CSE-3215
Data Communication

Lecture-07

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Home Works on Previous Lesson

- Why OSI model is called 'OSI' ?

- In which layer of OSI model TCP and UDP are used? Differentiate between TCP and UDP.

- Suppose, you have received a letter from your friend. You have just opened the seal of the envelope and brought out the letter. Is it called encapsulation or de-capsulation process that you have just done? Is there any similarity between this action of yours and the network models? Justify your answer.

- What is HyperText? In general, which ports are used by HTTP and HTTPS respectively?

Addressing

Four levels of addresses are used in an internet employing the TCP/IP protocols: physical, logical, port, and specific.

Topics discussed in this section

Physical Addresses
Logical Addresses
Port Addresses
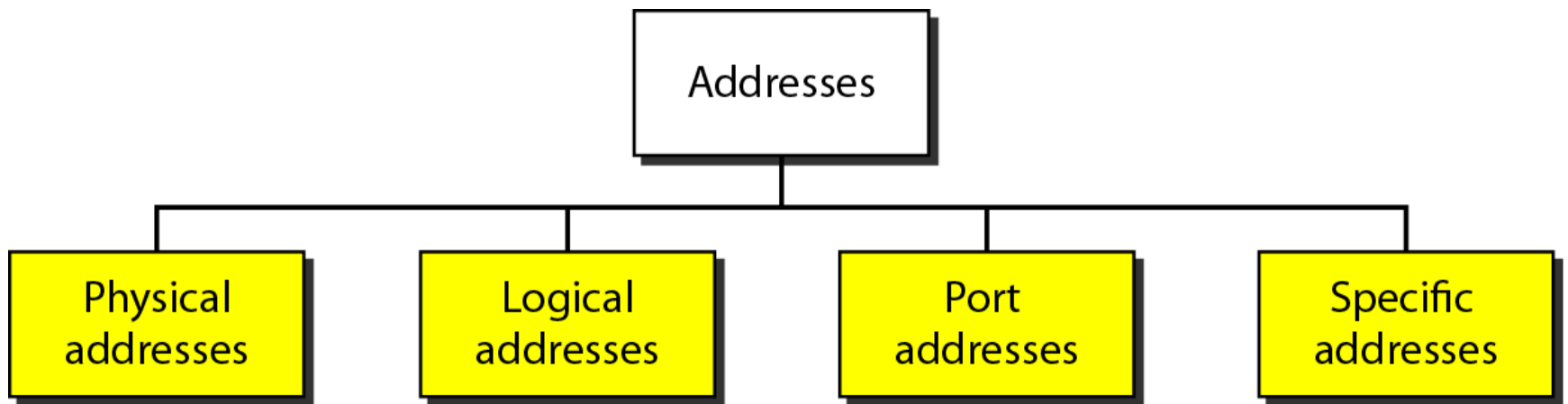**Specific Addresses**
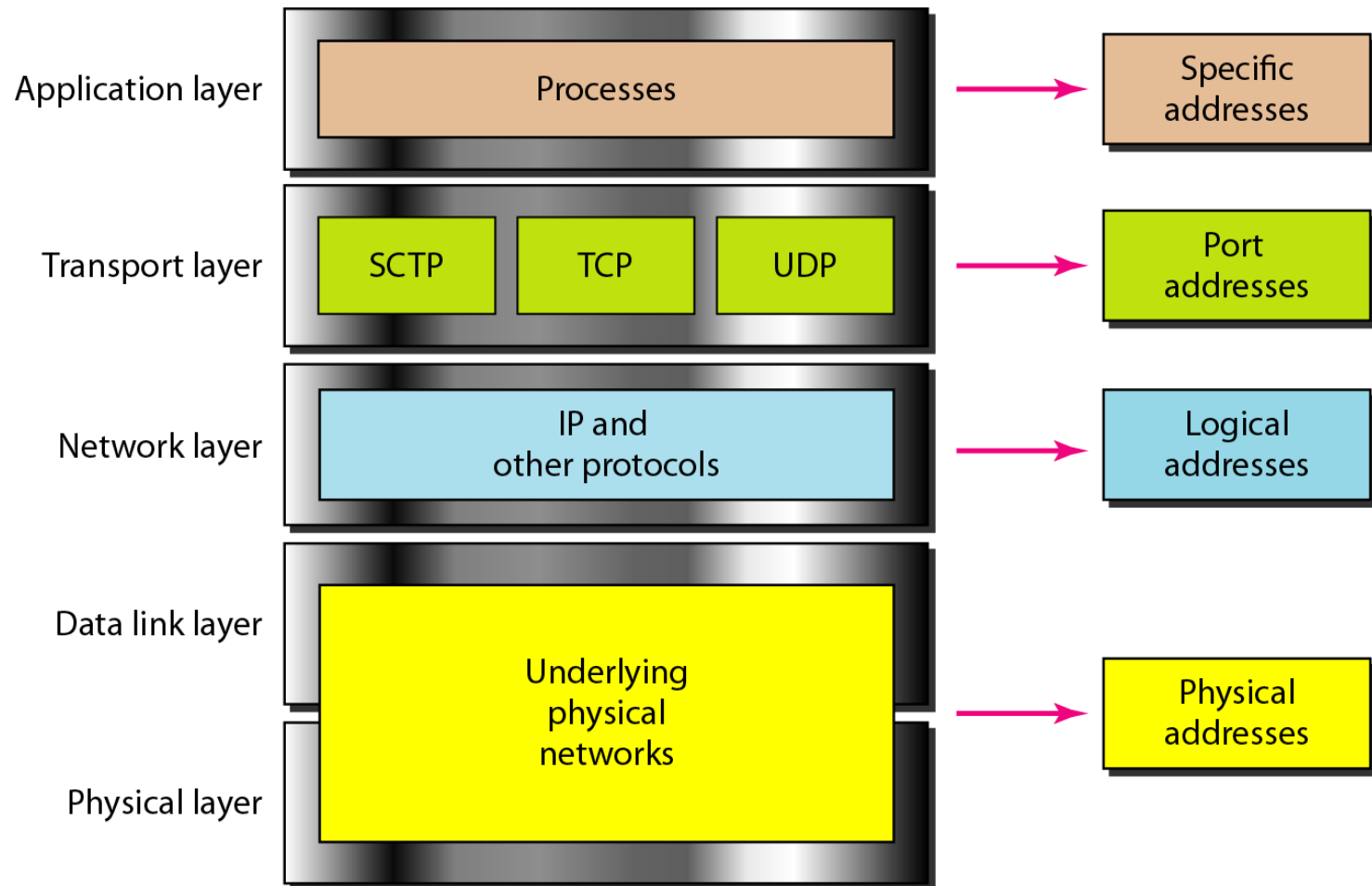
Figure-1: *Addresses in TCP/IP*

Figure-2: Relationship of layers and addresses in TCP/IP

- **Physical address**: Each system having a NIC(Network Interface Card) through which two systems physically connected with each other with cables. The address of the NIC is called Physical address or mac address. This is specified by the manufacturer company of the card. This address is used by data link layer.

- **Logical Address:** An IP address of the system is called logical address. This address is the combination of Net ID and Host ID. This address is used by network layer to identify a particular network (source to destination) among the networks. This address can be changed by changing the host position on the network. So it is called logical address.

- **Port Address:** There are many application running on the computer. Each application run with a port no.(logically) on the computer. This port no. for application is decided by the Kernel of the OS. This port no. is called port address.

- **Specific Addresses:** A few of the applications generally have simple (easy to use) address; such as the e-mail addresses or the Uniform Resource Locators(URL).

  Examples mainly consist of the email address (abcd1234@gmail.com) and the Universal Resource Locator (URL) (www.gmail.com).

In Brief -

Through logical address the system identifies a network (source to destination).

After identifying the network physical address is used to identify the host on that network.

The port address is used to identify the particular application running on the destination machine.

Specific address is used for the convenience of end users so that resources can be easily accessed.

That's all for today

Thank You