POLICY LEARNING IN INFORMATION TECHNOLOGIES
FOR PUBLIC TRANSPORT ENHANCEMENT

GOOD PRACTICES – PUBLIC TRANSPORT PRIORITY SYSTEMS

INFORMATION ABOUT THIS GOOD PRACTICE IS PROVIDED BY THE CALABRIAN REGIONAL ADMINISTRATION (CRA, PP1)

TRAVELLER INFORMATION / MOBILITAMI

General information

Description

Mobilitami is the Sustainable Transport Community - a virtual place for exchange information between demand and supply where innovative ways of travelling, environmentally friendly, meet – or contribute to satisfy - all kind of users requirements, reducing traffic jams and travelling time. A technological and innovative platform able to match sustainable mobility demand and supply within the regional territory.

Mobilitami allows to:

- Plan trips at regional level (available);
- Plan long-haul trips to reach Marche Region (Interregional transport service) (available);
- Book and buy tours/planned travels (available);
- Book flexible services (partially available);
- Book shuttle services (door to door service) (not available yet);
- Book Taxi (not available yet);
- Organize the holidays or spare time, checking all available events in the area indicated by the user (available);
- Reach points of interest of the region (available);
- Communicate with monitors distributed on the territory, DESMO circuit project (available);
- The web portal provides different services and uses a variety of technologies, such as algorithms for research the best travel solutions at regional level (LDEQUE + A* - only for pedestrian solutions).

Estimation and instructions about the best route in order to reach the desired destination from any place of the territory by using the network of the local public service. The estimation is achieved by combining the provision of all the transport operators located on the territory.

- Implementation of a proprietary Geocoder based on Tele Atlas cartography;
- Smart search – full text indexation (only for some specific fields of the DB as POIs, Events, Bus Stops);
- Possibility to implement national and community standards;
- Multimodal system for the provision of multimodal transport services by combining aircrafts + ships + trains;
- Binary graph generation for search the optimal mathematician;
- WS to expose useful data to mobile apps;
- Data normalization for each transport operator;
- Centralized DBMS for central system.

Mobilitami realizes the first Marketplace of the Sustainable Mobility where different subjects can meet: tour operator and accommodation facilities, transport operators, local bodies/ events organizer, residents, tourists and commuters.

To keep each subject connected to the community, several monitors have been installed across the region where some information is displayed (events, advertising, timetable of the public transport, delays of the buses, some important notices). There is a real time connection with the centre and a continuously updating of the news. Each localized monitor is detected so that it is also possible to contextualize the publishing data. Another important element to consider is the high richness beside this web portal: the data georeferencing is the main important phase to assure the reliability of information. Not only, all data are certified to give an high level of service to the end users. Mobilitami has two different accesses, one for the users and the other for all partners involved in this project (public authority, transport operator, seller, etc.).

The offered service is aimed at providing information of public-interest about the territory such as events, public transport services and any other information that the advertiser may consider worthy of publication. This information is published through the Internet and multimedia screens distributed all over the entire territory. Its purpose is to promote both the territory (towns, provinces, regions) and the available mobility services in order to foster the use by citizens/tourists. In particular, Mobilitami organizes and gives direct access on the map to information of particular interest

about the territory (schools, cinemas, theatres, gyms, pharmacies, public offices, museums, banks, post offices, air/land/water/rail transport nodes, etc.). It also provides information on events on the territory with the purpose of offering rapid and integrated information on how to reach the desired destination by public means of transport (taxi, DRT, car sharing, etc.) through an effective and advanced travel planner which can connect different transport modes (bus, train, metro, on foot, etc.). As concerns the events, the advertiser can publish the scheduled events (sport competitions, cultural/social events, etc.) himself.
Moreover, multimedia screens offer to citizens the most advanced integrated infomobility services, including images and information to promote the territory with the possibility of editing contents.

