

DNS Types: 3 Types of DNS Servers

**DNS Resolver** A DNS resolver (recursive resolver), is designed to receive DNS queries, which include a human-readable hostname such as "www.example.com", and is responsible for tracking the IP address for that hostname.

**DNS Root Server** The root server is the first step in the journey from hostname to IP address. The DNS Root Server extracts the Top-Level Domain (TLD) from the user's query—for example, www.example.— and provides details for the .com TLD Name Server.

**Authoritative DNS Server** Higher-level servers in the DNS hierarchy define which DNS server is the "authoritative" name server for a specific hostname, meaning that it holds the up-to-date information for that hostname. The Authoritative Name Server is the last stop in the name server query—it takes the hostname and returns the correct IP address to the DNS Resolver (or if it cannot find the domain, returns the message NXDOMAIN)