

IEEE (Institute of Electrical & Electronics Engineers)



Application Layer

Application

Presentation

Session 05

(Transmission Control Protocol) Control Prot. Connection oriented Reliab.

User Datagram Protocol. UR

Transport

IP Layer

Network

03 -

LLC TOP

LLC 802.2

Data link

LLC 802.2

LLC 802.2

LLC 802.2

LLC 802.2

LLC 802.2

LLC 802.2

LLC 802.2

IEEE 802.11 MAC

IEEE 802.11 MAC

IEEE 802.11a MAC

IEEE 802.11b MAC

IEEE 802.11g MAC

IEEE 802.11n MAC

IEEE 802.11 MAC

IEEE 802.11 PHY

IEEE 802.11 PHY

IEEE 802.11a PHY

IEEE 802.11b PHY

IEEE 802.11g PHY

IEEE 802.11n PHY

IEEE 802.11 PHY

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Page - 08

- Another sender ~~to~~ Receiver of another ^{can} ~~MAN~~ ^{use} the 3rd ^{using} remaining slots sequence: 1, 3, 5, ...

- Three separate MAN managed by same or 3 different Admins. Can co-exist in the same area.

Details of FHSS - (Frequency) is a seed value to both sender and receiver to generate the ~~seed value~~ random sequence.

- Sender keep on sending in the sequence: 2, 6, 8, 12, 16, 18, 20, 24, 26

- The transmitter ~~to~~ transmits in each slot for a duration of ΔT

- The Receiver also starts receiving in the ~~slot~~ same sequence, receiving each slot for duration ΔT .

Page-09

— (No body) in the (other than authorised transmitter and receiver can receive)

— WLAN becomes secured

— The effect of multipath fading removed.

— Suppose the sender transmits sequence 2 for ΔT

— during ΔT of slot 2

The Reflected signal does not come

— When the sender moves to 6 then

then the reflected signal of 2nd slot arrives but that does not effect because they are of two different frequency.

(b) (10)

(b) DS SS.

- There is a chip sequence known as Barker sequence of 11 chips.
- The whole 84 MHz is divided into 11 mini slots. (only one WLAN)
- Say Barker chip sequence:
 $\rightarrow 1, 0, 1, 1, 1, 1, 0, 1, 0, 1, 1$
- To transmit logical one
- To transmit logical zero
 $\rightarrow 0, 1, 0, 0, 0, 0, 1, 0, 1, 0, 0$
- For logical 1 or logical zero
- All element chips are parallelly transmitted using 11 frequency slots
- Error problem removed.