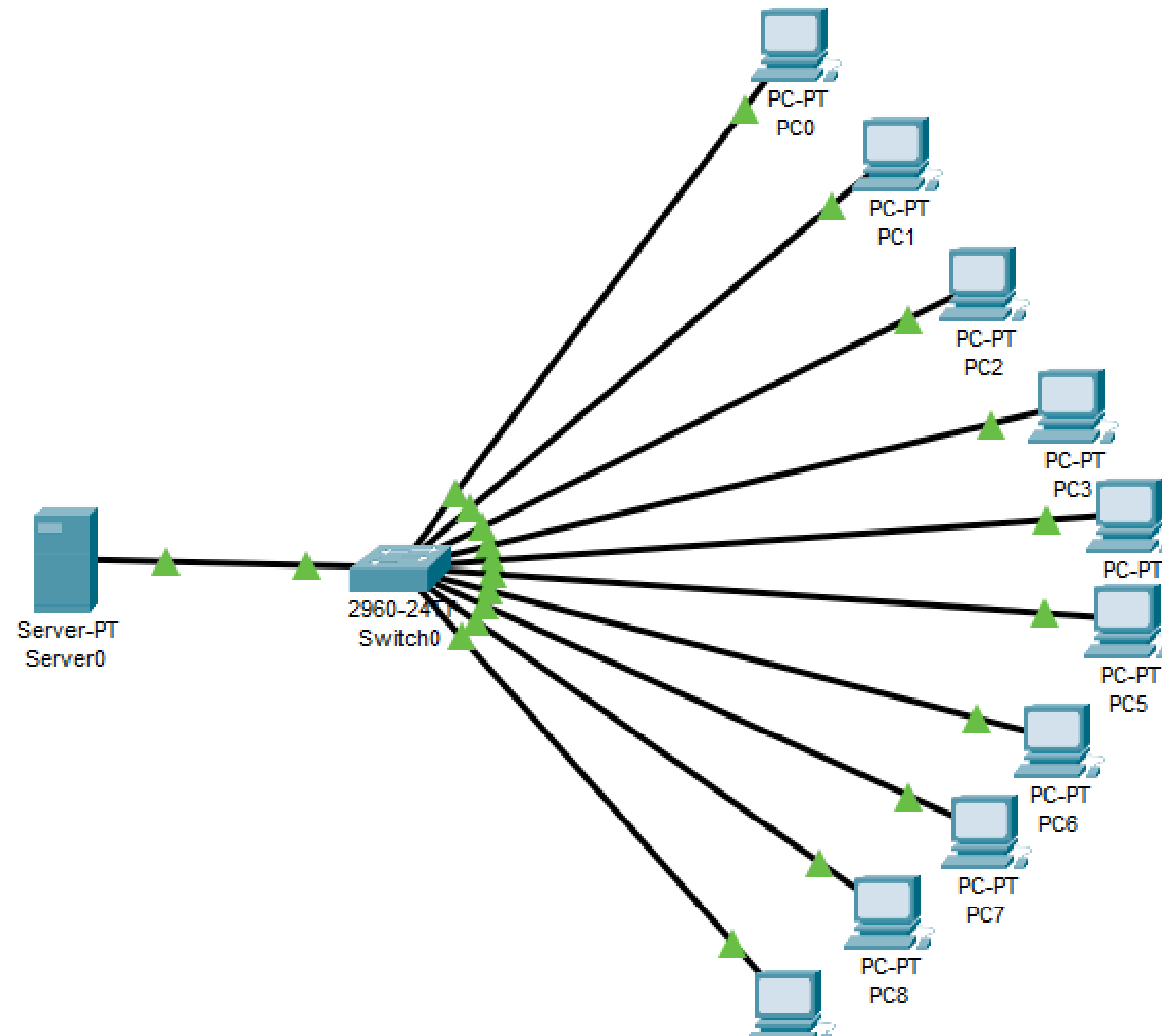




HOW TO CONFIGURE A NETWORK WITH CISCO PACKET TRACER

1.

MEMBUAT TOPOLOGI JARINGAN Menambahkan perangkat



Tambahkan 10 pc client, 1 switch 24 port, dan server

2.

