

Cahier n° 7 du C.I.R.B.

**Administrative Telematic
Services for citizens
in the Brussels-Capital
Region**

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C.I.R.B. - C.I.B.G.

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CIRB, Centre d'Informatique pour la Région Bruxelloise or Brussels Regional Informatics Centre is a public organism created by law in 1987 with the main objective of implementing the Brussels-capital regional policy in the field of information technologies. Its mission is to organise, promote and support the use of the I.T. by the local authorities as well as by the various Regional administrations located in the Brussels Region.

In 1995, thanks to the selection of CIRB as partner in several successful proposals in telematic applications for administrations and citizens, at the Federal and the European level, the Brussels-Capital Region has been able to early steps in the Information Society concepts and can now compete with other major urban areas in Europe.

The first initiatives focused on demonstrators to test the interest and the feasibility of secured telematic document exchanges between administrations and on on-line delivery of administrative services to the citizens through Internet PCs and kiosks.

We have now reached the point of deployment on a large scale, dissemination and infrastructure development.

CIRB acting as an Information and Services Brokering Centre is a key actor in this irresistible expansion.

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WHAT IS CIRB ?

CIRB : a powerful tool to stimulate I.T. in regional administrations

About a hundred of public organisations and associations of the Brussels Region can benefit from support and services offered by CIRB and can be granted regional funds for their informatic investments through dedicated programs. As it were, more than one billion BEF (25Mecus) has been allocated to the local authorities during the last 8 years.

In a client-oriented approach, CIRB has grown a strong commitment to quality and put at the disposal of its clients high skilled people, expert in the various domains related to the new information technologies.

CIRB also emphasises its concern for better organisations, administrative procedures reengineering and improved management.

The Regional Government, aware of the importance of the information technologies for regional development and of the constant efforts sustained by CIRB, supports its actions by extended mandates, political decisions and reliable budgets.

CIRB : 4 teams for a synergetic approach

The CIRB people operates in four teams highly specialised in their respective domain but working in close collaboration to offer an integrated approach to its clients.

Team : Regional and local Authorities of the Brussels-Capital Region

Dedicated to the 19 Municipalities, 19 Welfare Centres and the pararegional organisms of the Region, this team supports, advises and allocates regional funds for I.T. development.

Team : Brussels UrbIS® Digital Map

Brussels UrbIS® is an administrative digital map covering the area of the 19 municipalities of the Brussels Region, designed by the 'Service Communal de Belgique'.

This product includes a set of graphical data displaying objects such as parcels, streets and street-sections, statistical districts and topology as well as alphanumeric data recording administrative codes and identifiers from regional and federal levels.

Brussels UrbIS® is the key element to build and integrate Geographic Information System on the regional area.

The CIRB mandate related to that product includes licences distribution, update diffusion, User's club organisation, technical consultancies, user's training and applications development.

Team : Ministry of Brussels-Capital Region

Dedicated to the Regional Ministry and its 5 administrations, this team supports, advises and develops projects according to the plans and priorities assigned by the IT Steering Committee of the Ministry.

Team : Telematic Services

This highly specialised team develops the telematic projects and maintains the equipment and infrastructure dedicated to the on-line delivery of services through Internet and through the private Intranet network PubliLink.

Telematic services : Ongoing projects

*** IRISweb Project - Interactive Regional Information and Self-awareness through Webculture**

Approved at the end of 1996 by the Belgian Federal Organisation OSTC (Office of Scientific, Technical and Cultural Affairs), this project proposes to offer full, high value-added on-line services using all available, sufficiently efficient audio-visual resources, to targeted groups of users and validated by a panel of users, that demonstrate what a full, multimedia, high value-added service is and the benefits that can be drawn from it.

*** IRISnet Project - Interactive Regional Information Services network**

Funded in 1995 by the Federal OSTC, this project is oriented on work-flow and electronic document exchange between administrations and develops three pilot applications that have been selected after a regional call for proposals launched in October 95.

This set of 'IRISnet Services' to the attention of the public administrations of the Region uses the secured Intranet 'PubliLink', managed by the Credit Communal de Belgique and connecting all the Belgian administrations. Those services imply electronic signatures via smart card and RSA algorithm, X-400 mail services and additional security features such as PDF format and bar code for the electronic documents signed and exchanged through the network. In those services, CIRB acts as the Authority of Certification for the Brussels-Capital administrations.

