جامعة الأهرام الكندية
AHRAM CANADIAN UNIVERSITY

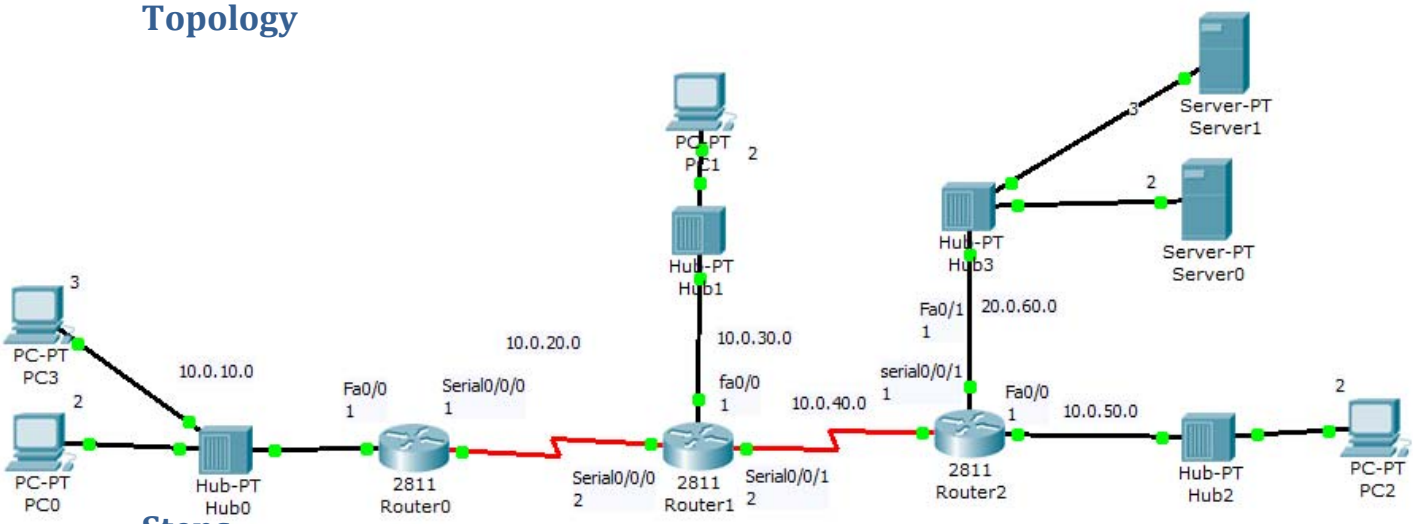
Wireless Lab 03

IP/TCP Layers Network Security I

Equipment

#	Item
4	PCs
4	Hubs
4	Router 2811
2	Server

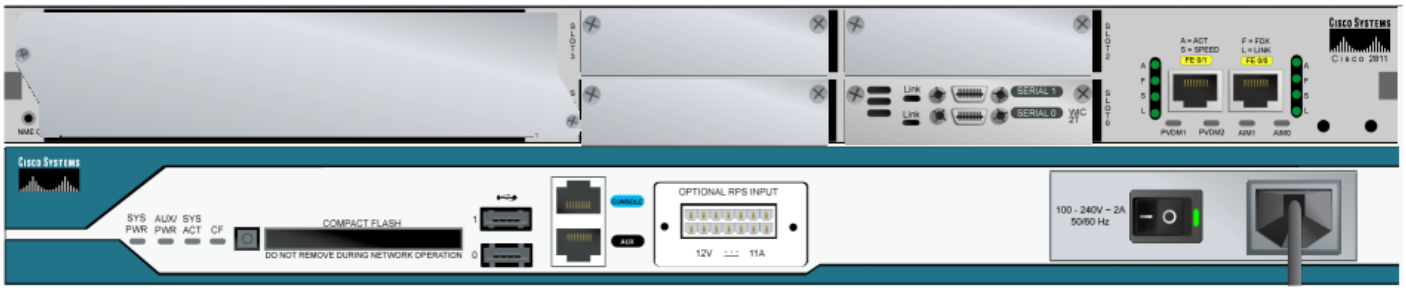
Topology



