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## How does DNS work?

The process of DNS resolution involves converting a host name into a computer friendly IP address. An IP address is given to each device on the internet and that address is necessary to find appropriate internet device like a street address is used to find a particular home. When a user wants to load a webpage, a translation must occur between what a user type into their web browser and the machine friendly address necessary to locate the example.com web.

In order to understand the process behind the DNS server resolution. It's important to learn about different hardware components a DNS query must pass between. There are 4 DNS servers involved in loading a webpage.

1. DNS Recursor
2. Root Nameserver
3. TLD Nameserver
- 4) Authoritative name.



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## Practical No-10

Aim:- Configuration of DNS Service in Network.

Software required:- CISCO PACKET TRACER.

Theory:- DNS is a host name to IP address translation service. DNS is a distributed database implemented in a hierarchy on name servers.

It is an application layer protocol for message exchange between clients and servers.

Each device connected to the internet has a unique ~~IP~~ address which other machines use to find the device. DNS servers eliminate the need for humans to memorize IP address such as 192.168.1.1 or more complex IPv6 alphanumeric IP address such as 2400:100:2048:1::C629:0702.