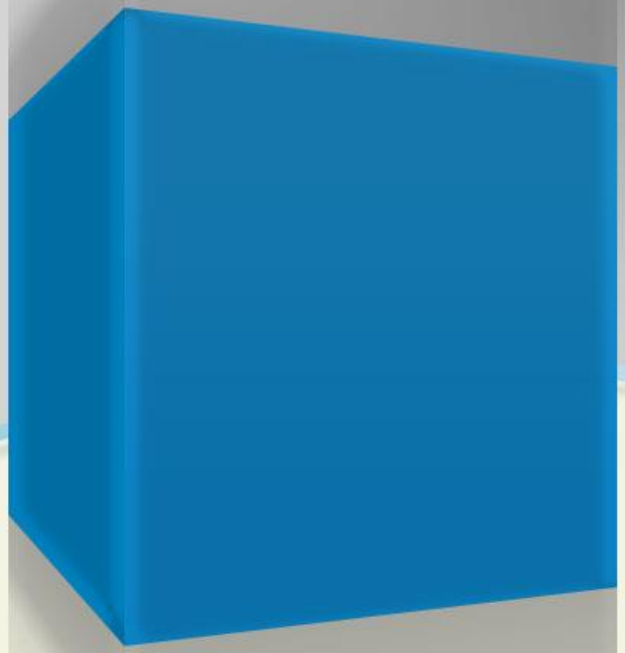
Computer Network Protocols
Physical Layer
Lesson -2