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

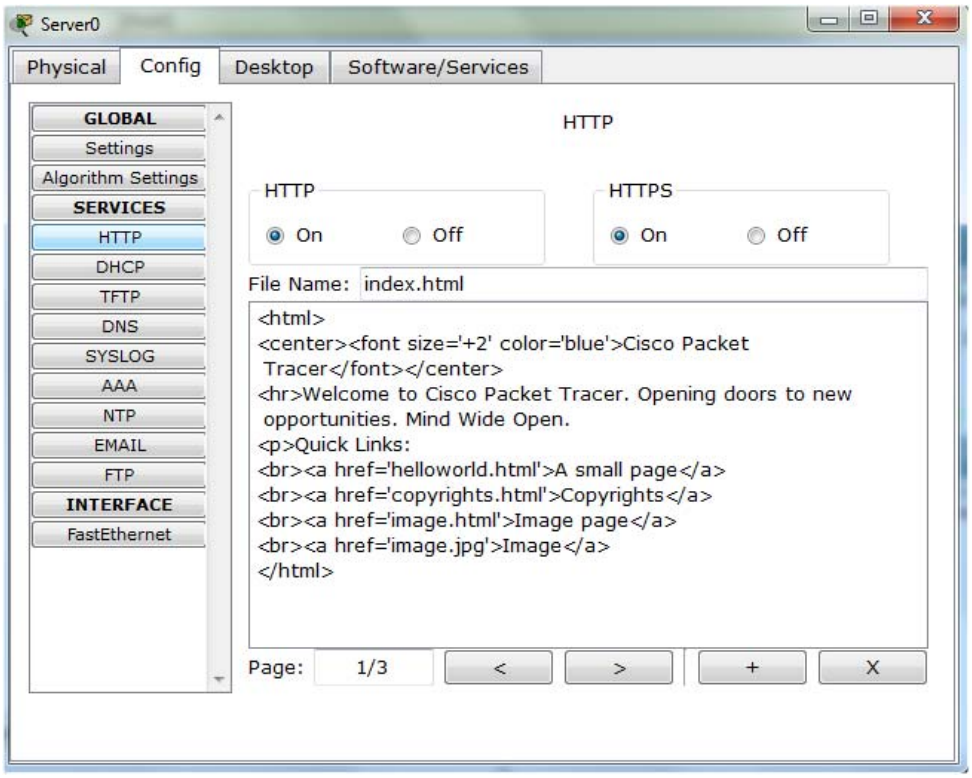
PC3	
IP	10.0.10.3
Subnet mask	255.255.255.0
Gateway	10.0.10.1

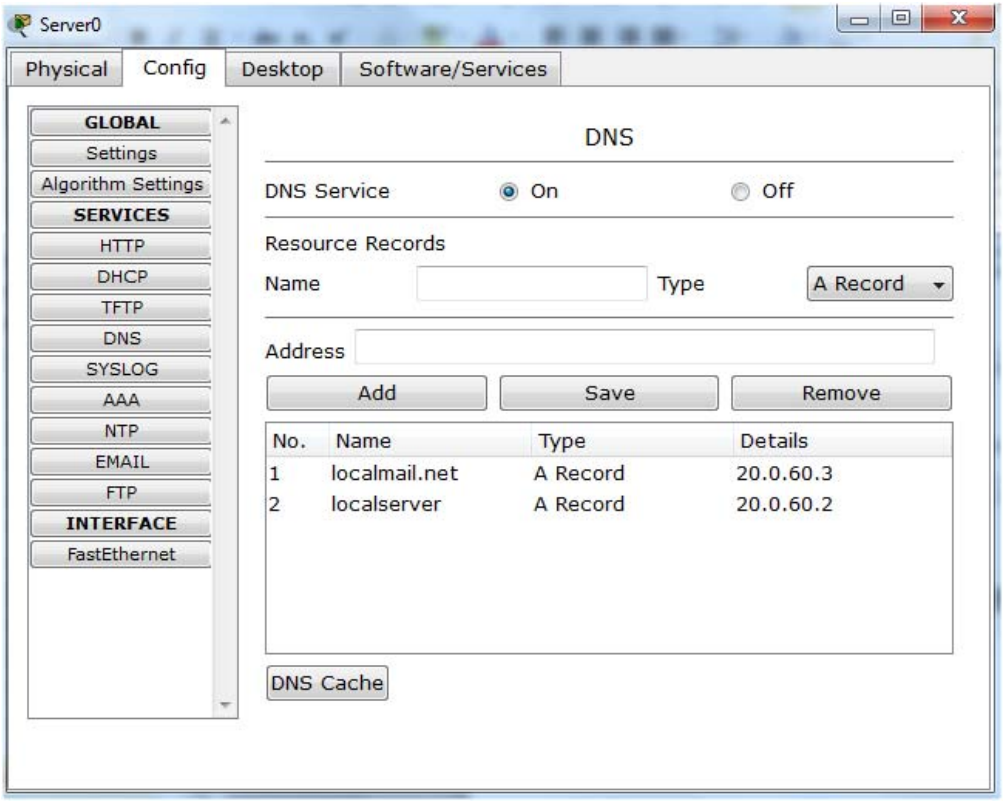
PC2	
IP	10.0.50.2
Subnet mask	255.255.255.0
Gateway	10.0.50.1