Backround and Context

At the beginning of 2011, right to proceed with the important South African experience, Pluservice set up a special purpose company called MobilitAMI with AMI SpA, the public transport operator of the Province of Pesaro. MobilitAMI is aimed at realizing and managing integrative LPT services which need specific automation interventions for processes and systems. First, MobilitAMI designed and realized BLUeMobility, the first virtual community for sustainable transport, with the purpose of contributing to reduce CO2 emissions in order to have a significant and immediate impact on tourism and economy. The project was submitted within a recent national call by the Ministry of Environment and it focuses on the following themes: sustainable mobility, sustainable development and protection of the environment. The project objective is to raise public awareness by educating residents, commuters and tourists on the use of public transport, by reducing the use of private cars and adopting a new style of local mobility without penalizing travel comfort. The project is currently active on the Marche territory and it is also achieving a resounding success in other national areas.
Some relevant data:

- Number of monitors installed across the region: 15
- Number of Point of Interests into the portal: 17372
- (POIs are grouped by different categories such as School, Pharmacies, Law enforcement, Events, Restaurants, and Places of worship. Number of categories: 165)
- Number of Events into the portal: 130
- Average monthly accesses in the portal to query travel solution (Travel Planner – 2012): 6,565
- Annual accesses in the portal to query travel solution (Travel Planner - 2012): 78,782

Policy design details

Policy Design Steps and Timing

Design criteria and steps:

- Identify the main scope of the whole project and define the objectives to achieve;

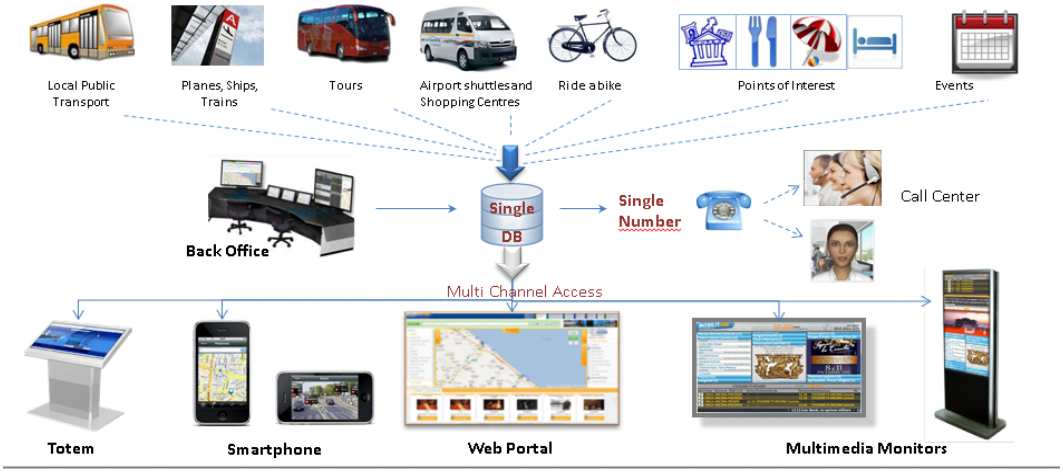
- Define stakeholders: Pluservice has identified the possible stakeholders;
- Requirements analysis and meetings with stakeholders;
- Define which services can be hosted into the platform;
- Design: the development of the software follows a specific model called "Evolutionary Process Model", specifically spiral model. With this model, the design runs along a spiral from the beginning of the project until the release of the product. Each spiral is divided in several sectors: Communication with the stakeholders, Planning, Risk analysis, Design, Construction and Release, Evaluation by the stakeholders. Essentially, the phases characterizing the development of the portal are related to:
    - Architectural design - definition of software components (subsystems) and their relationships;
    - Abstract specification - specific of the high-level components;
    - Interface design - Define and specify the interfaces of the components;
    - Component design - Detailed specifics of each components;
    - Data structure design - Design of data structures for containing the data of the problem;
    - Algorithm design - Design of the algorithms for travel planning.

IMPORTANT MILESTONE

This project started at the beginning of April 2011 and a very important milestone was reached in February 2012 with a big release of the project. The platform was presented during an International exhibition in Milan: "BIT" International Tourism Exchange". After this event several meetings took place with subjects who work on tourism and transport. These meetings brought a lot of developments, upgrades of the entire portal with new services and functions available for the users (tourists or citizens).

