

**"The Keys of the City":
E-Government in the City of Siena, Italy**

**Case Study:
Municipality of Siena, Italy**

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Summary

Siena opens its doors to the third millenium

Siena is without doubt one of the most important historical and artistic centres of Europe: a city that has succeeded in keeping its medieval character almost intact over many centuries. This is mainly due to the intelligent and far-sighted urban developments, which have preserved the city's characteristics, without changing it unnaturally, but rather blending in with the city. An important role is played by the sensitivity of the city's inhabitants, who have always embraced the values of civility and respect, participating with precocious European vocation in more interesting and forward-looking stimuli. This community understands perfectly that, in a timeless city, history and the necessity of development must be integrated with harmony. It is in this context that the Keys of the City project took form in 1997.

This is a project of the Municipal Administration who has found the backing and necessary support from Monte dei Paschi di Siena. The enterprise could only begin here, precisely for its original characteristics. Its intention is to introduce the most sophisticated technology to the area, while at the same time adopting the necessary measures for the preservation and the exploitation of its famous artistic heritage. Its main aim is to combine the community's present-day requirements without compromising the possibilities offered by an ancient cultural model like that of Siena. The wiring of the entire city will, in actual fact, permit the creation of a complete and extensive integrated system of services, which will gradually involve different socio-economic sectors (Culture, Mobility, Tourism, Taxes, Education, Small/Medium Businesses, and the Banking Sector).

Tourists and citizens can benefit from this system based on up-to-date information technology, by using Sienacard.

The Keys of the city

The aim of the card is twofold: firstly, it provides the consumer with a faster and better fruition of the main services and faster access to information and bookings. Secondly, the electronic wallet function allow payment for all kinds of services, such as car parking, museums, public services, hotels, and restaurants.

To offer these services, we are making use of the microprocessor technology of MINIPay, the Electronic Wallet conceived and produced on behalf of all the Italian Banks by the SSB the Society for Banking Services, of which Monte dei Paschi di Siena is a main shareholder.

To put this project into operation, it was necessary to create a logistical structure which, as well as acting as Service Centre (to direct and monitor the normal function of the system), could also play the role of a Multifunctional Centre, to manage the distribution of the services. Our choice was Santa Maria della Scala.

The second phase is the activation of multimedia activities of the Town Council and of schools in Siena which are following the project, electronic commerce, museum bookings and other interactive

services as well as the experimental activation of the Digital Signature and the use of SienaCard for payment and bookings of prescription charges at chemists and surgeries.

The Keys of the City is therefore a wide-ranging programme and a considerable undertaking for the Municipal Administration. Its complete activation is foreseen within a reasonably brief period of time, thanks to the contribution of Monte dei Paschi and private capital in the form of project financing.

This project signifies a great opportunity of which the city intends to make the most. It is aware of its illustrious past but at the same time determined to go into the third millennium with a new model of development where art, economy, research, technology and innovation can interact above all, for the service of man.

The project is based on the integration of a set of different structures:

- The Service Centre
- The Siena Card

A set of innovative services, centered on the on-line Polyfunctional Office and on the awareness that the carrying out of a digitalized city have to take consideration of two fundamental elements:

1. cooperation between Public Bodies
2. decentralization of Administrative Services.

The Service Centre

It is an infrastructure based on new computerized and telematic technologies, linked to different services provided on the territory, able to develop functions related to different technologies, and able to grant the homogeneity of interface among the various systems. This Centre is equipped with appropriate servers, to which the users working in the Centre itself are linked as well as the head stations and the self-service terminals.

The municipality Intranet and systems of bodies such as banks, the parking system, the local health unit and the hospital are linked to the Centre. Those bodies agrees with the Centre for the exchange of data and information necessary to the distribution of services as well as to the management of financial flows.

Siena Card: the Administrative Card

Siena Card is not only the instrument of access to the various services given by the Municipality, it is as well the polyfunctional key for identification and access to the administrative and financial functions provided by the bodies net-linked to the Municipal Administration.

At present we can speak of about 12,000 cards into circulation. Compared to similar cards present on the market, Siena Card is a real Smart Card, containing the main personal data of the citizen and his fiscal code and also representing an instrument of certification. Data can be changed and updated as soon as new services are elaborated and proposed to the public.

The Card, produced by Bull, is the TB1000 model, with 8 Kbytes EEPROM and with algorithm. The Card is used as an electronic purse on a Minipay base, rechargeable at the bank at the ECD and at the appointed automated banking machines. It can be used where the services are proposed and in the shops participating with the Municipality system (about 300 shops in Siena now).

As a paying card, it is issued by the Monte dei Paschi di Siena Bank, sponsor of this project, and from other banks such as Credito Cooperativo di Monteriggioni e di Sovicille, which recently joined the program. The advantages from the use of this Card are shown later in this document.

At present, the 12,000 card owners can enjoy and pay for the services provided by the Municipality (school services, fines, municipal taxes, parking, municipal drugstores, municipal rights by the Register Office, town-Planning Office, Trade office, museums). In other words, the Card can be used by the citizen to personally access to all those services with normative requirements.

According to a chronological order, last time the Administration has been involved in the use of the Card, was with the digital signature authorised to the Municipal authorities and managers (50 users).

The application of the digital signature on the Card has been possible only by:

1. The asymmetric keys must have a length of 1024 bit (128 bytes); only the personal key is conserved on the Card.
2. The certificate of the Card owner is shown on the card through a unique identification description of maximum 20 bytes (certificate finger print)
3. Similarly, the certificate of the Administrative Card, accepted by its owner, is also shown through a unique identification description of maximum 20 bytes.

Benefits:

- Payment functions
- Management of personalized taxes
- Easy Accountancy
- Public payments
- Increased hours of service
- Secure customer identification
- Speed of collection
- Wide distribution of payment points

Active Services:

- Payment of school services (90% users)
- Payment of fines (20% users)
- Season tickets and parking lot access (60% users)
- Public transportation season tickets (50 % users)
- Payment of duties and taxes (20% users)

- Home payment of services requested by citizens by Internet (will be active as soon as citizens will have the certification for the signature)
- Museum bookings (80% users)
- Digital signature available to all municipality managers and political authorities.
- The digital signature is the last service activated on the Card to manage information flow - as per the concept of Electronic Document fixed by Bassanini regulation.
- To manage Administrative Provisions, we focused on the information and on their diffusion, avoiding dangerous duplication of data in the archives and giving full availability of information at the time and by the means required by the user.

Treated Acts:

- Resolutions of the Town Council (1000 yearly)
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- Reports and Information (2000 yearly)
- Interrogations, Order of the day and Motions (1000 yearly)
- Monocratic acts of the authorities (300 yearly)
- Administrative managers acts (6000 yearly)

System Evolution

On-line polyfunctional office

If the Keys of Siena have until now represented the instrument for the access to the services and for the facilitation of their procedures of payment, today the Administration gives priority to a fast development of those on-line applications, which can put into concrete effect the following goal: having an multifunctional office for the P.A. through the use of the "Keys". We tend to privilege the structure of the local administration back-office, because we want to work better on the functions and services developing an administrative co-operation as represented by the realisation of the studied programs.

Services scenario

The project focuses on the realisation of an access system showing the entire productive process of the public service through Internet.

The services object of the experimentation are:

- Municipal cultural services
- Tourist services
- Tax services
- Transportation services
- Commercial services (purchases)
- School services
- Administrative services
- Health services

The "security" option allows the body to open a safe counter with the following functions:

- Access to acts and procedures
- Decision and resolution
- Certification and authorisation
- Production of files and requests
- Archives and records
- Communication and information

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