

Experiment No : 07

Experiment Name: Implementation of Email Service.

Objective:

In this experiment, we are going to implement Email service using 'CISCO Packet Tracer'.

Here, we use a sample network diagram it contains 2 switches, 1 Router, 2 mail servers and 2 PCs.

Server1: IP: 192.168.1.3

DNS name: ju.edu

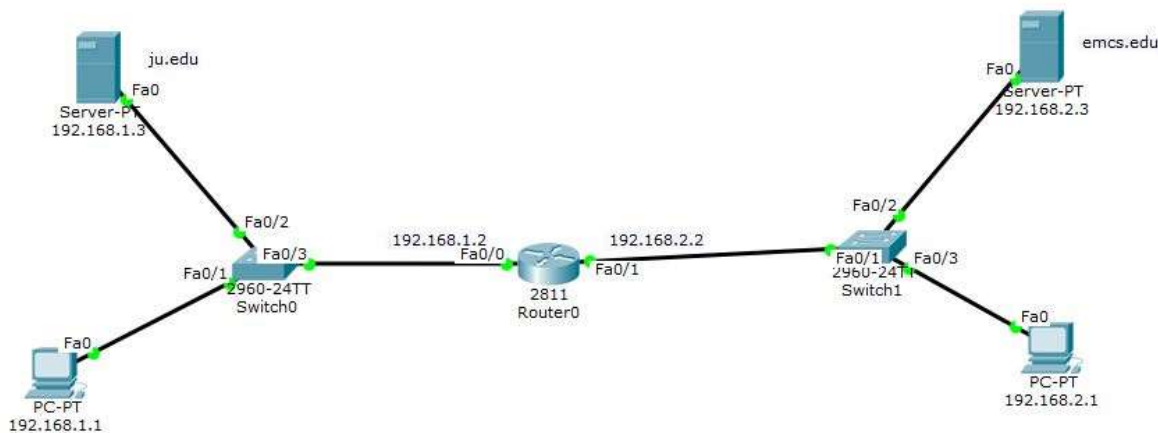
Server2: IP: 192.168.2.3

DNS name: emcs.edu

User-1 in network 192.168.1.0 has email address mkroy@ju.edu and user-2 in network 192.168.2.0 has email address roy@emcs.edu.

Design Procedure:

Let us implement the network like below:



Configure host-1: IP 192.168.1.1:

192.168.1.1

Physical Config Desktop Attributes Software/Services

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.1.1

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.2

DNS Server 192.168.1.3

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::2D0:BAFF:FE8E:5576

IPv6 Gateway

IPv6 DNS Server

Top

Configure host-2: IP: 192.168.2.1

192.168.2.1

Physical Config Desktop Attributes Software/Services

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.2.1

Subnet Mask 255.255.255.0

Default Gateway 192.168.2.2

DNS Server 192.168.2.3

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::201:97FF:FE74:74B4

IPv6 Gateway

IPv6 DNS Server

Top

Configure both interface of router:

