

## Lab 11: Objective:

## DNS and Email Server Configuration

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#### Email Server

A mail server (sometimes also referred to as an e-mail server) is a server that handles and delivers e-mail over a network, usually over the Internet. A mail server can receive e-mails from client computers and deliver them to other mail servers. A mail server can also deliver e-mails to client computers. A client computer is normally the computer where you read your e-mails, for example your computer at home or in your office. Also an advanced mobile phone or Smartphone, with e-mail capabilities, can be regarded as a client computer in these circumstances.

#### SMTP and POP3 server

when you press the "Send" button in your e-mail program (e-mail client) the program will connect to a server on the network / Internet that is called an SMTP server. SMTP is an acronym for Simple Mail Transfer Protocol and it is a protocol that is used when e-mails are delivered from clients to servers and from servers to other servers.

When you download e-mails to your e-mail program the program will connect to a server on the net that is known as a POP3 server. A POP3 server uses a protocol named POP3 for its communication. That is the reason why it is called a POP3 server and POP3 is an acronym for Post Office Protocol version 3.

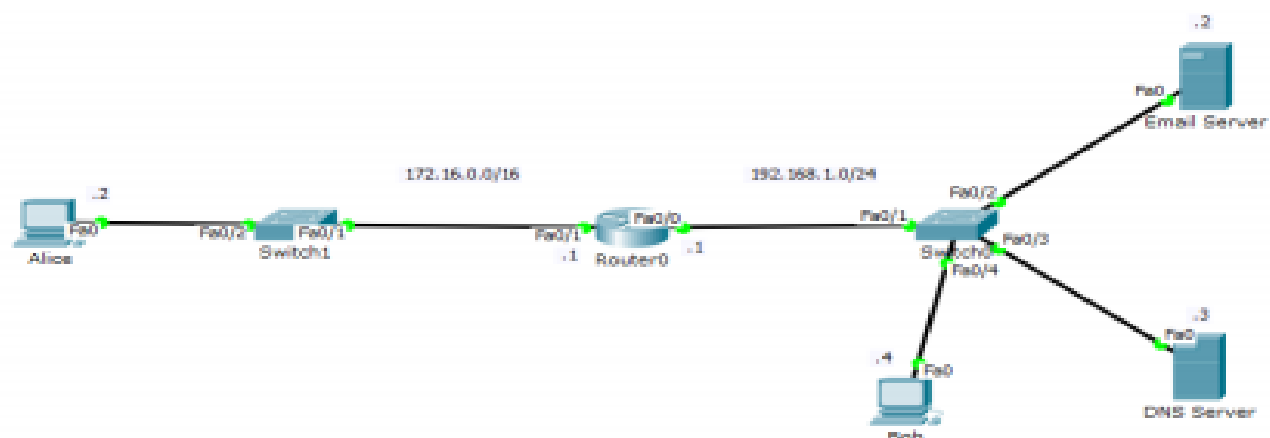


Figure 1

Refer to figure 1,

### Task 1, IP to Router

```
Router>enable
Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Fa0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#interface Fa0/1
Router(config-if)#ip address 172.16.0.1 255.255.0.0
Router(config-if)#no shutdown
Router(config-if)#exit
```

### Task 2, IP to PC & Server

Configure IPs on the PCs and Servers making sure to enter the IP for DNS Server as 192.168.1.3. Configure the DNS Server with an A Record (Address Record) entry for gmail.com (As shown in figure 2).

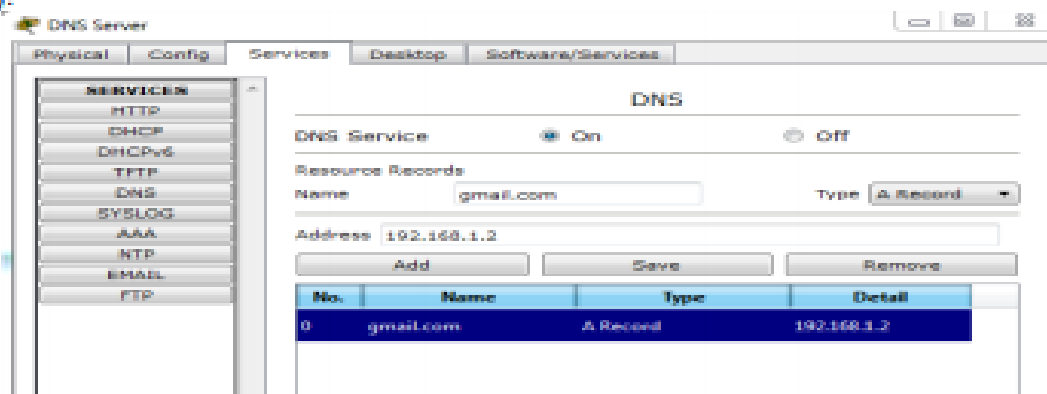


Figure 2

### Task 3, Making of Domain & User ID's

Configure the Email Server; create a domain for gmail.com and User IDs for Alice & Bob(As shown in figure 3).

