

# DNS Server

by

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# Background

## Earlier approach

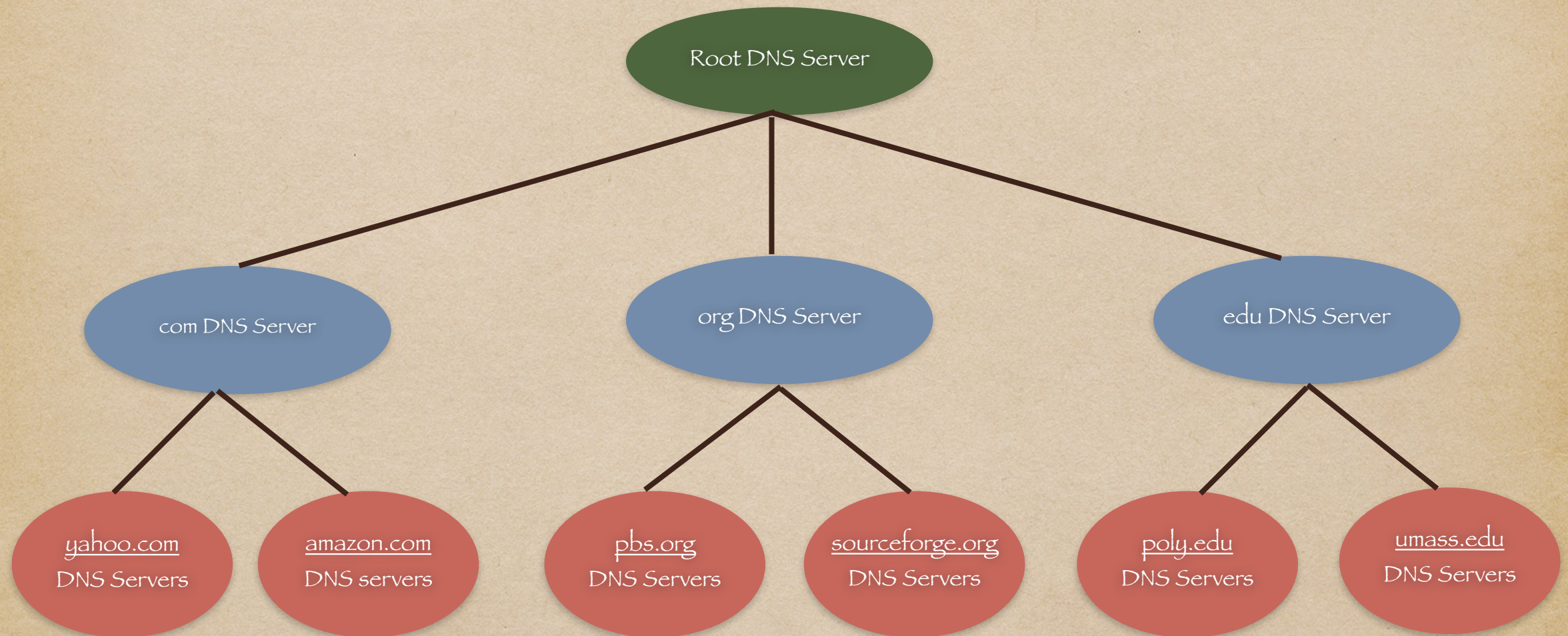
- ◆ Single file to store the hostname to address mappings:  
hosts.txt

