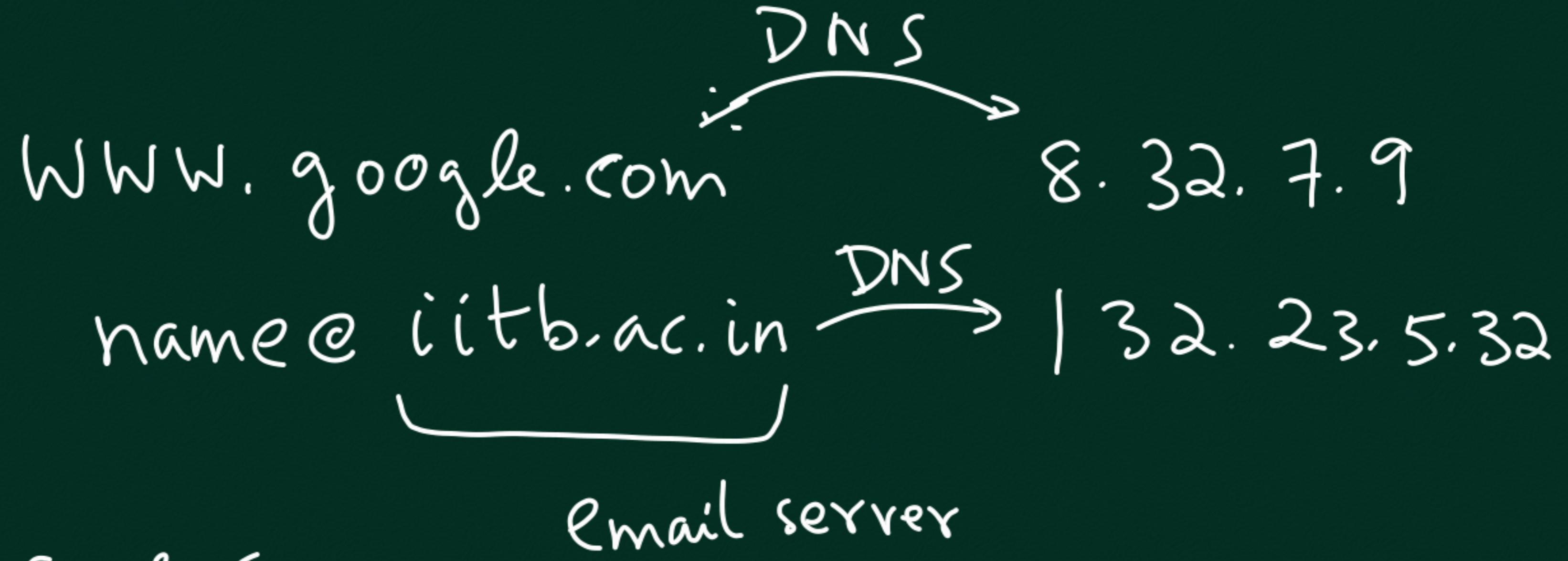