SET UP DHCP

Mempersiapkan DHCP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

InterfaceFastEthernet0ServiceOnOff

Pool NameKenzo

Default Gateway0.0.0.0

DNS Server0.0.0.0

Start IP Address :10209171

Subnet Mask:2552552550

Maximum Number of Users :255

TFTP Server:0.0.0.0

WLC Address:0.0.0.0

Add

Save

Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
Kenzo	0.0.0.0	0.0.0.0	10.209.1...	255.255....	255	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0	512	0.0.0.0	0.0.0.0

Pilih dhcp di tab services lalu
buat dhcp pool dengan
konfigurasi seperti di gambar

3. KONFIGURASI PC CLIENT UNTUK DHCP

- mengaktifkan dhcp pada pc client

pilih dekstop lalu buka ip config
dan aktifkan dhcp

Physical Config **Desktop** Programming Attributes

IP Configuration [X]

Interface: FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IPv4 Address: 10.209.17.2

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address: /

Link Local Address: FE80::290:21FF:FED9:491C

Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

4. KONFIGURASI DNS

- menambahkan dan mempersiapkan dns service

Server0

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS**
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name Type

Address

No.	Name	Type	Detail
0	tkjpetra2.sch.id	A Record	10.209.17.1

pilih services lalu dns
isi nama dengan tkjpetra2.sch.id
address dengan ip server

5. KONFIGURASI EMAIL

menambahkan dan mempersiapkan email service

pilih services lalu email
lalu isi domain dengan nama
dns lalu tambahkan 10 user
agar setiap client dapat user

The screenshot shows the Mikrotik WinBox configuration interface. The top navigation bar includes tabs for Physical, Config, Services, Desktop, Programming, and Attributes. The 'Services' tab is active. On the left, a sidebar lists various services: SERVICES, HTTP, DHCP, DHCPv6, TFTP, DNS, SYSLOG, AAA, NTP, EMAIL (highlighted in blue), FTP, IoT, VM Management, and Radius EAP. The main configuration area is titled 'EMAIL'. It contains two sections: 'SMTP Service' and 'POP3 Service', each with radio buttons for 'ON' (selected) and 'OFF'. Below these is a 'Domain Name' field containing 'tkjpetra2.sch.id' and a 'Set' button. A 'User Setup' section is also present, featuring a 'User' and 'Password' input field. Below this is a list of users from 'user1' to 'user10', with 'user7' selected. To the right of the list are buttons for adding (+), removing (-), changing, and password management.

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL**
- FTP
- IoT
- VM Management
- Radius EAP

EMAIL

SMTP Service ☒ ON ☐ OFF

POP3 Service ☒ ON ☐ OFF

Domain Name:

User Setup

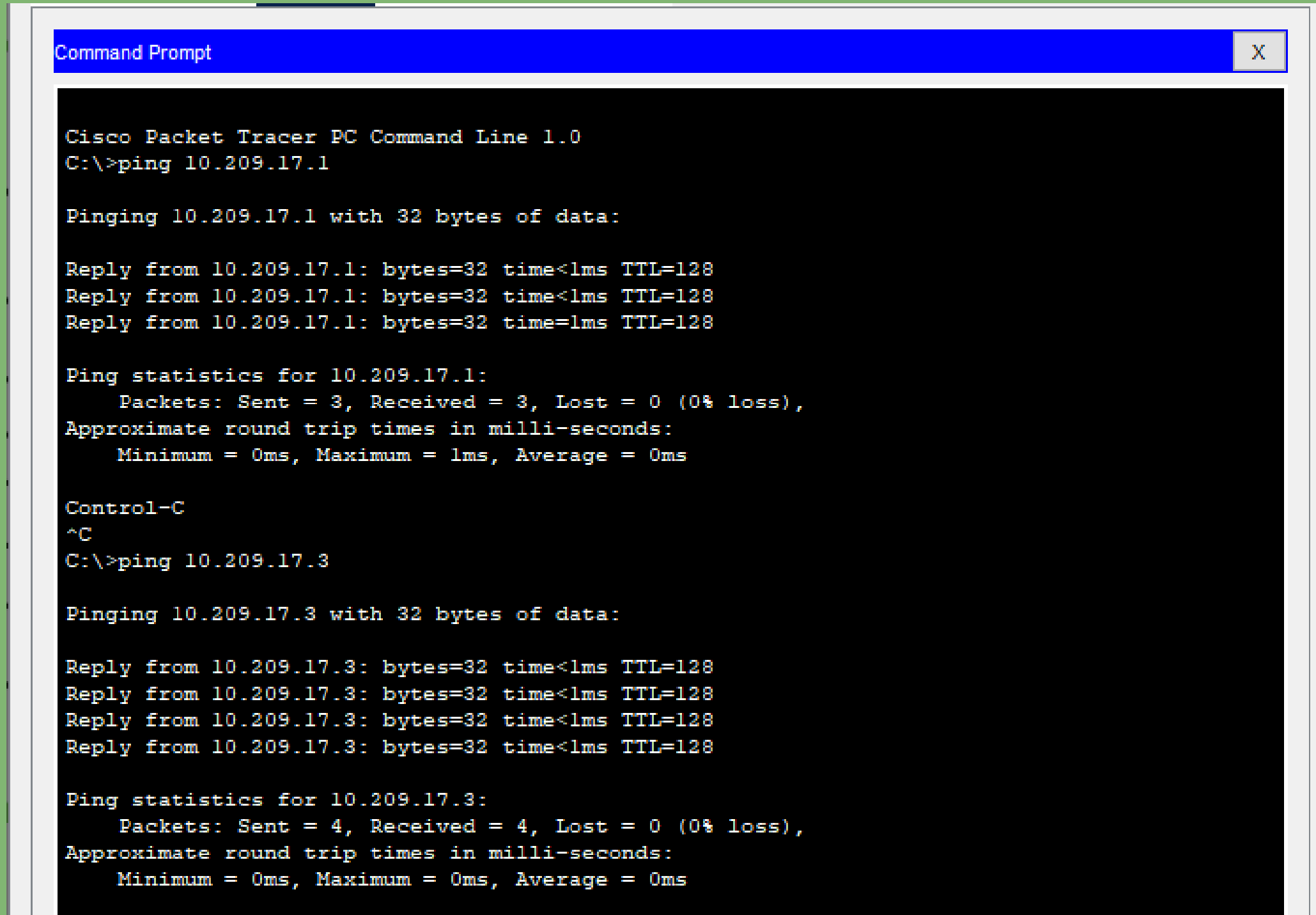
User Password

user1
user2
user3
user4
user5
user6
user7
user8
user9
user10

UJI KONEKSI

6. lakukan ping pada pc server dan client

ping ip server dan pc client



```
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.209.17.1

Pinging 10.209.17.1 with 32 bytes of data:

Reply from 10.209.17.1: bytes=32 time<1ms TTL=128
Reply from 10.209.17.1: bytes=32 time<1ms TTL=128
Reply from 10.209.17.1: bytes=32 time=1ms TTL=128

Ping statistics for 10.209.17.1:
    Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

