

Lecture 8

Different Servers Configuration

(DNS – DHCP – HTTP - Email – FTP)

What is DNS server?

DNS is an acronym for **Domain Name Server**, it is a system used to translate word-based addresses of systems (such as WWW.EXAMPLE.COM) to the numerical IP (Internet Protocol) address such as 10.0.0.1) of the computer or system and vice-versa.

What is DHCP server?

DHCP is an acronym for Dynamic Host Configuration Protocol, Which is a server that automatically assigns IP addresses to any new host that joins the network.

What is HTTP/Web server?

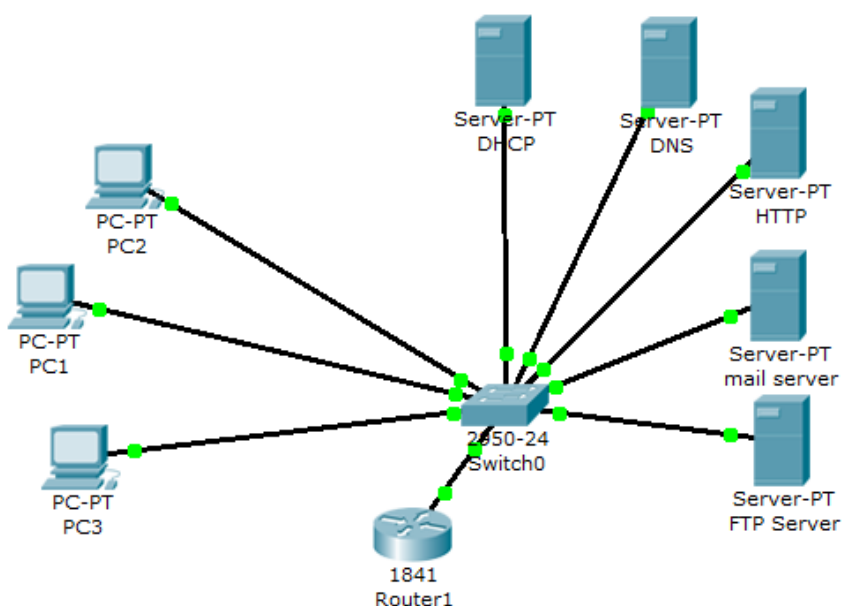
A server running at a website, which sends out web pages in response to HTTP, requests from remote browsers (From client computers).

What is Email server?

A server in the network who stores incoming mail for distribution to local users and sends out outgoing messages. This uses a client-server application model to send and receive messages using Simple Mail Transfer Protocol (SMTP).

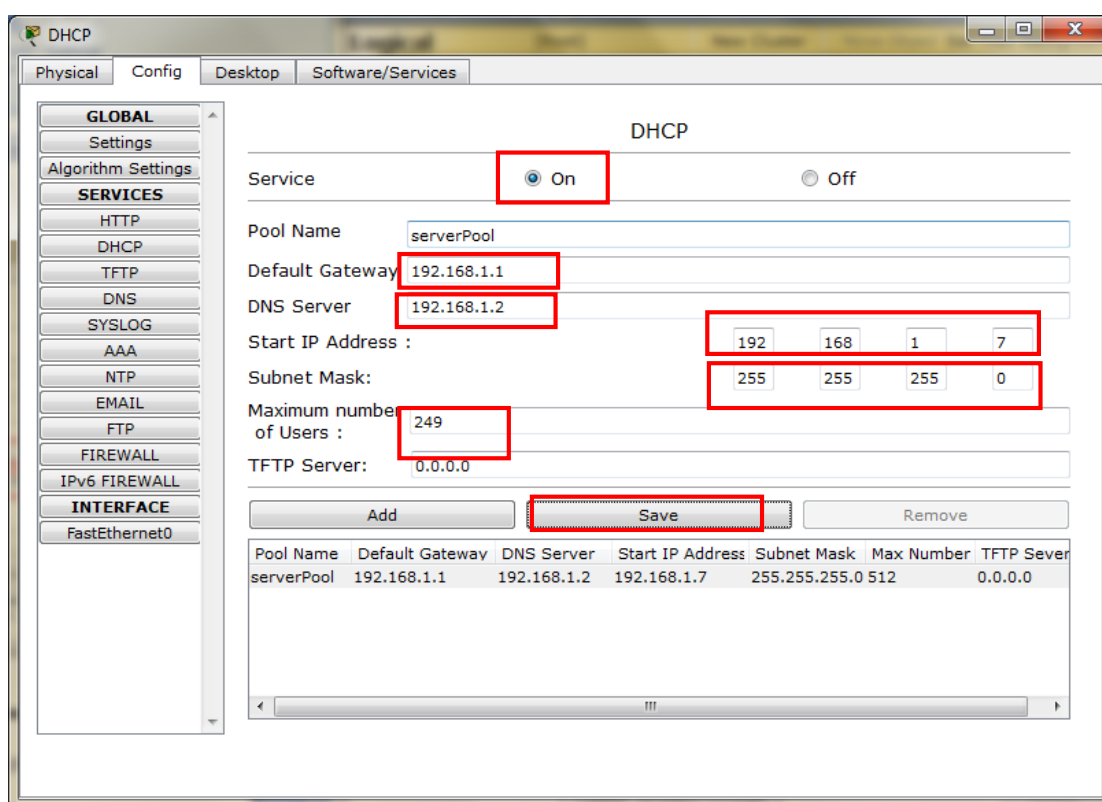
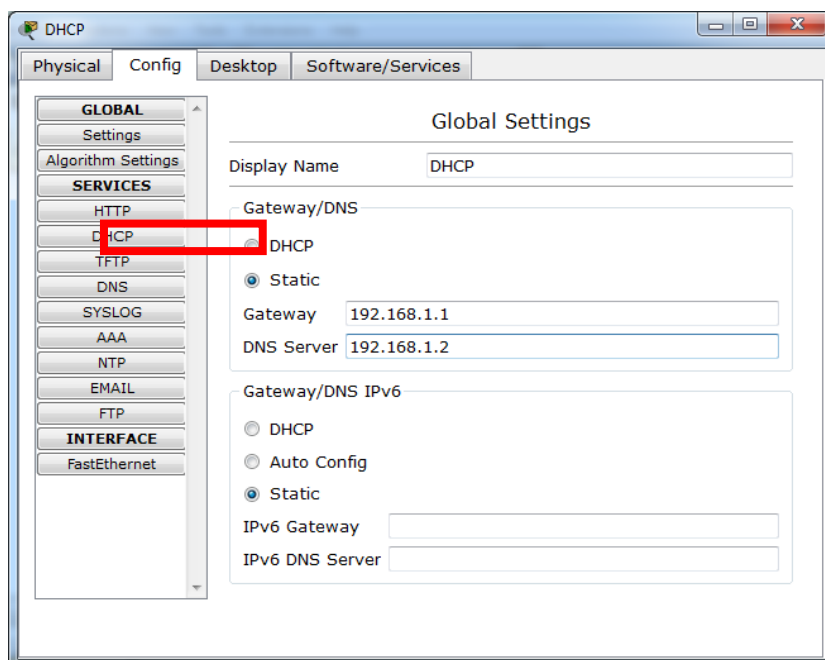
What is FTP server?

A server in the network who is responsible for exchanging files in the network using File Transfer Protocol (FTP).



Device	Interface	IP Address	Subnet Mask	Default Gateway	DNS
Router1	Fa0/0	192.168.1.1	/24	-	
DNS	Fa0/0	192.168.1.2	/24	192.168.1.1	-
DHCP	Fa0/0	192.168.1.3	/24	192.168.1.1	192.168.1.2
HTTP	Fa0/0	192.168.1.4	/24	192.168.1.1	192.168.1.2
Mail	Fa0/0	192.168.1.5	/24	192.168.1.1	192.168.1.2
FTP	Fa0/0	192.168.1.6	/24	192.168.1.1	192.168.1.2

1. Draw the above network
2. Configure the router and the servers (DHCP-DNS-HTTP-Mail-FTP) with the addresses in the above table
3. **DHCP Configuration:**
- 4.



1. PCs Configuration

Configure all the PCs automatically by requesting a DHCP address:

IP Configuration

☒ DHCP
☐ Static

IP Address: 192.168.1.6
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server: 192.168.1.2

2. DNS Configuration:

Add the HTTP – Mail – FTP servers to the DNS table as follows:

Name	IP Address
HTTP-Serevr.com	192.168.1.4
Gmail.com	192.168.1.5
File-Serevr.com	192.168.1.6

DNS

Physical Config Desktop Software/Services

GLOBAL
Settings
Algorithm Settings

SERVICES
HTTP
DHCP
FTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
INTERFACE
FastEthernet