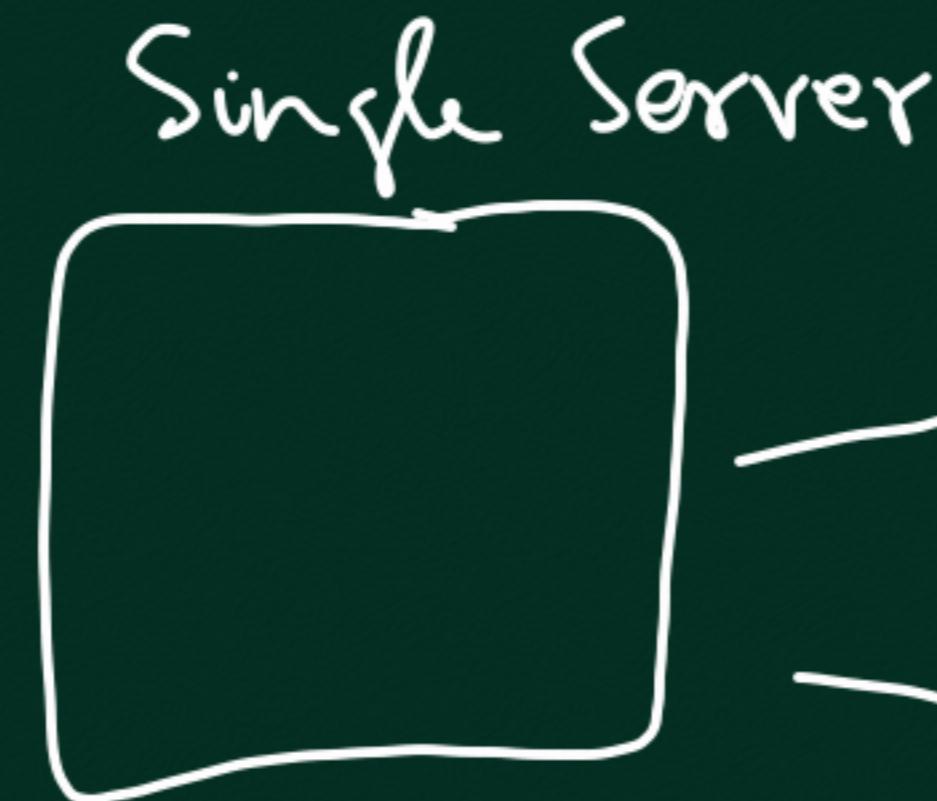