Control-C
^C
C:\>ping 10.209.17.3

Pinging 10.209.17.3 with 32 bytes of data:

Reply from 10.209.17.3: bytes=32 time<1ms TTL=128
Reply from 10.209.17.3: bytes=32 time<1ms TTL=128
Reply from 10.209.17.3: bytes=32 time<1ms TTL=128
Reply from 10.209.17.3: bytes=32 time<1ms TTL=128

Ping statistics for 10.209.17.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

UJI AKSES WEBSITE

7 • masukan ip server di browsing app

pastikan client bisa mengakses
website dengan cara
memasukan ip server ke
browsing app



SET UP USER EMAIL

8. masukan data data yang dibutuhkan untuk login user email

PC0

Physical Config **Desktop** Programming Attributes

Configure Mail X

User Information

Your Name: user1

Email Address: user1@tkjpetra2.sch.id

Server Information

Incoming Mail Server: 10.209.17.1

Outgoing Mail Server: 10.209.17.1

Logon Information

User Name: user1

Password: ...

Save Remove Clear Reset

Top

PC1

Physical Config **Desktop** Programming Attributes

Configure Mail X

User Information

Your Name: user2

Email Address: user2@tkjpetra2.sch.id

Server Information

Incoming Mail Server: 10.209.17.1

