



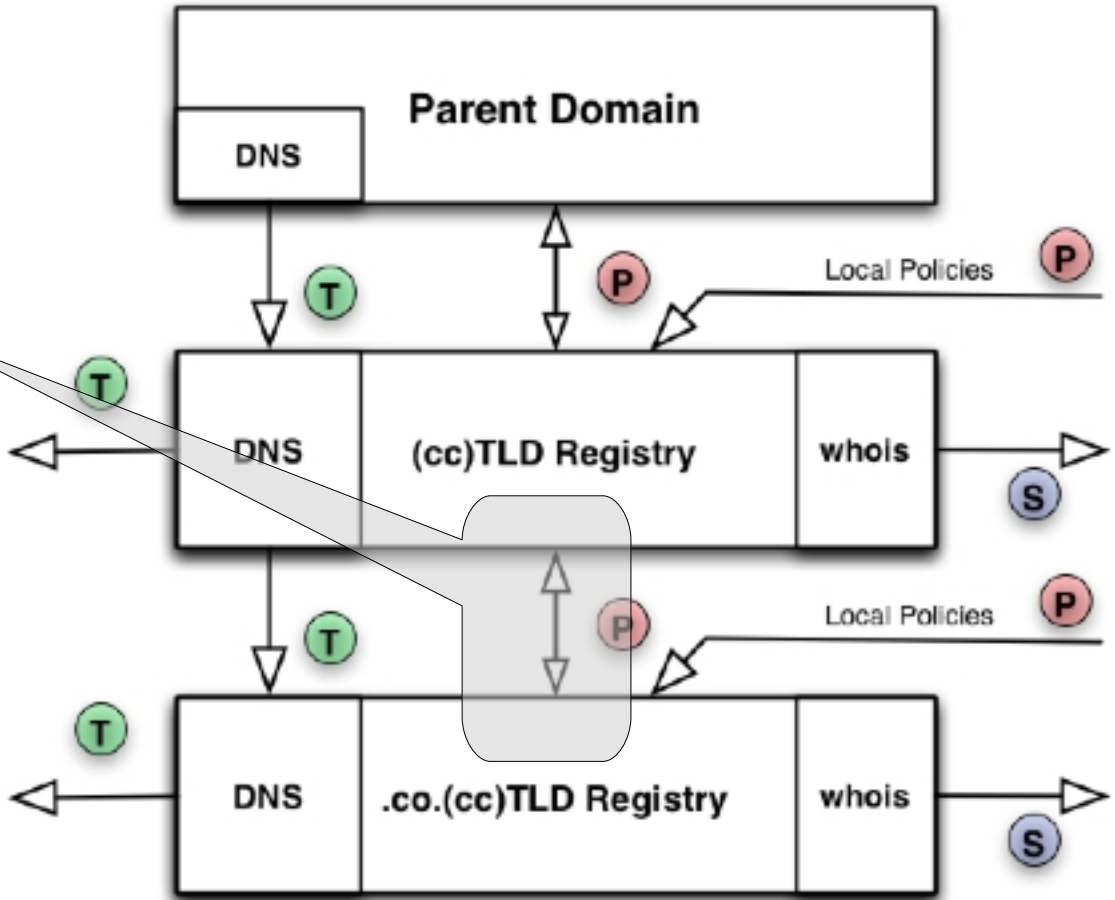
EPP Overview

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Summary

- Why EPP?
- What is it?
- XML
- The parts
- Registration Model Nameservers
- Extensions
- Implementations

