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Booking of parking places – General information

Methodological note

Underlined and italicized terms are explained in the "Glossary".

Description

Within the modality, the stop management and the traffic optimization, it is evident that carrying out a project that allows to book a parking place in a parking area can reduce the search for a parking place, with subsequent effects in terms of consumption and emissions.

The service can possibly have different accessing media such as:

- SMS
- Telephone via IVR
- Telephone via call centre
- Telephone via mobile applications (mobile apps) for smartphones
 - o IPhone with mobile applications for Apple IPhone
 - o Android
 - o Window mobile of different typologies
- Palmtops
- Web
- Street self-service totems

Regulations

In Italy, the booking of a street parking place does not exist, while in the absence of specific regulations it has been possible to develop it for parking places in areas closed to traffic, both private and public.

In Bologna, there are at least two private-public mixed precedents.

- A system that allowed to book equipped lay-byes for camper vans at the park-and-ride site Tanari
- The system of the Optipark European project, which allowed to book lay-byes for cars at the park-and-ride site Tanari

The system under study and operational demo is aimed at improving the system at a local level.

Nevertheless, the lack of regulations causes a significant problem:

- impossibility to properly protect parking areas devoted to this service from illegal occupation. Being the parking area guarded, the problem will be overcome at first with human control and the plan aimed at integrating the systems of mobile bollards already under study for car sharing.

Customers

Being an experimental service, it has been decided to establish an initial limit of 100 or 200 people interested in subscribing to the program.

Subscription

Only via WEB, since the start of the project is focused on the use of the web, which can be optimized also for palmtops and mobile phones.

Service standard principles

The basic principle is that the parking place must be booked in advance (from some days to a few minutes) by always stating:

- the customer
- the parking area
- the parking starting date/time

- the parking ending date/time

In the initial stage, the reserved parking place cannot offer a reservation longer than 24 hours in order to allow a certain turnover.

Since delays cause inefficiencies, the choice to recall customers causing delays is aimed at indicating simple daily strategies. In any case, spare stalls will be reserved in case of inefficiencies.

Communication

The communication strategy towards the customers includes different "channels"

- the web, through the institutional site with news
- communications in national or local newspapers, free or not, in the form of advertisements, arranged editorials or spontaneous articles
- communications in national or specialist magazines, in the form of advertisements, arranged editorials or spontaneous articles
- press office
- local advertisements in commercial businesses

Since in the past the highest peaks of interest have been reached following non-advertising presences in local televisions or newspapers, there will be an attempt to involve in the project the press and televisions, at least at a local level.

The other channel, independent, is the WEB, with targeted e-mails sent to interested categories.

Management

Customers are managed via web with specific software.

The main features to be managed are:

- personal data
 - the customer
 - name
 - surname
 - car 1
 - parking limitations due to supply YES/NO
 - car 2
 - parking limitations due to supply YES/NO
- parking place of interest 1
- parking place of interest 2
- validity date
- cell. number of reference
- e-mail
- password
- password confirmation and check

Compulsory for each log mask:

- CAPTCHA function

that allows, through the reading of distorted images, to prevent automatic accesses from computers without any human presence.

In a future development of the system, it will be also possible to confirm via e-mail and/or SMS.

- the booking, if carried out via a call centre

Service area of interest and related issues

The service is strictly related to the city and, at first, limited to:

- The park-and-ride site Tanari
- The municipal car park Staveco

How does it work

Booking is carried out by accessing a Web portal and entering the personal code to check the availability of the required parking place.

In case of positive result, the booking is activated. Otherwise, alternative places are proposed (if available) in the same parking area or alternative parking areas.

Parking areas

- design and limitations

At first, only the aforementioned parking areas will be involved by reserving parking places to the operators and some others as spare parking places.

Since all vehicles are admitted to the system, including those with a methane or LPG bi-power supply, the involved parking areas are NOT underground and, therefore, it is not necessary to add to the pilot project any limitations, which however can be already included in the booking system.

Protection and safeguard of parking places

The first measure is passive dissuasion through devices that detect the presence of a vehicle and notify it to the officers by computer or, as in the initial project, only with a strong characterization of stalls.

The last measure is to protect stalls by using a specially provided bollard that recognizes authorized vehicles and automatically drops and rises upon manual control related to a unequivocal reservation code, for example via SMS, keeping possible alarms in unpredictable cases of occupation of the place by unauthorized vehicles.

Commercial policies

At first, rates, fixed by the Municipality, cannot differ from the standard ones.

In the future, the service could have differentiated rates as a value added service.

Any additional costs will be avoided in the prototype. Later, they could be charged to customers, for example via SMS.

Payments

As stated above, payments will have the standard modalities and rates of the aforementioned parking areas.

Electronic communications to customers

Systems of booking confirmation via SMS are being analysed.

The notification e-mail will be activated to send news.

NOTICES via e-mail

- project expiry

OPERATIONAL NOTICE via SMS

- booking confirmation

The system and the technology

The central system

The system is hosted by the supplier and is on a web site.

The supplier is Cart and the reference site is www.cartsoftware.eu

The functions are:

- User's subscription with agreement to the project policies and surveys
- Booking or cancellation of bookings
- Periodical questionnaires
- Information on results

The parking zone system

At mid-project, the system will be integrated by webcams to allow the public to see the reserved zones, as well as by a connected position at the operators' that must authorize the stop.

The call centre

In addition to the possibility of booking through the Internet (and by mobile phone in the future), booking through the call centre will be assessed.

If activated, the qualified call centre will be the Atc one.

Statistics

Standard

The system will provide anonymous statistics:

- By customer
- By car
- By parking place and single area
- By month/year

Giving the following service data:

- Hours of use
- Booked hours

These data are integrated with more specific ones.

Other available resources

Individual Municipalities and operators can also have access to further funds if they are able to interact with local, national or EC authorities.

Local funds

In addition to being a Civitas Mimosa partner, the Municipality of Bologna supports the project with coordinating and supporting policies.

European funds

Atc is a partner of the Civitas Mimosa European project for the protection of parking places reserved for car sharing.

CIVITAS MIMOSA is a European project co-financed by the European Commission and whose leader is the Municipality of Bologna, in partnership with SRM – Reti e mobilità, ATC, Regione Emilia Romagna at a local level and with the cities of Gdansk (Poland), Utrecht (Netherlands), Funchal (Portugal) and Tallinn (Estonia) at an international level.

By measure 2.2, the European project Civitas Mimosa intervenes in Bologna parking areas for both communication and the part related to an experimental study.