Server0	
IP	20.0.60.2
Subnet mask	255.255.255.0
Gateway	20.0.60.1

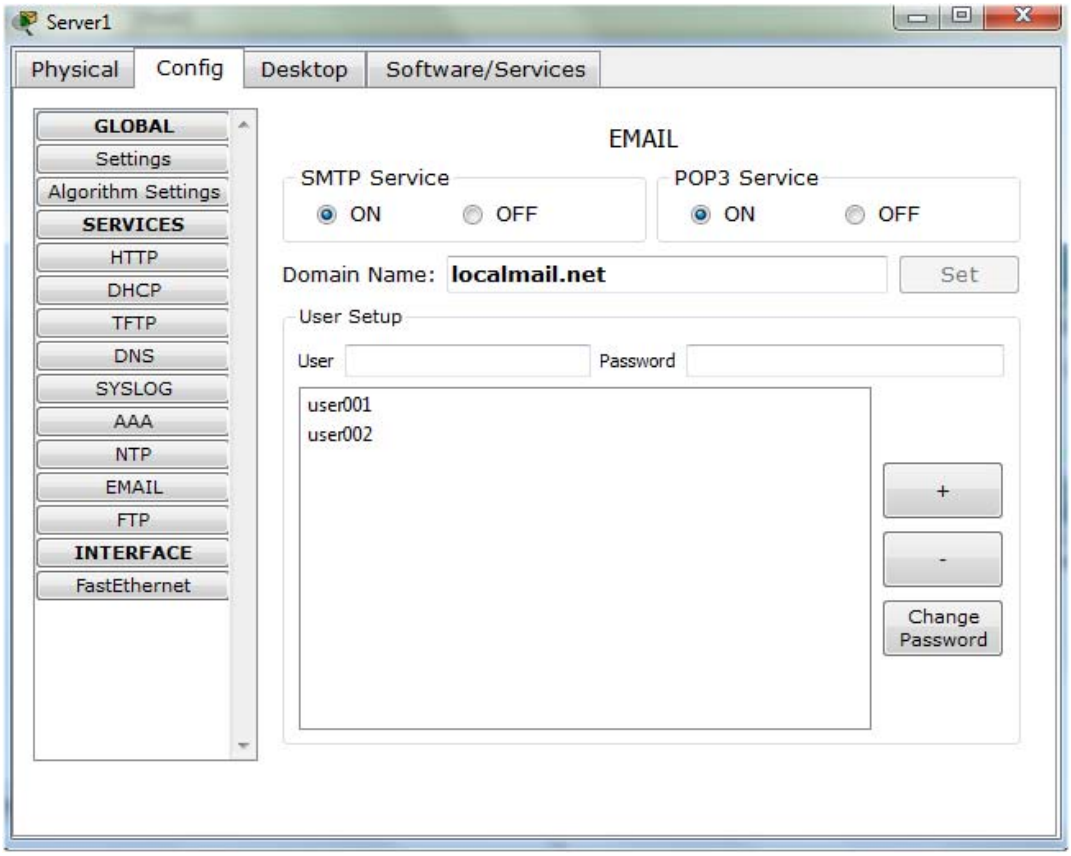
Server1	
IP	20.0.60.3
Subnet mask	255.255.255.0
Gateway	20.0.60.1