Router0

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

FastEthernet0/0

Port Status

☒ On

Bandwidth

☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex

☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address

0001.4276.6C01

IP Configuration

IP Address

192.168.1.2

Subnet Mask

255.255.255.0

Tx Ring Limit

10

Equivalent IOS Commands

Router>enable

Router#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface FastEthernet0/0

Router(config-if)#

Top

Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

FastEthernet0/1

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0001.4276.6C02

IP Configuration

IP Address 192.168.2.2

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
```

Top

Configure 1st DNS/MAIL server:
IP configure:

192.168.1.3

Physical Config Services Desktop Attributes Software/Services

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.1.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.2

DNS Server: 192.168.1.3

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::260:3EFF:FEAE:8A78

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

DNS configure:

192.168.1.3

Physical Config Services Desktop Attributes Software/Services

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoE

VM Management

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name: Type: A Record

Address:

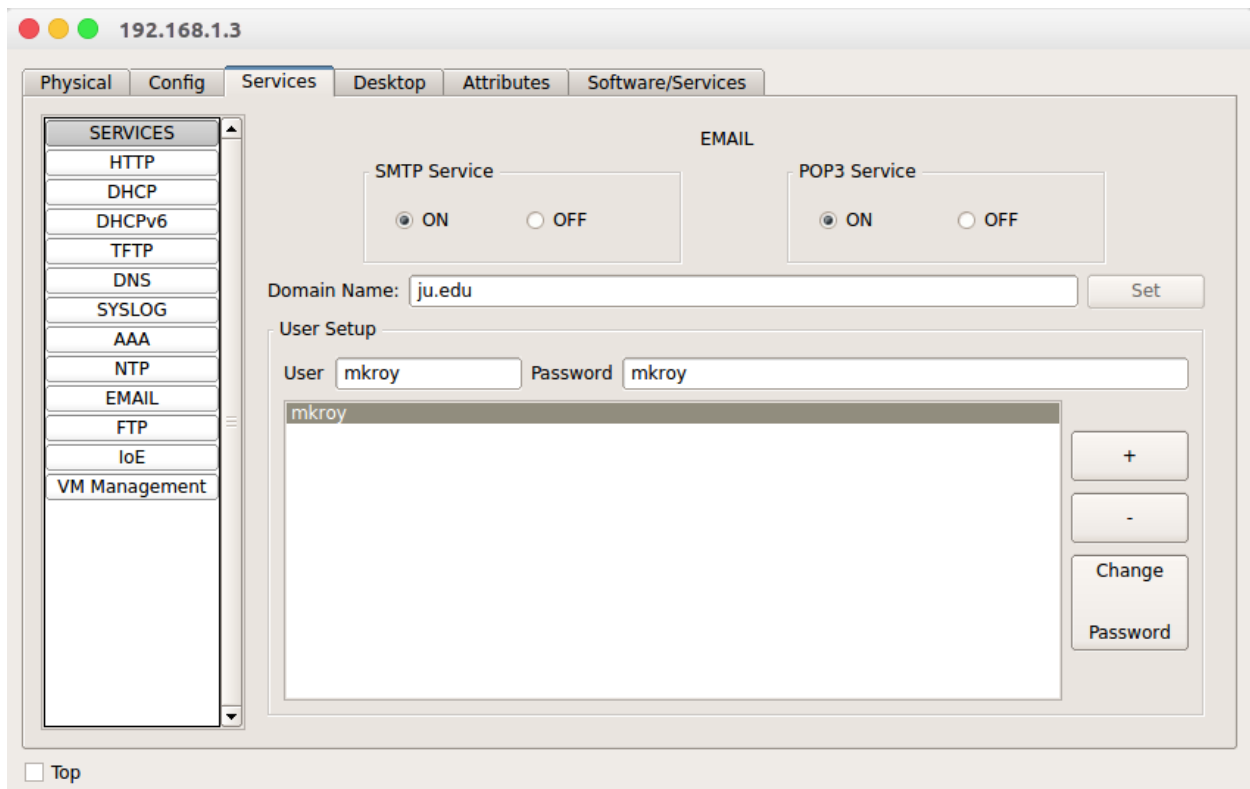
Add Save Remove

No.	Name	Type	Detail
0	emcs.edu	A Record	192.168.2.3
1	ju.edu	A Record	192.168.1.3

DNS Cache

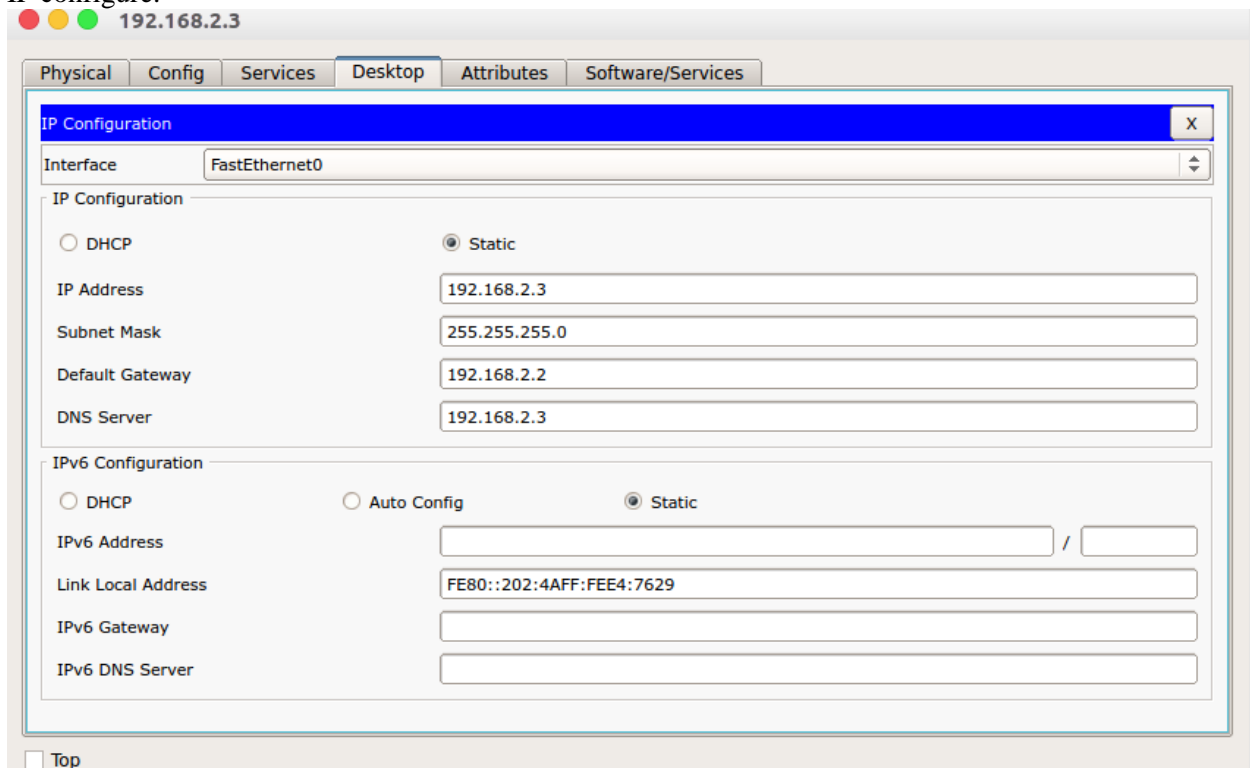
☐ Top

Email Configure:

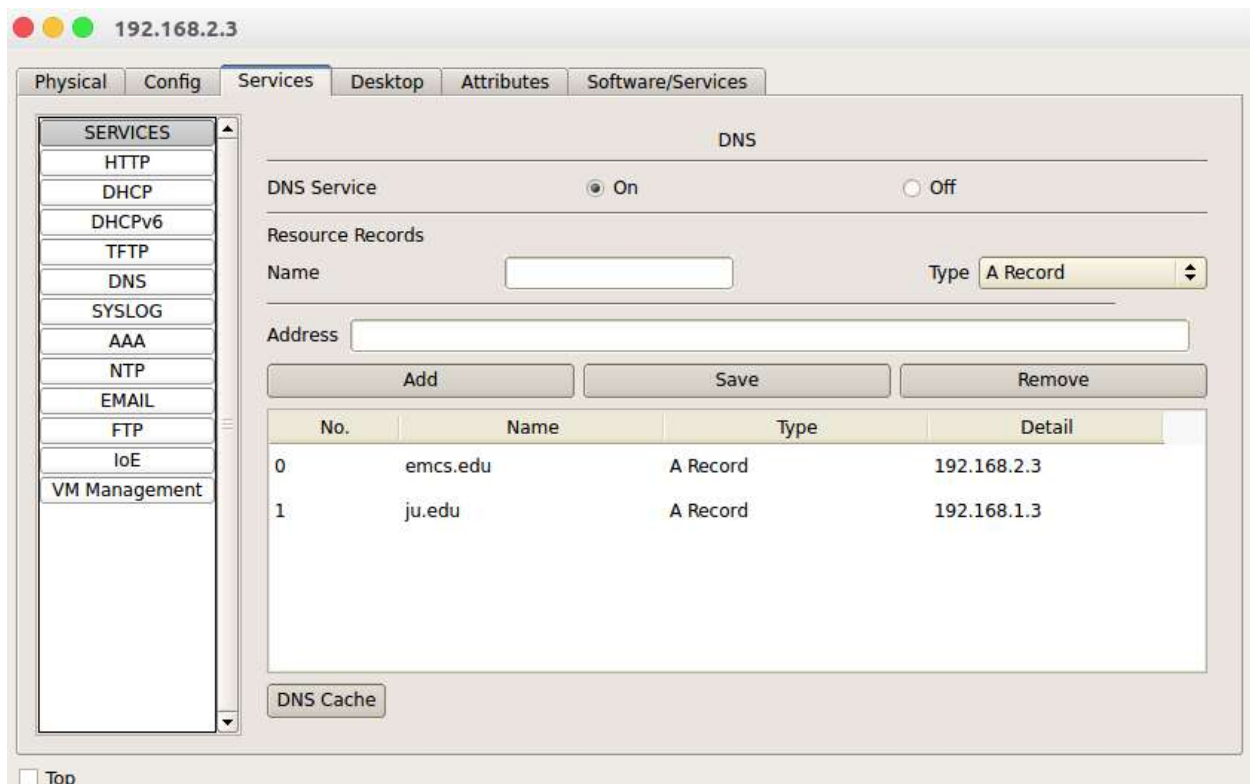


Configure 2nd DNS/MAIL server:

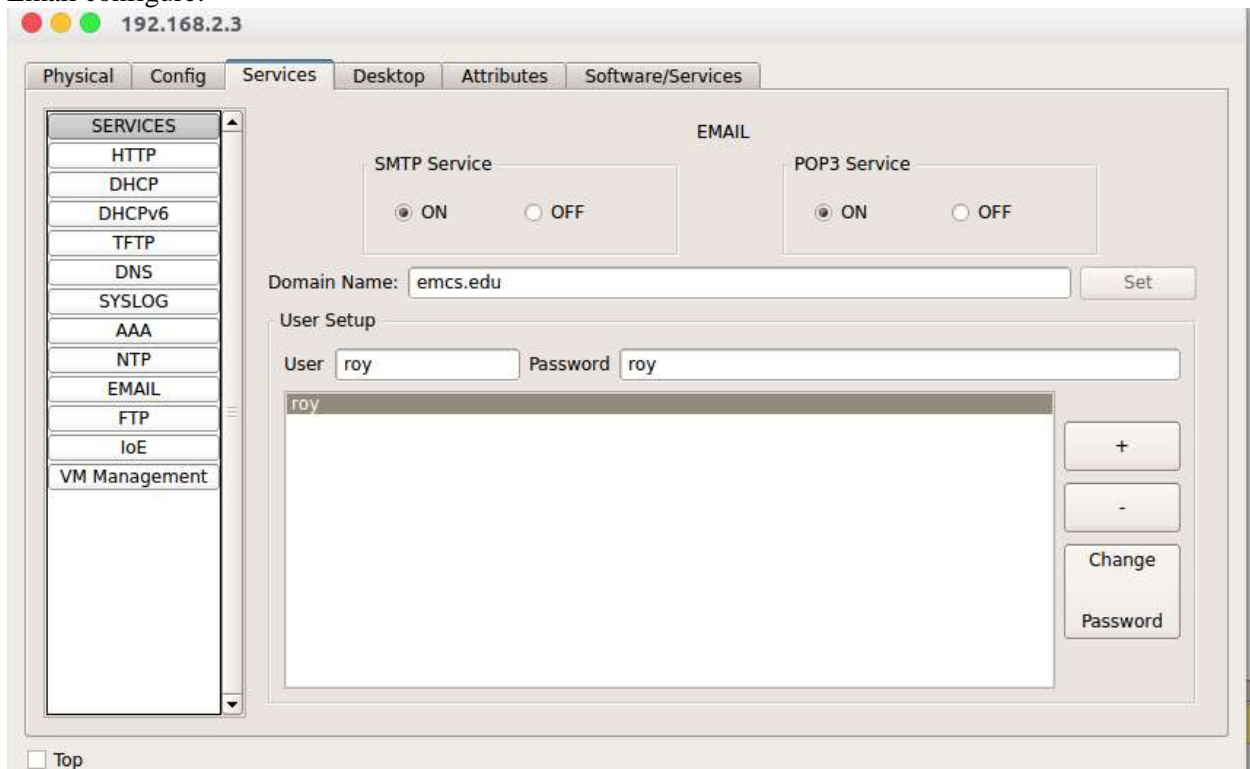
IP configure:



DNS configure:



Email configure:



Configure the mail of the client-1:

192.168.1.1