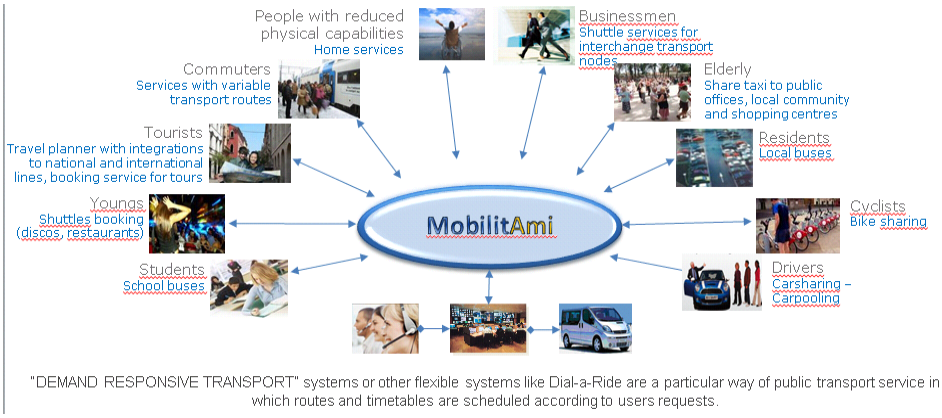
Design Steps (high level design):

1st Step of the project → Acquiring, capturing and publishing the offer (services available to the users). All actors above mentioned have been involved in this step.



2nd Step of the project → Contextualization of information. All actors mentioned above have been involved in this step.

3rd Step of the project → Development of applications supporting specific transport services. The actors involved in this step are Pluservice srl, Ami spa and Mobilitami srl.



4th Step of the project → The CARD as a tool to fully enjoy the Marche Region. The actors involved in this step are Pluservice srl, Ami spa, Mobilitami srl, Marche Region and Confcommercio.

5th Step of the project → A CARD facilitates customers' retention. The aim is to relate the hospitality, transport services, local production, the attractions of the region and its commercial offer.

6th Step of the project → Involvement of all those who live in the territory. Why? Join the community to

- GIVE citizens and potential visitors a new tool to discover the Region at best;
- USE an innovative network to promote your own business;
- Earning money, etc.

Actors Involved

Mobilitami: Pluservice and Ami Pluservice set up a special purpose company called MobilitAMI with AMI SpA, the public transport operator of the Province of Pesaro. MobilitAMI is aimed at realizing and managing integrative LPT services which need specific automation interventions for processes and systems. Few months after its foundation, also the local section in Ancona of Confcommercio (the Italian General Confederation of Commerce, Tourism and Services) joined the company.

Pluservice srl: System Integrator for passenger transport companies. After over 20 years' activity, Pluservice is currently the leading Italian company in the field of integrated IT systems (ERP) for passenger transport companies, with over 250 clients evenly distributed throughout Italy and over 1000 application packages

Decision Making Process

1. Define the problem → get demand and supply to meet each other, increase the tourism sector and enhance the use of public transport
2. Identify limiting factors. The asset of the portal is made up by data of different kinds: public transport service data of every single operator, POIs, information on events and much more. One of the main limits is that of acquiring normalized data to be organized an managed and make them useful for the end user.
3. Develop potential alternatives. For instance, this phase in characterized by the study of possible communication channels: kiosk, web, smartphone, IVR, call centre.

4. Analyse the alternatives. Every single communication channel has been analysed, highlighting pros and cons, evaluating which alternative would have been suitable for satisfying the users' needs. This phase is very important to reject the unsuitable solutions or to decide which solutions can be adopted in the first starting phase of the project.
5. Select the best alternative. During the evaluation of pros and cons, it has been decided, for instance, to abandon the implementation of an IVR and the provision of a call centre, especially during the first starting phase of the project. Much more emphasis was given to the web and to the development of smartphone applications.
6. Implement the decision. The portal and every single element have been developed based on the project decisions taken by a technical working group assessing different aspects: economic comparison, impact towards users (implementing user friendly interfaces and compliant with national usable laws).
7. Establish a control and evaluation system. The entire implementation process complies with specific steps followed by control and evaluation phases of the single modules and after that of the whole project (regression testing). Evaluations are perform in order to understand if every achievement is compliant with the decisions taken during the designing phase. In addition, the system is equipped with tools to control the number of accesses to the portal and verify if the user is satisfied or not with the research in the portal.

