- Now kuch time k liye assign karega ~~fir~~ aur phir clapse kardega.

- Phir afko request send karne paregi aur phir naya ip address milega.

- Aaisa isliye hota hai kyoki thousand of computer request karte hai aur kuch samay k baad hundred of computer shutdown hojate hai, toh woh ip-address kisi aur ko dena k liye hum ip-address assign karne ka kuch time dedete hai.

- This is all about Dynamic-Host-Configuration protocol.

DNS :→ (Work on both TCP & UDP)

Port no → 53

→ DNS Stands for Domain Name Server :→

- Web address diya aur ip-address chahiye toh aap DNS server ka use karogy.

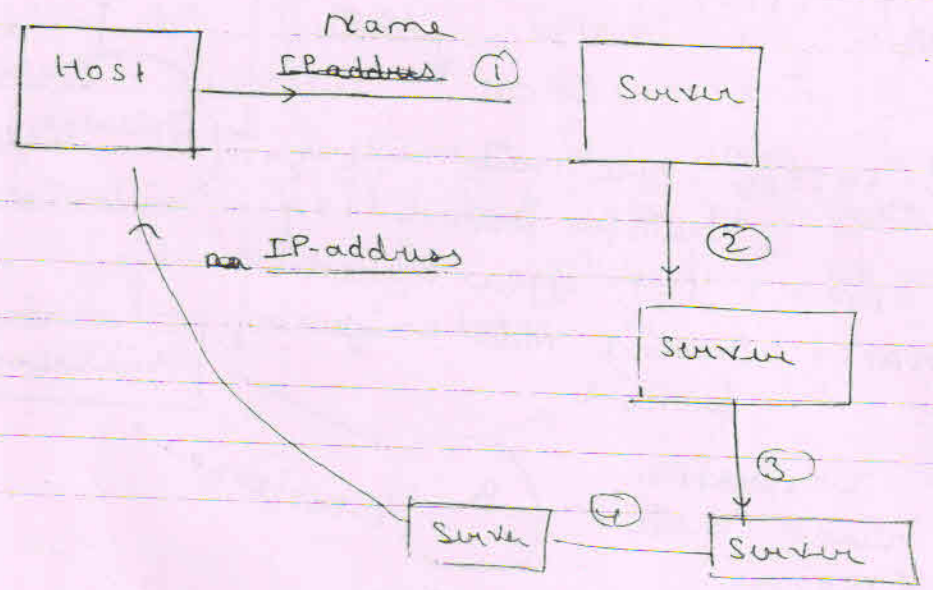
- Hum DNS server k information choti-choti files mein divide karegy different server par rak dete hai, aur user uske near server se contact karega.

- Kabhi-kabhi hamne inverse query bhi karne parte hai, Ki ip-address se name ~~fir~~ find out karna, woh query to hum PTR query or inverse query. (Pointer PTR). Inverse domain ki help se.

- Now, how DNS resolve this name to ip and ip to name.

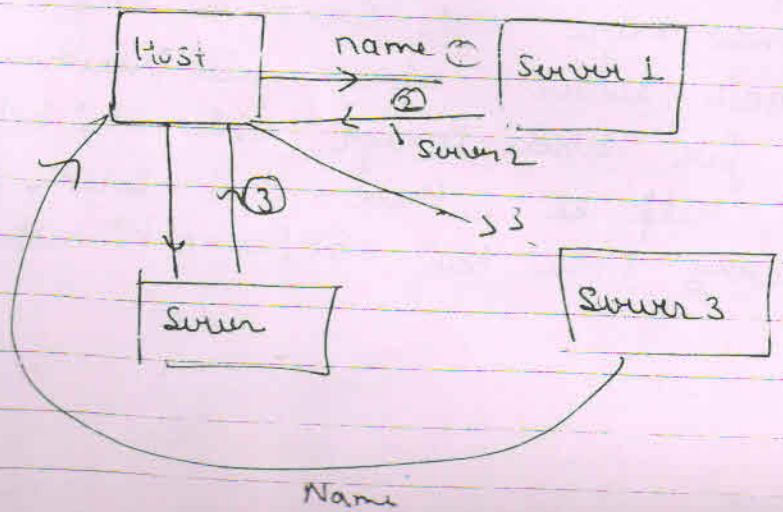
• Recursive :- Resolver :- Pk server dusre server ko send karega
• Iterative Resolver

Recursive Resolver:



Recursive Resolver.

