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TEB 030

07/10

Assignment. 4

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Q1 Compare infrastructure based network & Ad-hoc network

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Infrastructure Network	Ad-hoc
1) This network is faster than Ad-hoc network	1) This network is slower than infrastructure network
2) This network provides more security options.	2) This network provides fewer security options.
3) In this network access point handles all wireless nodes which are present in range	3) There is no need for access point in Ad-hoc networks
4) Applications are IEEE 802.11 & HIPERLAN 2	4) Bluetooth is a type of Ad hoc network.
5) This network used frequently in hotel lobbies, airport lounges, train stations, etc.	5) This networks are frequently used in the military, local networks are used for communication among a fixed group of people, etc.
6) For the set up of a permanent network, an infrastructure network is used.	6) For the setup of a temporary network an Ad hoc network is used.

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Assignment -5

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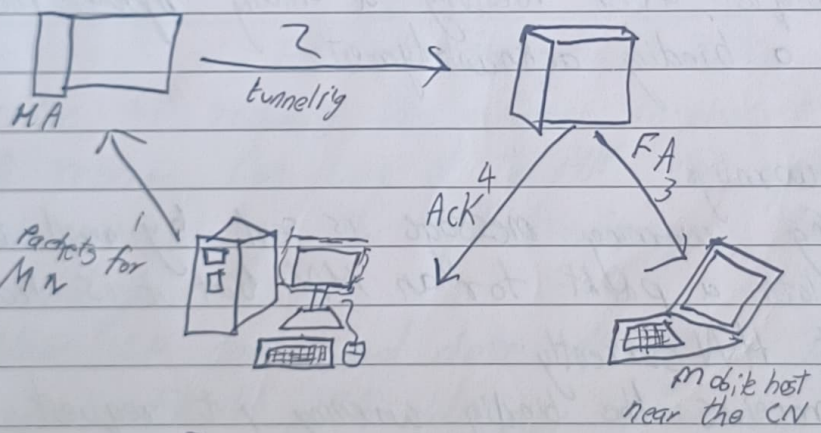
Q:1 What is triangular routing ? How it can be resolved. Explain in detail

→

- With mobile IPv4 there is always a triangular traffic packet from a CN destined to an MN needs to be routed to its HA first and then tunneled to the foreign agent of the MN.
- If the corresponding node & MN are very near, then also the IP packet has to travel a long way to reach the MN. This is efficient behaviour of a non optimized mobile IP is called triangular routing



Triangular Routing

Route optimization to avoid triangular routing to solve triangular routing problem, a route optimization protocol has been introduced. Basically this protocol defines some messages as to inform CN of an upto date location of MN. once the current location of the MN is known, the CN itself performs tunneling & sends packet directly to MN. The optimized mobile IP protocol needs for additional messages, these are:

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MC - Assignment-1

08/10

Q1 Explain various components used in LTE architecture diagram

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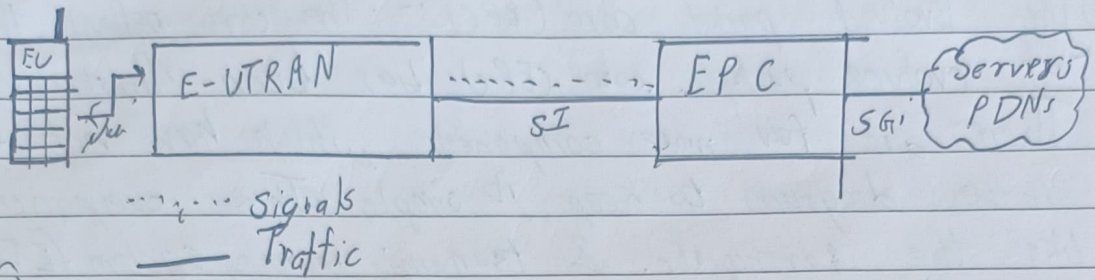

Refer PPT

① The user Equipment (UE)

The internal architecture of the user equipment for LTE is identical to the one used by UMTS & GSM which is actually a mobile Equipment (ME). The mobile equipment comprised of the following important modules.

① Mobile Termination (MT)
This handles all the communication functions.

② Terminal Equipment (TE)
This terminates the data stream

③ Universal Integrated circuit streams
This is also known as the SIM Cards for LTE equipment. It runs an application known as the universal Subscriber Identity module (USIM)

② The E-UTRAN (The access network)

The architecture of evolved UMTS Terrestrial Radio access network (E-UTRAN) has been shown.

The E-UTRAN handles the radio communications between the mobile & the evolved packet core & just has one component, the evolved base stations, called eNode B or eNB. Each eNB is a base station that controls the mobiles in one or more cells. The base station that is communicating with a mobile is known as its