

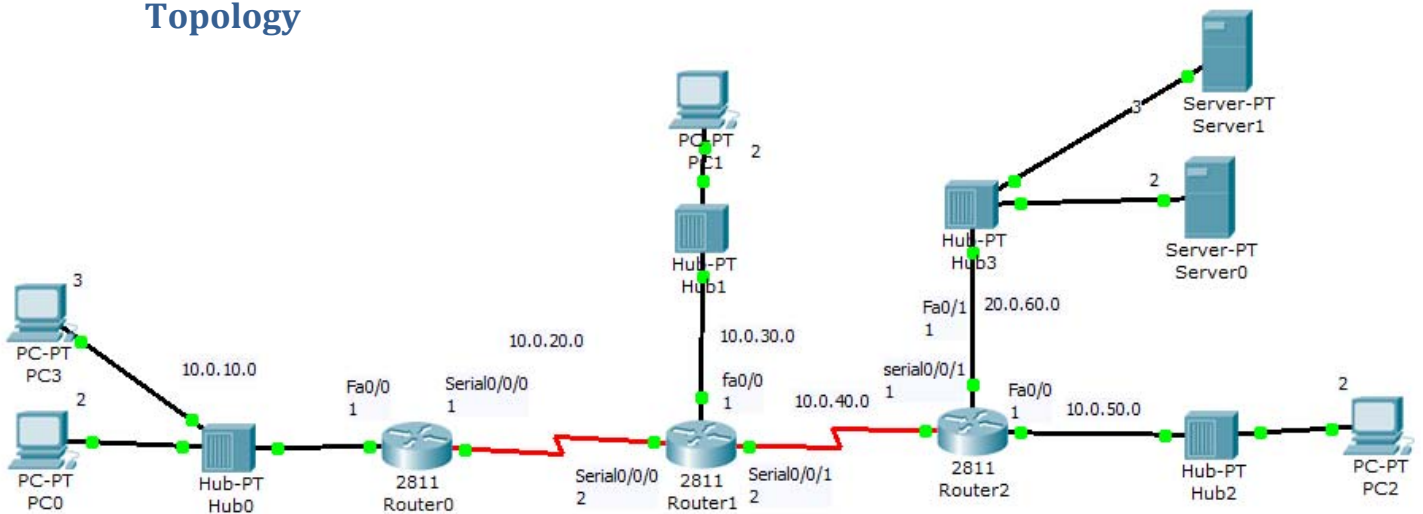
Wireless Lab 03

IP/TCP Layers Network Security I

Equipment

#	Item
4	PCs
4	Hubs
4	Router 2811
2	Server

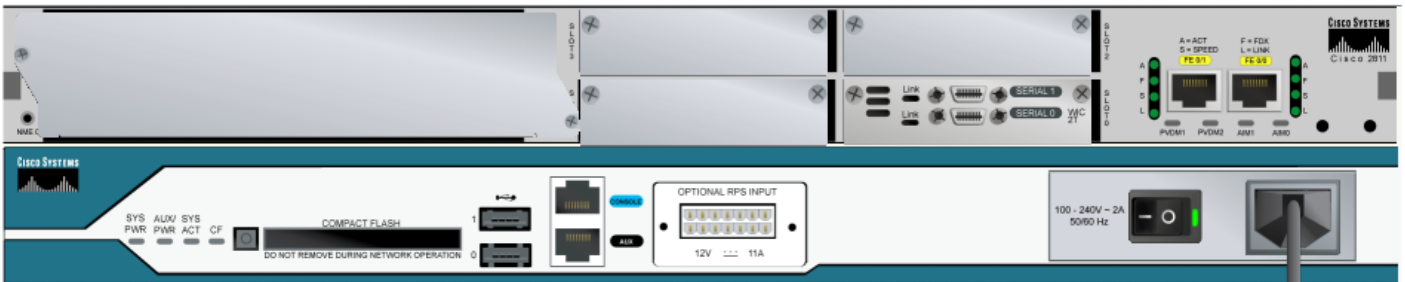
Topology



Steps

1. Basic Configuration

- upgrade routers by adding "WIC-2T"