DNS



Naive

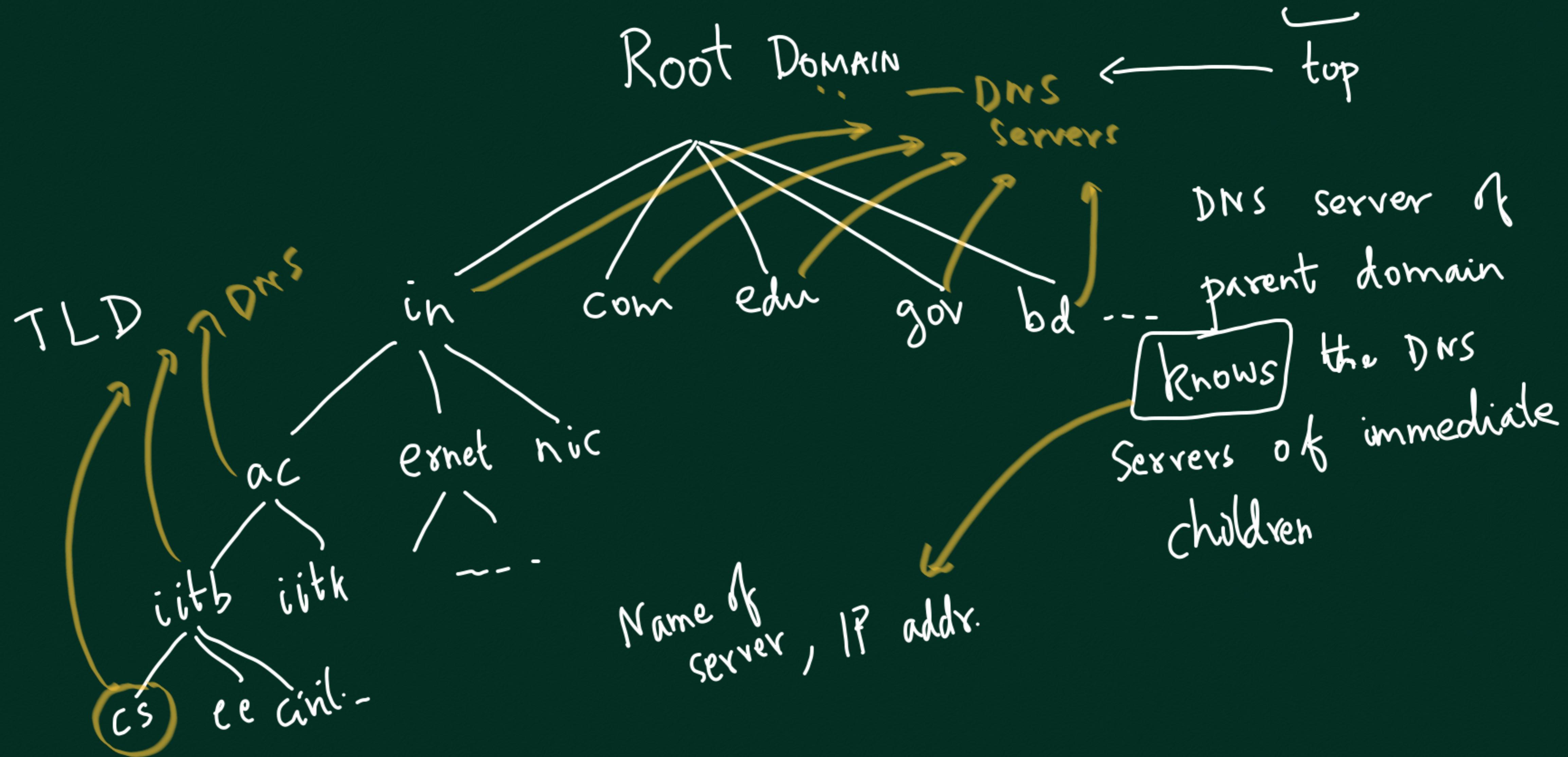


→ Single pt. of failure

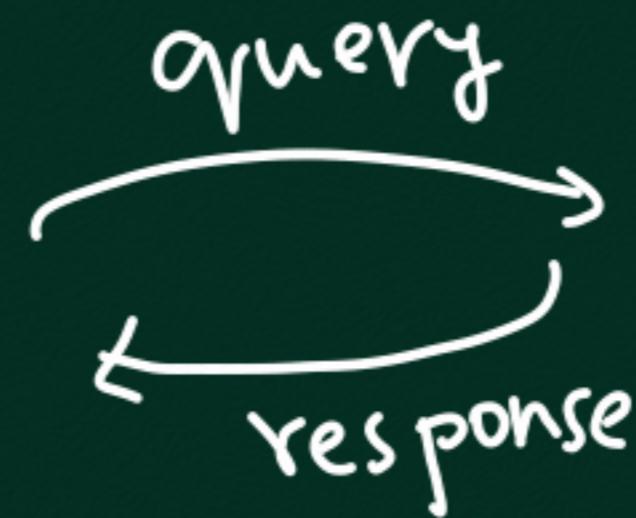
→ not scalable

Hierarchical Solution

Surya. CS.iitb.ac.in



ROOT SERVERS



DNS phr size: 512 bytes

13 Root servers → info. fits in 512 bytes

Names

A. root-server.net

B. ...

;

M.