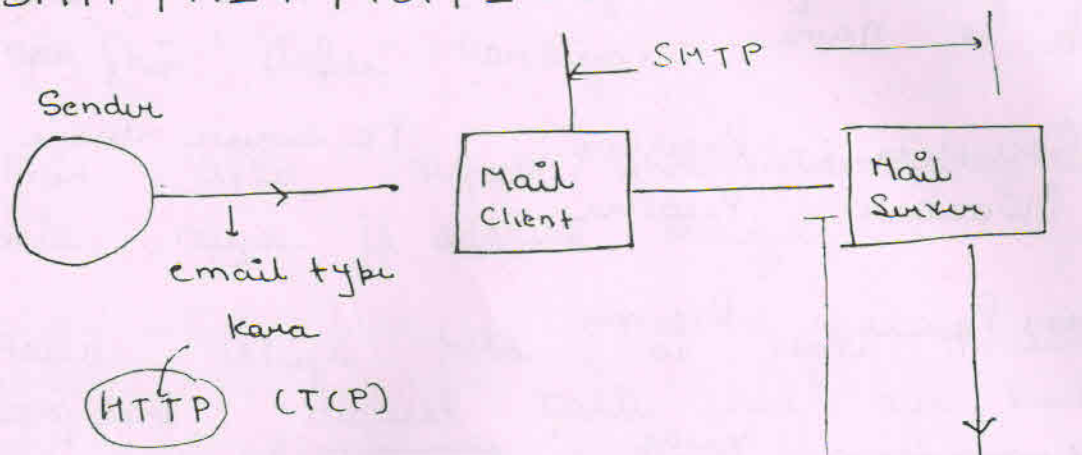
Iterative Resolver:-



Yaha host ki responsibility hai saab server ko request send karna.

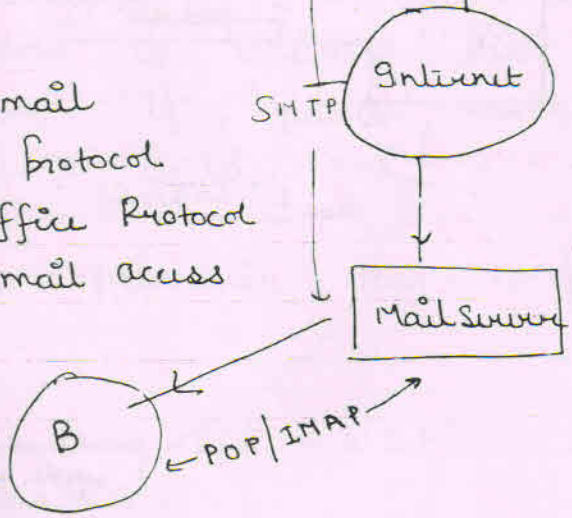
TCP TCP (TCP)

SMTP | MIME | POP | IMAP :-



- SMTP :→ SMTP :- Simple mail transfer protocol
  POP :- Post-office Protocol
  IMAP :→ Internet mail access protocol

MIME :- Multipurpose Internet mail Extension.