كلية المستقبل الجامعة
قسم هندسة تقنيات الحاسوب
المرحلة الرابعة

By

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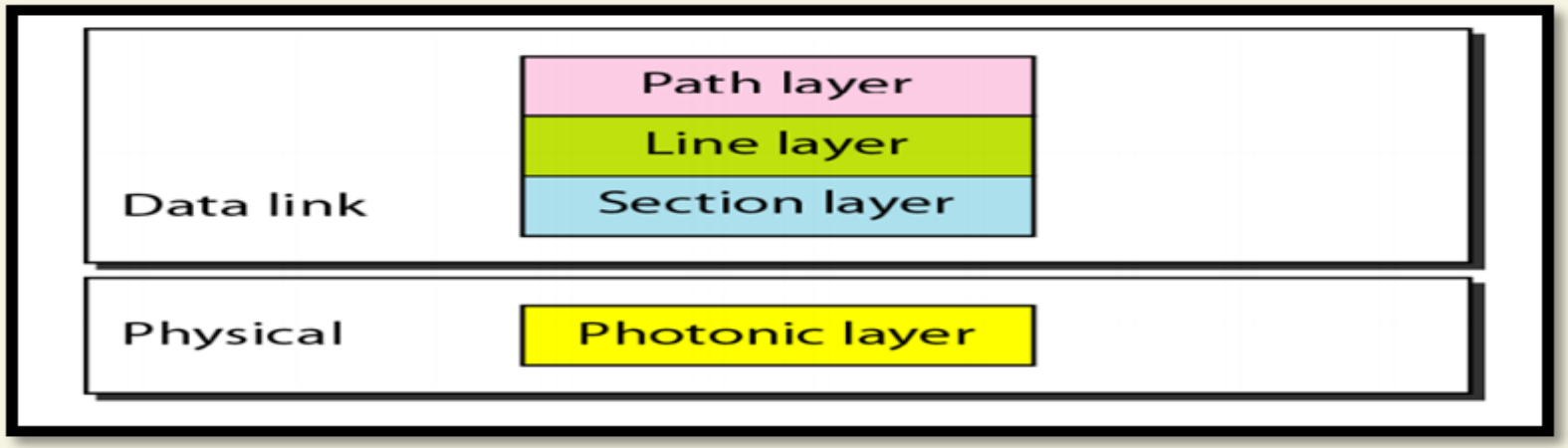
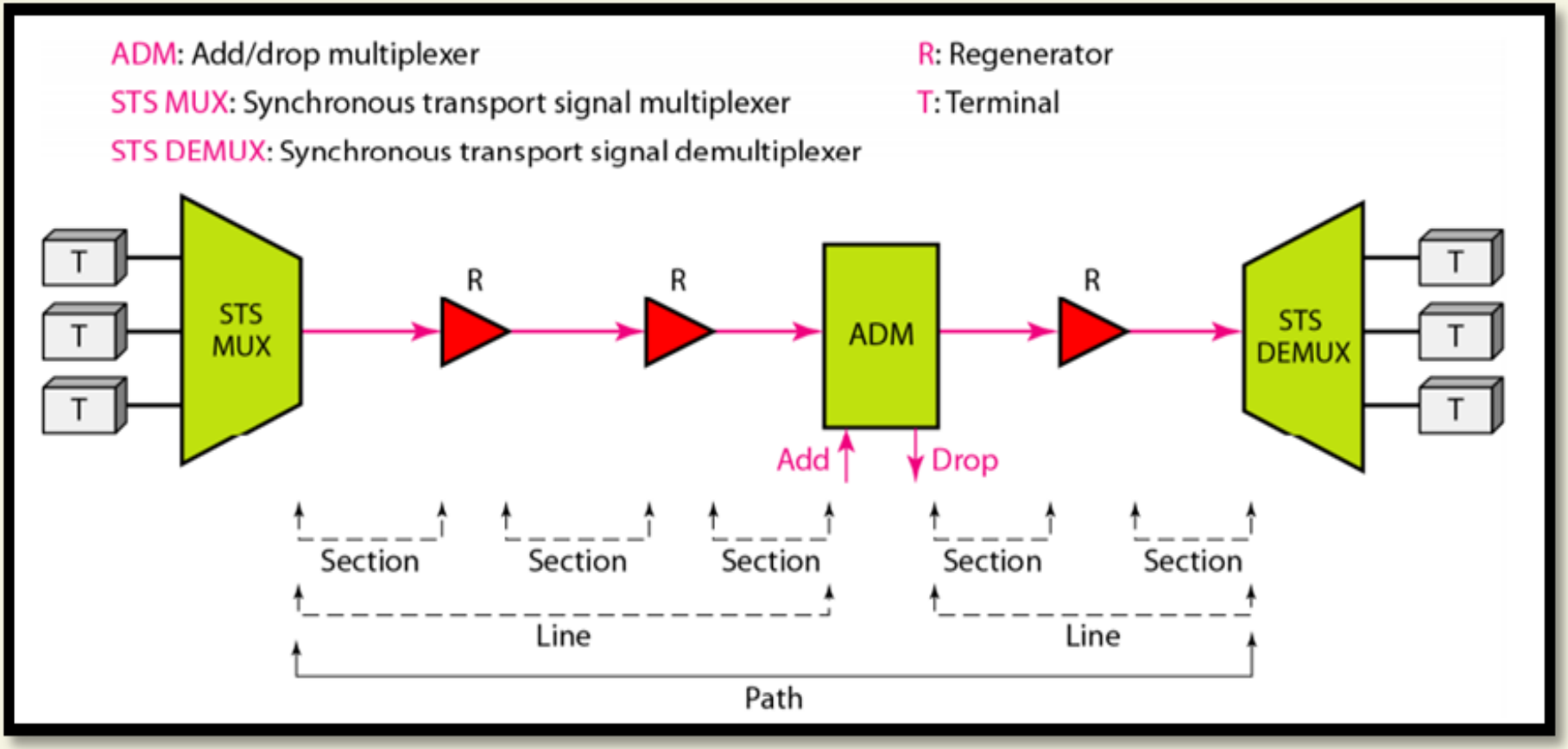
SONET\SDH Networks

The SONET standard includes ***four functional layers*** *they correspond to both the* ***physical and the data link layers*** *shown in figure below.*

- ***Path layer*** *is responsible for the movement of a signal from its optical source to its optical destination.*
- ***Line layer*** *is for the movement of a signal across a physical line.*
- ***Section layer*** *is for the movement of a signal across a physical section, handling framing, scrambling, and error control.*
- ***Photonic layer*** *corresponds to the physical layer of OSI model*