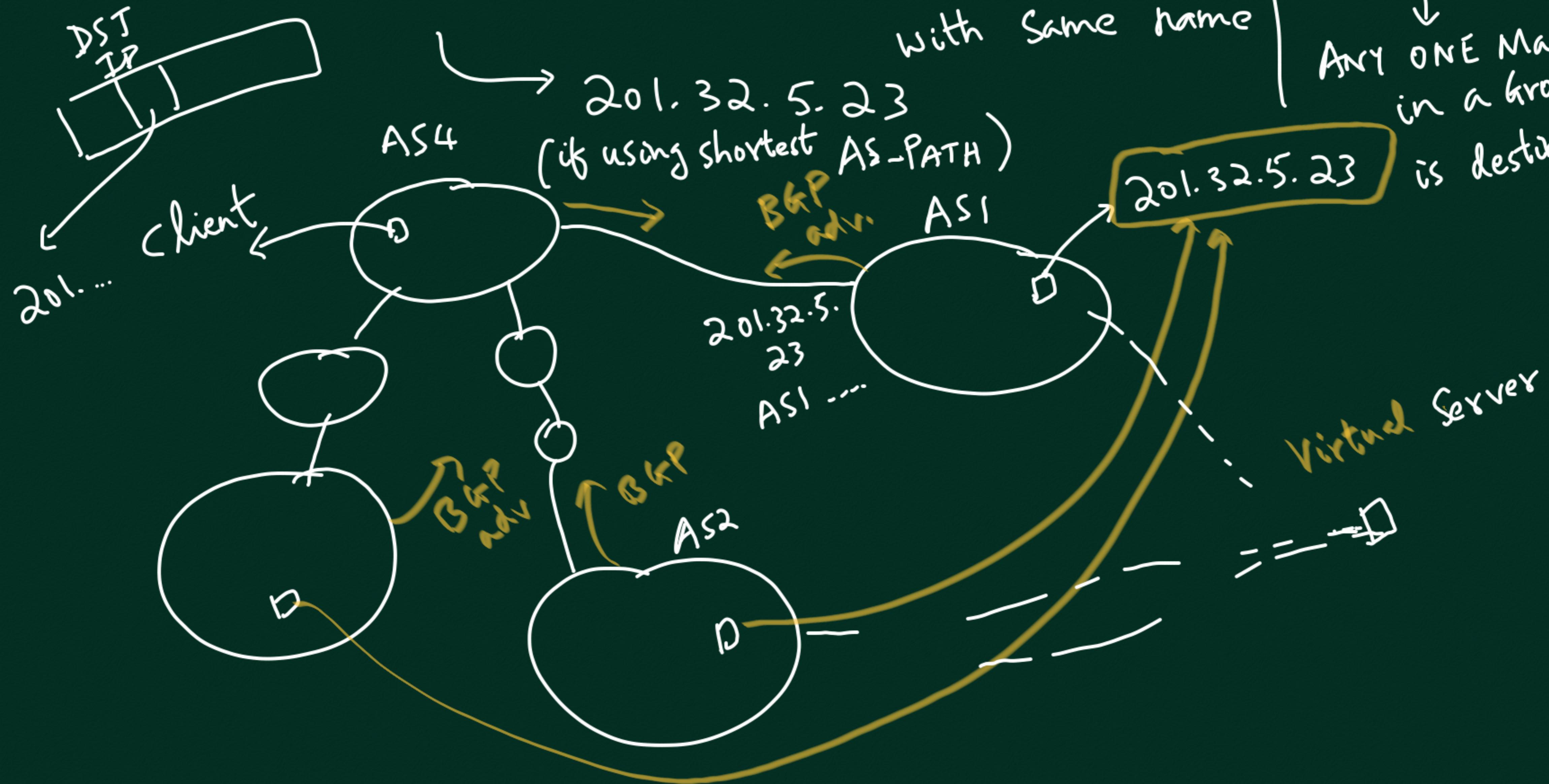
IP "root hints" file

A. root-server.net → multiple machines

with same name

ANYCAST

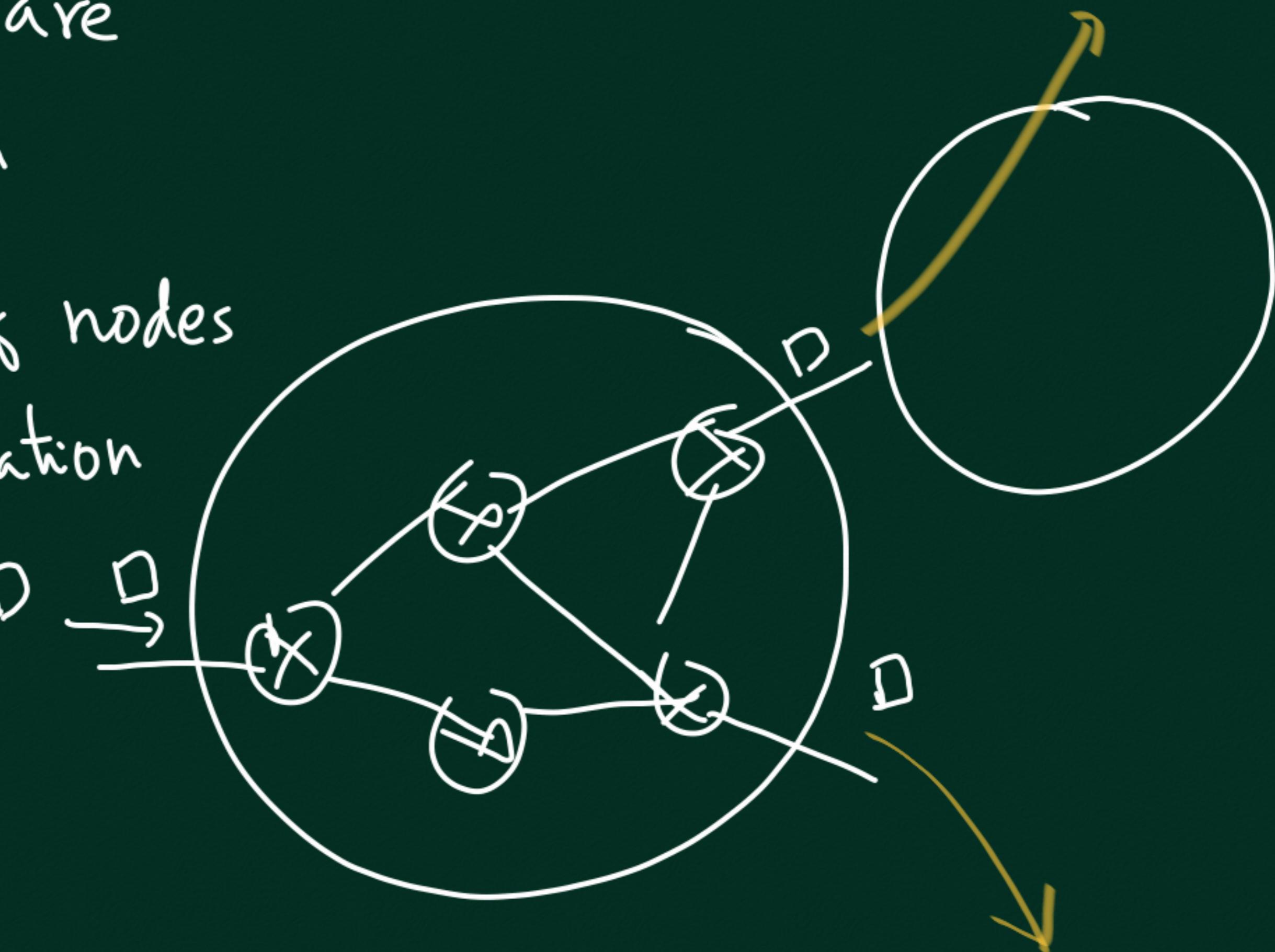
