Deliverable Summary

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Context and Purpose

From January 2010, ATC spa (bus operator in Bologna and Ferrara) and other public transport companies (bus and trains operators) of the Regione Emilia Romagna adopted the new fare and ticketing system named STIMER.

The system integrated all the regional transport modes (bus and train) with the use of unique fare structure and an electronic ticketing system.

The ticketing system is based on contactless smart cards for season tickets and magnetic technology for the other tickets.

The whole bus fleet has been equipped with magnetic tickets and smart card validators and with an on board computer to manage the system.

At the moment urban service buses are provided with self-service ticket vending machines while on the suburban service there is no possibility to buy on board a ticket, even if such service contributes in a measurable way to serve the urban area of the city.

On suburban buses, it is not possible to install self-service ticket machines because it is unadvisable to have strongboxes on buses that could stop all the night out of the depots.

Under this measure a new solution to offer users the opportunity to buy on-board ticket even on suburban vehicles will be tested and evaluated.

This deliverable gives a description of the system functionalities.

Summary Contents

This activity aims to increase the accessibility to the public transport service realizing a system for on board magnetic ticket issue also on suburban buses that cannot be equipped with self service vending machines.

The system is based on the on board computer and the validator already installed on the bus. This solution does not require further devices (for ex. printers) with an advantage also in terms of maintenance and reliability.

The bus driver has to have magnetic tickets without any codification (virgin ticket), that means without any value.

When a passenger asks for a ticket:

1. the driver select the fare on the on board computer;
2. the driver receives money by user and give the virgin ticket to the passenger;
3. the validator accepts the virgin ticket and codifies it;
4. the validator also validate and print on the ticket the typology, number of zones and the price;
5. all data are stored on the on board computer for reporting activity.

Hereafter an image of the on board devices: on the right there is the validator, on the bottom there is the on board computer for driver.

During selling phase, the validator continues to validate the tickets; as soon as the purchase is completed, the validator becomes ready to accept a virgin ticket.

When the driver ends his shift, a short report for driver will be printed by the validator on a virgin ticket.

Functional Use

This deliverable is the fundamental step to develop the measure.
It contains :

- the feasibility study;
- the design of the user interface.

The realization of these activities are the basis to go on with software development; after this further step we will proceed with the testing and the start-up of the system

As soon as the first software release is ready we will involve the representatives of drivers to agree the procedure and go on with tests.

Lessons learned

A system for on board ticket issue provides a good solution to public transport accessibility problem.
In order to find the best solution we have to take into consideration all aspects concerning the different actors involved:

User point of view
Easy accessibility to public transport with on board ticket purchase

Company point of view
Avoid to increase operative costs;
Avoid to buy further devices.

Driver point of view
The driver do not need to have a carnet of tickets with a value that can be stolen or lost.

Municipality point of view
On board selling of interoperable tickets.

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