# Requirements specification:

## Client (PDA):

* Shall be able to communicate with train and bus computers to identify the user.
* Shall be able to show the traveler status to show a conductor that a user is checked in.
* Shall be able to show the current travel cost.
* Shall be able to search for fastest route using copies of spanning tree objects from the server. This is necessary to distribute processing loads.

## Train/Bus computer:

* Shall be able to communicate with the users' PDA devices to identify the user.
* Shall be able to communicate with the server.
* Shall be able to manipulate user data on the database with RMI.
* Shall be able to store and send logged in / logged out users in a chunk after departure from each station/stop.
* Shall be able to convert to face recognition system with no major change in existing system.

## Web based platform (website):

* Shall be able to register and log users in based on credentials.
* Shall be able to display the users travel data / transaction history.
* Shall have a management mode for client/cost management.

## Communication:

* Communication shall be implemented using a custom application layer protocol.
* Distributed systems shall implement interfaces to send and receive packets.

## Database:

* Shall have a user DB and a separate transaction history DB.
* Shall be thread safe and maintain data accuracy.