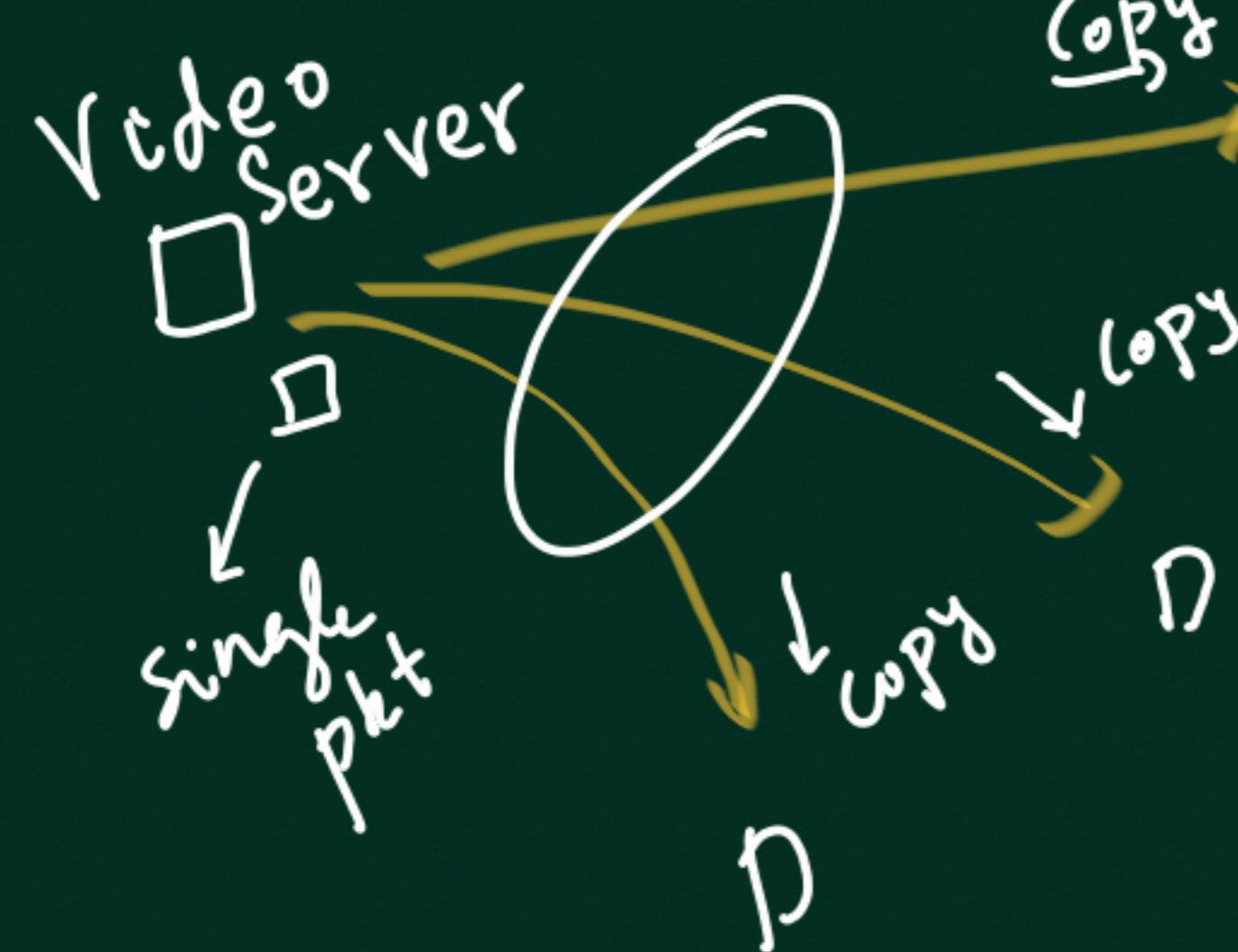
↓
Any ONE Machine
in a group
is destination



