

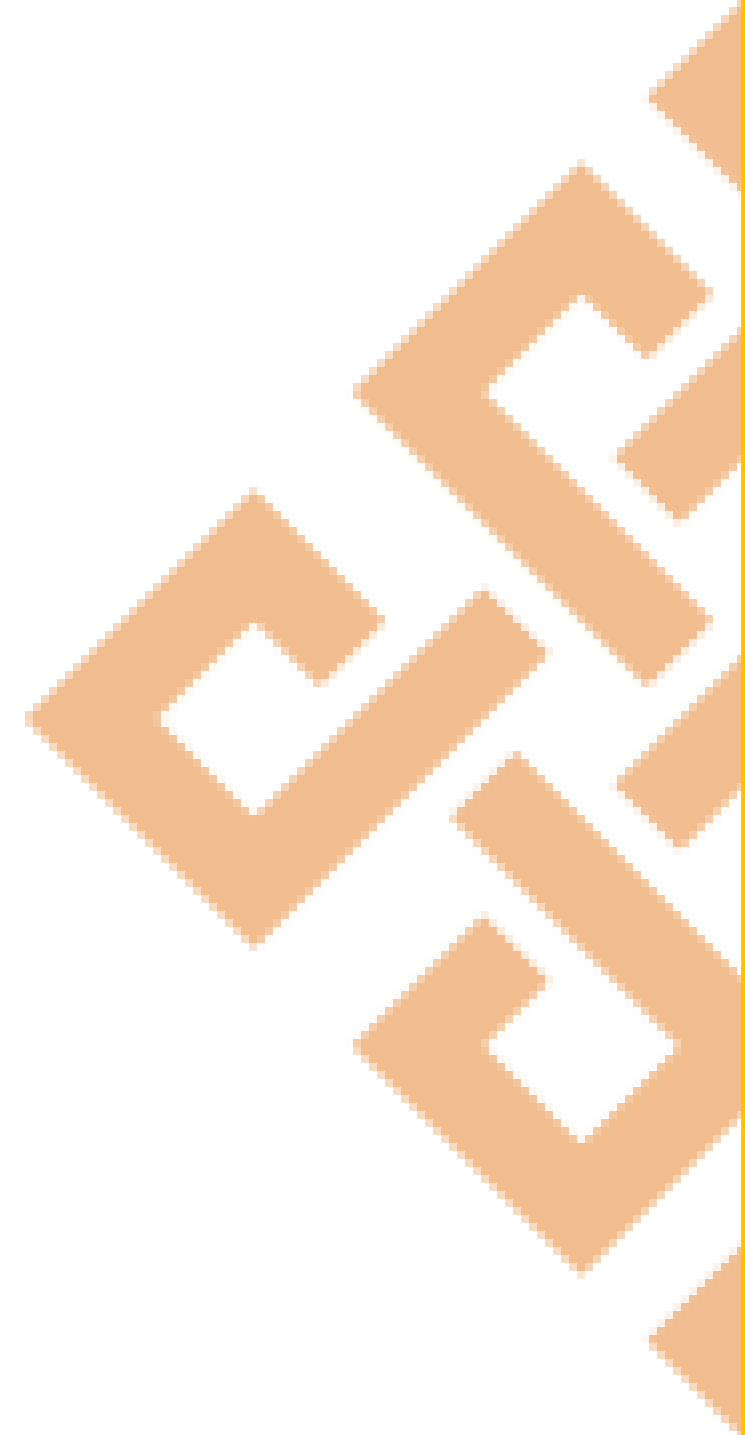
Lecture 1.1

Introduction

School of Computing and Information Technology

Introduction Class

Information and Network Security



COMPUTER NETWORK DEFINITION & EXAMPLE

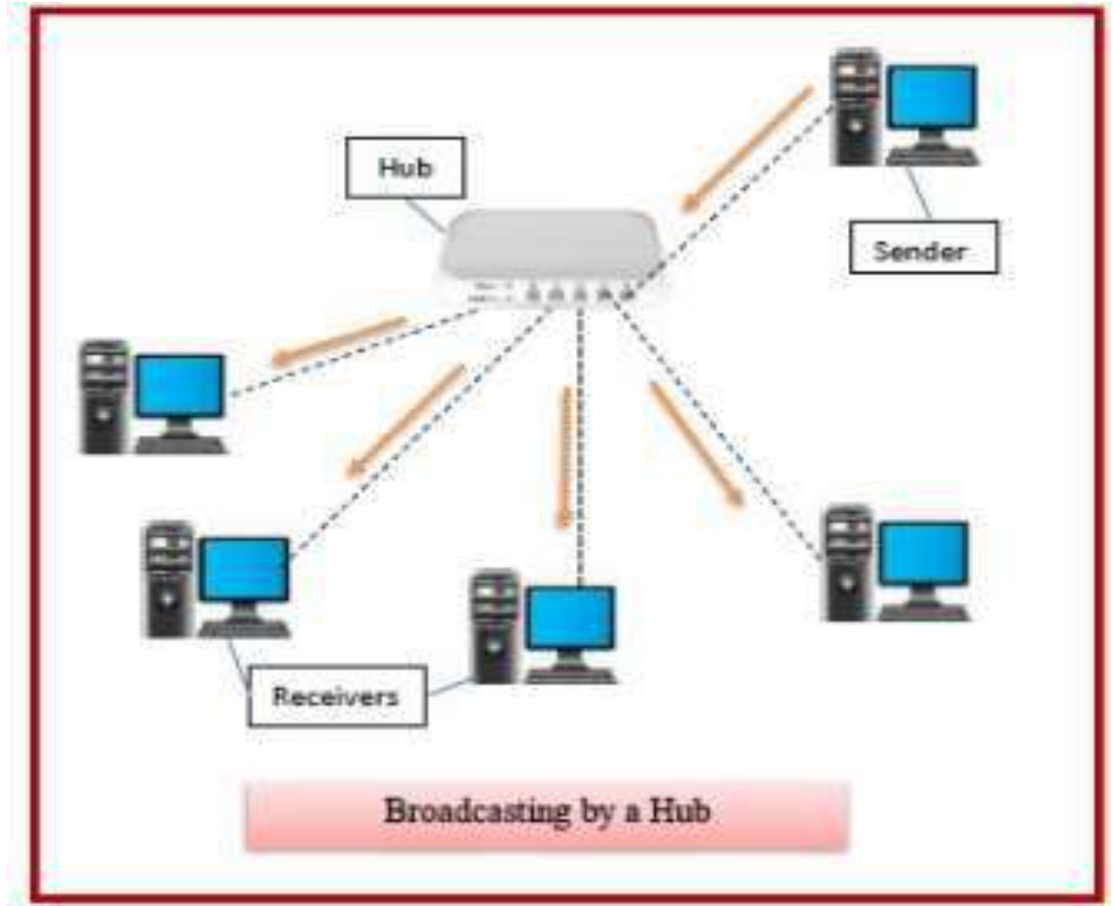
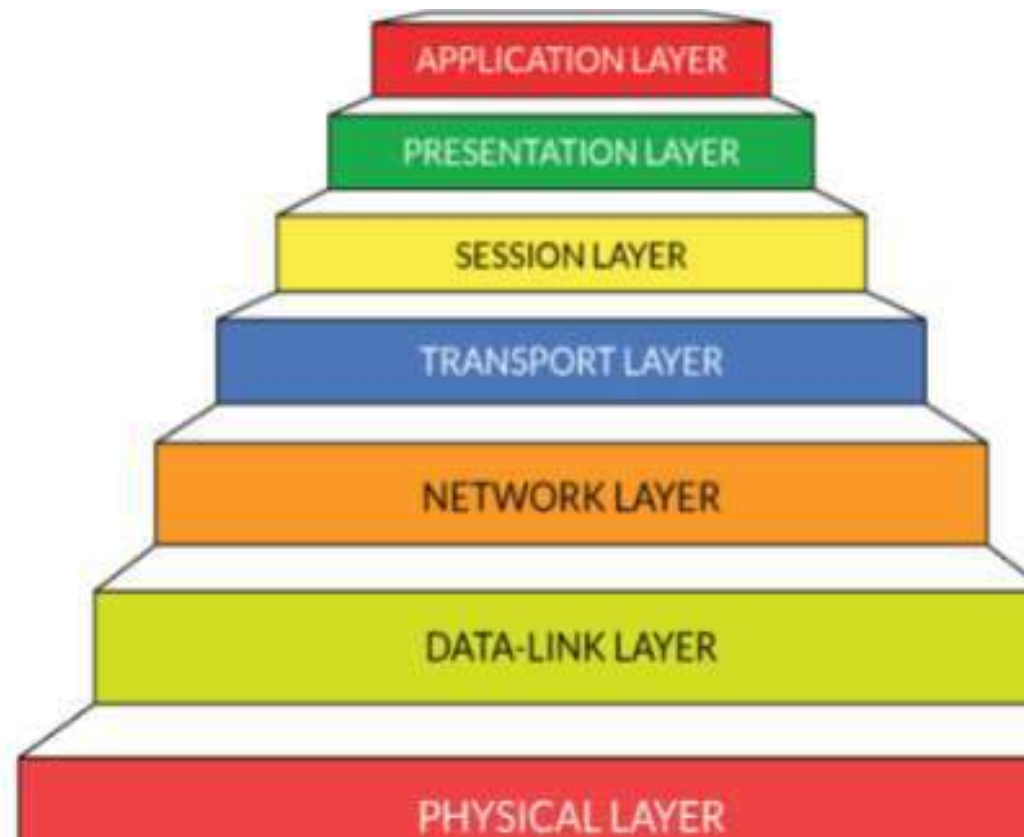
A computer network, also referred to as a **data network**, is a **series of interconnected nodes that can transmit, receive and exchange data, voice and video traffic.**

Examples of nodes in a network include servers or modems. computer networks commonly help endpoint users share resources and communicate.