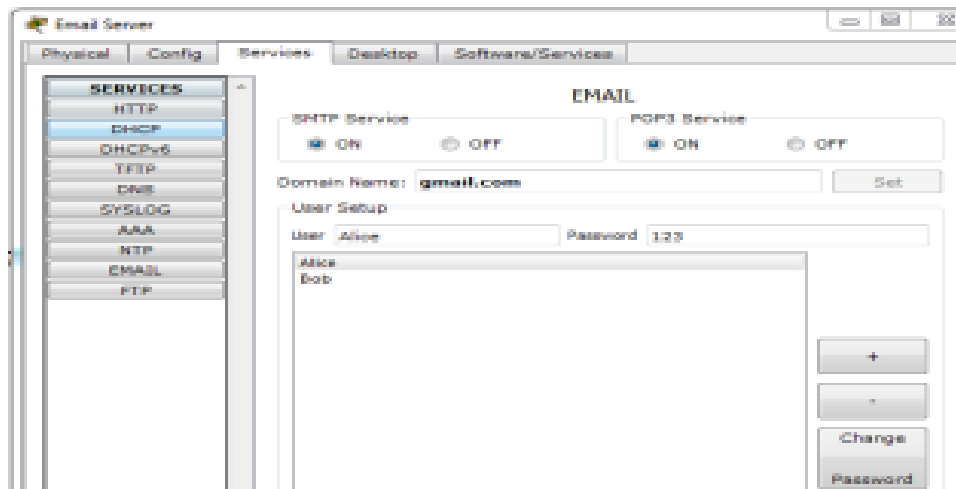


Figure 3

#### Task 4, Users Configuration

Open the Email Settings on Alice and Bob and configure them (As shown in figure 4 & 5).