UNICAST → Single destination

BROADCAST → All nodes are destination

MULTICAST → Subset of nodes are destination



RESOURCE RECORDS

Surya.cse.iitb.ac.in

< NAME , VALUE , TYPE , CLASS , TTL >

TYPE: "A" → IP ADDRESSES

"NS" → name of DNS
server of domain in "NAME"

IN
(Internet) how long
record is valid

Ex: < iitb.ac.in, dns.iitb.ac.in, NS, ... >

< Surya.cse.iitb.ac.in, 138.75.32.5, A, ... >

TYPE

CNAME → Canonical name (alias)

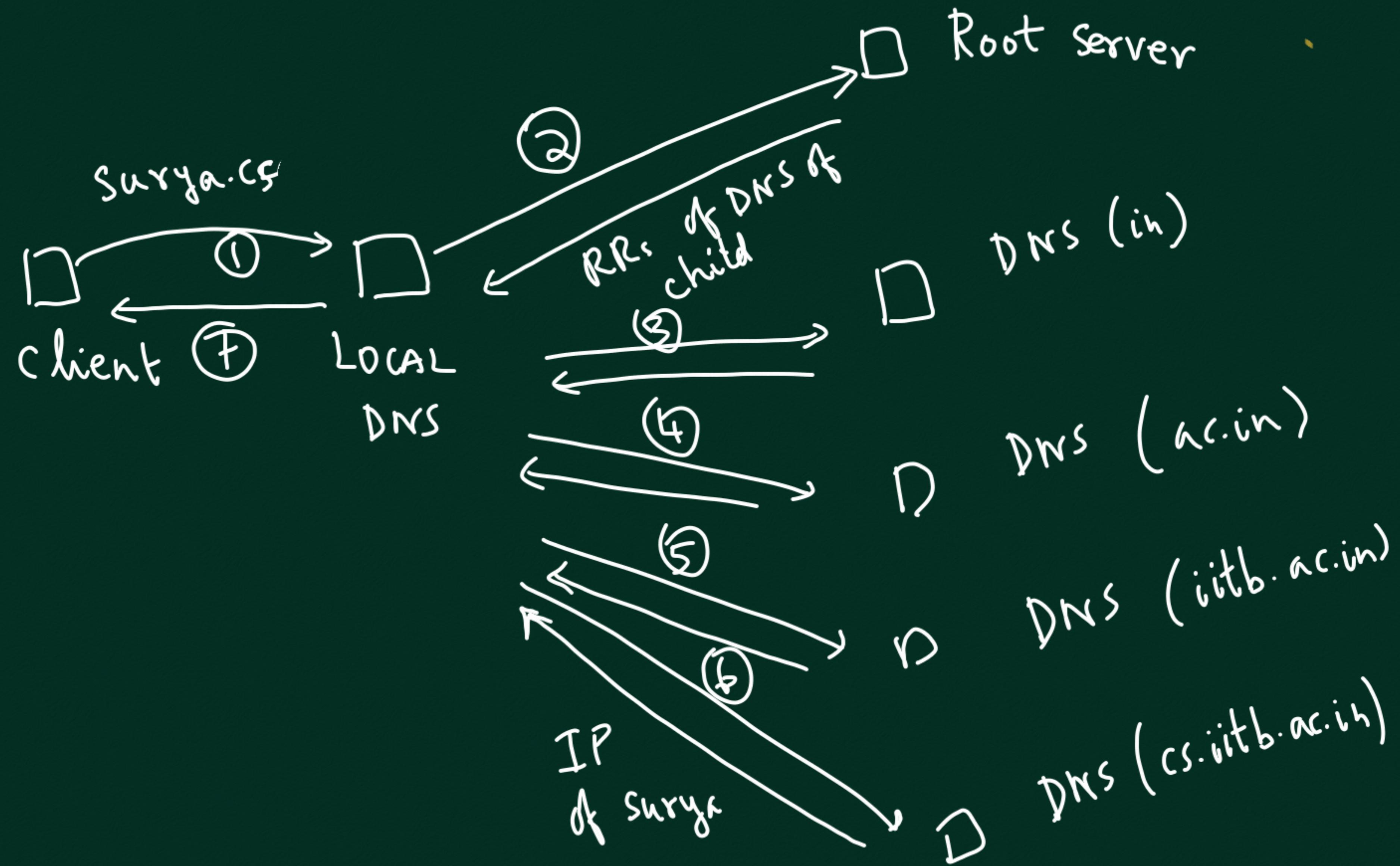
MX → Name of
Email Server

of domain specified
in NAME field

cs.mit.edu
ee.mit.edu

< cs.iitb.ac.in, mail.cs.iitb.ac.in, MX, - - >

< mail.cs.iitb.ac.in, 137.53.9.1, A, - ~ >



QUIZ

Y P M A M F Z A