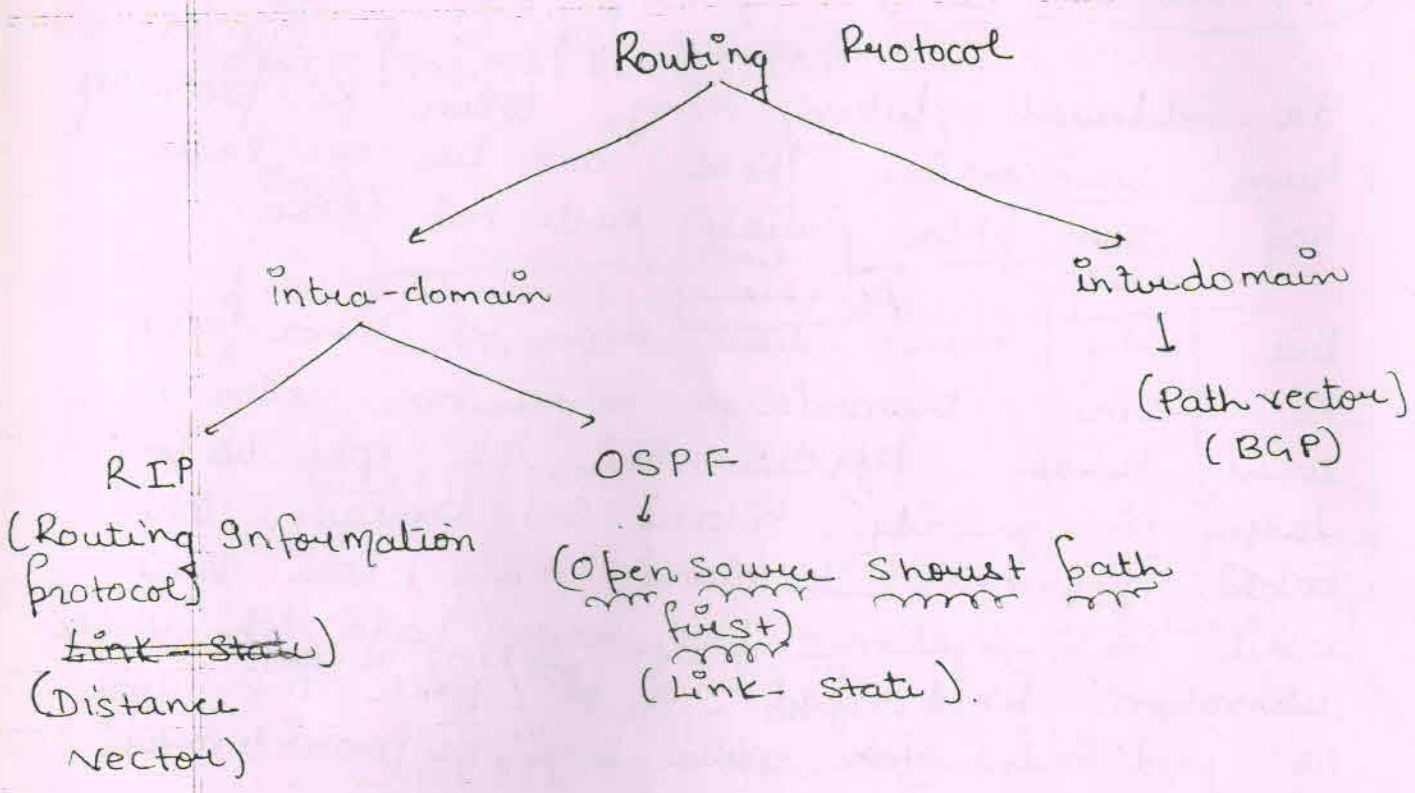
- Jab aab mail type karte ho woh hota hai HTTP ki help se. Now mail apne, apne mail Server ko send kiya woh SMTP ki help se. Now woh mail server, apka mail reciever k mail server par send karega woh bhi hota hai SMTP ki help se, then Mail. Server se mail fetch karna hota hai POP/IMAP ki help se.

Special Point:→

In delayed token ring, token ki priority hum reservation field dek kar set karte hai aur phir release karte hai token.