More details on this project available on <http://www.cirb.irisnet.be>

* **MIRTO Project - Multimedia Interaction with Regional and Transnational Organisations**

Funded in 1996 by DG XIII under the "Telematic for Administrations" from the Fourth program of the EC, this project aims to define and experiment a new way of interaction between Public Administrations and the Citizens, SMEs and Professionals of European metropolitan areas. Multimedia and telematic applications are developed for the delivery of added-value information and transactional services, and demonstrators of these applications are set-up in four experimental sites: Brussels, Madrid, Marseilles and Rome.

The services are packaged using information taken from the information processing systems of the Public Authority Bodies (the Content Providers), while packaging, marketing, and delivery of the services are handled by Service Centres.

CIRB acts as the Service Centre for the demonstrator in Brussels and is now equipped with servers, Web services, communication software and connections capacities to assume that service.

The Mirto platform is installed at CIRB on an Olivetti SNX400 server under NT4 servicepack3 with Oracle 7.3 as RDBMS and MS Internet Information Server release 3.

The firewall is configured with Linux machines.

The connections with the Content Providers and the kiosks are established on ISDN lines.

Demonstrator of this project available on the temporary IP address : **http://193.190.164.12** and soon at the URL: **http://www.cirb.irisnet.be**

* **CITIES Project – Cities Telecommunications & IntEgrated Services**

Funded in 1998 by DG XIII under the "Telematic for Administrations" programme as an IADS project (Integrated Applications for Digital Sites), CITIES intends to design, implement, test and evaluate a global and co-operative digital platform in order to support and distribute a wide range of telematic services and to prepare a large-scale deployment of a multilingual and multisectorial telematic offering from Public Authorities.

* **BRUSSELS Web Site**

CIRB has been mandated by the Regional Government to assure the presence of the Region on the Internet. In this context, CIRB hosts and maintains the institutional Brussels Web on its servers.

URL : **http://www.brussels.irisnet.be**

* **BBS n° 32 2 280 14 36 or 32 2 280 17 48**

One of the best in the Region, according to its users, the BBS provided by CIRB offers various information and files to download on regional and institutional data as well as on new software made available on public network.

* **ARNO Project**

Approved at the end of 1996 by DGXIII, this Info 2000 project relates to the 'Art NOuveau' architectural heritage of two major European capitals Brussels and Vienna at the turn of the century.

A Web Site dedicated to the European Art Nouveau Heritage has been launched to promote the Art Nouveau heritage via world wide networks and is intended to display or hyperlink all the material provided by the European Cities. Geographical features are embedded providing map localisation and orientation to the places and events on display.

URL : **http://www.arno.irisnet.be**

* **MIDAS Project :**

In the frame of the Info 2000 programme launched by DGXIII of the European Commission, the Belgian Regions submit together a proposal to manage one of the MIDAS-NODE selected by the Commission. This proposal has been approved under the co-ordination of Technopol Brussels.

In close collaboration with each other, the three regional consortia set up a series of joint actions : kick-off event, information brochures, Web server and help desk. They also perform individually MIDAS-NET missions in their respective region.

URL : **http://www.midas.be**

CIRB : Internet provider for regional and local Authorities

CIRB is the regional organisation agreed by BELNET (Federal Departments of Scientific, Technical and Cultural Affairs of the Federal Prime Minister) to provide all public organisations of the Brussels-Capital Region with the access to the INTERNET network.

CIRB is registered as Internet LIR (Local Internet Registry) and disposes of Class C IP addresses to cover the needs of all the public administrations of the Brussels Region, about a hundred of local and regional organisations (Municipalities, Public hospitals, Welfare Centres, Regional administrations, non profit organisations,...)

CIRB also manages the DNS 'irisnet.be' with 'belnet.be', the Belgian academic and public internet network, as primary domain and hosts so far about 300 Email boxes owned by civil servants of the administrations of the Brussels Region.

This mission is realised by CIRB within the general frame, fixed by the Government, to develop new multimedia technologies in the public administrations.

CIRB is equipped with a permanent connection to Belnet (512 Kb/sec line) and with servers accessible by modem (24 queued analogical phone lines).

