

Domain name registration services and the .govt.nz 2LD

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Audience

- People responsible for :
 - registering new domains
 - name servers
 - changes to DNS records

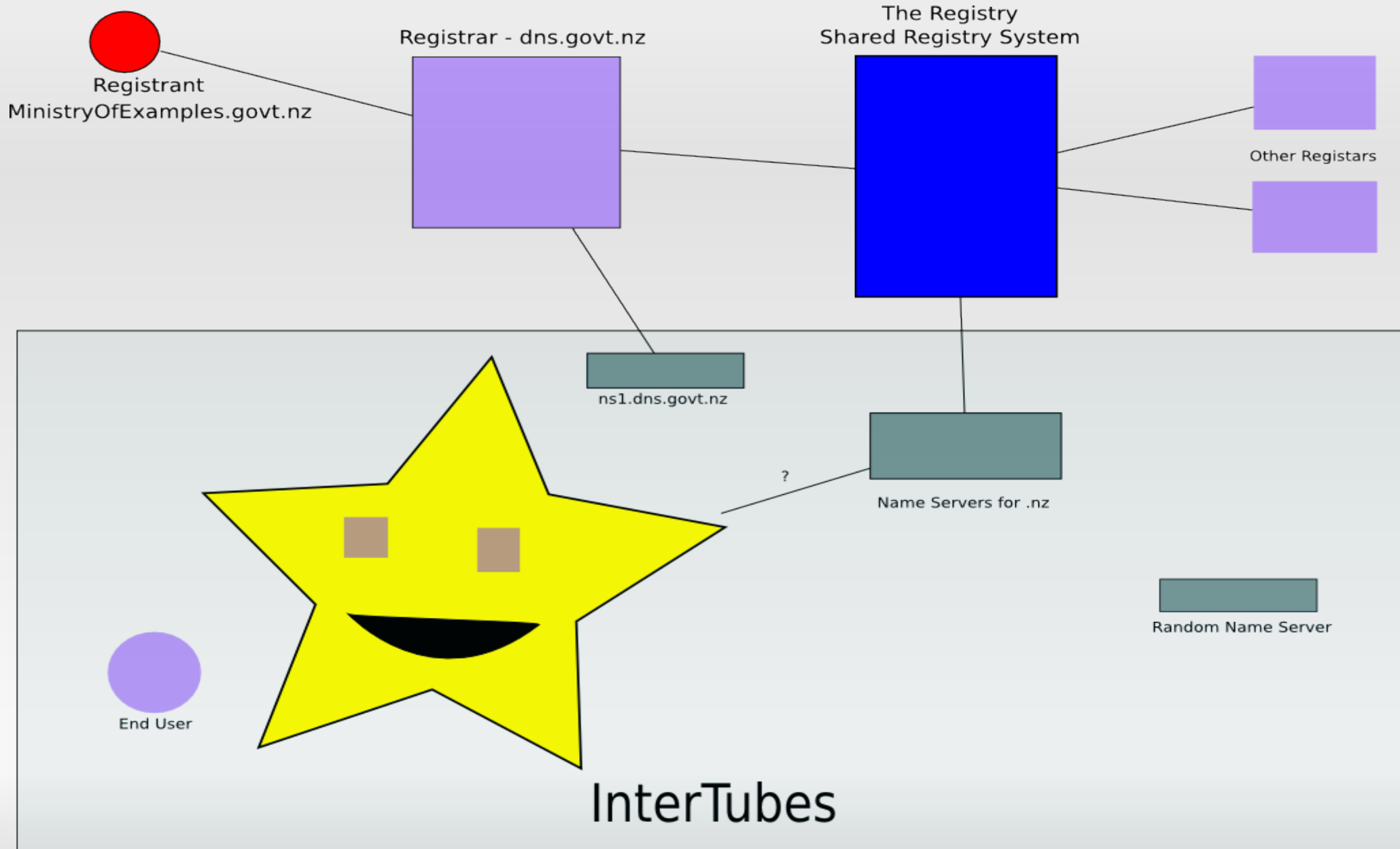
Part 1

DNS Registration in .nz

The Three Rs

- Registrant, the customer who pays for their domain name
- Registrar, the business that registers domain names for customers
- Registry, the system that holds details of all domains

Crayon Drawing of Registration



Second Level Domains in .nz

- Open Registration
 - .co.nz
 - .net.nz
 - .gen.nz
 - .org.nz
 - .geek.nz
 - .ac.nz
 - .school.nz
 - .maori.nz
- Moderated
 - govt.nz
 - iwi.nz
 - cri.nz
 - mil.nz
 - parliament.nz

The .govt.nz 2LD

- Solely operated by State Services Commission
- No billing from Registrar to Registrant
- Moderation policy in place
- Offers name servers, but not required

Requesting a .govt.nz domain

- Agency requests domain from www.dns.govt.nz
- Central or Local government moderator will review name and advise

Limitations of .govt.nz

- New domains may be declined due to moderation
- Transfers to other registrars are not possible
- Basic name server offering

Internationalised Domains

- IDN domains allow Unicode characters
- Māori names require macrons
- Works with existing name servers
- Requires support in web-browser
- No support in .nz yet – NZOC is seeking advice for implementation

Part 2

Running a Name Server

Security for domains: DNSSEC

- Why?
 - Answers to domain queries can be faked by monkey-in-the-middle attack
 - Cache poisoning
- Why not?
 - Complex to implement
 - Makes zone data public

When Making Changes

- Prepare by lowering Time-To-Live (TTL)
- Change the serial number
- Check for variants
 - With and without www
 - Other domains or TLDs
- Check services are running on new host

Basic Troubleshooting: 1

- Cached? Check the TTL

- dig +short dns.govt.nz @alien.xtra.co.nz
;; ANSWER SECTION:
dns.govt.nz. 7174 IN A 203.163.70.162

- Nameservers in sync? Check SOA

- dig +short soa dns.govt.nz @ns1.dns.govt.nz
ns1.dns.govt.nz. hostmaster.dns.govt.nz. 1166585702 28800 7200
2419200 7200
 - dig +short soa dns.govt.nz @ns2.dns.govt.nz
ns1.dns.govt.nz. hostmaster.dns.govt.nz. 1166585701 28800 7200
2419200 7200

Basic Troubleshooting: 2

- Accidental Round-robin?

- dig +short www.dns.govt.nz
203.163.70.162
202.160.116.34

- Stale Delegation? Check root nameserver

- dig ns dns.govt.nz @ns1.dns.net.nz
;; AUTHORITY SECTION:
dns.govt.nz. 86400 IN NS ns2.dns.govt.nz.
dns.govt.nz. 86400 IN NS ns1.dns.govt.nz.

More information

- www.dns.govt.nz
- www.dnc.org.nz
- www.nzrs.net.nz

- www.dnsreport.com

- DNS Security: RFC3833

- sam@onesquared.net

Questions

Query?