- Connect devices as shown in topology
- Configure PCs

PC0	
IP	10.0.10.2
Subnet mask	255.255.255.0
Gateway	10.0.10.1

PC1	
IP	10.0.30.2

Subnet mask	255.255.255.0
Gateway	10.0.30.1

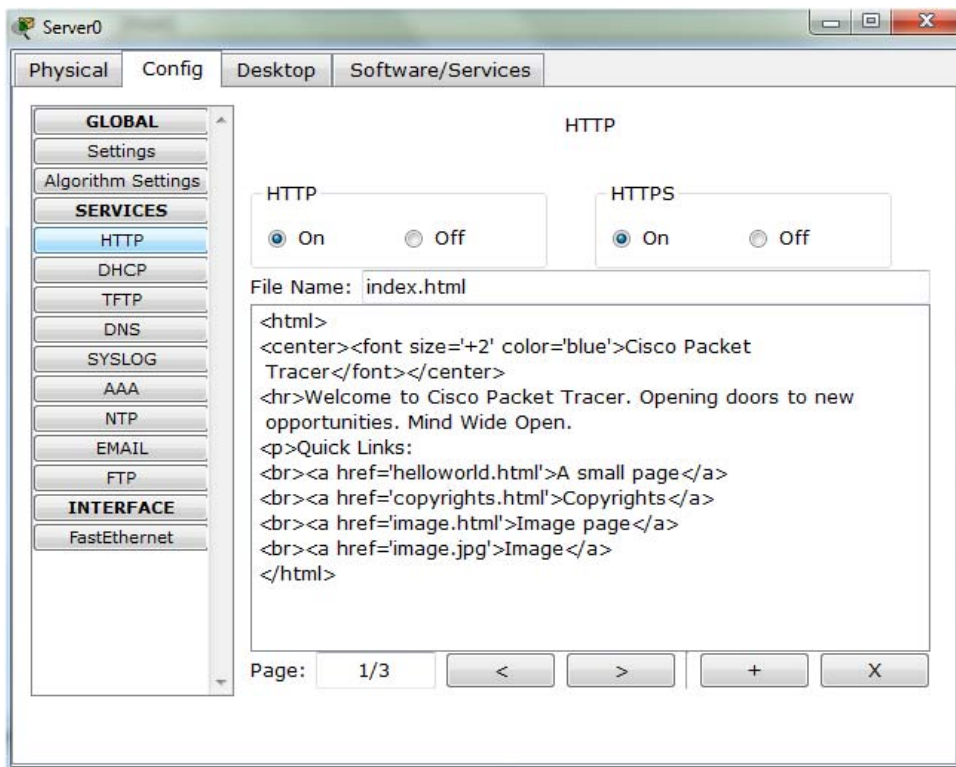
PC3	
IP	10.0.10.3
Subnet mask	255.255.255.0
Gateway	10.0.10.1

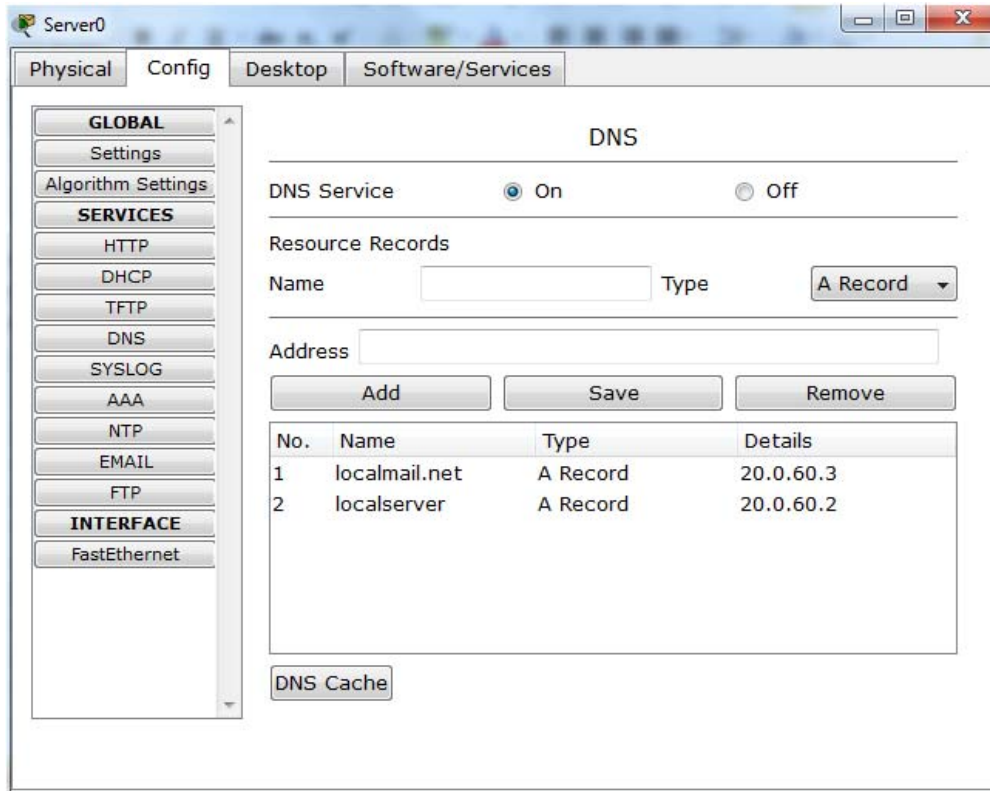
PC2	
IP	10.0.50.2
Subnet mask	255.255.255.0
Gateway	10.0.50.1

