



Canadian Internet
Registration Authority

Autorité canadienne pour
les enregistrements Internet



CIRA Registry/DNS Overview

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Canadian Internet Registration Authority

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www.cira.ca | www.acei.ca

Ancient History

- ▶ CA delegated to John Demco at UBC in May 1987, managed by John and network of volunteers
- ▶ First domain registered January 12 1988
- ▶ CIRA incorporated December 1998
- ▶ Official handover of delegation December 1, 2000
- ▶ CIRA started with approximately 60,000 domains
- ▶ April 2008 reached 1 million active domains

60 Second Registry Overview

- ▶ Not-for-profit
 - ▶ Not government, not exactly private sector either
 - ▶ Board of Directors elected by Members
 - ▶ Members are a self-selected subset of domain Registrants
- ▶ Managing public resource on behalf of Canadians
 - ▶ restricted registration policies: registrants must be legally connected to Canada somehow

60 Second Registry Overview

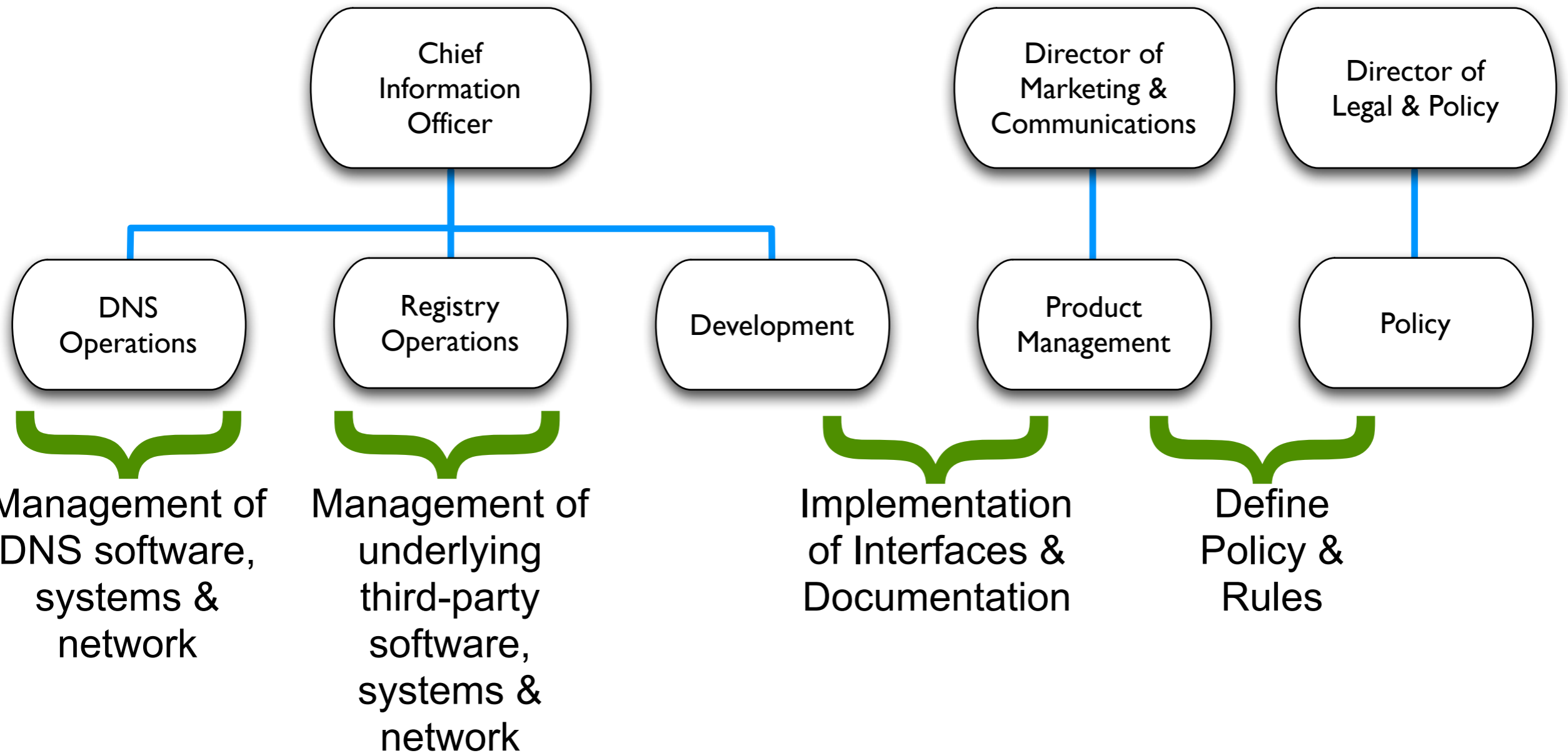
▶ Thick Registry

- ▶ CIRA holds all registrant information and domain information (except financial)

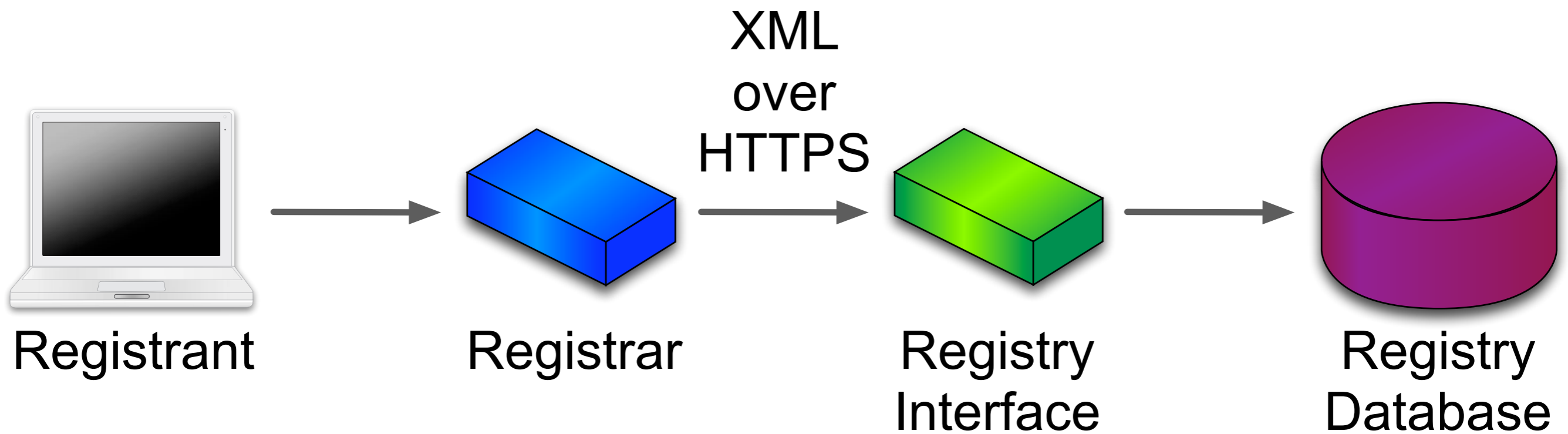
▶ Registrar Model

- ▶ certified Registrars use a custom interface at the Registry to register domains to Registrants

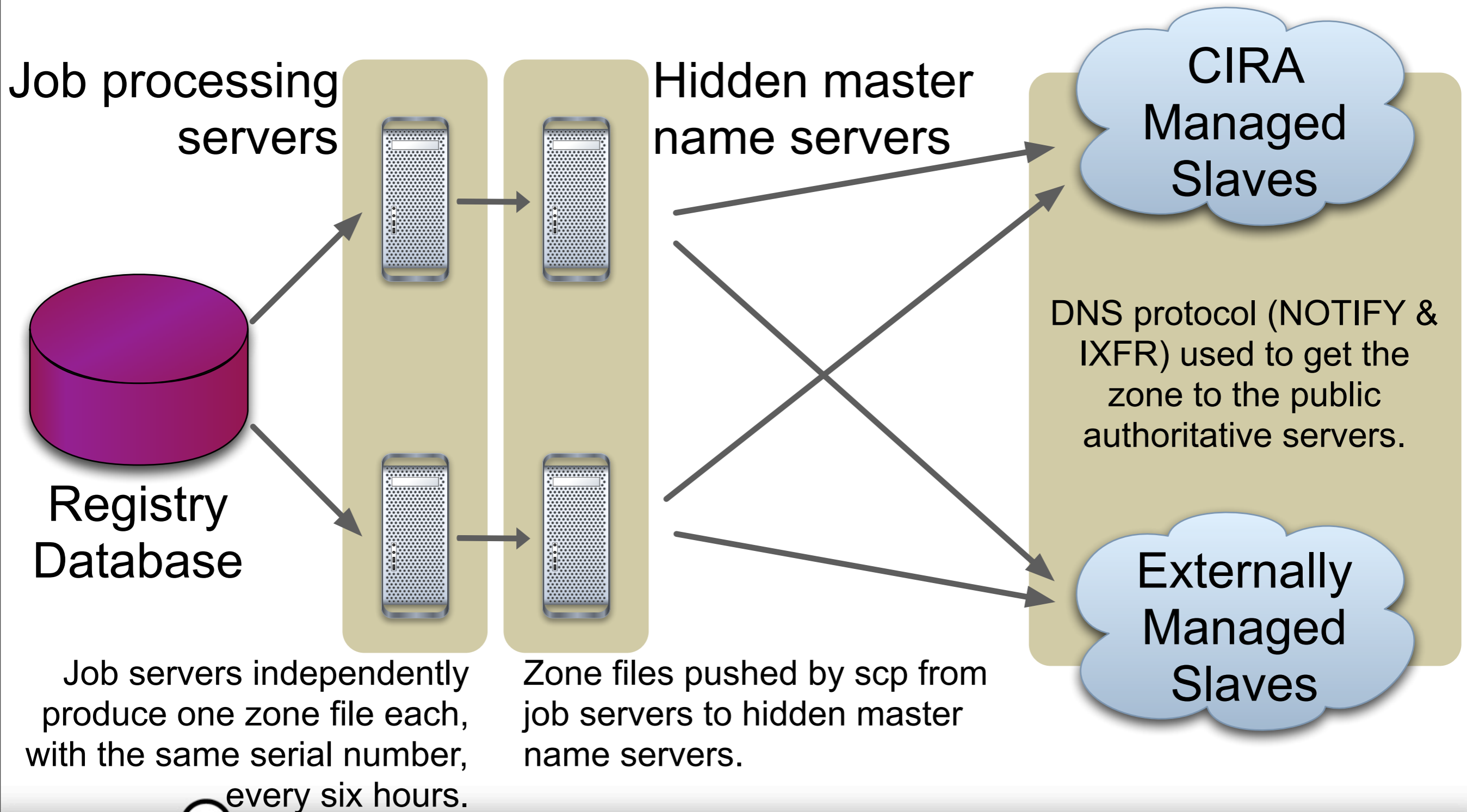
Policy & Implementation



Getting Data from Registrants



Getting Data to the DNS



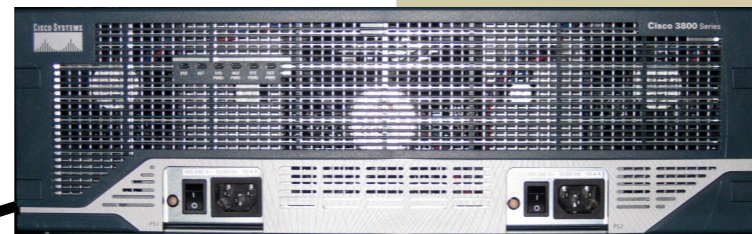
DNS Site Architecture

```
ip sla monitor 1
type dns target-addr www.ca name-server 192.228.28.244
timeout 2000
frequency 1
ip sla monitor schedule 1 life forever start-time now

track 1 rtr 1

ip route 192.0.2.253 255.255.255.255 192.0.2.10 track 1
```

Public name server
192.0.2.253



Subnet 192.0.2.0/28

Static routes for
.253 to .10 and .11

ns01
lo1: 192.0.2.253
eth0: 192.0.2.10

ns02
lo1: 192.0.2.253
eth0: 192.0.2.11

collector
eth0: 192.0.2.12

Monitor port sees traffic
of all DNS servers.

Future Plans

▶ Tracking “key” Delegations

- ▶ Watch the NS records we’re publishing for important domains, alert on changes
- ▶ e.g. gc.ca, telco/cable co. domains
- ▶ “Did you really mean to change that?”

▶ DNSSEC

- ▶ Hoping for a signed delegation from the root by the spring
- ▶ Start with a limited trial accepting keys from a few registrants, by invitation
- ▶ Possible production rollout fall of 2009, if everything goes perfectly

Questions?