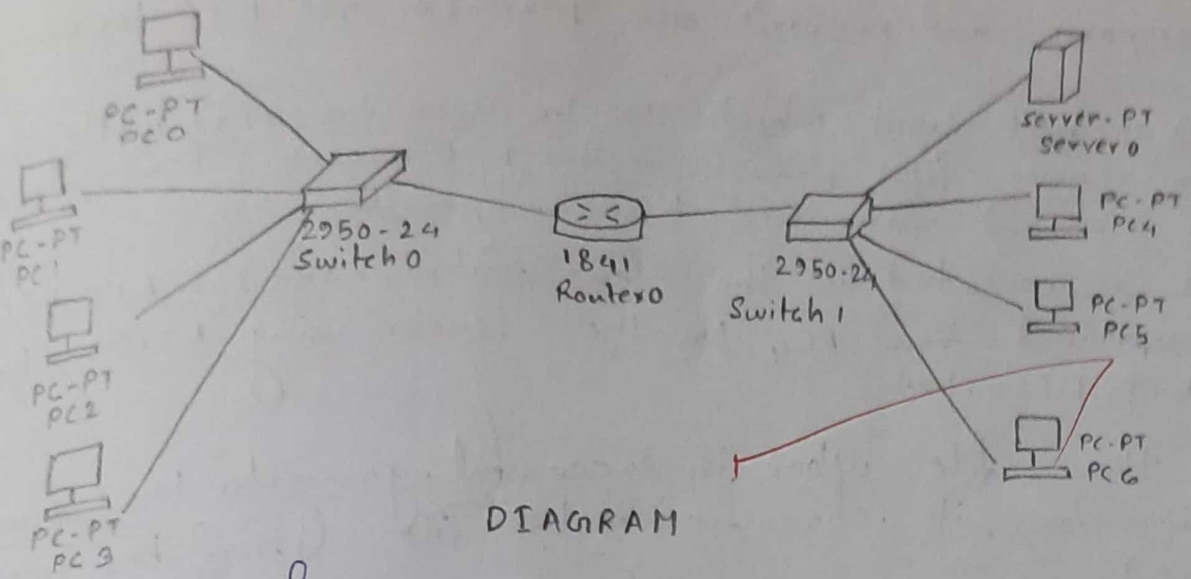
Problem statement:- Configure DNS server, FTP server, web server and mail ~~server~~ services in a simple computer network using CISCO Packet Tracer.



DIAGRAM

Steps to configure DNS server:-

1) A dedicated DNS server is setup within the network infrastructure configuring domain name and server IP address, subnet mask, default gateway etc.

2) The DNS server zones, records, resolver settings are configured based on the network's domain structure.

3) The DNS queries from client devices are ensured to be routed to the DNS server for name resolution.

4) The steps are repeated for the other PCs and server.

5) If the DNS service is turned on and all IP configurations are okay then ping should work.
Ex - PC6 from PC4, ping should be successful.

Steps to configure FTP server:-

1) An FTP server is deployed with the network, usually on a dedicated server. It is deployed on server0.

2) Static IP addresses are configured on the end devices and the server. Subnet mask and default gateway are also configured.

3) FTP client is build in the PCs to send files to an FTP server, configured in the server.

4) From the command prompt of the PC, FTP the server using the server IP address by typing ftp<IP address>.

5) The username and password are provided for FTP login.

6) PC_4 has an FTP client which can be used to read, write, delete and rename files present in the FTP server. The permissions are accessed for file transfer operation.

7) A file is created in the text editor, named as FTP_FILE.t It is uploaded from PC_4 to the server using FTP by typing put FTP_FILE.txt.

8) Once the file upload is successful, going to the server FTP directory, it is verified if the file sent has been received.

9) The file FTP_FILE.txt is downloaded from the server by typing: get FTP_FILE.txt.

10) The file FTP_FILE.txt is renamed by typing: rename FTP_FILE.txt MyFile.txt.

Steps to configure Web server:-

1) A network topology is created as per the diagram.

2) Static IP address, subnet mask and default gateway are configured of the PCs and the server.

3) The services is opened and some HTML code is written to check whether the server is working or not. The code is saved.

4) PC5 has been opened and clicked on the web browser

5) The same IP, that has been given to the web server has been entered to the address bar and clicked go.

6) Now the web page is opened with contents such as text, image etc.

steps to configure mail service:-

1) A network topology is created as per the diagram.
2) static IP addresses, subnet mask and default gateway are configured of the PCs and the server.
3) The mail service is shown in the same DNS server.
4) Now the mail clients on the PCs and mail service on the generic server are configured.
5) For example PC4 and PC5 are configured as mail clients. The email client is configured by filling in the ~~server~~, user, server and login information and saved.
6) For example PC0 is configured as same.
7) To configure email server, clicked on the services tab and picked email server from the menu. The domain name of the server is provided for example gmail.com.
8) After entering a username and password, the users can be added (+) or removed (-) by ~~clicked~~ clicking on Add and remove.
9) For DNS server, clicked on the services tab and picked DNS. The service is turned on, name-address pairs are saved and added to the server. Now the DNS entries can be shown.
10) Finally, the email services are tested. We go to the PC4 email client, an email is composed and sent to PC0 email address. On the email client of PC0, clicked on receive. It is clicked whether the mail from PC4 is ~~rec~~ received on PC0.

Remarks:- The DNS server, FTP server, web server, mail services are implemented successfully in Cisco Packet Tracer.