DNS Exchange

Like an Internet Exchange, but for DNS…

Warren Kumari

Goal

- "A globally distributed, loosely coherent, scalable, reliable, dynamic database" - make it more distributed, more scalable, more reliable.
- Increase performance / decrease latency
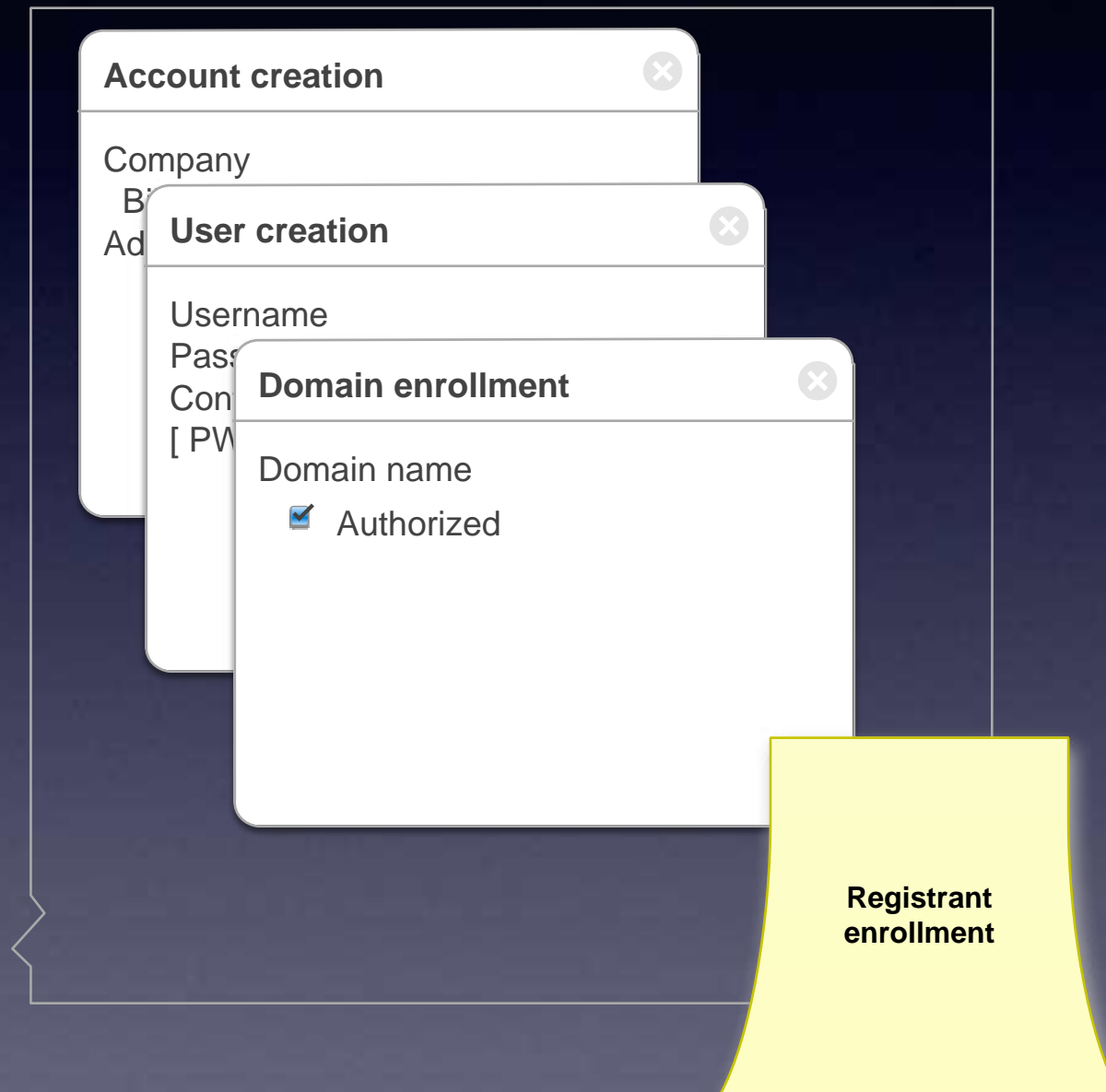- DoS Protection
- Decrease traffic

Overview

- Federation
- People with zone files enroll in system, make zones available via AXFR/IXFR.
  - System fetches zones from them
- Resolvers enroll in system
  - Select the zones they want (or all)
  - Slae zones from the system