Services Provided:

All current services accessible on INTERNET are at disposal:

- Navigation on the network (WWW) sites - World Wide Web;
- Transfer of files (F.T.P.)
- Electronic mail (SMTP);
- Access to BELNET "News";
- IRC, Telnet, Talk;
- Hosting of Web Sites owned by the local and regional administrations.
(ex : URL : <http://www.siamu.irisnet.be>)

Action Plan :

On proposition of CIRB, the Brussels Government approved an action plan for the use of Internet technology in the relations between administrations on one hand and between administrations and citizens or enterprises on the other hand. Are involved: government services, Brussels administrations and public interest organisations. The actions to be set up are quite simple ones, like putting e-mail addresses and the URL name of the official Brussels Capital-Region website on all letter headings. Also more sophisticated ones, like sending electronic versions of publications to CIRB for putting them on the Regional website or diffusion of official forms through internet are covered. A working group will be installed for the follow-up of the action plan.

CIRB : Active supporter of a broadband Intranet for the Brussels-Capital Region

In 1996, the Government of the Region, aware of the challenge of the Information Society has mandated CIRB (Centre d'Informatique pour la Region Bruxelloise) and SRIB (Société Régionale d'Investissements de Bruxelles) to supervise feasibility studies and cost/benefit analysis for a broadband Regional Metropolitan Area Network, integrating the existing infrastructure and addressing the needs of all the regional actors.

The Government intends to co-operate with a Telecom operator to set-up a global plan involving infrastructure issues and services to promote and consolidate the emergence of the Information Society.

ON-LINE ADMINISTRATIVE SERVICES FOR CITIZENS

MIRTO Results



MIRTO is expected to tackle and contribute to solve several critical issues in the relationship between **Public Administrations (PA)** and individual **citizens** and **SMEs**. Such issues include difficult and inefficient supply of information from PA to the Users, long duration and complexity of bureaucracy procedures, poor communication between different PA units, scattered location of the PA facilities etc. These and other shortcomings contribute to a poor optimisation of PA services, cause an undesirable dissipation of time and resources in many areas and produce a growing feeling of disappointment by the citizens and businesses towards PAs. This has a severe social cost and significant drawbacks on the global efficiency of the “state system”.

The project intends the setting up of a network of **Information and Services Brokering Centres (SCs)**, placed in the municipalities in the consortium that will take care of packaging, marketing, and delivering of telematic services. The services will be packaged by using information taken from the information processing systems of the Public Authority Bodies (the Content Providers), which are the sources for the basic information and transactional services.

Information and Services Brokering Centres will be perceived by citizens and enterprises as the “single points of access to the Public Authority”. Via the SC, citizens and enterprises will be able to gain access to information and services provided by a variety of PA units and private corporations that have a communication link with the SC.

A first set of on-line administrative services for citizens are packaged as ‘IRISnet services’ (Interactive Regional Information services Network) and available from Internet and from kiosks to be disseminated on the Brussels-Capital territory.