DNS Service: ☒ On ☐ Off

Resource Records

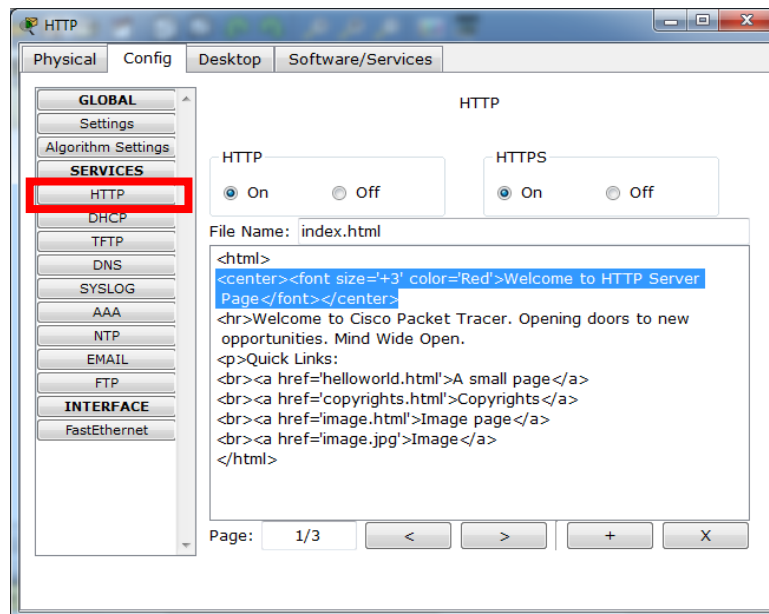
Name: HTTP-Serevr.com Type: A Record

Add Save Remove

No.	Name	Type	Details
1	cs-study	A Record	192.168.1.2
2	gmail.com	A Record	192.168.1.6

DNS Cache

1. Configuring HTTP Server:



2. Testing DNS & HTTP Server:

Open PC1's web browser and request the following URLs:

URL: 192.168.1.4

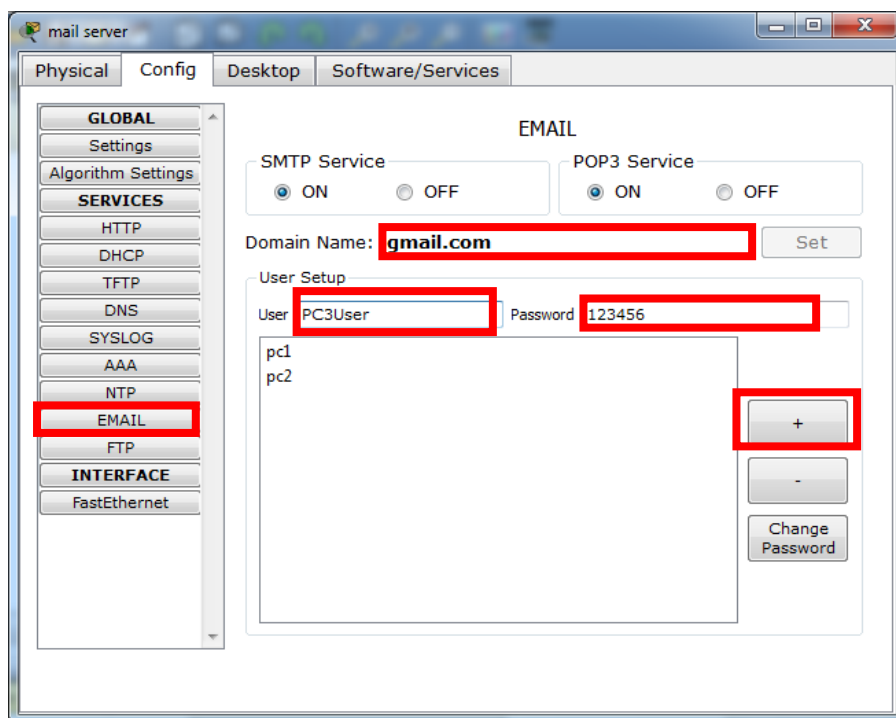
URL: HTTP-Serevr.com

URL: 192.168.1.5

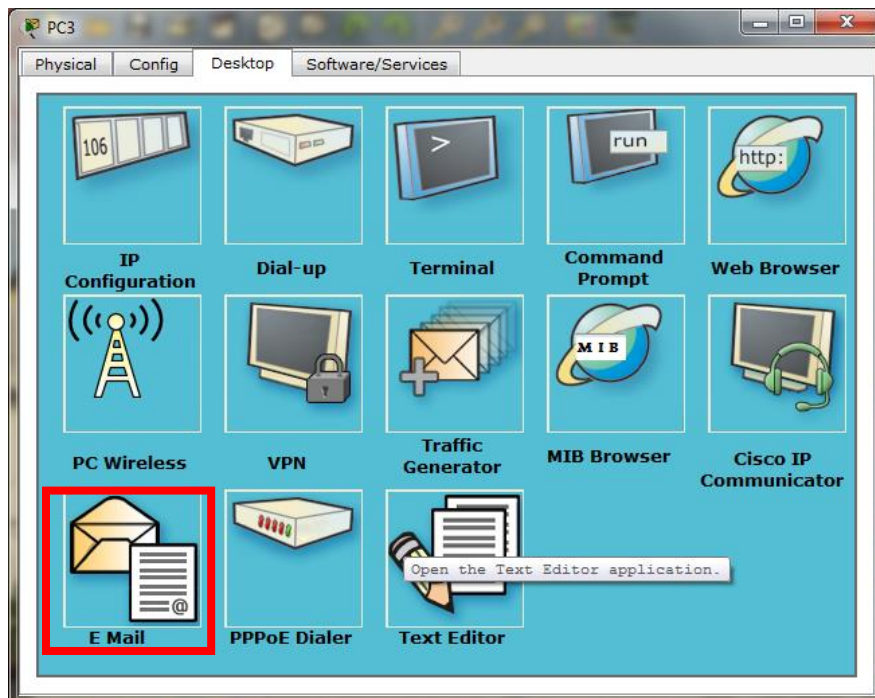
URL: Gmail.com

3. Configuring The Mail-Server

- First create users in the Email Server Config Page:

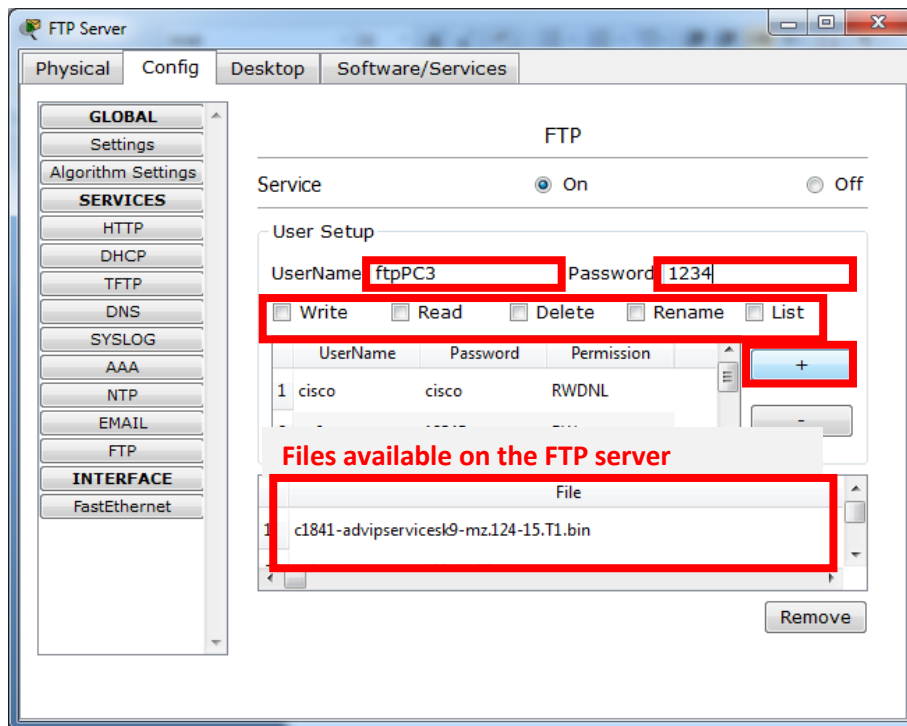


b. Then configure the user in the PCs!



After Configuring all the mails create (Compose) a new email and send it from PC3 to PC1:
From: PC3User@gmail.com – To: PC1User@gmail.com

it p



4. Using FTP Server

- Go to PC1's Text Editor and create file and save it in the name of (readme)
- Then Open PC1's command prompt and write the following commands:

```
PC1> ftp 192.168.1.6
Username: cisco
Password: cisco
ftp> dir
ftp> put readme.txt
ftp> dir
```

FTP Commands:

dir: a command that shows all the available files in the ftp server

put: a command that upload a file to the ftp server

get: a command that download a file from the ftp server.

Quit: a command to exit from the ftp service.