Outgoing Mail Server: 10.209.17.1

Logon Information

User Name: user2

Password: ...

Save Remove Clear Reset

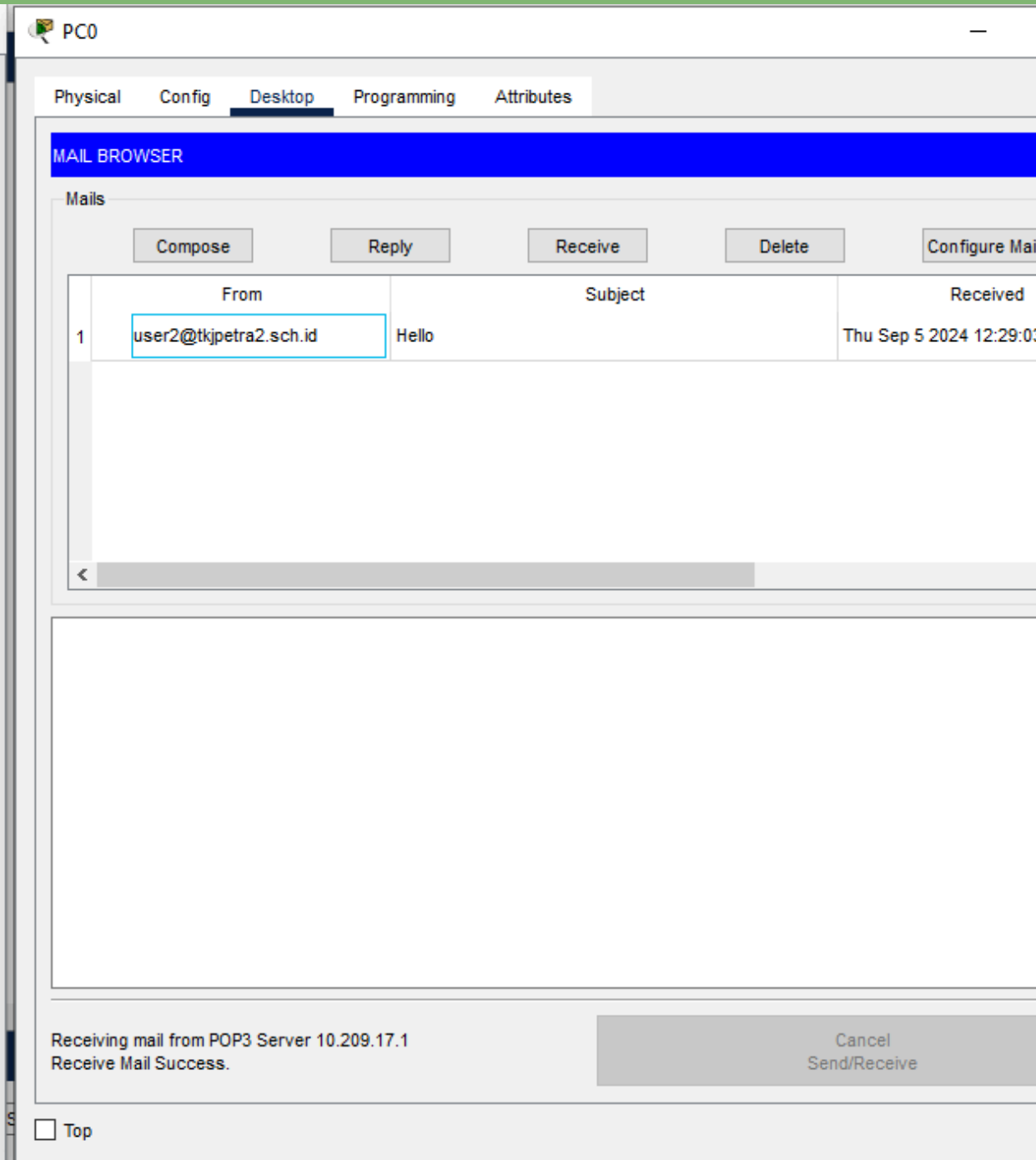
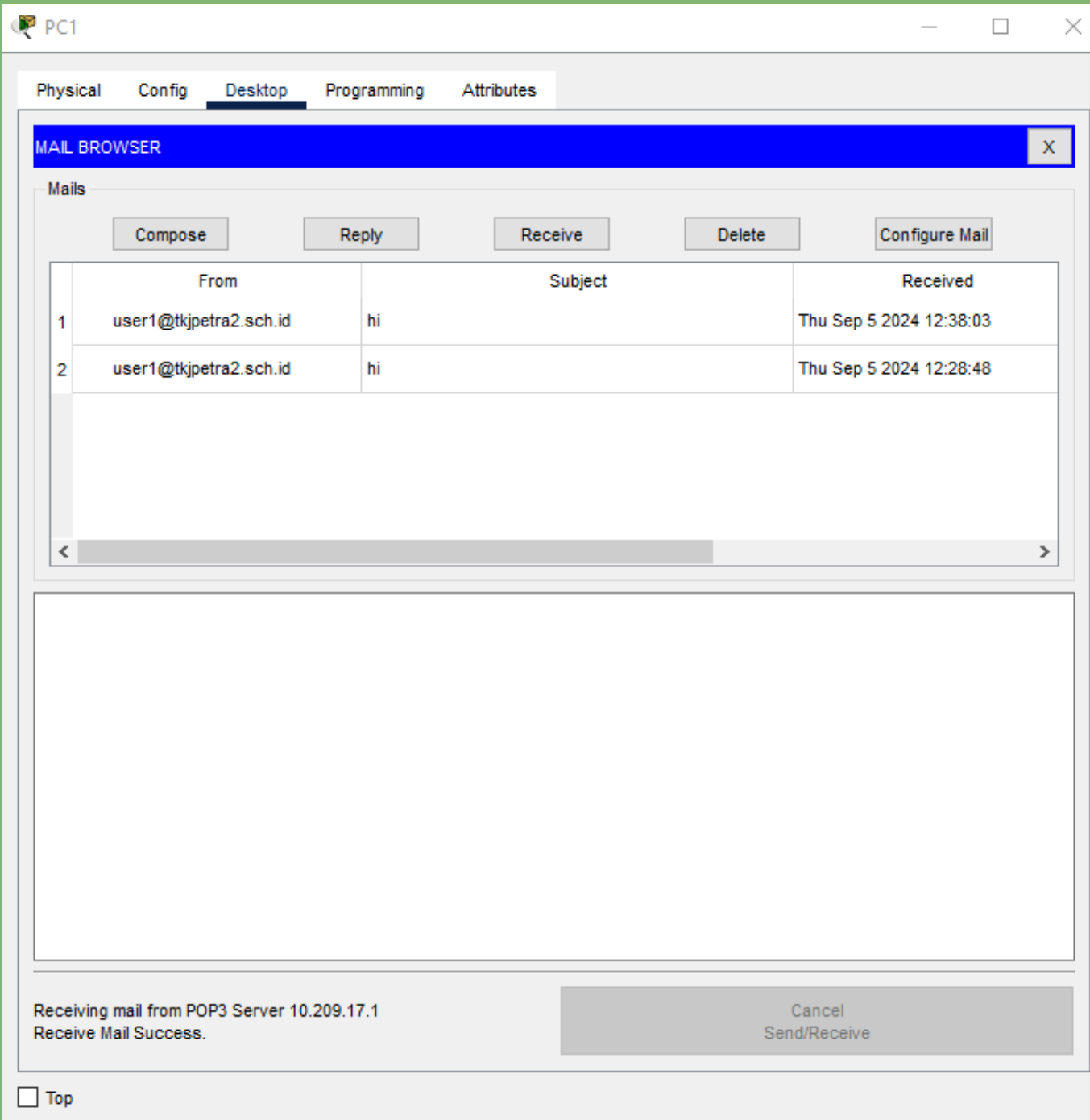
Top

masukan name
,email
address,incoming
/outgoing mail
server,username,
password

9 UJI EMAIL

- coba mengirim dan menerima email

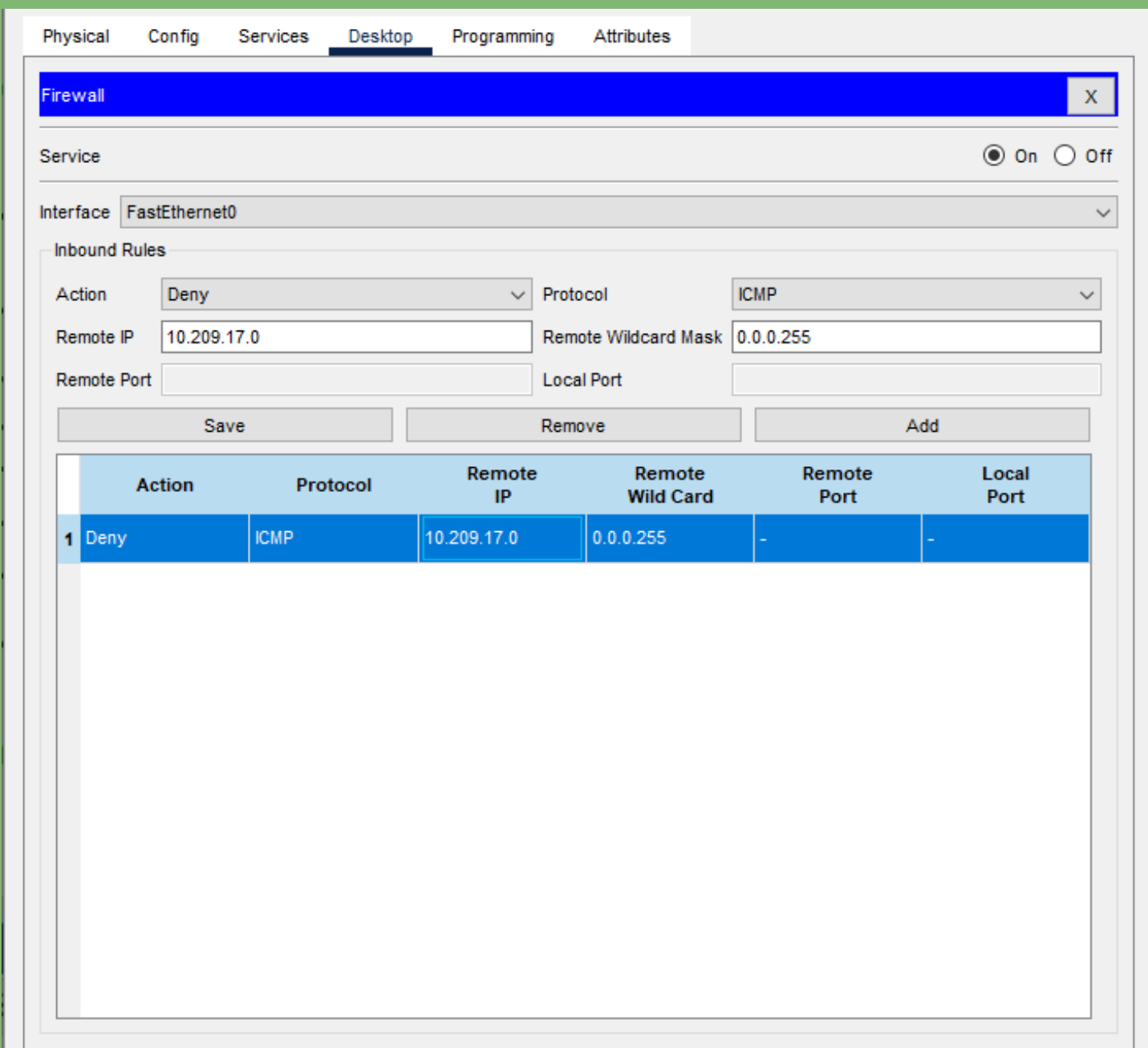
pastikan client bisa
mengirim email ke client
lainya atau ke user
lainya



10. SET UP FIREWALL

• konfigurasi firewall

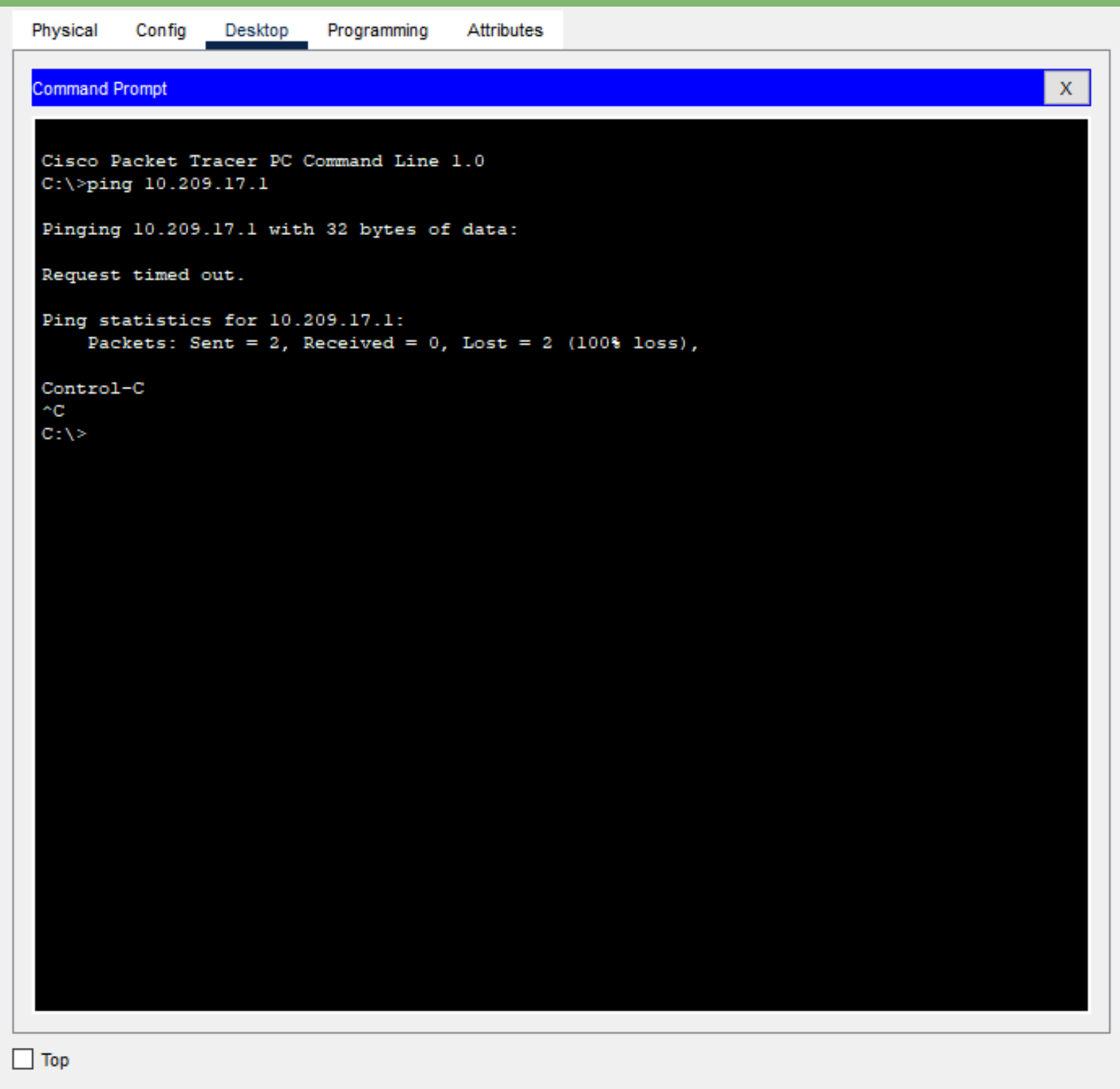
buat dan nyalakan suatu
