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MC - Revision Test - 5

JONIAL JOE
IES17CS016

Q1. > Explain the transaction oriented TCP.

Q2. > Explain Mobile TCP. How does a supervisory host send a TCP packet to mobile node and also to fixed TCP connection.

A1. > Normal TCP uses a 3-way handshake to establish the connection.

~ Web services require reliable connection and it needs it quickly.

~ But traditional TCP takes up too much time.

~ Transaction TCP (T/TCP) can combine packets for connection establishment packets as well as connection release packets.

~ This reduces the overhead of connection setup & release as in standard TCP.

~ It is faster than TCP and delivery reliability is comparable to that of TCP.

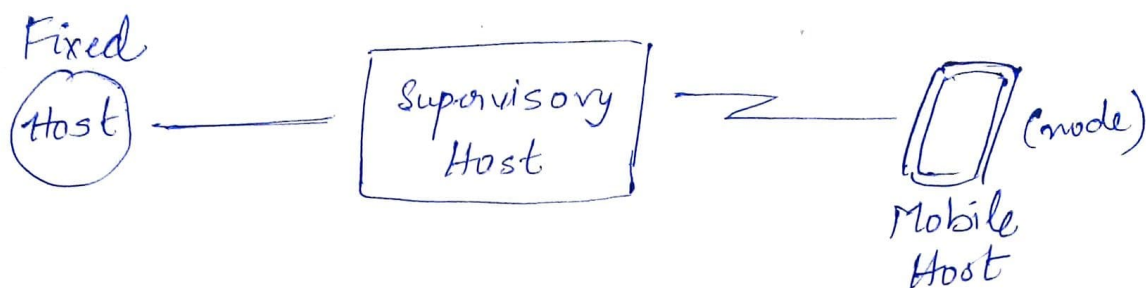
- ~ On the downside, ~~major~~ changes (mostly incompatible & breaking) are required - which are not transparent.
- ~ There are multiple security issues related to the same.
- ~ These are the strong reasons for ~~not~~ ~~add~~ widespread rejection of T/TCP.

A2)

Mobile-TCP (or M-TCP)

- ~ The M-TCP's goal is to prevent the sender window from shrinking if bit errors or disconnection cause problem.
- ~ It improves overall throughput, to lower delay and maintain end to end semantics of TCP.
- ~ This will ensure a more efficient handover:
- ~ It splits the TCP connection into two parts.
- ~ An unmodified TCP is used on the standard host ~~to~~ ^{to} supervisory host (SH) ~~and~~ ^{connection}

while an optimized TCP is used on the supervisory host to mobile host connection.



- ~ The supervisory host is responsible for exchanging data between both parts.
- ~ Since it assumes a relatively low bit error rate it does not perform checking or retransmission of data via supervisory host.
- ~ The SH (supervisory host) monitors all packets sent to the MH (mobile host) and ACKs (Acknowledgements) returned from the mobile host.
- ~ If supervisory host does not receive ACKs it blocks the sender (fixed host) by setting the window size to 0.
- ~ Once the connection is detected on MH side the window is reset and the fixed node can transmit or receive data at full speed.

~ This is how a supervisory hosts sends TCP packet to mobile node and back, fixed node. (It more often ~~does~~ the monitoring part between them).