Physical Config Desktop Attributes Software/Services

Configure Mail X

User Information

Your Name: Moni

Email Address: mkroy@ju.edu

Server Information

Incoming Mail Server: 192.168.1.3

Outgoing Mail Server: 192.168.1.3

Logon Information

User Name: mkroy

Password: *****

Save Clear Reset

☐ Top

Configure the mail for client-2:

192.168.2.1

Physical Config Desktop Attributes Software/Services

Configure Mail X

User Information

Your Name: Roy

Email Address: roy@emcs.edu

Server Information

Incoming Mail Server: 192.168.2.3

Outgoing Mail Server: 192.168.2.3

Logon Information

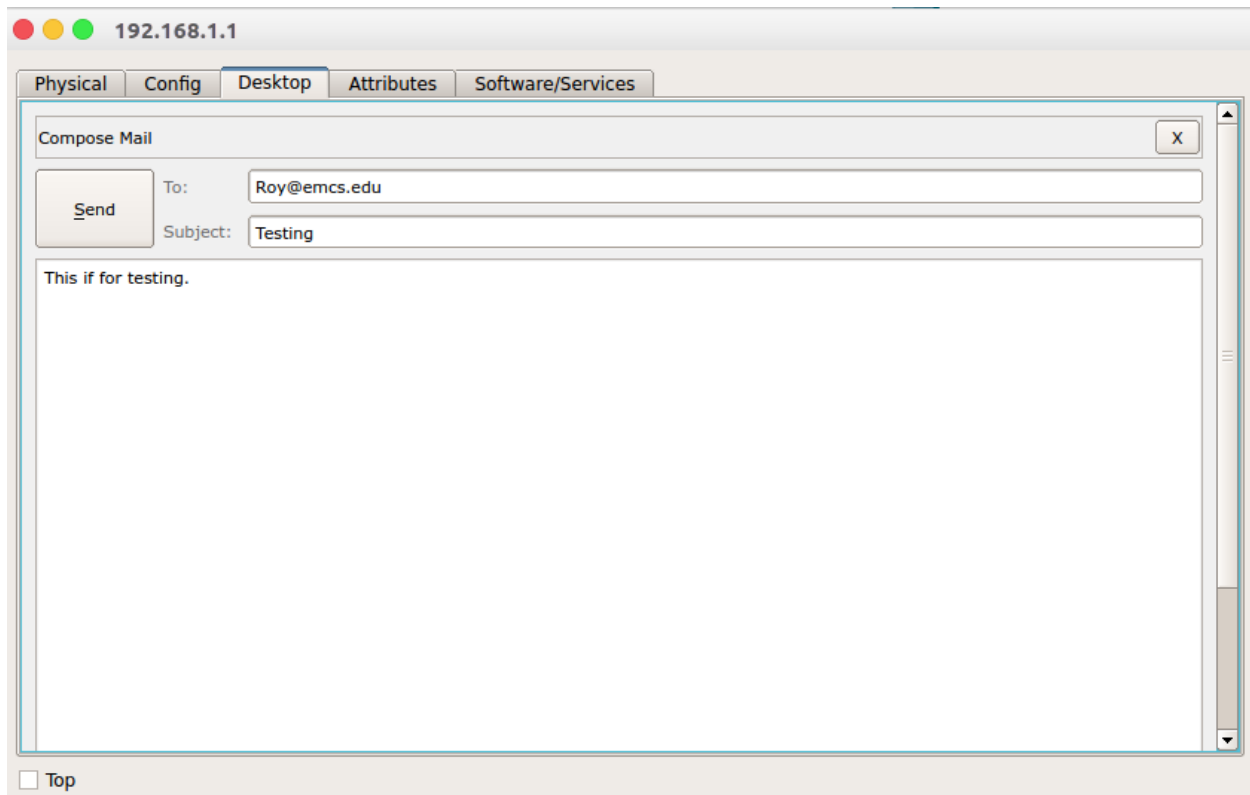
User Name: roy

Password: ***

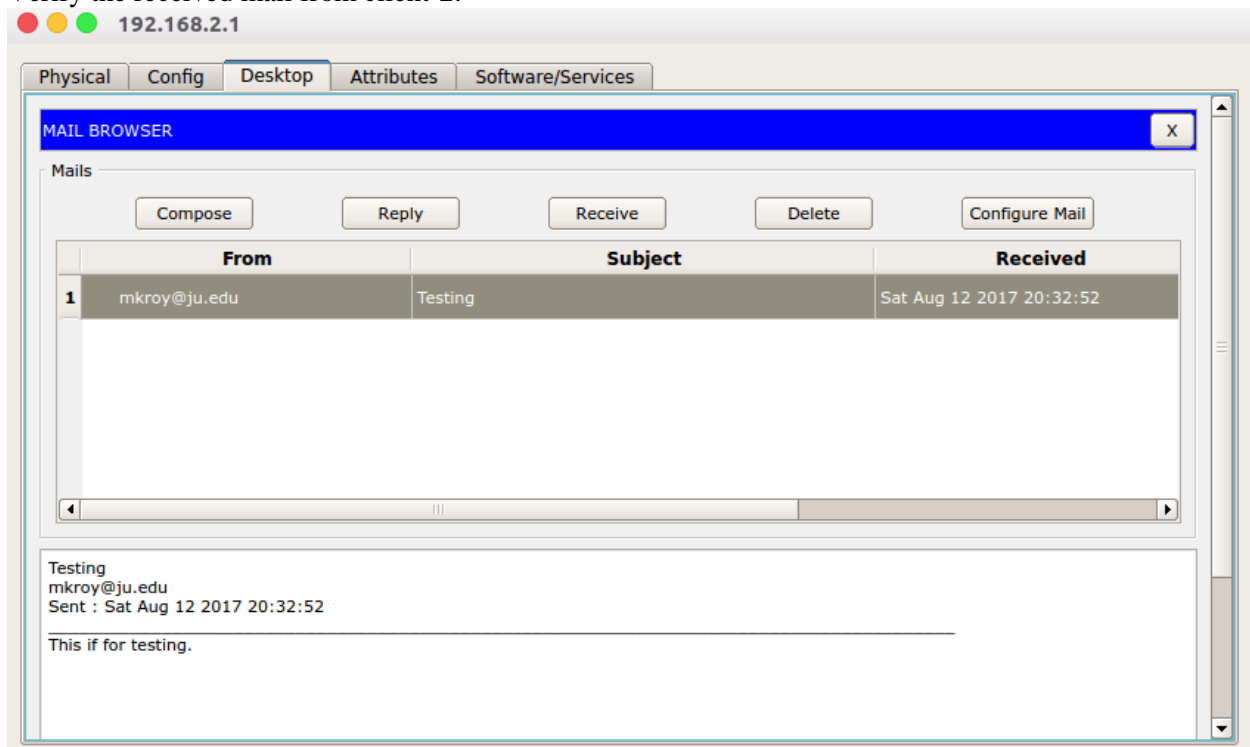
Save Clear Reset

☐ Top

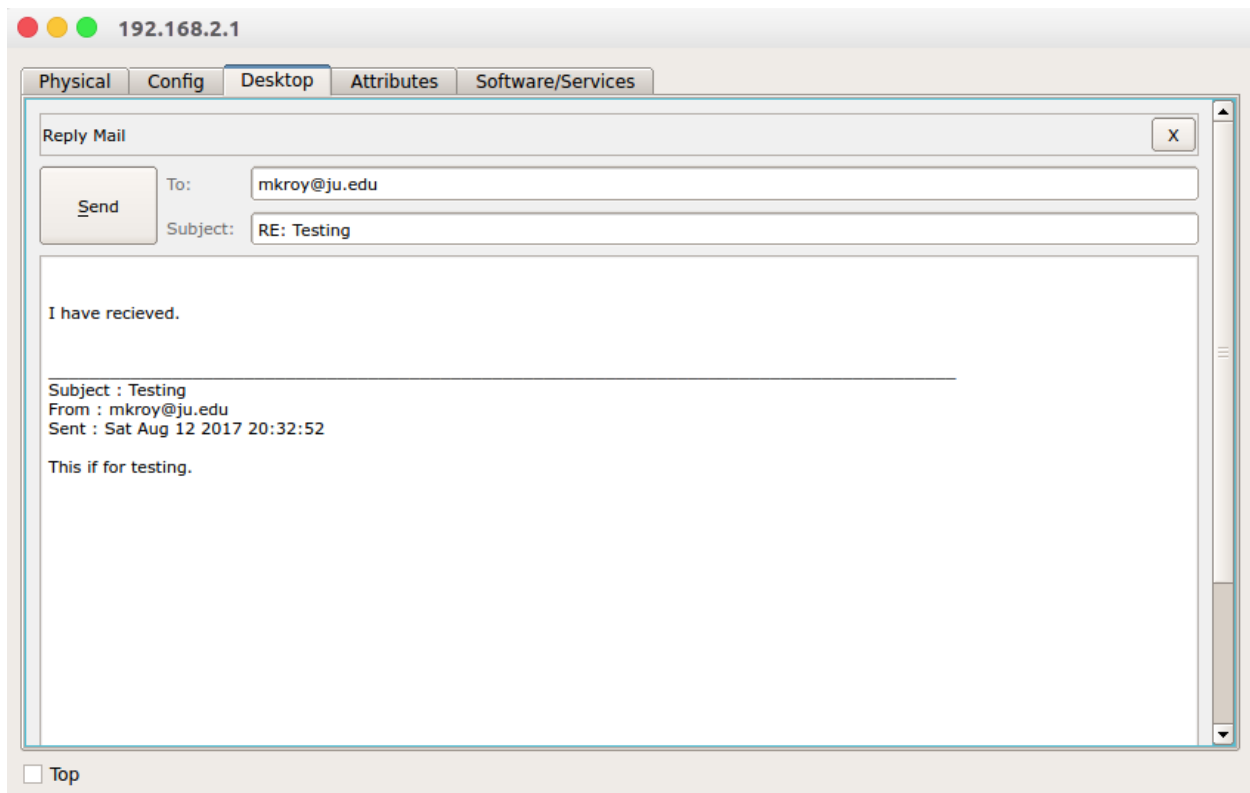
Send mail from client-1:



Verify the received mail from client-2:



Reply mail from client-2:



Verify the reply mail from client-1:

