



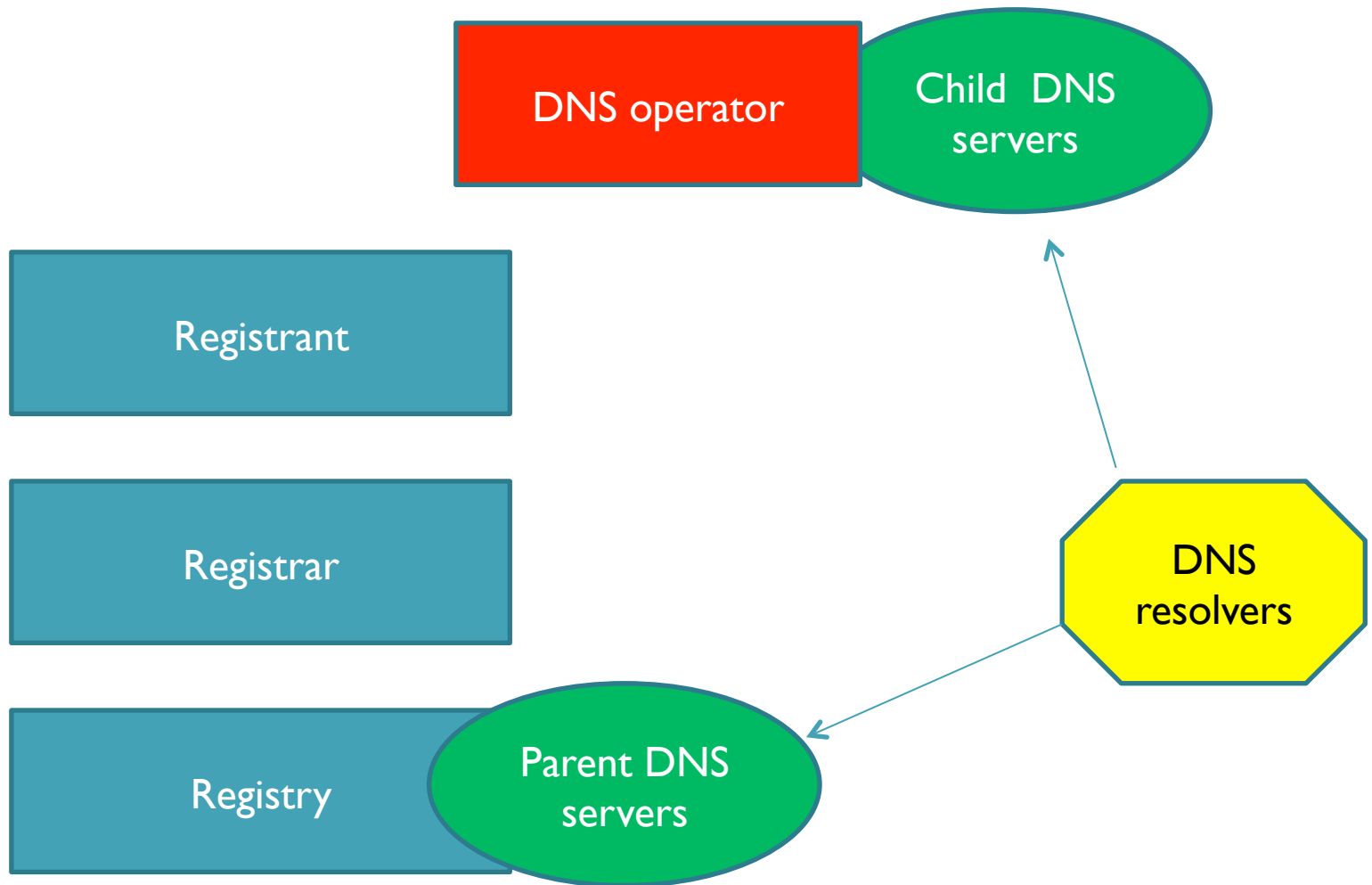
Improving DNS contents in the RRR world

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DNS view of the RRR world



Relationship combinations: DNS information flow

- Registrant operates DNS
 - Uses registration interface to change DNS information.
- Registrar operates DNS
 - Registrar updates Registry directly
- External party operates DNS
 - DNS operator asks registrant to make changes
 - (DNS operator never has access to registrant's account)

Current Situation: Observed problems

- External DNS operator has hard time to change DNS records (NS and DS) in registry.
- Technical Consequences:
 - Moving name servers is hard
 - Name server list goes partially stale
 - Each name server may have many names
 - DNSSEC Key change fails

Contacts vs Roles vs Accounts

- ICANN registration requires 3 contacts, administrative, technical, billing
- Commonly for each registration there is one account at registration → anyone with access to account can do everything, update, pay, transfer etc.

Administrative Solution: Sub accounts

- The ability to delegate roles to other accounts
 - DNS operator is technical → update DNS
 - Billing is gets bills → can pay bills
 - Administrative can perform all operations,
 - only one able to do **transfer**

Technical Alternative:

Registrar automates upload of DNS information

- With DNSSEC the contents of NS and DNSKEY sets can be authenticated and used for updated registry information
 - NS + RRSIG(NS) → NS in registry
 - DNSKEY + RRSIG(DNSKEY) → DS in registry
 - Possible: CDS + RRSIG(DNSKEY) → DS in registry
- **Registrars** can ***either*** perform this on schedule or when **Registrant or DNS Operator** requests via automated registration interface



Thank you