Introduction to the DNS

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DNS query: what happens when you enter a domain name into your browser?
Who’s involved?

- ISPs
- Root Server Operators
- Registrars
- Hosting providers
- TLD Registries
- Org servers
- Domain.org server

1. Ask root servers
2. Ask org servers
3. Domain.org server

www.domain.org is at 192.0.2.0!
Who’s involved? (2)

- Registrars
- Hosting providers
- DNS attacks

ISP's

where is www.domain.org?

1. don't know
   - ask them
   - root servers

2. don't know
   - ask them
   - org servers

www.domain.org is at 192.0.2.0!

- ask them
- domain.org server

- Root Server Operators
- TLD Registries
- - Registrars
- - Hosting providers
The ‘Ecosystem’

1. **ISP** - don’t know
2. **Root servers** - ask them
3. **Org servers** - don’t know
4. **Domain.org server** - www.domain.org is at 192.0.2.0!

- **Root Server Operators**
- **TLD Registries**
- **ICANN**
- **ccTLDs**
- **IP addresses** (RIRs)
- **Protocol Parameters** (IETF)
- **Registrars**
- **Hosting providers**