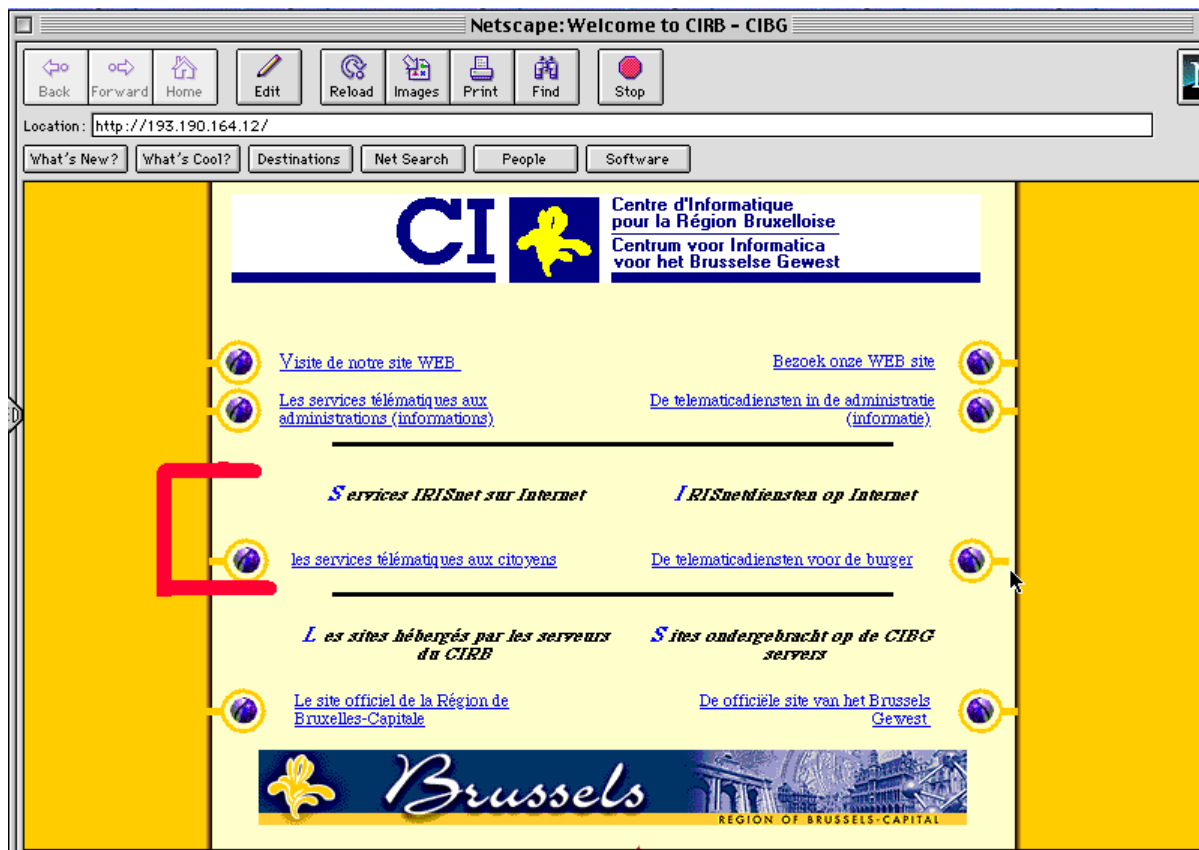
URL : <http://www.cirb.irisnet.be>

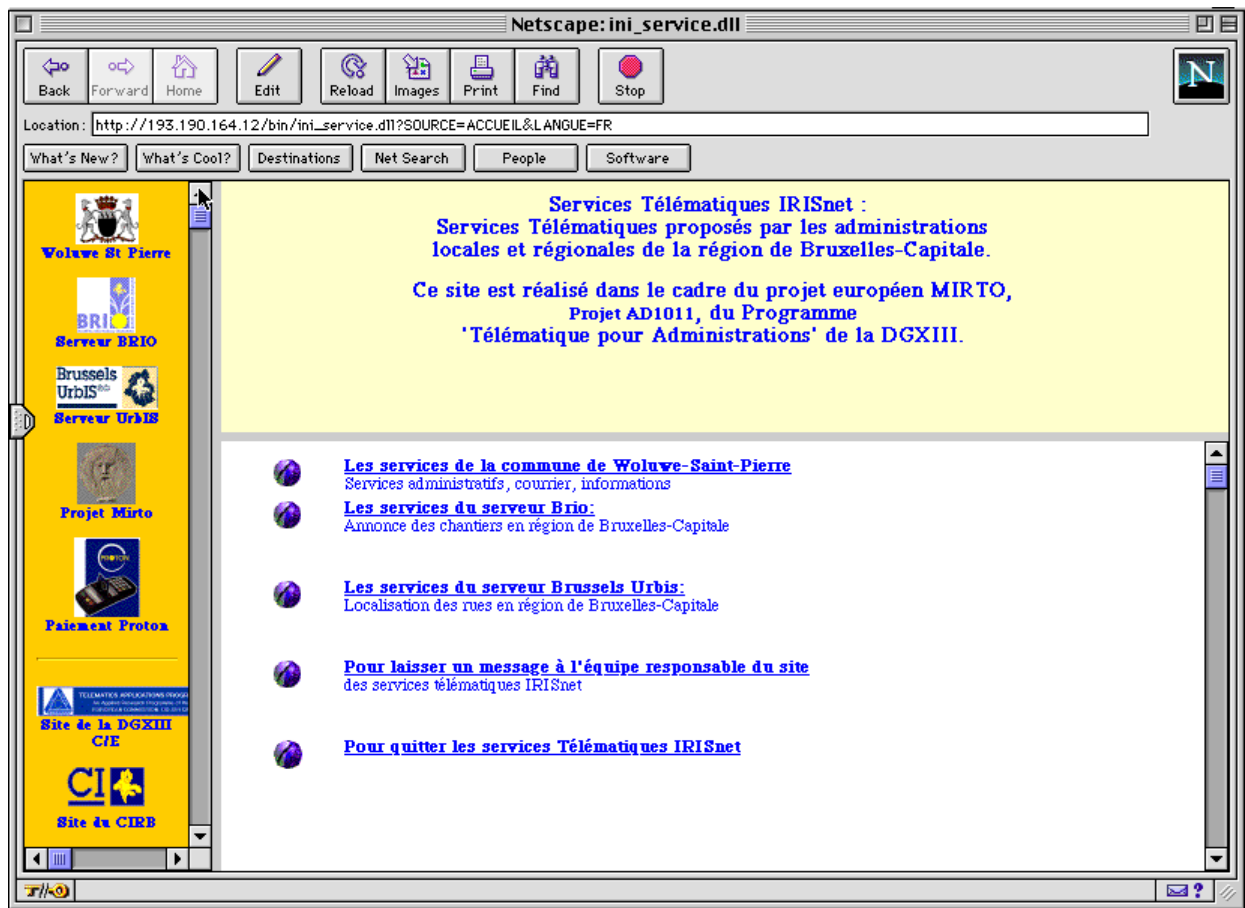
The services on demonstration were selected by the Regional Government, at the beginning of the project, after a call for proposals at the regional level.

