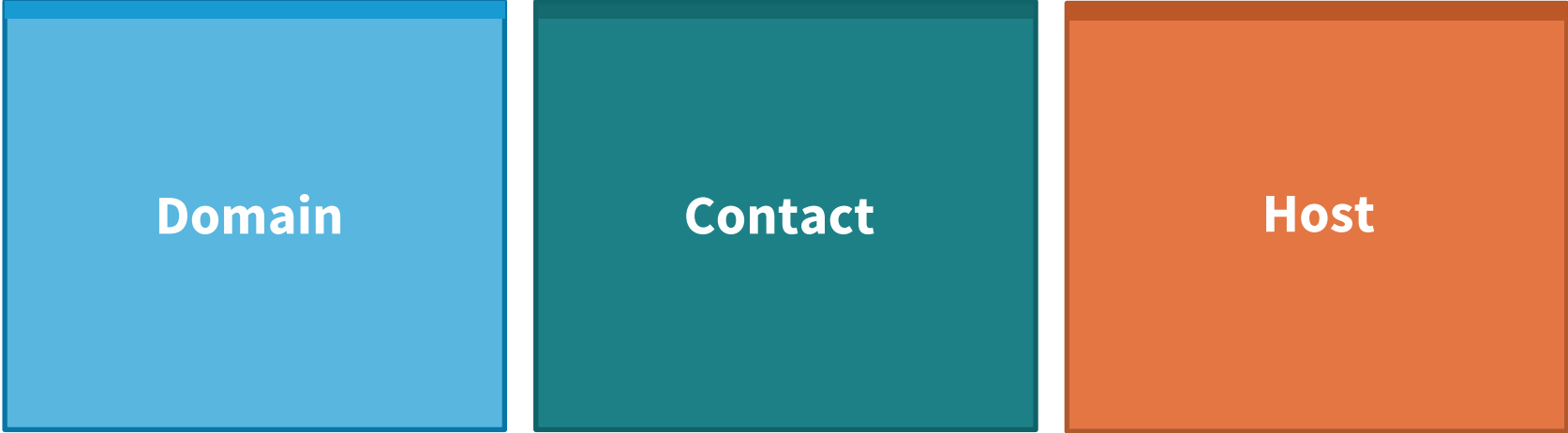
- ⦿ Designed to manage (create, renew, update, transfer, delete, review) domain names and related objects (e.g. hosts, contacts) in registries.
- ⦿ Allows registrars to manage domains names with registries.
- ⦿ Is the standard for communications between domain registries and registrars.

The Protocol

- ⦿ Uses eXtensible Markup Language (XML), a structured, text-based format used in IT industry.
- ⦿ Requires use of Transport Layer Security (TLS) protocol in order to provide integrity, confidentiality and mutual, strong client-server authentication.
- ⦿ March 2004: RFC (3730 - 3734) published.
- ⦿ May 2007: Updated suite (RFCs 4930 - 4934) published.
- ⦿ August 2009: Final, current suite (RFCs 5730 - 5734) published.

Type of Objects

EPP supports the following main objects:



Domain

Contact

Host

EPP Commands

- ⦿ Session Management Commands
 - Login
 - Logout
- ⦿ Query Commands
 - Check
 - Info
 - Poll
 - Transfer
- ⦿ Transform Commands
 - Create
 - Delete
 - Renew
 - Transfer
 - Update

Example

Example <info> command for domain “example.com”:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <command>
    <info>
      <domain:info
        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
        <domain:name hosts="all">example.com</domain:name>
      </domain:info>
    </info>
    <clTRID>ABC-12345</clTRID>
  </command>
</epp>
```

Extensibility of EPP

- ⦿ Extensible protocol, allows Registries to define their own extensions in order to support different business models.
- ⦿ The REGEXT Working Group in IETF coordinates development of EPP extensions.
- ⦿ IANA registry of EPP extensions:
 - ⦿ <http://www.iana.org/assignments/epp-extensions/epp-extensions.xhtml>

Who Uses EPP?

- ⦿ All gTLDs
- ⦿ Several ccTLDs:
 - .ac, .ag, .at, .au, .be, .br, .bz, .ca, .cc, .ch, .cl, .cn, .co, .cr, .cz, .cx, .cz, .dk, .es (over HTTPS), .eu, .fi, .fm, .fr, .gr (over HTTPS), .gs, .hn, .ht, .im, .in, .io, .it (over HTTPS), .ke, .ki, .kz, .la, .lc, .li, .lt, .lu, .lv, .md, .me, .mk, .mn, .ms, .mu, .mx, .na, .nf, .ng, .nl, .no, .nu, .nz, .org, .pe, .pk, .pl (over HTTPS), .ps, .pt, .ru, .ro, .sc, .se, .sh, .si, .su, .tl, .tm, .tv, .tw, .uk, .us, .vc, .ve and .za
- ⦿ ENUM registries such as those operating the +31, +41, +43, +44 and +48 country codes.
- ⦿ RIRs:
 - LACNIC