

Assignment

Network Systems Assignment

OBJECTIVE:

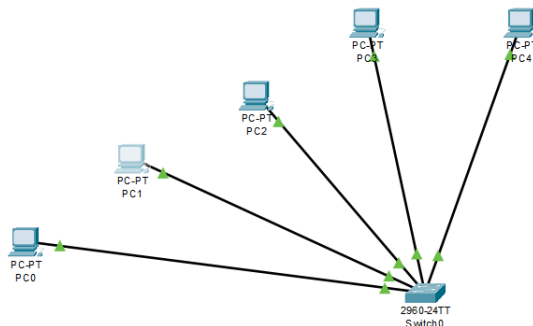
Configure a LAN network with 5 PCs using the network address "192.168.16.0". The network should be configured to block ping (ICMP) requests, but still allow all PCs to communicate with each other using their IP addresses.

Attach all screenshots (including IP configuration, Firewall configuration, Ping output, Web browser output, Network structure) along with a description in a PDF file and submit.

What is Firewall

A firewall is a network security device that monitors and controls network traffic based on a predefined set of security rules.

Basic Network Connection

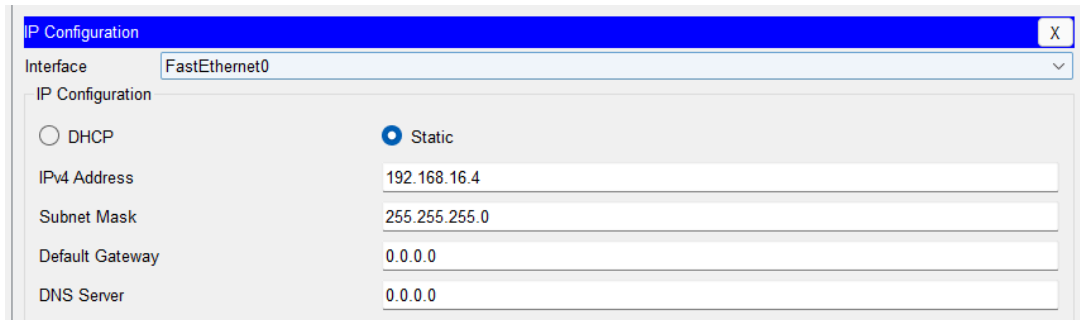


Components Used -

PC - x5

Switch - x1 - 2960

IP configuration of PC's

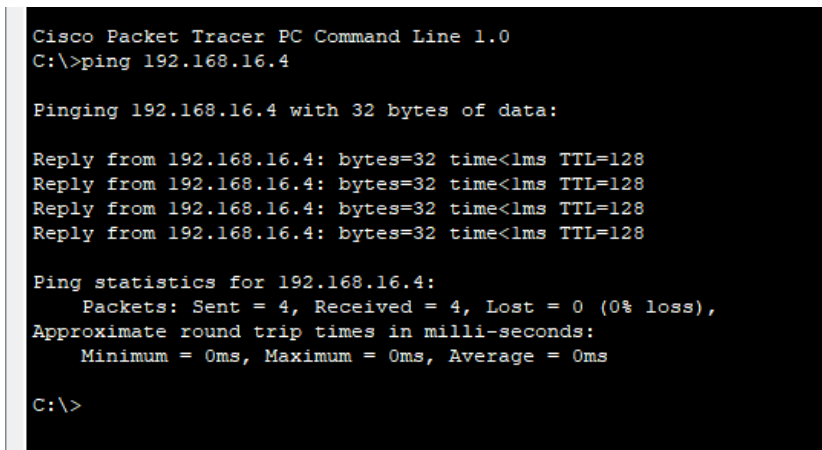


The IP Configuration window for the FastEthernet0 interface shows the following settings:

Field	Value
Interface	FastEthernet0
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	192.168.16.4
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

Pinging between PC's before setting up the firewall.