But early token release mein toh hum jaise hi frame transmission katam hua waise hi token release kardete hai toh now us token ki priority kitani set karegy, toh pichli previous rotation mein koi data packet us system par aaya hoga toh usse reservation field pad hi sakte the aur us field mein joh value hogi, wo hamari priority banegi token ki.

- OSPF → mein packet broadcast nahi hote hai.



→ Distance vector Routing :-

- → Split horizon mein jo entry problem karta hai, usko send hi nahi karta. Jisse router ko.

- But isme problem kya aati hai, ki distance vector, timer maintain karke lagta hai agar kohi route bahut der se nahi aarcha hai woh us route ko hata deta hai.

- Jo split-horizon yaha fail hojata hai.

- Poison reverse kya karta hai jo entry problem deta hai uska distance vector ∞ set kar deta hai aur warning deta hai ki yeh distance aap se count kiya gaya hai.

Now hum dekte hai count to ∞ problem. aati kaise hai.

A	0	
B	1	
C	2	B

A	1	
B	0	
C	1	

A	2	B
B	1	
C	0	

Now suppose A down hogaya.
Toh aap distance vector ki situation kya hojayegi.,

B router aapne distance vector mein A ka distance vector ∞ set karlega.

B

A	∞	
B	0	
C	1	

C

A	2	B
B	1	
C	0	

Now problem kab aaye, agar C ka distance vector pahale aagaya. Isi B kya samayega. & C → A ka distance hai 2 aur C → B ka distance hai 1 toh A → C ka kitana hogaya 3.

B

A	3	
B	0	
C	1	

C

A	2	B
B	1	
C	0	

Now B send its updated distance vector to C.

Now C ka sochega, B se A ka distance 3 aur B se C ka 1 toh C apne table mein kya update karega C se A ka distance 4 from A.

This this way goes to ∞ and this problem is known as count to ∞ problem.

Now is problem ka kya solution toh, yeh problem kab nahi aati jab A ka distance vector B k pass chale jata, B ka aane se pahale.

Now ~~at~~ aab problem aaye hai toh iska solution bhi dena hoga,

Toh sabse pahala aur simple solution yahi hai ki RIP, ∞ ko 16 assume karta, agar 16 kisi table mein hop count hoga toh jake count-~~off~~ to ∞ converge hojayega.

Matlab distance vector sirf 15 hop tak hi work karsakta, same network k liye useful hai.

Now dusra solution: Split horizon.

Yeh solution yeh kahata hai ki, agar kohi distance A se hi count hua hai toh

$\left\lceil \frac{x}{2} \right\rceil$ ~~+~~ 1 + $x \log_2^{10}$

10^x এ x মান [illegible] format [illegible] bit [illegible]

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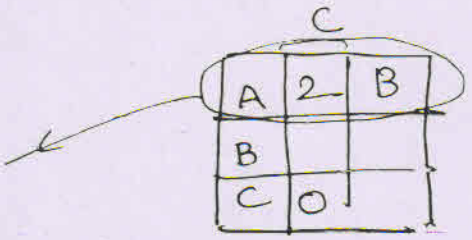
tion

alt,

hic

Woh wahi entry us router ko send hi mat karo because woh wali entry toh ussi router se calculate ki gayi hai



Yeh wali entry send hi mat karo.

- Now is solution mein kya problem hai, ki distance vector timer maintain karke rakta hai agar kahi route bahut der se nahi milta hai toh woh us route ko erase kar deta hai

- Now toh iska kya solution, toh aap woh entry send toh karo par uska distance vector 2 send karke send karo, aur warning do ki yeh wala distance vector aapse hi count kiya gaya hai.

- Now distance vector k kitane iteration lagne k baad, algorithm stable hojati hai toh

= ~~ten~~ Longest path ~~from~~ between any two node.

non-ascii data to be sent through e-mail ⇒ mime

Socket id ⇒ portno + ip addr

⇒ 16 + 32 ⇒ 48