**HAFIZ AHMAD 19L-1316 LAB REPORT EXPERIMENT 10**

**ANALYSIS OF DOMAIN NAME SYSTEM (DNS) PROTOCOL**

**INTRODUCTION:**

Domain Name System (DNS) translates hostnames to IP addresses, fulfilling a critical role in the Internet infrastructure. In this lab, we’ll take a closer look at the client side of DNS. Recall that the client’s role in the DNS is relatively simple – a client sends a query to its local DNS server, and receives a response back. Much can go on “under the covers,” invisible to the DNS clients, as the hierarchical DNS servers communicate with each other to either recursively or iteratively resolve the client’s DNS query. From the DNS client’s standpoint, however, the protocol is quite simple – a query is formulated to the local DNS server and a response is received from that server. Before beginning this lab, you’ll probably want to review DNS by reading Section 2.5 of the text. In particular, you may want to review the material on local DNS servers, DNS caching, DNS records and messages, and the TYPE field in the DNS record.

**PROCEDURE:**

TASKS:

1:



2:



3:





4:



By UDP

5:



6:

Yes ,Both ip are same.



7:



8:



9:



10:

Yes



11:





12:



13:



14:

Yes there is one answer.

15:



16:



17:



18:



19:



20:

Yes ,Both ip are same.



21:



22:



**APPLICATIONS:**

Primary website.

Marketing campaign websites.

Email servers.

Customer support websites.

Online resource libraries.

Inside sales web portals.

Multi-tier web applications.

P2P resources**.**

**ISSUES:**

No issues found while performing the experiment.

**CONCLUSION:**

The Domain Network System (DNS) protocol helps Internet users and network devices discover websites using human-readable hostnames, instead of numeric IP addresses.The DNS system provides a domain name to IP address mapping for devices connected to the Internet, and it is crucial to the working of the Internet. Usually you don't need to worry about it as your are automatically assigned the address of the DNS server by your ISP and Home router.

**POST LAB:**

**Why does HTTP and DNS use TCP and UDP respectively?**

DNS is an application layer protocol. All the application layer protocols use one of the two transport layer protocols, UDP and TCP. TCP is reliable while UDP is not reliable. Since DNS is supposed to be reliable, it should use TCP.

**If the webpage having 10 reference objects and base html located at different location, then how may HTTP and DNS request will be generated?**