SONET\SDH Networks



BLUETOOTH

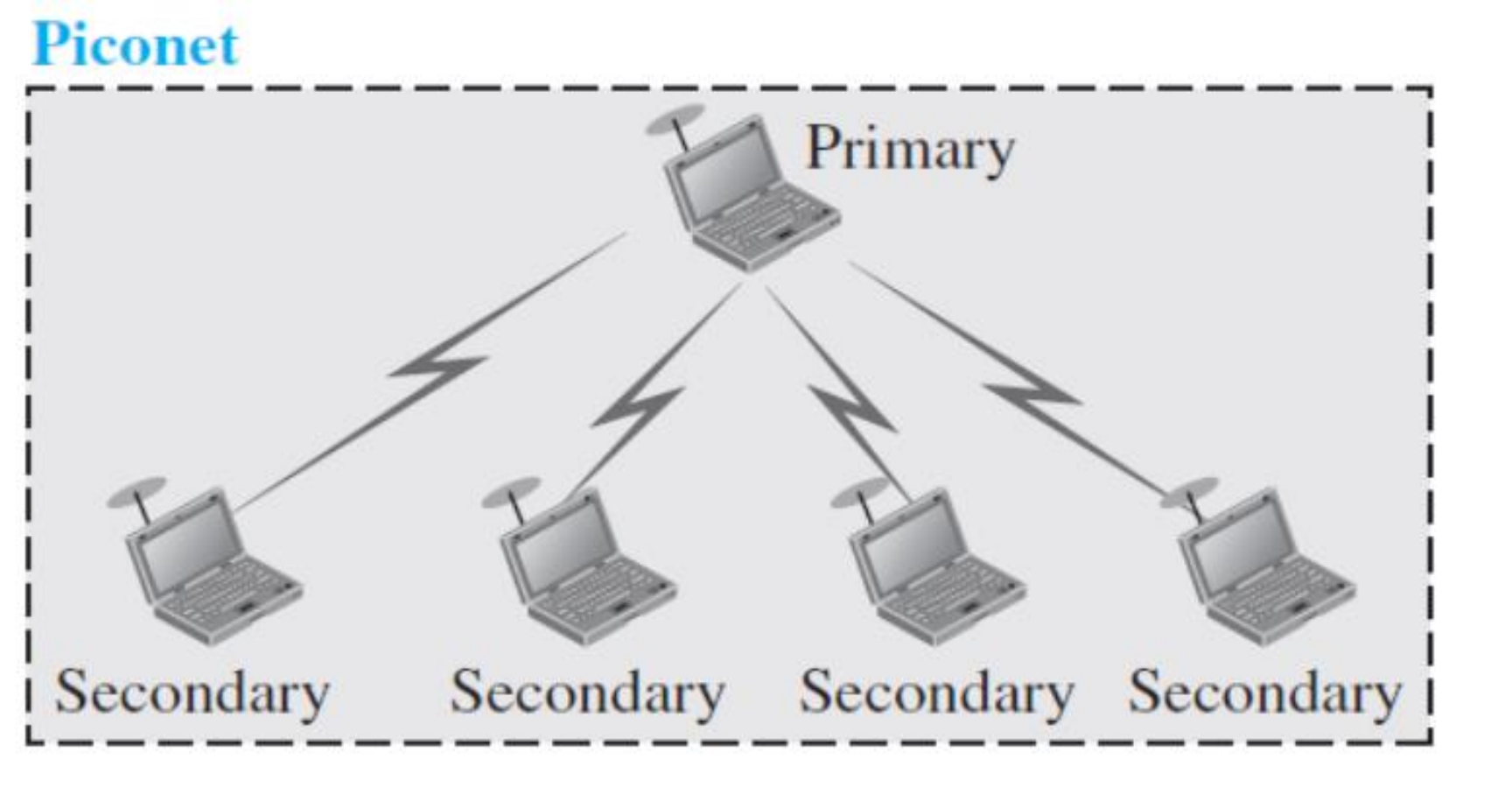
Bluetooth is a wireless LAN technology designed to connect devices of different functions such as telephones, notebooks, computers (desktop and laptop), cameras, printers, and even coffee makers when they are at a short distance from each other.

