

# Amazon Web Services



**Route53**

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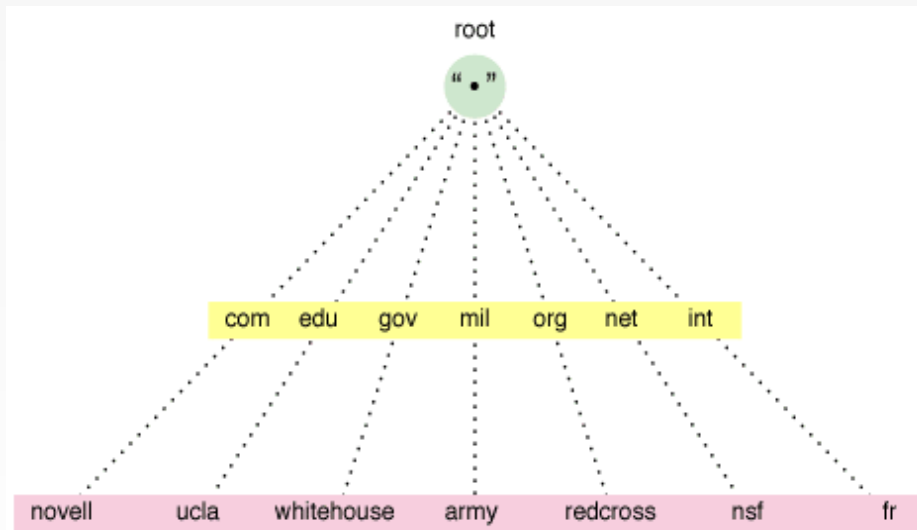
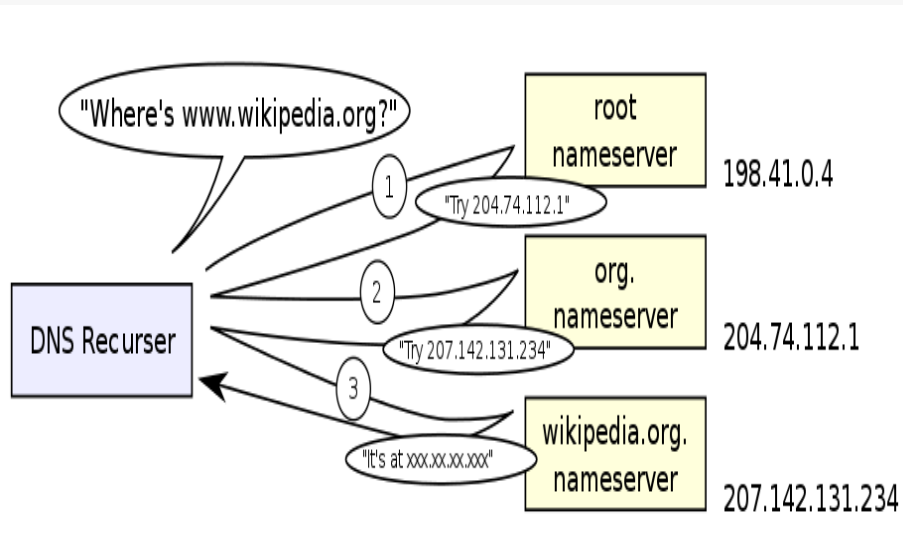
# What is DNS

- The Domain Name System is a hierarchical, decentralised naming system for the internet.
- DNS maps names to IP addresses (and vice-versa).
- Domain name resolvers determine the name servers responsible for the domain in question by a sequence of queries starting from the root.
- Root servers are well known and ran by large ISPs under the supervision of ICANN.

# Hierarchy

- The root name servers are responsible for delegating authority over all top level domains (such as com, net, au) to their respective registry.
- These registries are then responsible for that namespace and may delegate the duties of name registration to one or more commercial registrars (almost all do).
- Depending on the domain, you can then register your own name at the second level (eg: something.com) or at a lower level (eg: something.com.au).
- Authority for this domain is now yours, you must provide your own name servers (minimum of two) which will answer for the records you create (eg: test.something.com).

# Illustration



# Record Types (Most Common)

- A – Maps name to IP address (IPv4).
- AAAA – Maps name to IP address (IPv6).
- CNAME – Maps a name to another name.
- MX – Maps a name to the IP of a mail transfer agent.
- NS – Delegates authority of a zone to a name server.
- SOA – Specifies information about a zone.
- TXT – Arbitrary text (often used for authentication).
- PTR – Maps IP address back to Name.

# Lookup Tools

- Dig
  - *[\$] dig A +short google.com*
- Host
  - *[\$] host www.realestate.com.au*

# What is Route53

- Public DNS (Resolvable on Internet)
- Private DNS (Resolvable within VPC Only)
- Domain Name Registration
- Advanced Features
  - Health check capability (HTTP, HTTPS, TCP)
  - Simple, Weighted, Latency, Failover, Geolocation

# Integration with CloudFormation

- Cannot Register Domain Names
- Can Manage
  - Addition/Deletion of Resource Records
  - Creation of DNS Zones
  - Creation of Health checks
- All of our Cloud Infrastructure must be in CloudFormation



# Route53 Console Overview

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# Question/Answer Time