firewall seperti di
gambar



11. TEST FIREWALL

• test dengan ping

coba ping server dan
apabila rto berarti
frewall sudah menyala



The screenshot shows the Cisco Packet Tracer interface with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the following text:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.209.17.1

Pinging 10.209.17.1 with 32 bytes of data:

Request timed out.

Ping statistics for 10.209.17.1:
    Packets: Sent = 2, Received = 0, Lost = 2 (100% loss),

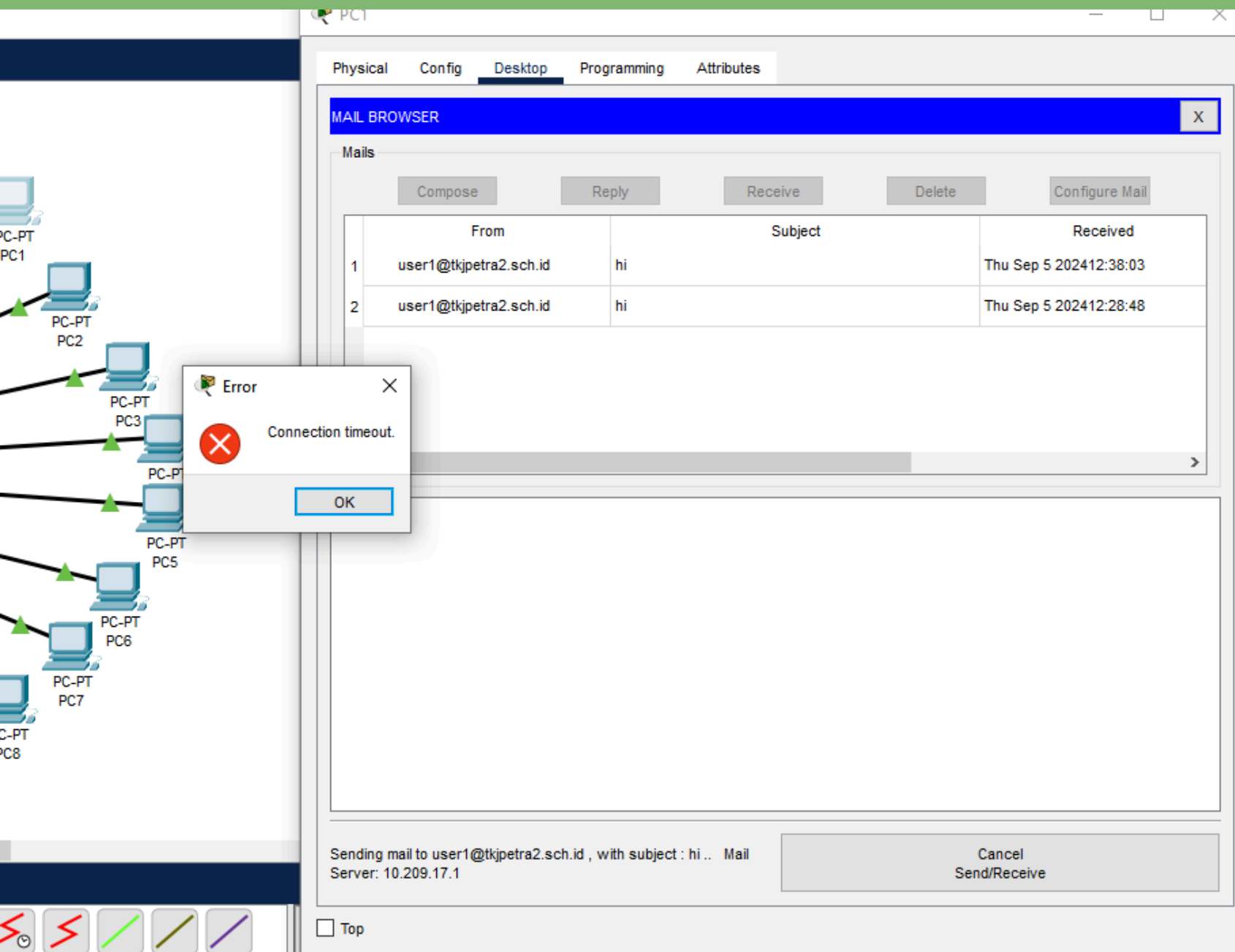
Control-C
^C
C:\>
```

