Assignment - 8

Page No.____ Date: /

Title: DNS Lookup

Objectives: To learn how DNS works and is used in the modern internet.

Outcomes: Students will be able to return a URL from an IP address and vice versa.

Requirements: Fedora 20 monitor, keyboard: Eclipse IDE

Theory:
The Domain Mame System is the full form of DMS: The mechanism by which interviet software translates names to attributes such as addresses.

is DMS.

reliable, doitabase comprised of three components:

Page R. Date

. A namespace server makes that name space addresable. Resolves the servers who bit the mamespace.

2. DNS at lookup, mechanis:

· Users generally preter names to number. Computers prefer number to names. DNS provides the mapping between the

DNS as Database.

Keys to the database are damain names", eg. www.goagle.come. Over 200,000,000 domain names are stored.

Each domain name contains one or more attributes, known or resource

Global Distribution:

Data is maintained locally, but

retrierable globally. No single computer

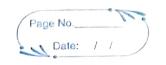
has all DNS data DNS lookups: can

be performed by any device! Remote

DNS data is locally cachable to

improve performance

DNS: servers answer questions from both inside and outside their own domains.



when a server recieves a request from outside the domain efor information about a name or address inside the domain, it provides the answers.

It passes the request out to another server us sually one wearnesqued by its ISP.

If that server does not know the

If that server does not know the answer answer or the source for the answer it iwill reach to the DNS servers for top level domain.

Then it will pass the request down to authoribative server for the specific domain eq. google.com. The answer flows orlong back along the same path.

DNS Message Format:

The DNS protocol uses 12 types of

DNS messages - queries & replies and

both have same format.

· Each message eunsists-of a header and a sections: questions, answers, authority and an additional space.



Some generic domains: acro - aerospace & airlines biz - buissness com - commercial organisation edu - educational gor - gorrennent.

Jmil - military

name - personal name.

Conclusion:
Thus we have successfully implemented
DNS lookup and understood how DNS
works.