Server0	
IP	20.0.60.2
Subnet mask	255.255.255.0
Gateway	20.0.60.1

Server1	
IP	20.0.60.3
Subnet mask	255.255.255.0
Gateway	20.0.60.1

Server 0 → web server & DNS server



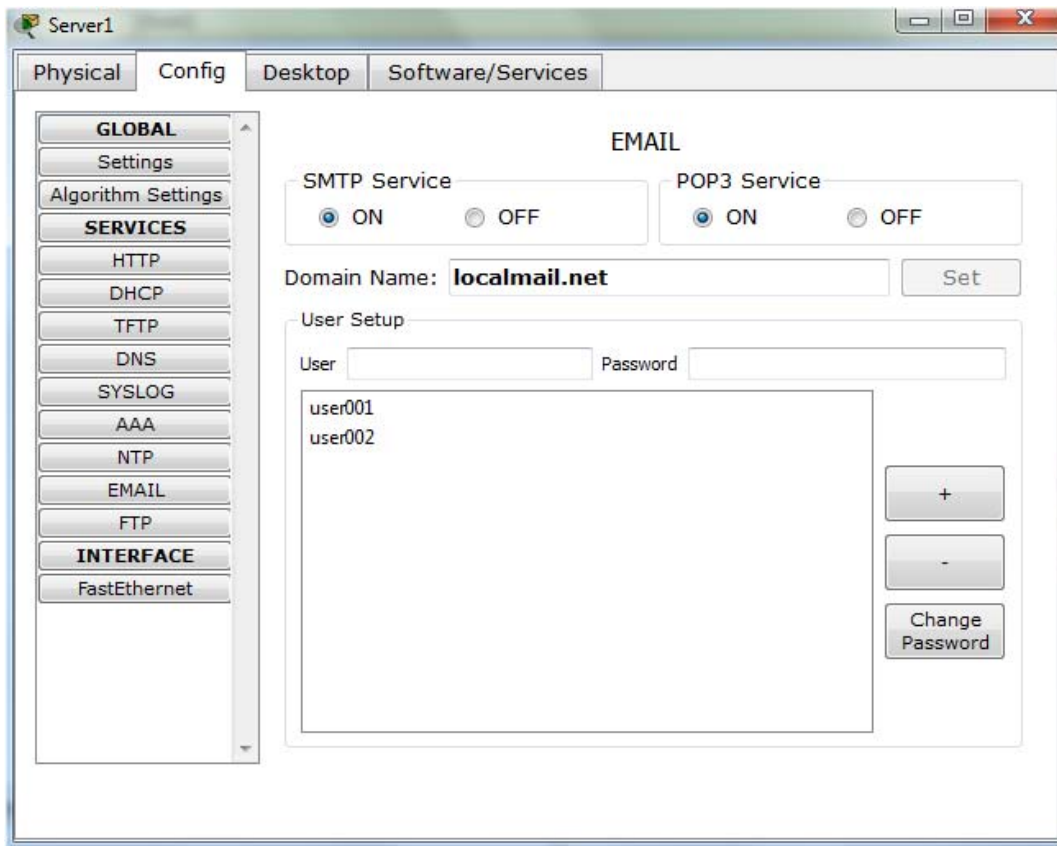


The screenshot shows the configuration window for Server0, specifically the DNS settings. The window has tabs for Physical, Config, Desktop, and Software/Services. The left sidebar shows a tree view with categories: GLOBAL (Settings, Algorithm Settings), SERVICES (HTTP, DHCP, TFTP, DNS, SYSLOG, AAA, NTP, EMAIL, FTP), and INTERFACE (FastEthernet). The main area is titled 'DNS' and contains the following elements:

