

CENG 3007 COMPUTER NETWORKS

MIDTERM

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1 Contents

- Install packet tracer on your PC/laptop
- Implement the topologies
- Give static IP addresses to devices
- Ensure that these devices can make a communication

2 Install packet tracer on your PC/laptop

First, I downloaded Cisco Packet Tracker from dys.mu.edu.tr .

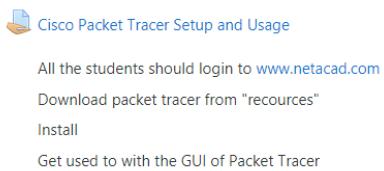


Figure 1: Downloading place

You can clearly see the program on my desktop. I recorded screen with Apowerrec.

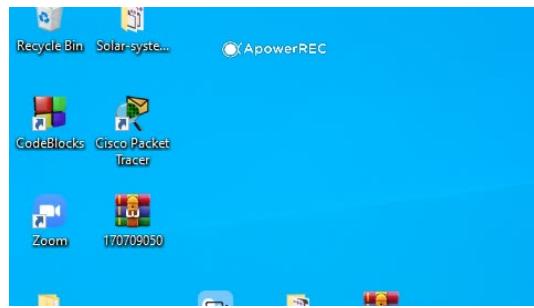


Figure 2: My Desktop

3 Implement the topologies

This is the last view of my network. I will explain all step that I did. .

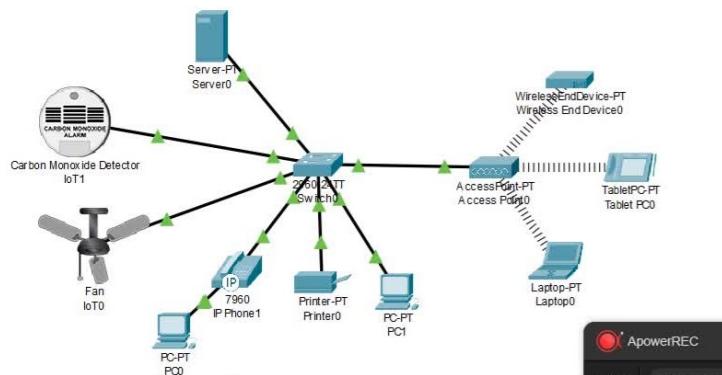


Figure 3: Downloading place

3.0.1 Switch - Cisco 2960-24 TT

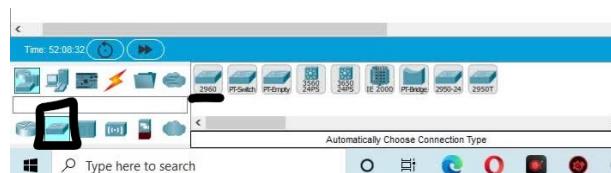


Figure 4: Choosing switch

3.0.2 Access Point

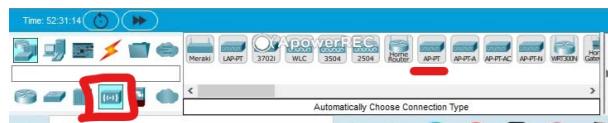


Figure 5: Choosing access point

3.0.3 Server



Figure 6: Choosing server

3.0.4 IP Telephone



Figure 7: Choosing phone

I choosed Ip Phone and connected it to switch. But there was a problem and connection was not green. Because I need to change this;

3.0.5 PC, Laptop, Printer, Tablet, Wireless End Device

It was really easy to connect 2 personal computers to our network. The **important point** was connecting **wireless** devices. I watched a video to make **power on Laptop** device. Thanks for the hints like ;

- Some devices need to be “powered on” like ip phone and I learned how to.
- Laptop needs a “wireless adapter”. and I learned how to plug it.

