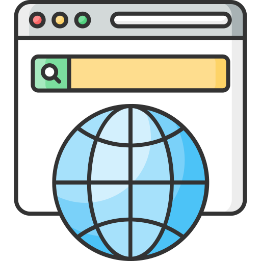
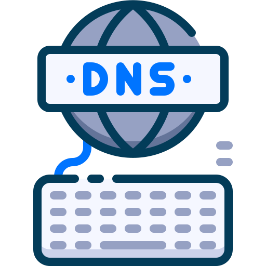
Explanation of what happens you type [www.google.com](http://www.google.com) into a web browser. Describing the process from DNS resolution to data transmission

Step 1: Typing [www.google.com](http://www.google.com) into the Web Browser



www.google.com

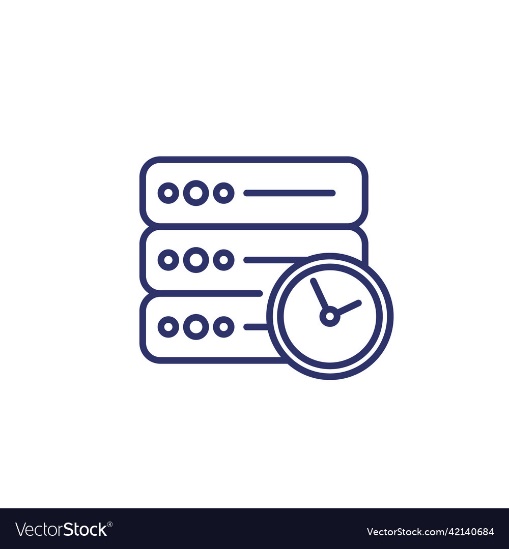
Step 2: DNS Resolution

DNS Resolver performing a DNS query for www.google.com.

Step 3: DNS Query Propagation



This is the process of a DNS query forwarded from the DNS resolver to various DNS severs as root, TLD and authoritative servers to find IP addresses associated with a domain name.

Step 4: DNS Response

DNS Resolver responds with IP Address

Step 5: Establishing Connection



Step 6: Data Transmission

Before the Web server establishes a TCP/IP the firewall checks and allow traffic which then goes into a Load Balancer (responsible for even traffic distribution) then distributes traffic to the Web Servers connection.



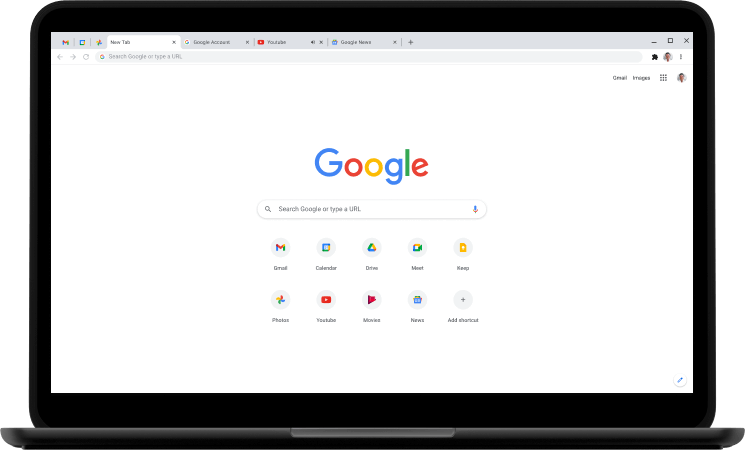
Web server transmits a HTTP request also known as HTTPS/SSL handshake which is a secure connection

Step 6: Application server



Application server generates the search result, the first request sent to the load balancer which forwards it to the one of the web servers in the Google server network.

Step 7: Rendering the page…



When a browser receives a response from a web server, it processes the HTML, CSS, and JavaScript files to render and display the web page, allowing user interaction.