HUB

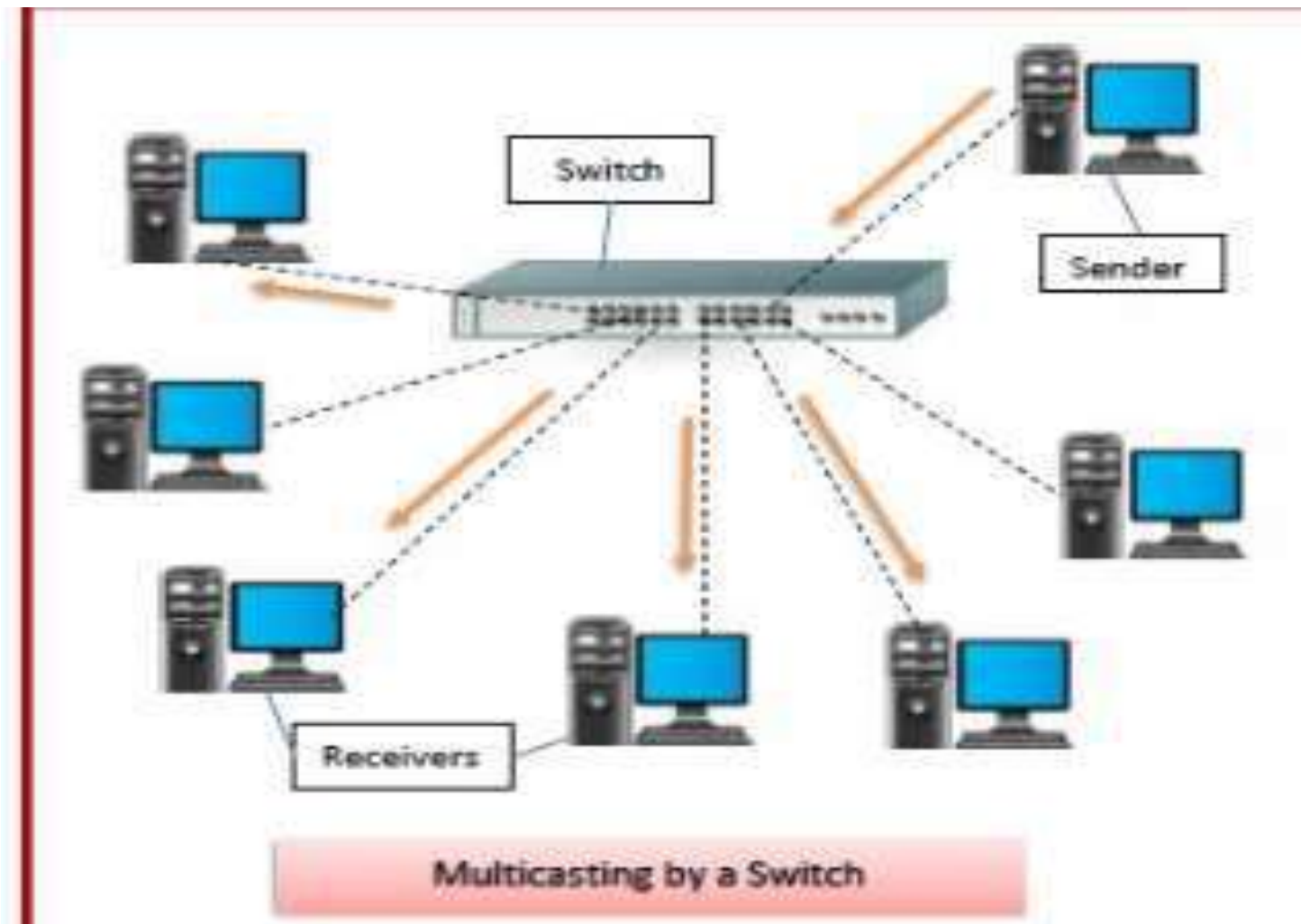
HUBS are networking devices operating at a physical layer of the OSI model that are used to connect multiple devices in a network. they are generally used to connect computers in a LAN.