At the bottom left of the Packet Tracer window, there is a checkbox labeled 'Top' which is currently unchecked.

12. TEST FIREWALL

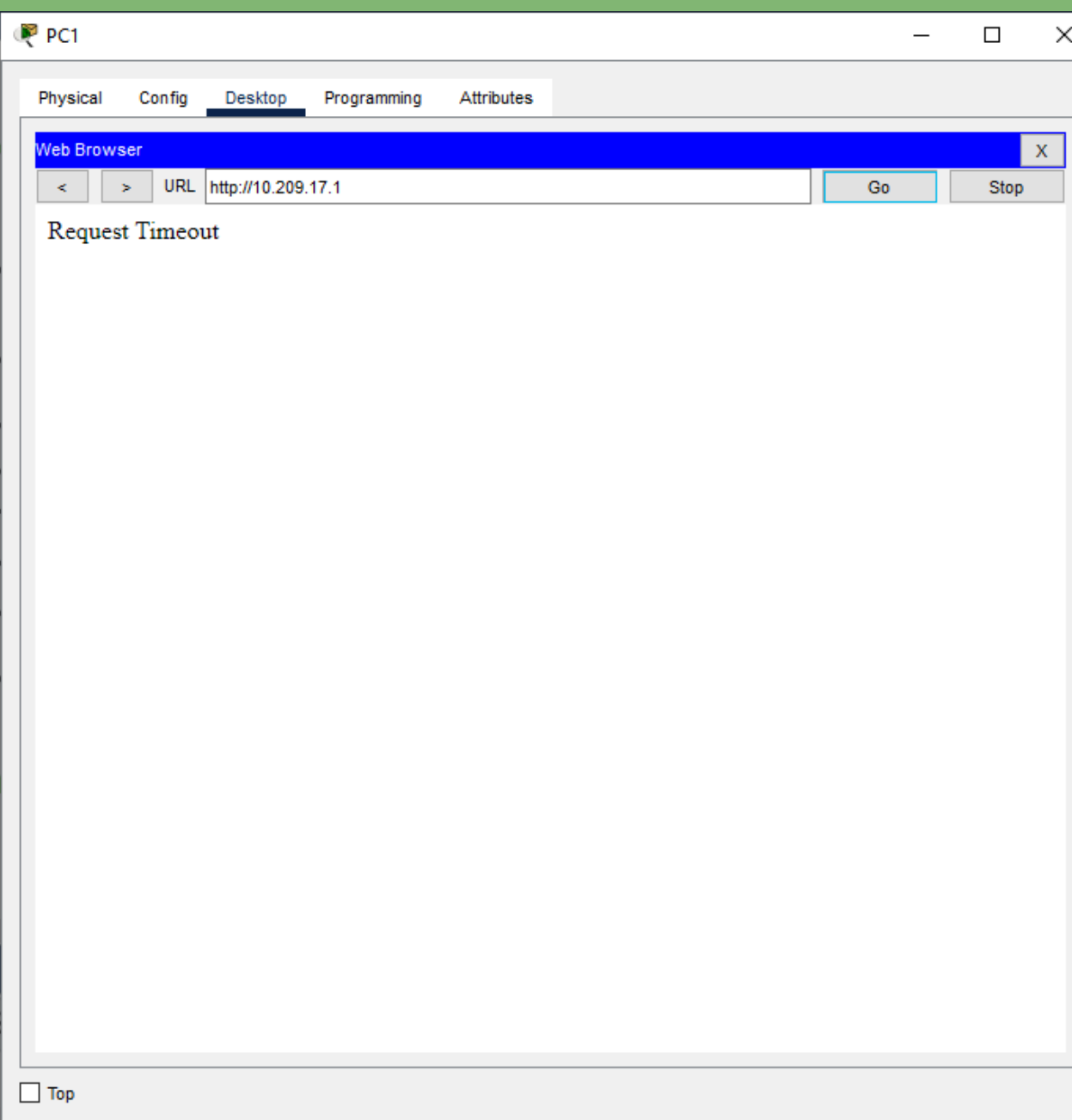
- test dengan email

coba send email ke user
lainya bila tidak bisa
firewall berhasil



13. TEST FIREWALL

- test dengan akses website



coba akses website
dengan mengisi url
dengan ip server bila rto
maka firewal berhasil

THANKS!