Implementation details

Implementation Steps and Timing

The implementation steps follow the design process:

1. Realization of the portal as a box to contain different services available to the users.
2. Definition of web services.
3. First service usable by the users: Multimodal Travel Planner at regional level.
4. Information for the users through web site, monitor and Apps. Moreover, it has been developed a back-office system for the management of data used by the portal.
5. It is possible to book a seat and pay for a long-haul trip.
6. Special applications for smartphone have been developed: timetable of the Public Transport on mobile.
7. Buy tickets for PT on mobile or web portal.
8. Publish tours/organized trips.
9. Book and pay for a tour/organized trip.

ICT/Infrastructures needed

Mobilitami is supported by several modules and platforms, such as:

- Platform for users' registration and launch of loyalty system;
- Travel Planner;
- eTicketing System;
- Fleet Management System;
- AVL/AVM System;
- Infomobility ;
- Use of web site and smartphone.

The actors involved are Mobilitami srl, Pluservice srl and Ami spa.

Human Resources

Here the members (and the number) of the staff who work behind the Mobilitami project:

- Project manager: 1,
- Analyst: 5,
- Developers: 15,
- Area manager: 12,
- Consultants in marketing and communication: 2.

Monitoring Procedures

In general, the monitoring phase to evaluate the entire process of development related to "Mobilitami portal" is characterized by several and detailed tests made by technicians at each design or implementation step: White-Box Test and Black-Box Test. After these tests, there is another phase for monitoring the right working of the system with a specific test: the regression test.
The system uses Google Analytics to check the number of accesses.

Supporting Mechanism

Awareness/Information Campaigns

Undertaken by web, email, manned Kiosk in the malls, social networks, regional TV channels, etc.

Partnerships/Key Supporting Stakeholders

The partners that supported the successful delivery of the project are:

- Marche Region: it has promoted the platform during the congresses/exhibitions at national/international level;
- Confcommercio: it has promoted the platform to all its members;
- Ami: it has kept in touch with public bodies.

Results

Expected vs Actual Benefits

EXPECTED BENEFITS:

- Increase of tourists;
- Reliability of published data;
- Increase of users;
- Increase of number of services available.

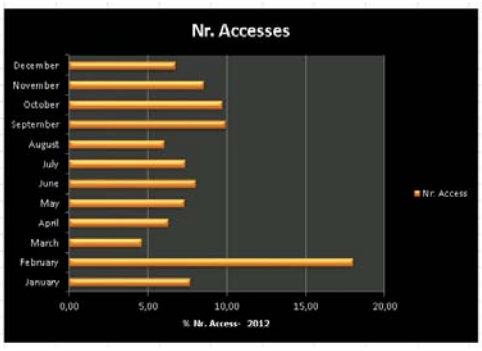
ACTUAL BENEFITS:

- more attention during the publication of data;
- Increase of accesses: more tourists across Marche Region and increase of public transport.

Quantitative Results Achieved

Trend of accesses to the portal:

Month	% Accesses
January	7,63
February	17,98
March	4,59
April	6,26
May	7,27
June	8,01
July	7,33
August	6,01
September	9,93
October	9,70
November	8,54
December	6,75
Total	**100,00**



Qualitative Results Achieved

- Increased awareness acquired by the user on the resources offered by the region.
- Knowledge of public transport.
- More attention of the individual transport operators on the data displayed in the system through certified data.
- Important political feedback: offer to the users better services.

Key Considerations

Lessons Learned

- In order to promote the portal it is required a deeper involvement of political entities.
- Educational policies on transport for the user → it is necessary to teach the users on the LPT use.
- It is necessary to put on the network the local bodies to share opportunities and available resources on the market.

Primary Obstacles

- Find and normalize data acquired.
- Reliability of data displayed.
- Provide an environment where the published contents are associated to information and data (metadata) that specify the semantic context in a format suitable for query and interpretation of data.

Critical Success Factors

- Relationships with the political institutions obstructed by a long and complicated bureaucracy.
- Enhance the end user's trust.
- Maintaining the truthfulness of data.

Transferability Considerations

Mobilitami is a transverse project, it handles several aspects of the public transport satisfying different kind of needs and, above all, combining different interests of the involved actors: end user, public administration, operators, retailers. An important element to be considered is the need of drafting an agreement between the system integrator and the public administration in order to guarantee the data retrieval and maintenance in the platform. In addition, the public administration is in charge of the involvement of companies/associations of a territory both public and private.

Up-scaling Considerations

The main key factor is the acquisition of the normalized data (the main resource of the entire project).

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