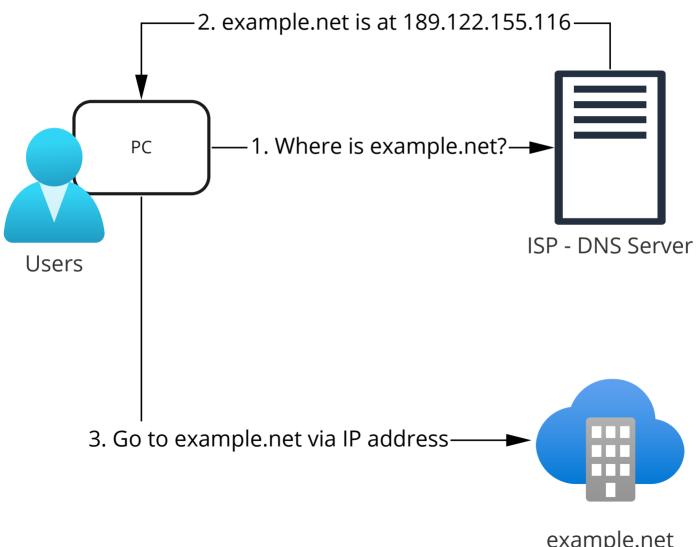
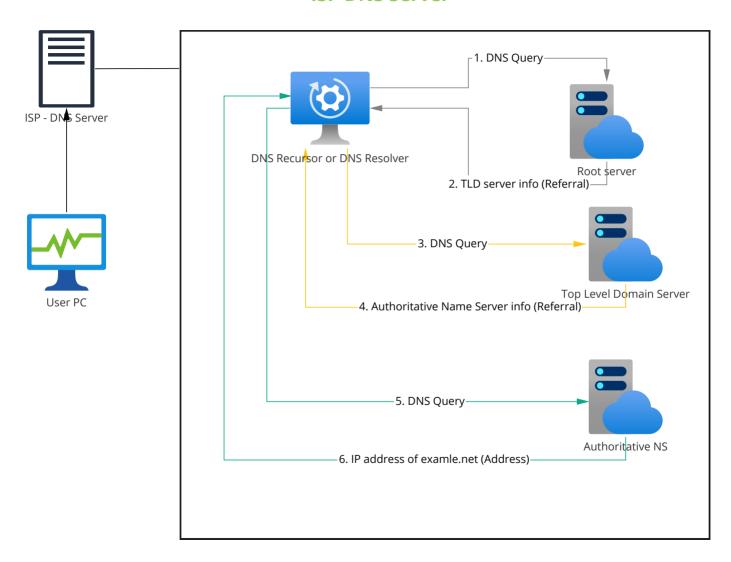
# Why DNS?

Open example.net

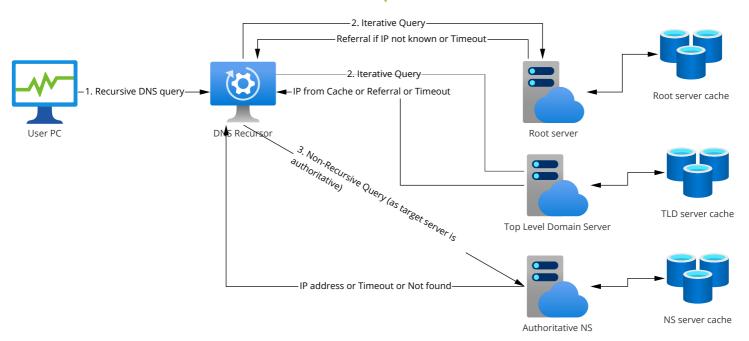


example.net

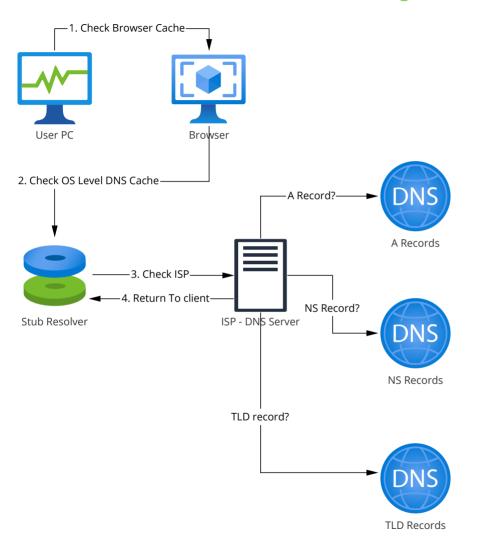
# **ISP DNS Server**



### **DNS** queries



# **DNS Caching**



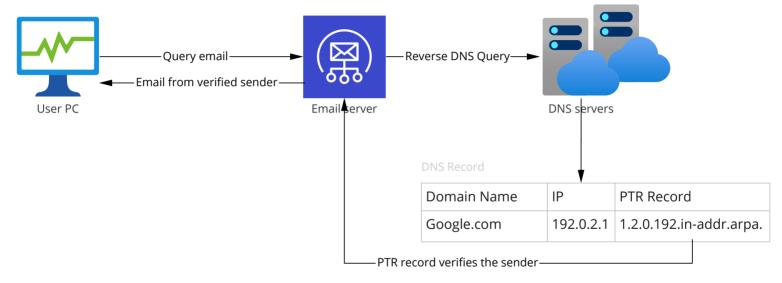
Contains the IP address to the domain name queried for

- 1. Contains the name of the Authoritative Name Server.
- It passes on some glue records that contain the last known IP addresses of the Name Server and TTL.
- 3. If the IP address has expired, the DNS resolver has to run another DNS query to get it.

- 1. Contains the name of the Top Level Domain servers such as .com or .org etc.
- 2. The last known IP addresses of these TLDs are returned as glue records.
- DNS resolver will run another DNS query if the TLD IP address is not known.

#### **Reverse DNS**

# Use case 1: Reverse DNS - Verify email sender



Use case 2: Reverse DNS - Log domain names instead of IP addresses in log servers