- DNS Service:** A radio button control set to 'On'.
- Resource Records:** A section for adding records with a 'Name' field, a 'Type' dropdown menu set to 'A Record', and an 'Address' field.
- Buttons:** 'Add', 'Save', and 'Remove' buttons are located below the resource records form.
- Table:** A table listing existing records:

No.	Name	Type	Details
1	localmail.net	A Record	20.0.60.3
2	localserver	A Record	20.0.60.2
- DNS Cache:** A button located at the bottom of the window.

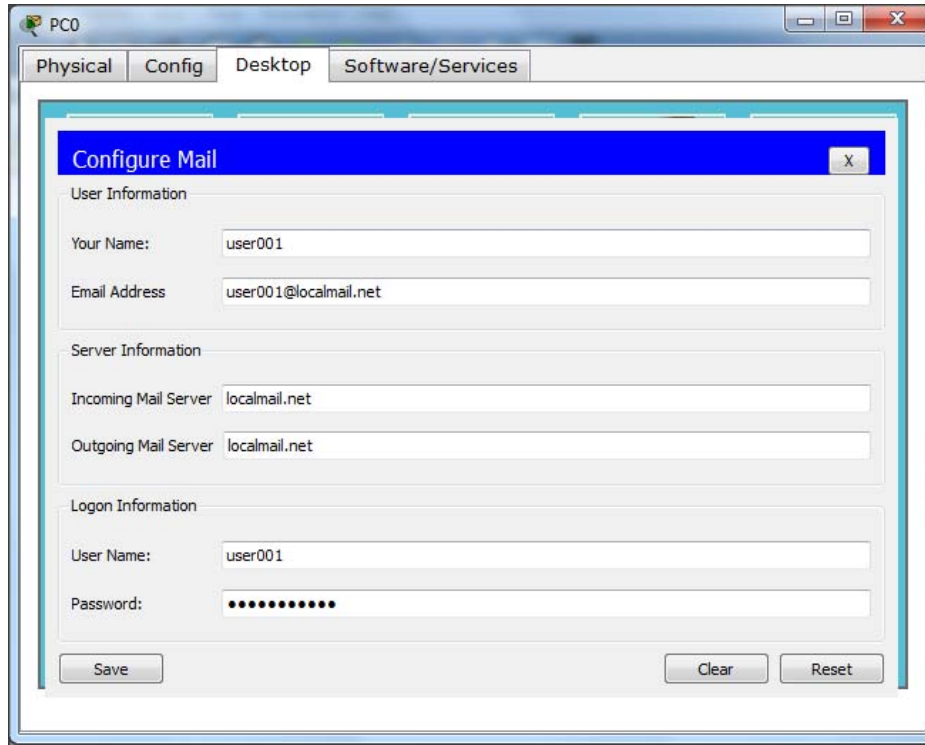
Server 1 → email server



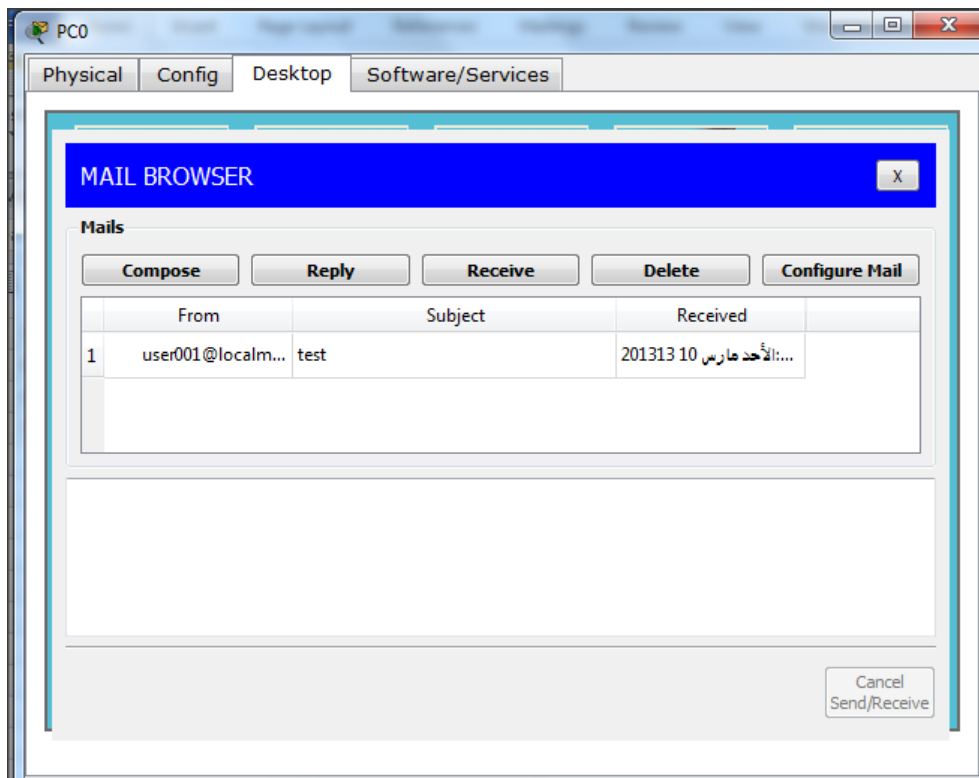
The screenshot shows the configuration window for Server1, specifically the EMAIL settings. The window has tabs for Physical, Config, Desktop, and Software/Services. The left sidebar is identical to the previous screenshot. The main area is titled 'EMAIL' and contains the following elements:

- SMTP Service:** A radio button control set to 'ON'.
- POP3 Service:** A radio button control set to 'ON'.
- Domain Name:** A text field containing 'localmail.net' and a 'Set' button.
- User Setup:** A section for adding users with 'User' and 'Password' input fields.
- User List:** A list box containing 'user001' and 'user002'.
- Buttons:** '+', '-', and 'Change Password' buttons are located to the right of the user list.

PC0 : email client1



PC3 : email client2





Routers Basic Configuration

```
R en
o config t
u
t enable password EnableRouter0
e line vty 0 4
r password TelnetRouter0
  login
0 exit

  interface fa0/0
  ip address 10.0.10.1 255.255.255.0
  no sh
  exit

  interface serial0/0/0
  ip address 10.0.20.1 255.255.255.0
  no sh