## DNS Approach

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



# Hierarchical Structure



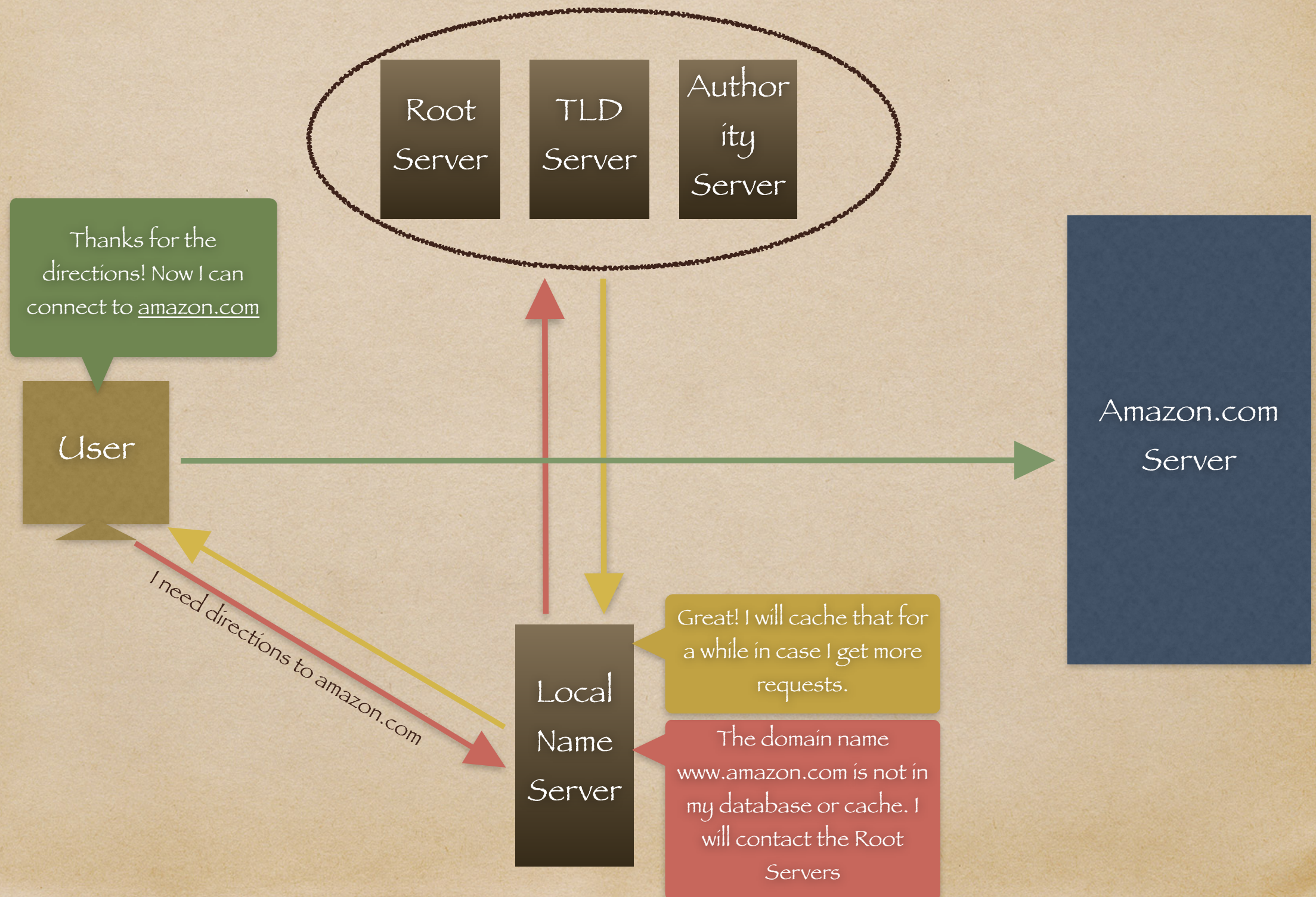


# Components of DNS

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



# High Level View





# Problem Definition

- ◆ To simplify the process of hostname to IP address translation.

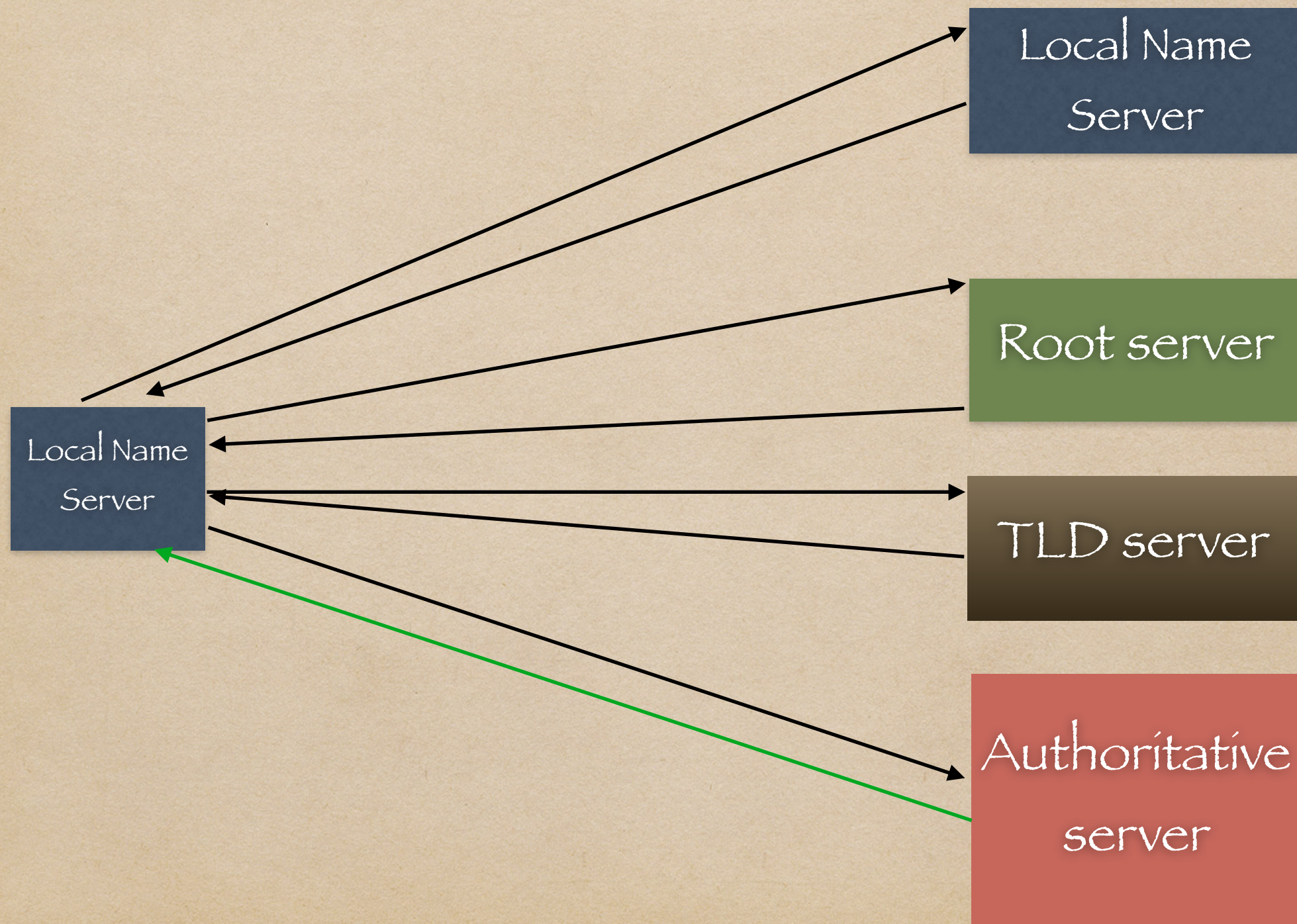


# Solution & Plan

- ◆ 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?