From PC1 → ping PC4 → ping reply



```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.16.4

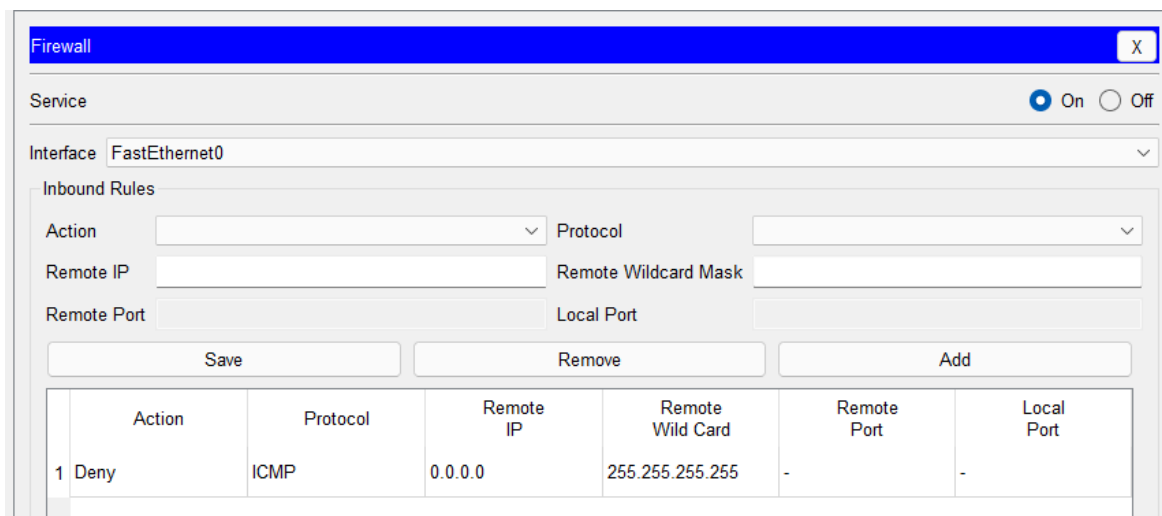
Pinging 192.168.16.4 with 32 bytes of data:

Reply from 192.168.16.4: bytes=32 time<1ms TTL=128
Reply from 192.168.16.4: bytes=32 time<1ms TTL=128
Reply from 192.168.16.4: bytes=32 time<1ms TTL=128
Reply from 192.168.16.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.16.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Setting up firewall in PC's



The Firewall configuration window for the FastEthernet0 interface shows the following settings:

Service: ☒ On ☐ Off

Interface: FastEthernet0

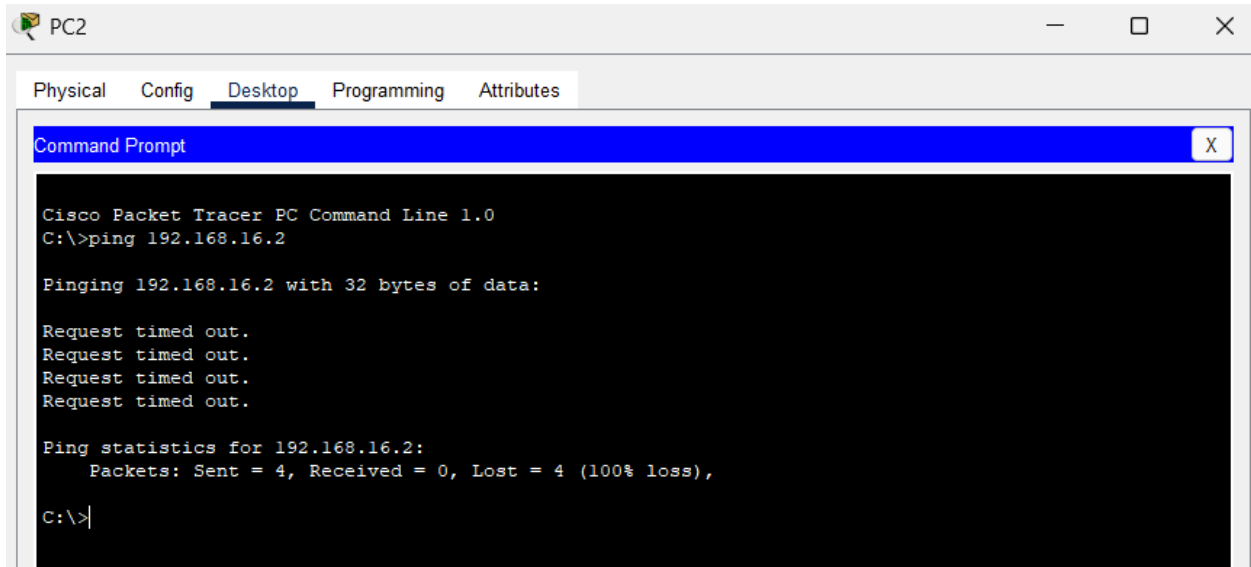
Inbound Rules:

Action	Protocol	Remote IP	Remote Wild Card	Remote Port	Local Port
1 Deny	ICMP	0.0.0.0	255.255.255.255	-	-

Buttons: Save, Remove, Add

Pinging after setting up Firewall

From PC1 → ping PC2 → Request Timed Out



The screenshot shows a window titled "PC2" with a standard Windows-style title bar (minimize, maximize, close buttons). Below the title bar is a tabbed interface with four tabs: "Physical", "Config", "Desktop", and "Attributes". The "Desktop" tab is selected and active. Inside the "Desktop" tab, there is a "Command Prompt" window. The Command Prompt has a blue title bar with the text "Command Prompt" and a close button (X). The main area of the Command Prompt is black with white text. The text displayed is as follows:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.16.2

Pinging 192.168.16.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.16.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>|
```

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