***Architecture of Bluetooth**:*

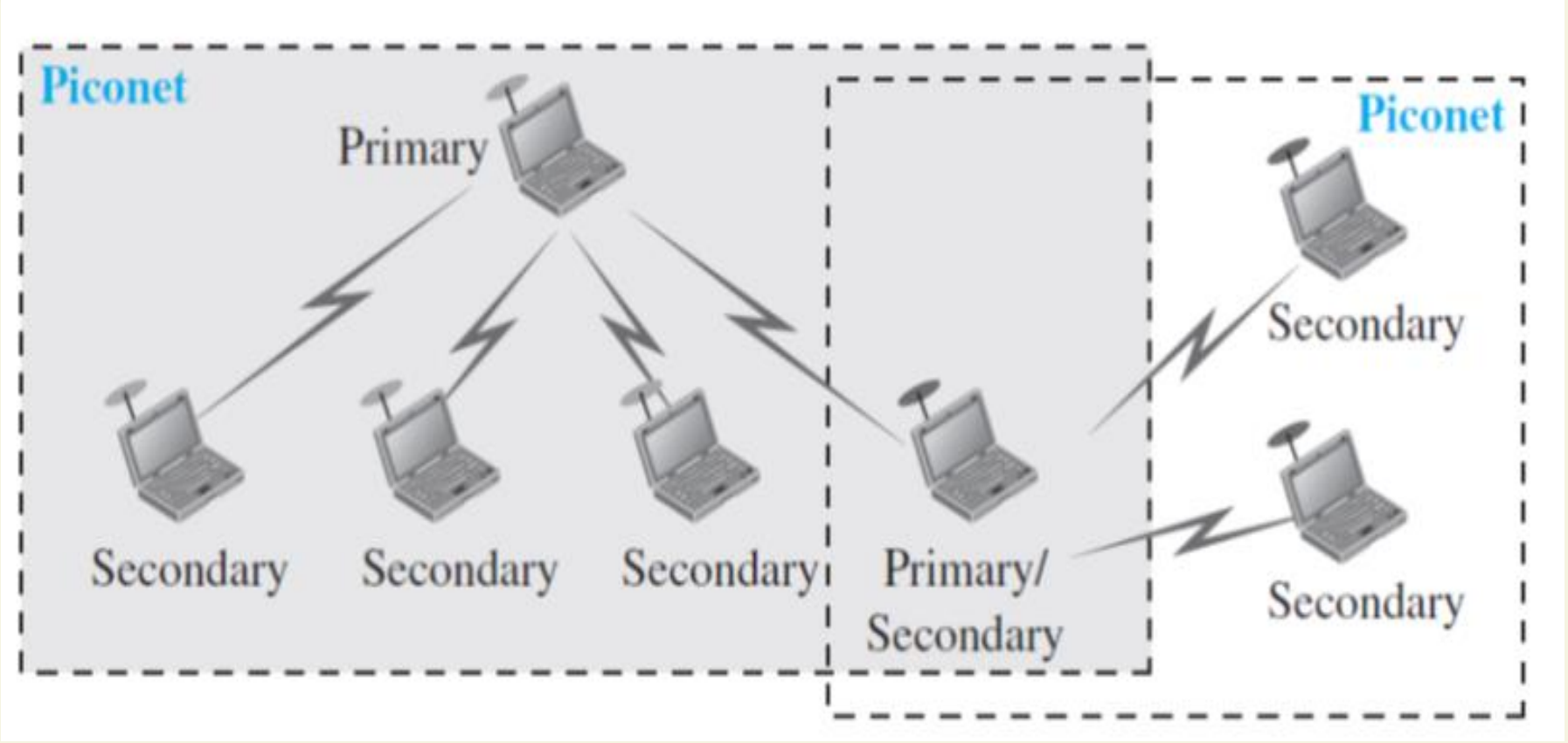
- *Bluetooth defines two types of networks: **piconet** and **scatternet.***

- *A Bluetooth network is called a piconet, or a small net. A piconet can have up to **eight stations**, one of which is called the primary; the rest are called secondaries.*

Piconet Network



Scatternet Network



Differences

Piconet	Scatternet
In this bluetooth network, device can function either as master or slave.	In this bluetooth network, device can function as master or slave or (master+slave)
It serves smaller coverage area.	It serves larger coverage area.
It supports maximum 8 nodes.	It supports more than 8 nodes.
It allows less efficient use of available bluetooth channel bandwidth.	It allows more efficient use of available bluetooth channel bandwidth.

End Of Lesson 2

Thanks For Listening