Operation

- Zone gets updated, send notify to DNS Exchange
- DNS Exchange transfers zone

- DNS Exchange sends notify to subscribed resolvers
- Resolvers transfer zone from DNS Exchange
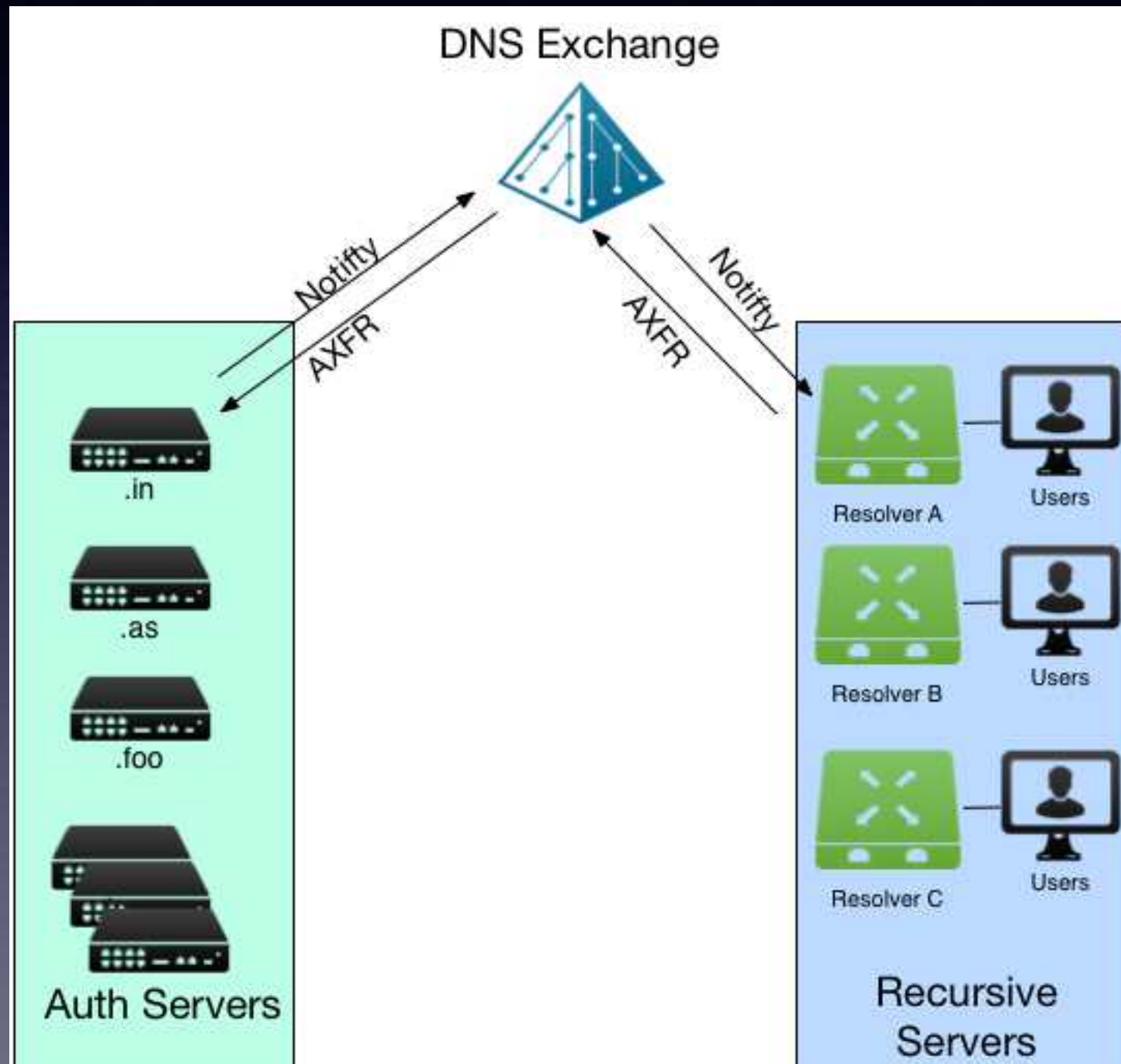- No muss, no fuss...

Account setup

Account creation

Company
  B
Ad

User creation

Username
Pass
Con
[PW

Domain enrollment

Domain name
  ☑ Authorized

Registrant enrollment

5

Selecting domains to slave

Logic

Master config

```
// acme.bar -- Zone stanza generated by puppet.
  zone "acme.bar" {
      type master;
      file "/etc/namedb/acme.bar";
    allow-transfer { slaves; dnsexchage; };
    also-notify {192.0.2.1; };
  };
```

Recursive config

```
// acme.bar -- Zone  generated by DNS Exchange.
  zone "acme.bar" {
      type slave;
      file "/etc/namedb/slave/acme.bar";
      masterfile-format text;
      masters { 192.0.2.1; };
  };
```

Questions?