CHAPTER - 1

Introduction to Computer Networks

Neso Academy

Target Audience

- ★ Undergraduate students
- ★ Preparing for GATE
- ★ Preparing for networking interview
- ★ Prerequisite to CCNA international certification course
- ★ Demystify networking technologies and jargons

Scope

- Networking is everywhere.
- Networks support the way we learn.
- Networks support the way we communicate.
- Networks support the way we work.
- Networks support the way we play.

Pedagogy

Lecture

Problem Solving

Simulation using Cisco packet tracer

Syllabus

- ★ Chapter 1: Fundamentals
- ★ Chapter 2: Data Link Layer
- ★ Chapter 3: Network Layer
- ★ Chapter 4: Transport Layer
- ★ Chapter 5: Application Layer
- ★ Chapter 6: Network Security

Outcomes

Upon the completion of this lecture, the learner will be able to:

- ★ Understand "What is computer network?".
- ★ Identify end devices and intermediary devices.

Definition – Computer Network

A computer network is a set of nodes connected by communication links.

A node can be a computer, printer or any other device capable of sending/receiving data generated by other nodes in the network.

Example for nodes:	Computer
	Server
	Printer
	Security Camera
	Many more (Switches, Bridges, Routers etc.,)

Definition – Computer Network

A computer network is a set of nodes connected by communication links.

A communication link can be a wired link or wireless link.

The link carries the information.

Wired Link

Wireless Link

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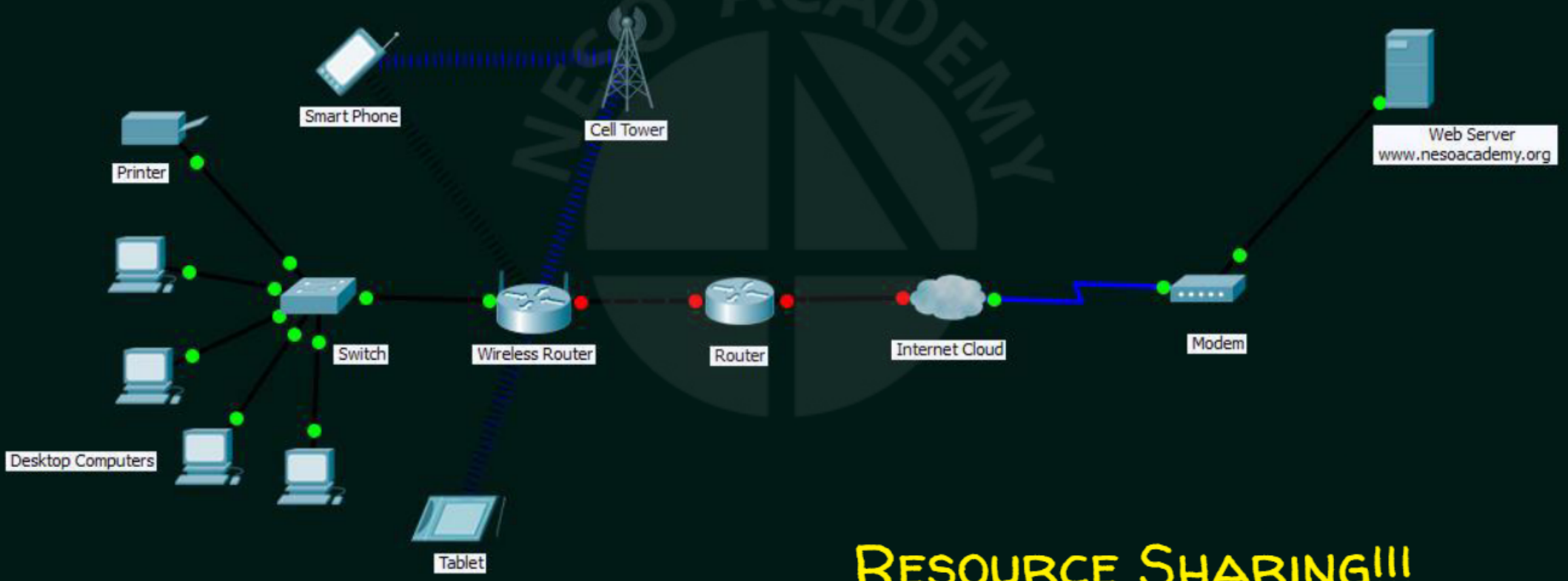
Links (Medium)	Wired: Cable
	Wireless: Air

An example computer network



Resource Sharing!!!

Activity Time

Find out the end nodes (end devices) and intermediary nodes depicted in the scenario and place them rightly.

END DEVICES	INTERMEDIARY NODES
PC	Router
Printer	Wireless Router
Server	Cell Tower
Tablet	Modem
Smart Phone	Internet Cloud