SWITCH

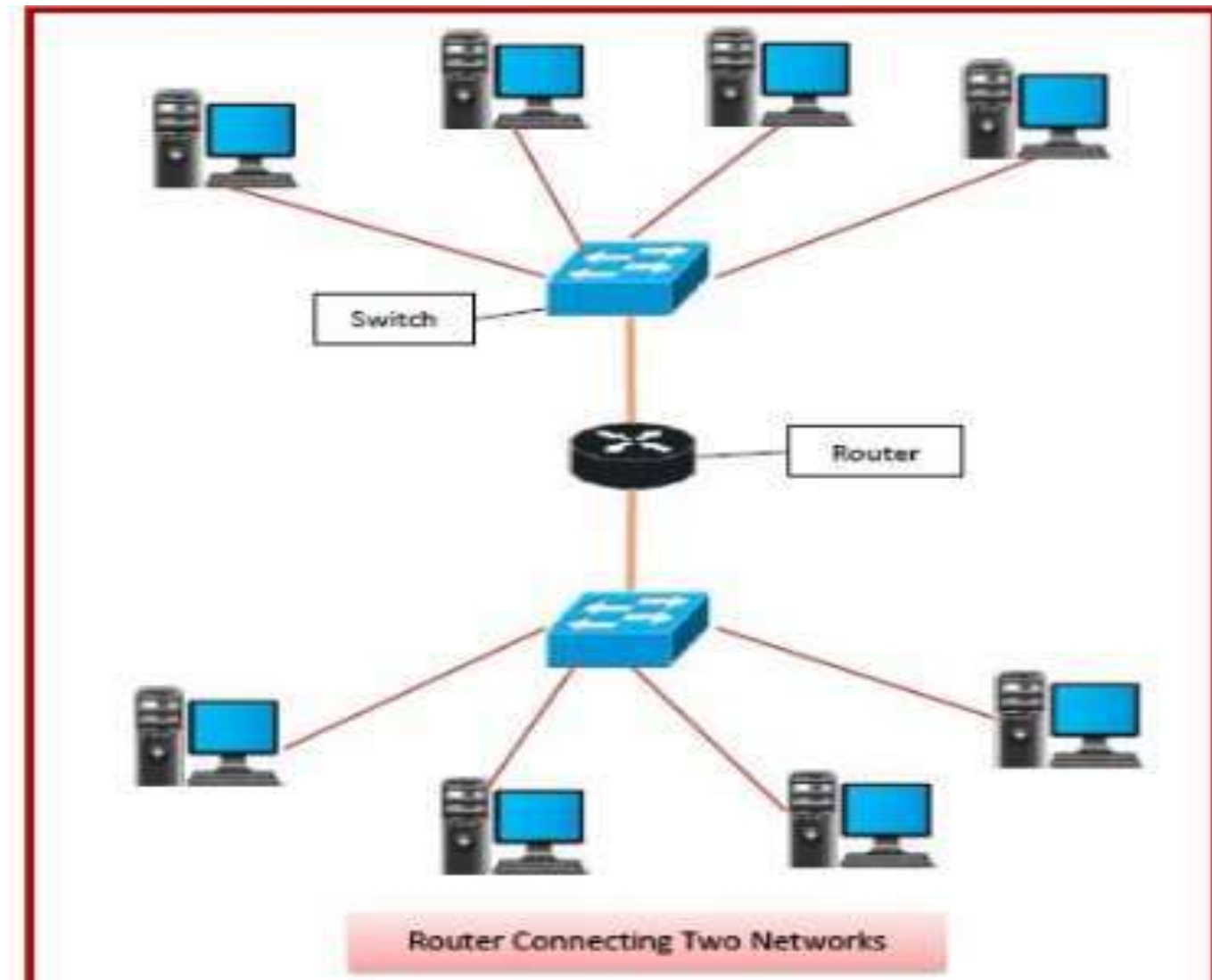
SWITCHES are networking devices operating at layer 2 or a data link layer of the OSI model. they connect devices in a network and use packet switching to send, receive or forward data packets or data frames over the network.

it supports unicast, multicast as well as broadcast communications.



ROUTER

ROUTERS are networking devices operating at layer 3 or a network layer of the OSI model. they are responsible for receiving, analyzing, and forwarding data packets among the connected computer networks. when a data packet arrives, the router inspects the destination address, consults its routing tables to decide the optimal route and then transfers the packet along this route.



WHAT IS THE **DIFFERENCE** BETWEEN **NETWORK SECURITY** AND INFORMATION SECURITY?

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NETWORK SECURITY INVOLVES METHODS OR PRACTICES USED TO PROTECT A COMPUTER NETWORK FROM UNAUTHORIZED ACCESSES, MISUSES OR MODIFICATIONS

WHEREAS **INFORMATION SECURITY** PREVENTS UNAUTHORIZED ACCESSES, MISUSES AND MODIFICATIONS TO INFORMATION SYSTEMS.



DISCUSSION

5 MINUTES