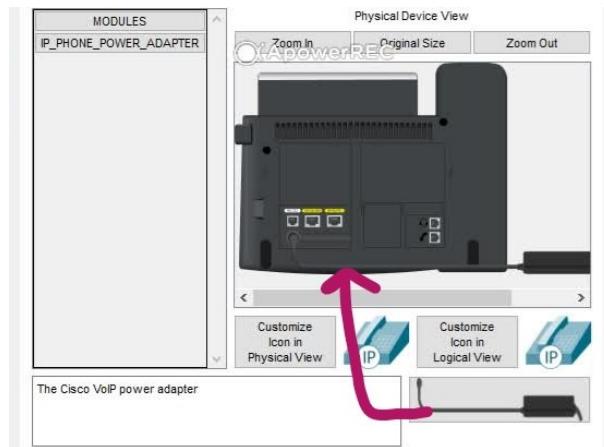


Figure 8: Choosing phone

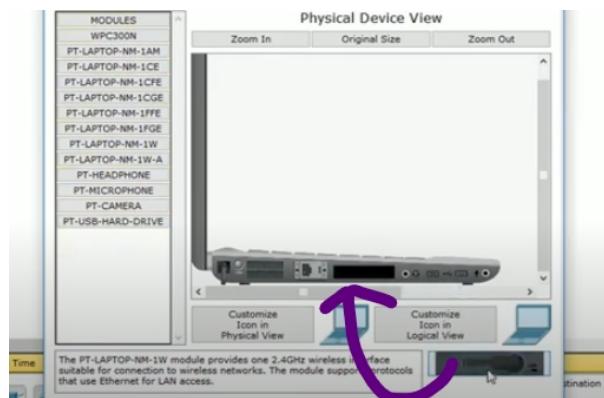


Figure 9: To make power on laptop

4 Give static IP addresses to devices

Give static IP addresses to devices from 192.168.1.0 255.255.0 network. Fill the following table with the values in your simulation: .

Device	IP Address	Mac Address
PC1	192.168.1.1	0060.5C13.0438
PC0	192.168.1.2	00E0.A30E.9CCD
SERVER0	192.168.1.3	0004.9A50.8470
LAPTOP0	192.168.1.4	0060.3E0D.4486
IOT0	192.168.1.5	0060.470D.76CA
IOT1	192.168.1.6	00E0.8F43.95B6
TABLETPC1	192.168.1.7	0001.6458.220C
WIRELESSENDDEVICE0	192.168.1.8	0060.5C78.107A
PRINTER0	192.168.1.9	0001.42B7.E3EE height

5 Ensure that these devices can make a communication

5.0.1 Physical Layer

Ensure the lines are UP

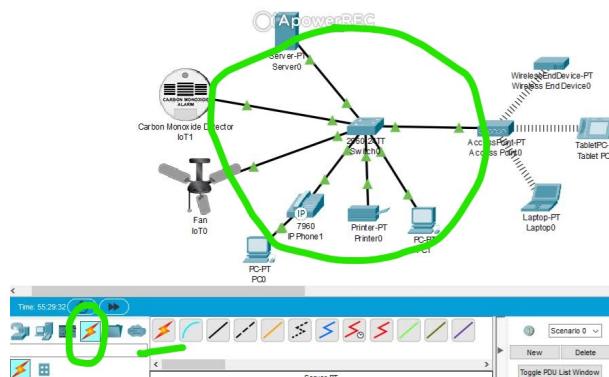


Figure 10: Physical layer connection is the green cables

5.0.2 Network Layer

Test IP based connection .

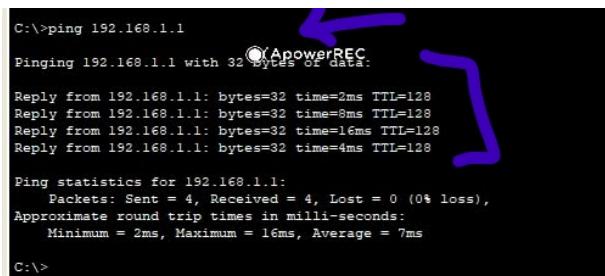
```
Command Prompt
ApowerREC
Packet Tracer PC Command Line 1.0
C:\ipconfig

FastEthernet0 Connection:(default port)
Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::260:5CFF:FE13:438
IPv4 Address.....: 192.168.1.1
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 0.0.0.0

Bluetooth Connection:
Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: 0.0.0.0
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: 0.0.0.0

C:\>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
```

Figure 11: Choosing switch



```
C:\>ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=2ms TTL=128
Reply from 192.168.1.1: bytes=32 time=8ms TTL=128
Reply from 192.168.1.1: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=4ms TTL=128

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 16ms, Average = 7ms

C:\>
```

Figure 12: Choosing switch