

**LAPORAN PRAKTIKUM  
JARINGAN KOMPUTER**

**PRAKTIKUM – 8: Pengenalan Packet Tracer**



**Disusun Oleh :**  
Ghoffar Abdul Ja'far - 2341720035/TI2F

**JURUSAN TEKNOLOGI INFORMASI  
POLITEKNIK NEGERI MALANG  
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# MODUL PRAKTIKUM V

## Perintah ARP (Address Resolution Protocol)

### LANGKAH PRAKTIKUM

Instructions 

 Packet Tracer - Logical and Physical Mode Exploration

In Physical Mode (Shift-P), what are the cities connected?

Seward city and Warrenton city

The correct answer is Seward and Warrenton.

In Physical Mode (Shift-P), what is the name of the submarine cable?

Alaska United West(AU-West)

The correct answer is Alaska United West (AU-West).

In Logical Mode (Shift-L), what are the wireless devices in the Teleworker Home? (Hint: They are not connected with a solid black line.)

Smartphone and Home\_Laptop

The correct answer is Home\_Laptop and Smartphone.

In Physical Mode (Shift-P), what facility can you enter in the Seward, Alaska location?

Branch Office

The correct answer is Branch Office.

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In Physical Mode (Shift-P), what facility can you enter in the Seward, Alaska location?

Branch Office

The correct answer is Branch Office.

Which locations can you enter in the other city?

Data Center and Teleworker

The correct answer is Data Center and Teleworker.

Instructions

cisco Packet Tracer - Logical and Physical Mode Exploration

In this step, you will navigate to the **Branch Office** wiring closet in **Seward**. You will also connect a PC to a switch using an Ethernet cable.

In the **Intercity**, click **Seward**. While in **Seward**, click the **Branch Office** and then click the **Branch Office Wiring Closet**.

Connect **PC\_1 FastEthernet0** to an empty **FastEthernet** port on **ALS2**.

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Instructions

cisco Packet Tracer - Logical and Physical Mode Exploration

PCs and laptops can also be connected to networking devices using a console cable or a USB cable. This connection provides management access. Management access is used to view and change device configurations.

In this step, you will connect a PC to a router using a console cable.

While in Physical mode, connect **RS232** port on **PC\_1** to the **Console** port on the **Edge\_Router**.

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Instructions

Packet Tracer - Logical and Physical Mode Exploration

Newer models of networking devices can be accessed for management configuration through a USB port. This is necessary because newer laptops and PCs typically do not include an RS232 port for console cable connections.

In this step, you will install and power up a new router in the Rack. You will also connect to this device via the USB console with a USB cable.

In Packet Tracer, an inventory of devices can be stored on the Shelf. These devices are powered off and can be previously configured and deployed to replace or add to the production devices on the Rack.

Install **Backup\_Router** in the **Rack** and turn the power on.

Connect **Laptop\_1** to the **Backup\_Router** with a USB cable.

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Instructions

Packet Tracer - Logical and Physical Mode Exploration

On **Laptop\_1**, access the **Desktop** tab and click **Terminal**. The **Terminal Configuration** is already set with the necessary port configuration, and should be used with its default settings. Click **OK** to initiate the terminal connection.

You are now at the command line for **Backup\_Router** and should see the following output from the router.

```
[output omitted]
cisco ISR4331/K9 (1RU) processor with 1795999K/6147K bytes of memory.
Processor board ID FLM232010G0
3 Gigabit Ethernet interfaces
2 Serial interfaces
32768K bytes of non-volatile configuration memory.
4194304K bytes of physical memory.
3207167K bytes of flash memory at bootflash:.
0K bytes of WebUI ODM Files at webui:.
```

Answer **no** to the question and then press ENTER to reach the **Router>** command prompt.

```
--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: no
```

Enter the following commands (in bold) to name the router **Edge\_Router\_Backup**. Note that the hostname must match this value exactly.

```
Router> enable
Router# configure terminal
Router(config)# hostname Edge_Router_Backup
Edge_Router_Backup(config)# end
```

Instructions

Packet Tracer - Logical and Physical Mode Exploration

Let's reflect on what you just accomplished.

**Besides Ethernet and the console cables, what are other ways to connect devices?**

Fiber, Coaxial, USB

**What is the difference between the wiring closet Rack, Table, and Shelf?**

Rack: Used for large network devices such as layer 3 switches, routers, and firewalls. Devices are mounted vertically and are commonly found in data centers or server rooms.  
Table: Suitable for small or desktop devices like computers, laptops, or small routers. Devices are placed horizontally as if on a table.  
Shelf: Used to store spare devices like routers, IP phones, or switches. Not actively connected to the network, serving only as storage.

**How does logical mode differ from physical mode?**

Logical mode displays the network conceptually, showing connections between devices, IP addresses, and routing. It focuses on functionality and how data flows logically between devices.  
Physical mode displays the network's physical and geographical layout, such as cities, buildings, server racks, and individual devices. It helps visualize where devices are located in real-time.

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Instructions

Packet Tracer - Logical and Physical Mode Exploration

Congratulations! You have successfully connected devices using different cables, installed a back up router, and configured a hostname on a networking device.

## Summary

In this activity, you have accomplished the following learning objectives:

- Investigate Devices in a Wiring Closet
- Connect End Devices to Networking Devices
- Install a Backup Router
- Configure a Hostname

## Reflection Question Answers

**Besides Ethernet and the console cables, what are other ways to connect devices?**

USB console cable.

Possible answer

**What is the difference between the wiring closet Rack, Table, and Shelf?**

Heavy devices, such as servers and network devices are mounted on the rack. PCs, laptops, and other 'personal' devices are placed on the table. The shelf is for unused devices.

Possible answer

**How does Logical Mode differ from Physical Mode?**

Logical mode provides a high level view of our network topology, and ignores any of the physical aspect of the network. Physical mode takes account of the physical scale and placement of the devices in the network.

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Dock  All Hints

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