

Explain how names are translated (resolved) into IP address.

Domain Name server or DNS is used to resolve names into IP addresses. When a web address is entered into the browser, the DNS client sends a request to the DNS server to find the corresponding IP address for the name. The DNS server receives this request and searches for the corresponding IP address in the database. If at this point the resolution fails, this server sends this request to the parent server. The request keeps going up the hierarchy to the parent servers or the closest authoritative of the DNS server to resolve the address. If the request times out an error is returned to the client. If the server is able to resolve the name requested, it passes the information back to the client. The next request sent by the client is to request for a web page for the IP address.