TRANSPORT4YOU PROJECT PHASE I

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SYSTEM OVERVIEW

Purpose:

E-ticket payment system

System Components:

Web application:

on remote server

Java Application:

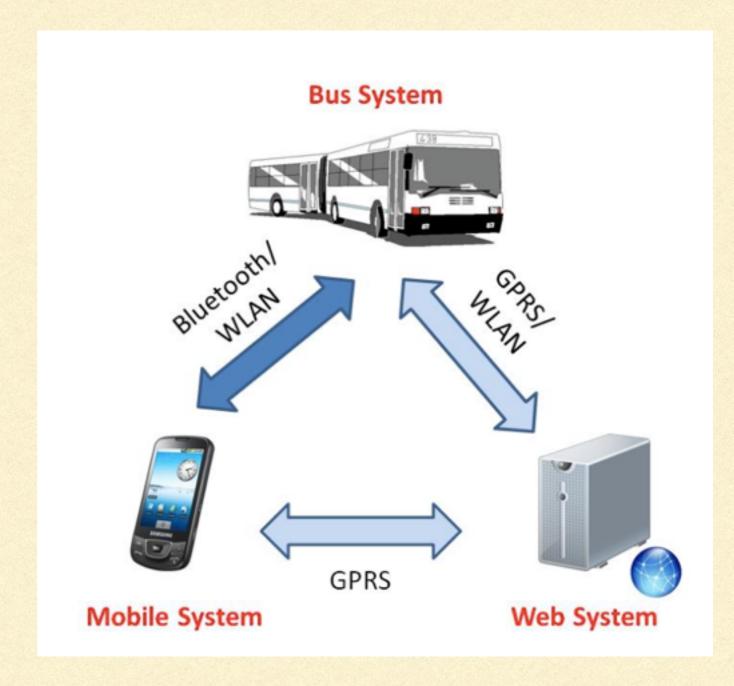
on bus

Android Application:

on user personal android device

Shared Component:

used by all other three components



ARCHITECTURE OBJECT-ORIENTED ARCHITECTURE

Advantage:

Well modelling of the real world

Code reuse

Encapsulation => maintenance

Low coupling between system components

Disadvantage:

Time-consuming in modelling

Large code size

Large number of function calling

Lower running performance efficiency

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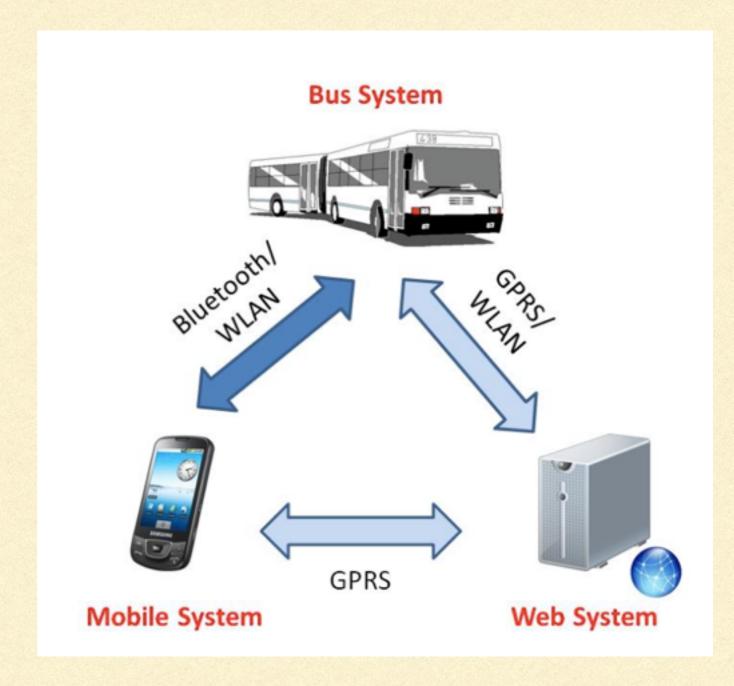
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SYSTEM COMPONENTS

Web System:

user registration user authentication ticket generation

Bus System:

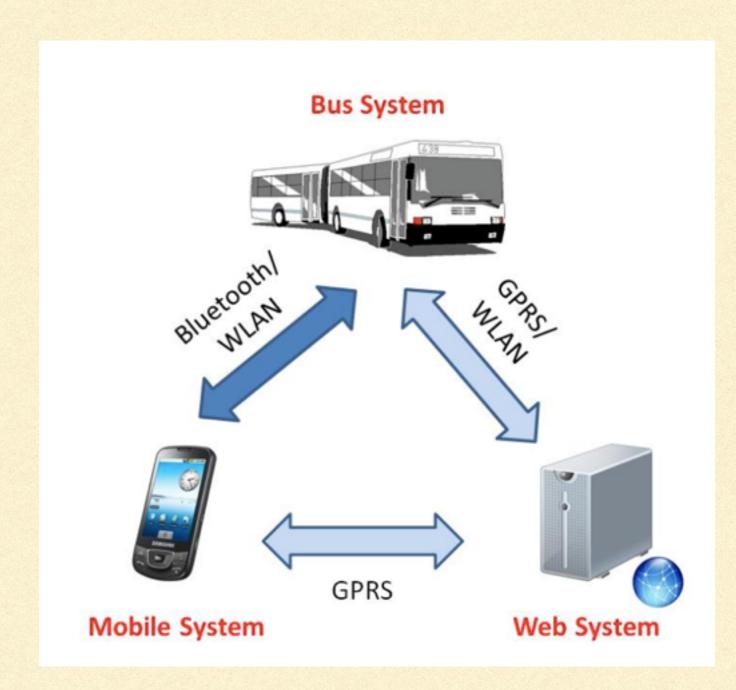
transport layer security implementation ticket validation

Mobile System:

login
synchronise user & ticket information
display account & ticket
scan bus

Shared Component:

provide interfaces for other three components



COMPONENTS INTERACTION

Web <=> Mobile : viaHTTP (Client-Server)

Mobile <=> Bus: viaBluetooth



GAPS

- Manager Perspective: different tickets
- Bus Perspective:
 - selling tickets
 - checking passenger capacity
 - inform
- Customer Perspective:
 - reliable
 - advertise
 - obtain ticket