

Mobile Radio System +

Characteristics of radio waves and Mobile radio propagation +

Cellular System Design Fundamentals and Wireless Data Networking +

MOBILE NETWORK LAYER AND TRANSPORT LAYER -

Mobile IP

IP packet delivery

Agent discovery

Registration

IPv6

Cellular IP

Mobile ad-hoc networks

Tunneling and encapsulation

Types of encapsulation

Optimizations of Mobile-IP

Traditional TCP

Classical TCP improvements

TCP OVER 2.5/3G WIRELESS NETWORKS.

Performance enhancing proxies

Transaction-oriented TCP

Wireless Systems +

Branch : Electrical and Electronics Engineering

Subject : Mobile Communication

Unit : MOBILE NETWORK LAYER AND TRANSPORT LAYER

Transaction-oriented TCP

Introduction:

T-TCP, which is also abbreviated as transaction oriented tcp can combine packets for connection establishment and connection release with user data packets. This can reduce the number of packets down to only two instead of seven.

T-TCP:

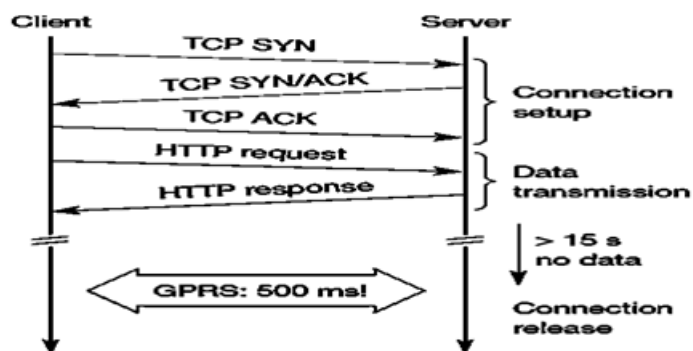




Figure 7.5 Example TCP connection setup overhead

- Assume an application running on the mobile host that sends a short request to a server from time to time, which responds with a short message
- Using TCP now requires several packets over the wireless link. First, TCP uses a three-way handshake to establish the connection.
- At least one additional packet is usually needed for transmission of the request, and requires three more packets to close the connection via a three-way handshake.
- Figure 7.5 shows an example for the overhead introduced by using TCP
- Web services are based on HTTP which requires a reliable transport system. Web services are based on HTTP which requires a reliable transport system.
- In the internet, TCP is used for this purpose.
- Before a HTTP request can be transmitted the TCP connection has to be established.
- T/TCP can combine packets for connection establishment and connection release with user data packets.
- This reduces the number of packets down to two instead of seven.

Advantage:

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**Transaction-oriented
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Wireless Systems 

- Changes in TCP required not transparent
- security problems

Previous



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