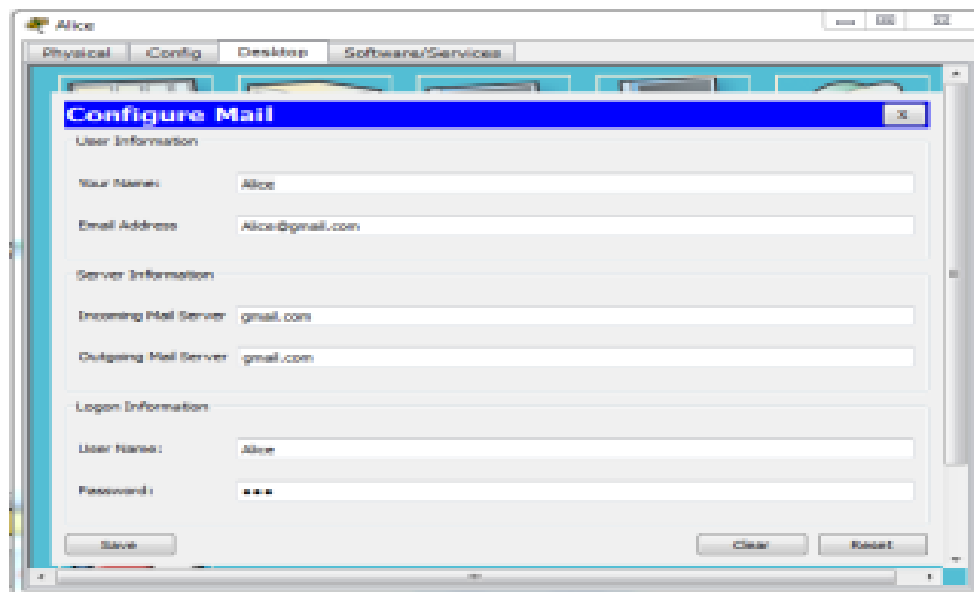


Figure 4

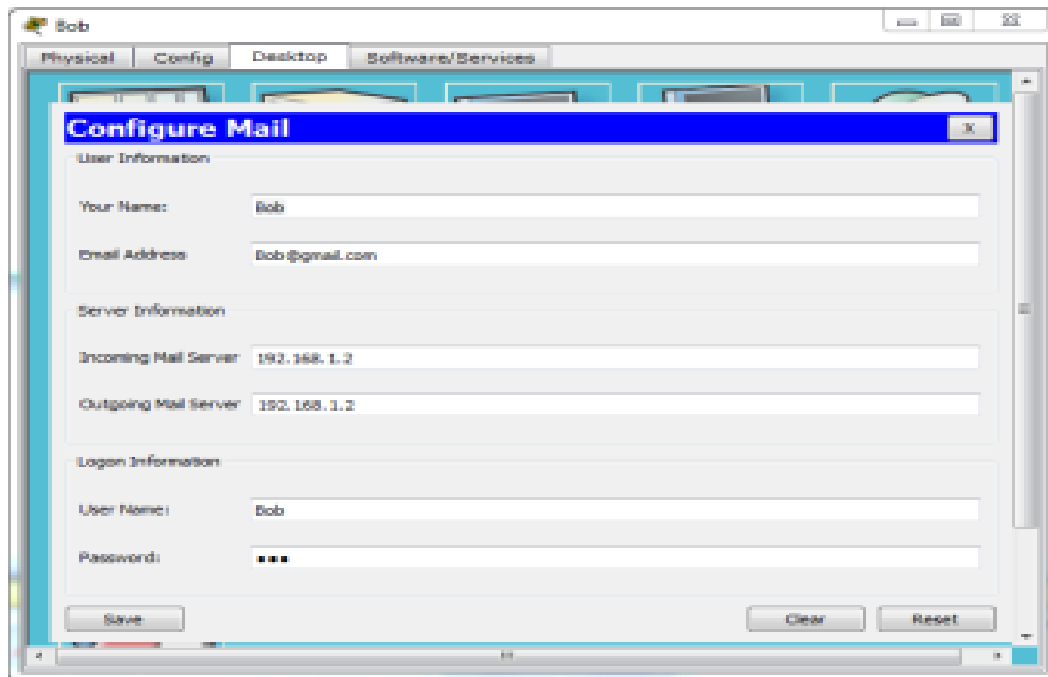


Figure 5

### Task 5, Sending an Email from Alice

Send a Test Email to Bob from Alice (As shown in figure 6)

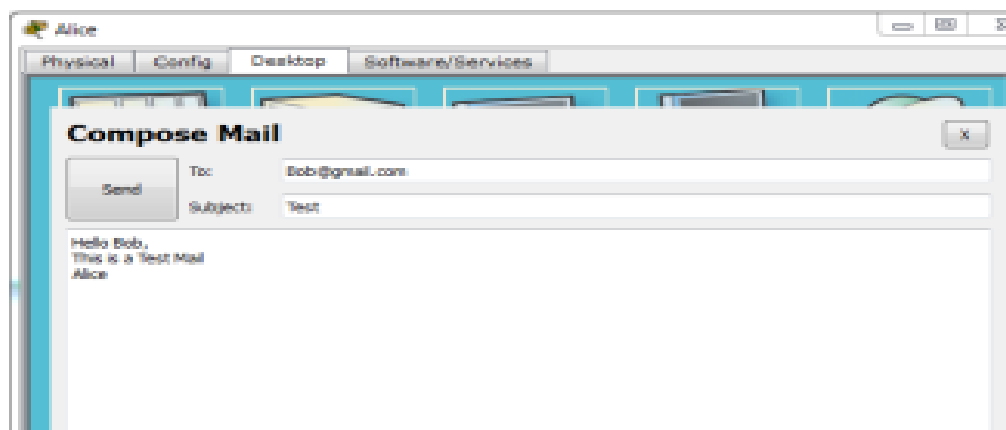


Figure 6

### Task 6, Receiving an Email on Bob

Now receive the email from Alice on Bob (As shown in figure 7)

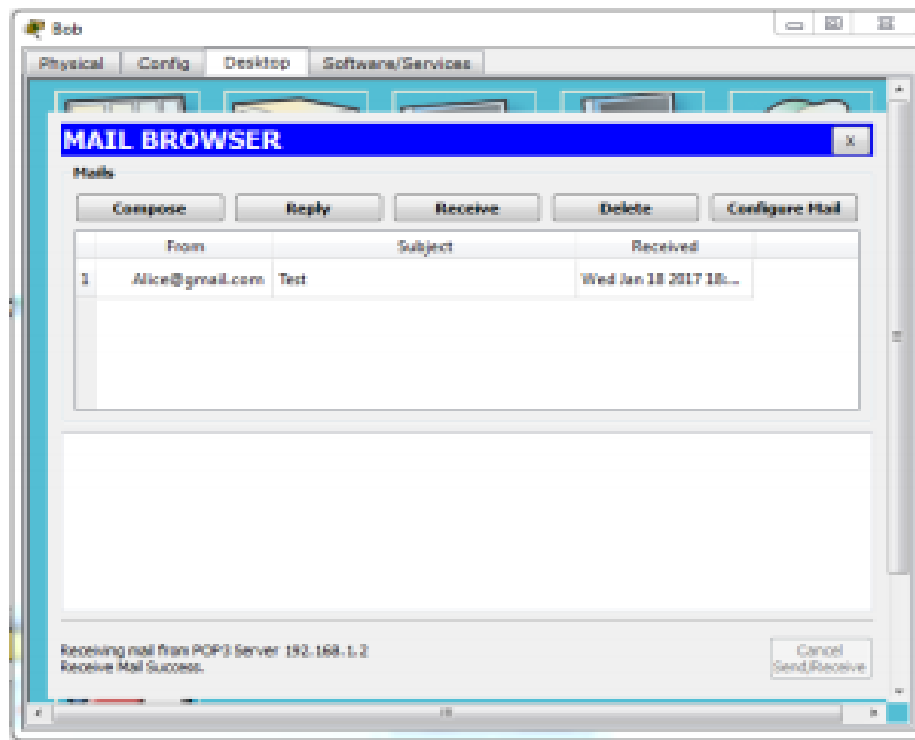


Figure 7

### Lab-11 Exercise:

Design a ring network which consists of 4 routers. Attach 4 PC's with each router and also attach a DNS and Email Server with router 4. At the end of the configuration, attached devices of router 4 should be able to send and receive email to each other. Email addresses should be on student name.