Use Cases for the Taxi Evolution

- Version 3.3 -

1 Use Cases

1.1 Taxi: Submit order

Purpose: The driver receives an order from a customer. The driver should be able to submit an order from the terminal in the car. An order can be submitted in all states, except in "Offline".

1.2 Central: Submit order

Purpose: Orders are received by the operators. These are submitted into the system.

1.3 Central: Display traffic overview

Purpose: The operator should be able to see available cars and orders in each zone. This is used to estimate how long it takes for a car to be present at the pick-up location.

1.4 Taxi: Log in

Purpose: The driver logs on to the system to acknowledge presence and to be able to receive orders. (Note that a driver can drive different taxis at different times. Also note that a taxi has many different drivers, although only one driver at a time.)

1.5 Taxi: Receive order

Purpose: The driver receives an order from the central.

1.6 Taxi: Driving a customer

Purpose: The driver has a customer in the car and is about to transport the customer to the designated address.

1.7 Central: Handle incoming alarms

Purpose: If a driver sounds the alarm, an operator is responsible for handling the event.

1.8 Taxi: Alarm event

Purpose: If the driver, for some reason, feels threatened there is an alarm system which notifies the central of the problems.

1.9 Taxi: View traffic overview

Purpose: The driver should be able to see in which zones there are cars and the amount of outstanding orders in each zone.

1.10 Central: Dispatch order

Purpose: Orders can be marked for manual dispatching. These orders have to be manually dispatched by an operator. Default is automatic dispatch.

1.11 Central: Send text message

Purpose: The operators have the option to send text message to the cars. This can be done to a specific car, to a certain set of cars or to all cars.

1.12 Central: Log in to central system

Purpose: The operators log in to the central system to be able to use it.

1.13 Central: Initiate radio communication

Purpose: The operator should have the possibility to contact a specific driver over a voice radio connection. Can be used when the ordering system is down, but the communication link is operational.

1.14 Taxi: Initiate radio communication

Purpose: The driver should have the possibility to contact the central through a voice channel using this system. Can be used if the ordering system is down, but the communication link is operational.

1.15 Taxi: Incoming radio communication

Purpose: The central can initiate a voice contact to be able to talk to the driver. Can be used if the ordering system is down, but the communication link is operational.

1.16 Taxi: View properties

Purpose: The driver should be able to view the properties of the car and also the properties on the driver him/herself. Note that the drivers can only view information on themselves.

1.17 Central: Incoming radio communication

Purpose: The drivers have the possibility to contact the central through a voice radio channel.

1.18 Central: Update driver properties

Purpose: Each driver has a set of properties. These can be promptness, smoker or non-smoker, number of complaints, etc. The operator is responsible for updating this information.

1.19 Taxi: Receive text message

Purpose: The central has the possibility to send text messages to the cars. This can be done to a specific car, to a certain set of cars or to all cars.

1.20 Central: Update car properties

Purpose: A car has certain properties, such as number of possible passengers and specific allergy demands. The operator is responsible for updating this information.

1.21 Central: View car properties

Purpose: The operator may want to select a car based on the car properties.

1.22 Central: View driver properties

Purpose: The operator may want to select a car based on the driver properties.

1.23 Taxi: Log out

Purpose: When the driver is not supposed to drive more for the time being, the driver logs off the system and is no longer available to take orders. (Note that a driver can drive different taxis at different times. Also note that a taxi has many different drivers, although only one driver at a time.)

1.24 Central: Log out of central system

Purpose: When the operator is done working, he or she logs off the system. This is done at the end of the day or at breaks, e.g. lunch.