DNS Server

by Sandeep Kumar Ragila Pranav Sai Kethe

Background

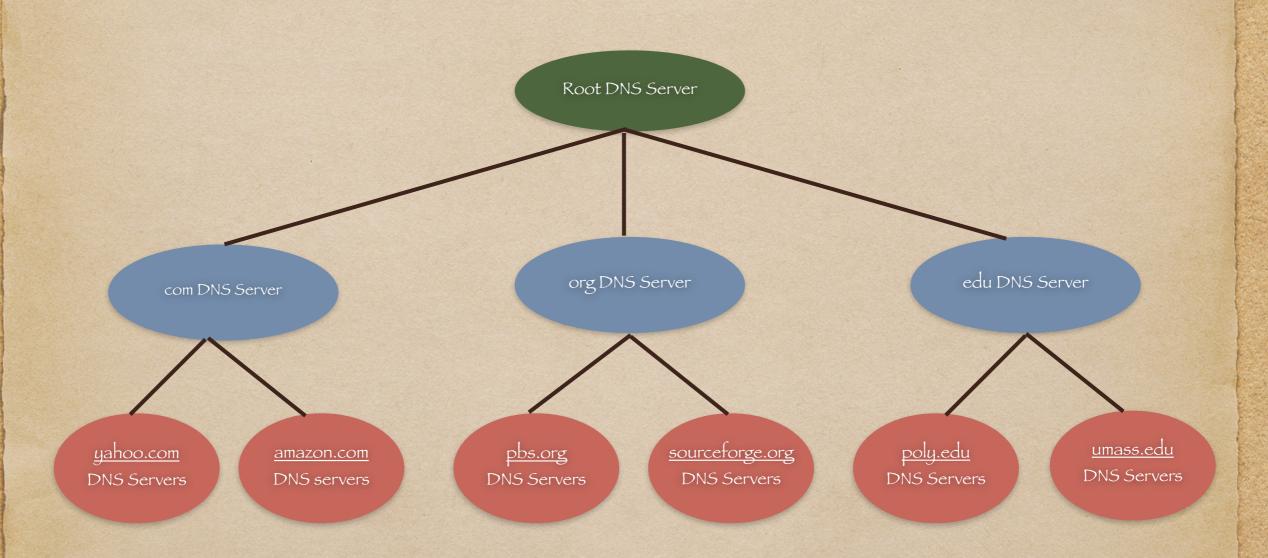
Earlier approach

 Single file to store the hostname to address mappings: hosts.txt

DNS Approach

- DNS designed by Paul Mockapetris in 1983.
- Goal: Hierarchical name space

Hierarchical Structure



Components of DNS

- Domain name space and resource records.
- Name Servers.
- Resolvers.

High Level View

Server

Author TLD Root ity Server Server Server Thanks for the directions! Now I can connect to <u>amazon.com</u> User Great! I will cache that for

Amazon.com
Server

Ineed directions to amazon.com

Local

Name

a while in case I get more requests.

The domain name
www.amazon.com is not in
my database or cache. I
will contact the Root
Servers

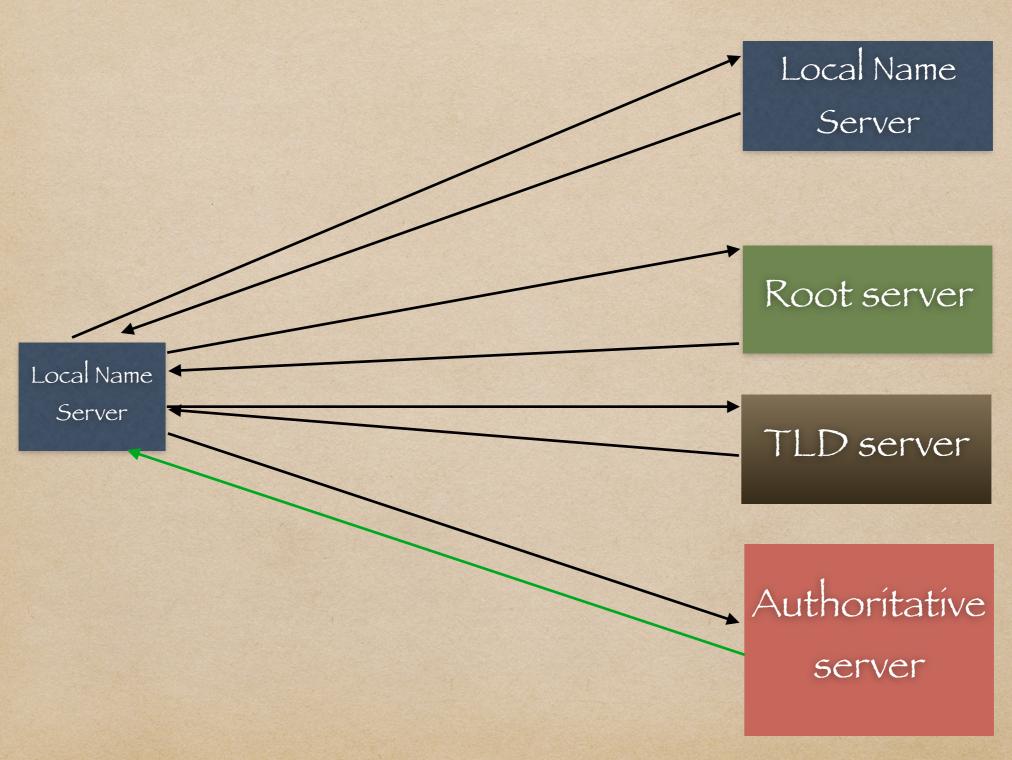
Problem Definition

 To simplify the process of hostname to IP address translation.

Solution & Plan

- ◆ RFC 1034,1035
- Iterative Querying
- Recursive Querying
- DNS Simulation.

Iterative Query



Incremental Goals & Challenges

- Communication with root, TLD, authoritative servers.
- To implement other DNS Services like Mail aliasing, load distribution.
- Security.

Thank you

Questions?