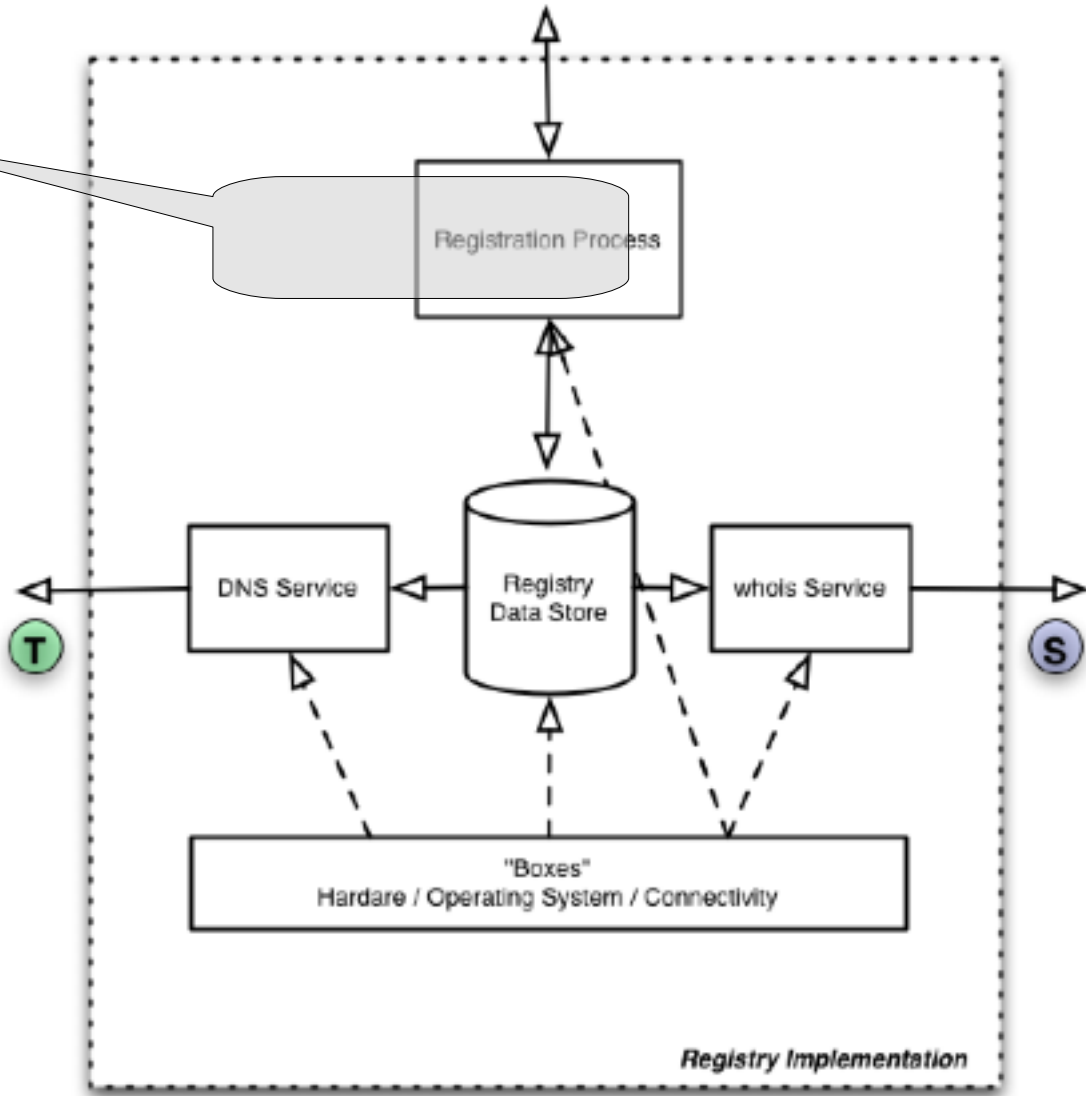
EPP



1000100101001010110000001011100001000000111110001
110101110010101110110010110011001011110110001
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11011011011101111011011
1000101100101001011001
010001110010010001
0111011011
1100110001
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11111
1111

Client: Registrar / Registrant

EPP



Before EPP

- Multiple (gTLD) domains
 - arpa, com, net, org
 - ccTLDs not a marketing force
- One Registry, one registrar
 - Network Solution
- Monopoly to be squished by ICANN
 - horizontally
 - vertically

Protocols in use

- Original Email templates
 - Ad variations there off
- For vertical integration:
 - RRP Protocol
 - Original proprietary protocol
 - Informational RFC 2832 for version 1.10
 - documents lots of short comings
 - No peer review
 - Not a standard

Complications

- Rise of ccTLDs
- Addition of (g)TLDs
- More players, more ways of communication channels
 - NxM is a bad idea
- Open and Transparant processes desired
 - ICANN required IETF standard to be used for new registries

Design Phase

- Functionality of protocol
 - Registration ???
 - Policy free
 - Whois ???
 - External view on internal database
 - Publication policy
- BOF: 49th IETF San Diego, CA
- PROVREG-WG: 50th IETF Minneapolis

Functionality Defined

- Registration protocol only
- No public whois like features
 - Separate issue: CRISP-WG
- Requirements document September 2002
 - RFC 3375
- Proposed Standard March 2004
 - RFC 3730-3734
- Informational 3735

WG Closed

- Lingered a long time (3Qt 2005)
 - Waiting on normative refs
- Protocol implementations starting to catch-up
 - Implementations towards old drafts
- Maillist still active
- Extensions got published
- Draft Standards May 2007
 - Not a WG effort

RFC 4930: Basic of EPP

- RFC 4930 Protocol
 - Protocol State Machine
 - Independent of transport
 - Protocol extension framework
 - See also RFC 3735
 - Objects identification
 - Protocol Commands
 - Session management (login, logout)
 - Query commands (check, info, poll, transfer)
 - Transform Commands (create, delete, update etc.)

493 I: Domain Mapping

- EPP command syntax & semantics applied to domain names
- Details of <create>, <delete> etc.
- Scope of commands
 - Allow mechanism for “Offline Checking” for out of band review
- Name Server description
 - Attribute of domain or separate object?

4932: Host mapping

- EPP command syntax & semantics applied to Host names
- Again, allows out of band review

4933: Contact Mapping

- EPP command syntax & semantics applied to contacts
- Social data
 - Email, telephone etc
 - Authorization info
 - disclosure policy (privacy)
- Again, offline review possible

4934: TCP Transport

- Session management
- Message exchange
- TLS is a MUST
- IANA assigned port 700
 - 3121 was for development & testing

Implementation Notes

- XML parsing
 - generic parsing
 - maybe slow
 - flexible, more graceful error processing
 - special parser
 - faster
 - rigid
- EPP prefers UTF-8 encoding

EPP Extensions

- Extra policy by registry
 - Different RR model
- Special extra contact mappings
 - Dns.be, EurID

Extensions Guidelines

- RFC 3735
 - Guidelines for Extending EPP
 - all extensions in XML
 - how to maintain backwards compatibility
 - identifying extensions
 - documenting them ...
- Mail list still active
 - To subscribe: ietf-provreg-request@cafax.se
 - Quick response time

Extensions RFCs

- RFC 3915 Grace Period Mapping
 - extends <update>
 - Adds <restore> command
 - extends <info> responses
 - Adds <restore> command
 - Adds various status indicators to response
- RFC 4114 E.164 (Enum) Mapping
 - Adds elements to Domain Mapping
- RFC 4310 DNSSEC Mapping

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(067, 3F, ?)