  clock rate 2000000
  exit

  interface loopback 0
  ip address 1.1.1.1 255.255.255.255
  no sh
  exit

  router rip
  network 10.0.10.0
  network 10.0.20.0
  network 1.1.1.1
  end

  copy running-config startup-config
```

```
R en
o config t
u
t enable password EnableRouter1
e line vty 0 4
r password TelnetRouter1
  login
1 exit

  interface fa0/0
  ip address 10.0.30.1 255.255.255.0
```



```
no sh
exit

interface serial0/0/0
ip address 10.0.20.2 255.255.255.0
no sh
exit

interface serial0/0/1
ip address 10.0.40.2 255.255.255.0
no sh
clock rate 2000000
exit

interface loopback 0
ip address 2.2.2.2 255.255.255.255
no sh
exit

router rip
network 10.0.20.0
network 10.0.30.0
network 10.0.40.0
network 2.2.2.2
end

copy running-config startup-config
```

```
R en
o config t
u
t enable password EnableRouter2
e line vty 0 4
r password TelnetRouter2
2 login
exit

interface fa0/0
ip address 10.0.50.1 255.255.255.0
no sh
exit

interface serial0/0/1
ip address 10.0.40.1 255.255.255.0
no sh
exit
```



```

interface loopback 0
ip address 3.3.3.3 255.255.255.255
no sh
exit

interface fa0/1
ip address 20.0.60.1 255.255.255.0
no sh
exit

router rip
network 10.0.50.0
network 10.0.40.0
network 3.3.3.3
network 20.0.60.0
end

copy running-config startup-config
  
```

2. Standard Access list

```

R1>en
R1>config t
R1>access-list 1 deny 10.0.10.0 0.0.0.255
R1>access-list 1 permit 10.0.30.0 0.0.0.255
R1>access-list 2 permit 20.0.60.0 0.0.0.255
R1>end
R2>
R2>config t
R2>interface serial0/0/1
R2>ip access-group 1 in
R2>ip access-group 2 out
R2>end
  
```

Testing	PC0	Ping 20.0.60.2
	PC1	Ping 20.0.60.2
	Server 0	Ping 10.0.10.2 Ping 10.0.30.2