Server 0 → web server & DNS server

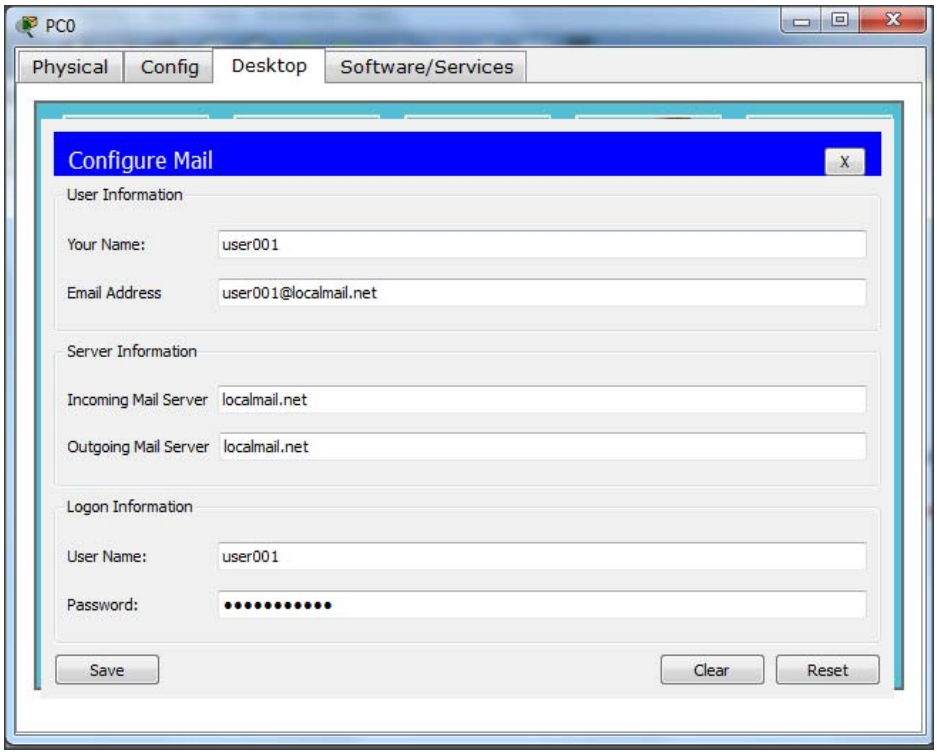




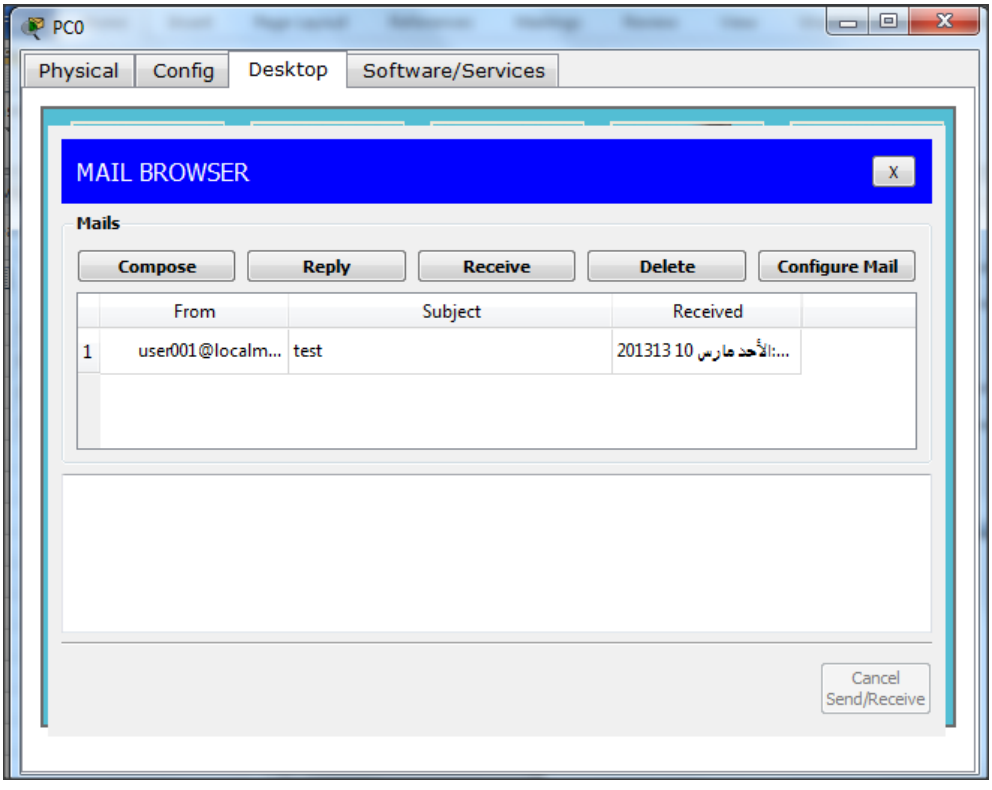
Server 1 → email server



PC0 : email client1



PC3 : email client2



Routers Basic Configuration

Router0	en config t enable password EnableRouter0 line vty 0 4 password TelnetRouter0 login 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

Router1	en config t enable password EnableRouter1 line vty 0 4 password TelnetRouter1 login 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
```

Router2

```
en
config t

enable password EnableRouter2
line vty 0 4
password TelnetRouter2
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

Router2	en config t access-list 1 deny 10.0.10.0 0.0.0.255 access-list 1 permit 10.0.30.0 0.0.0.255 access-list 2 permit 20.0.60.0 0.0.0.255 end config t interface serial0/0/1 ip access-group 1 in ip access-group 2 out 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