IRISnet Services :

- **Services of the Municipality of Woluwe-Saint-Pierre**
- **Services of Brio Server**
- **Services of UrbIS Server**
- **To leave a message to the webmaster**
- **To quit the IRISnet Services**

Cirb Web site :



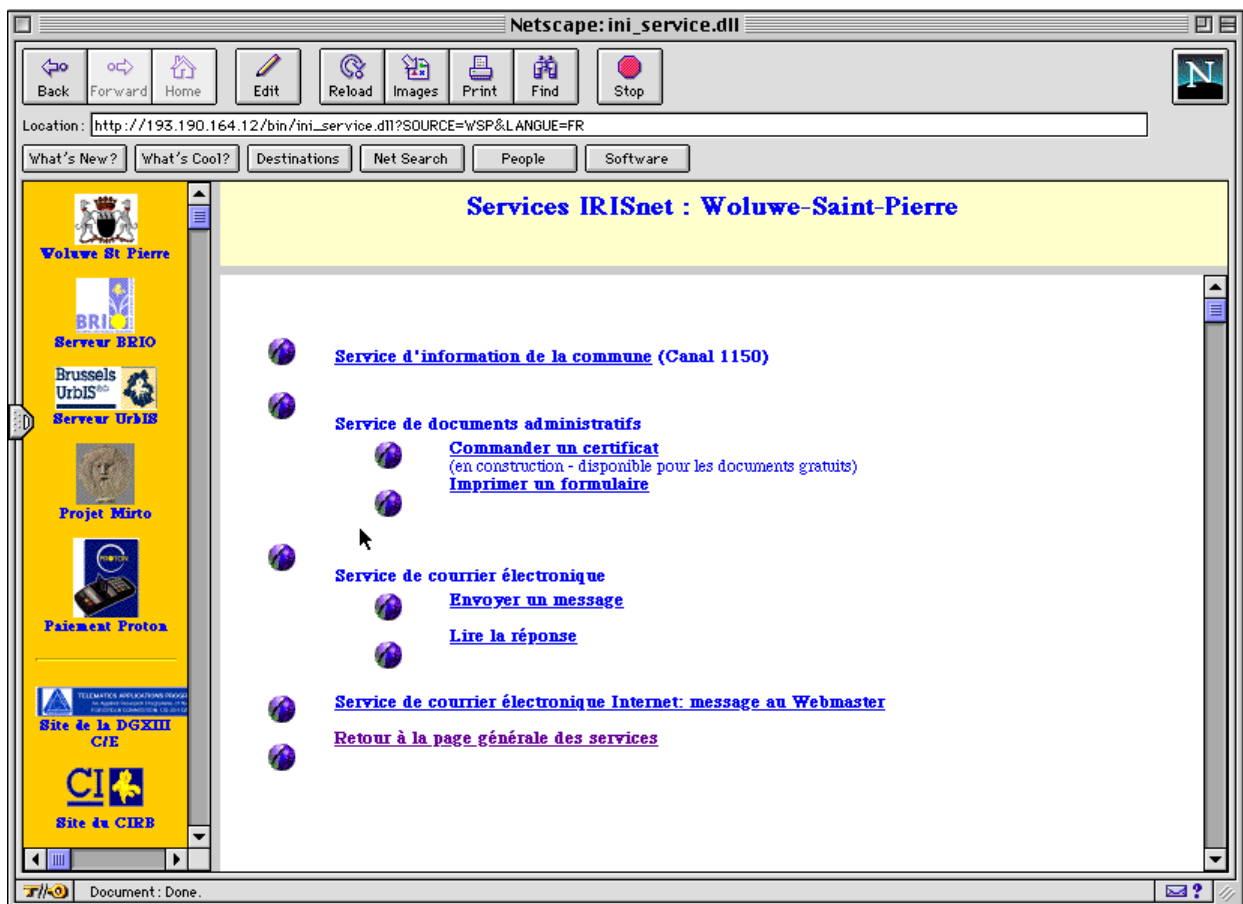




This cosmopolitan commune is mainly residential, with a total of 180 Ha of green spaces. The parc de la Woluwe / Woluwepark, the Mellaerts ponds and the Forêt de Soignes / Zoniënwoud are wonderful places for strolling and relaxing. The commune is also a favourite of embassies. The territory is well planned, with an overall harmonious layout. The avenue de Tervueren / Tervurenlaan and neighbouring streets are rich in architectural treasures. Take the famous Stoclet palace, designed in 1905 by Joseph Hoffmann, for example. Residents have a whole range of services at their disposal: a sports centre where you can practice over 35 types of sports, a cultural centre, a congress centre, a well-developed network of daycares and early childcare centres, neighbourhood community centres complete with libraries, multimedia facilities and meeting rooms, playgrounds for children in various neighbourhoods, etc.

Communal Administration:

Avenue Charles Thielemans/Charles Thielemanslaan, 93
1150 Bruxelles/Brussel
Tel: (+32.2)773.05.11
Fax: (+32.2)773.18.18



General Information Service (Teletext - Channel 1150)

This service displays on Internet in a standard browser, the teletext information otherwise available on the TV channel “Woluwe 1150”. It gives navigation facilities through the General Information Data Base produced by the municipality and will be soon improved with an access to the Administrative Assistant database.

The Administrative Assistant Computerised System provides information on the documents or actions requested by the applicant (prerequisites) in such a way that the transaction with the municipality can be performed once and for all.

Example : format and number of the photos requested, amount to be paid or mode of payment. The location of any addresses or events is displayed on customised maps.

ini_service.dll?SOURCE=TELETEXTE&LANGUE=FR at... - Microsoft Internet Explorer

File Edit View Go Favorites Help

Back Forward Stop Refresh Home Search Favorites Print Font Mail Edit

Address http://193.190.164.12/bin/ini_service.dll?SOURCE=TELETEXTE&LANGUE=FR

Services IRISnet : Woluwe-Saint-Pierre
Service d'information de la commune

Retour à la page générale

Pour accéder à une page, tapez le numero et cliquez sur 'Page'

105 Page

Pour effectuer une recherche à l'aide d'un mot-clé, tapez ce mot et cliquez sur 'Recherche'

Recherche

105 CANAL 1150 24.11. 12:53:53

MENU GENERAL

FLASH - INFO	106
A SAVOIR	110
AGENDA	200
LA COMMUNE & VOTRE SERVICE	300
VIE LOCALE	400

Woluwe St Pierre

Serveur BRIO

Brussels Urbis

Serveur Urbis

Projet Mirto

Paiement Proton

Site de la DGXIII C/E

Site du CIRB

Site de Bruxelles

Start Exploring - D:\CATDO... Eudora Light Microsoft Word - Cahie... Exploring - D:\images ini_service.dll?SO... Paint Shop Pro - [Brow... FR 18:16

Document Services :

- Order a Certificate (Payment by proton if not free)
- Print a form (PDF document)

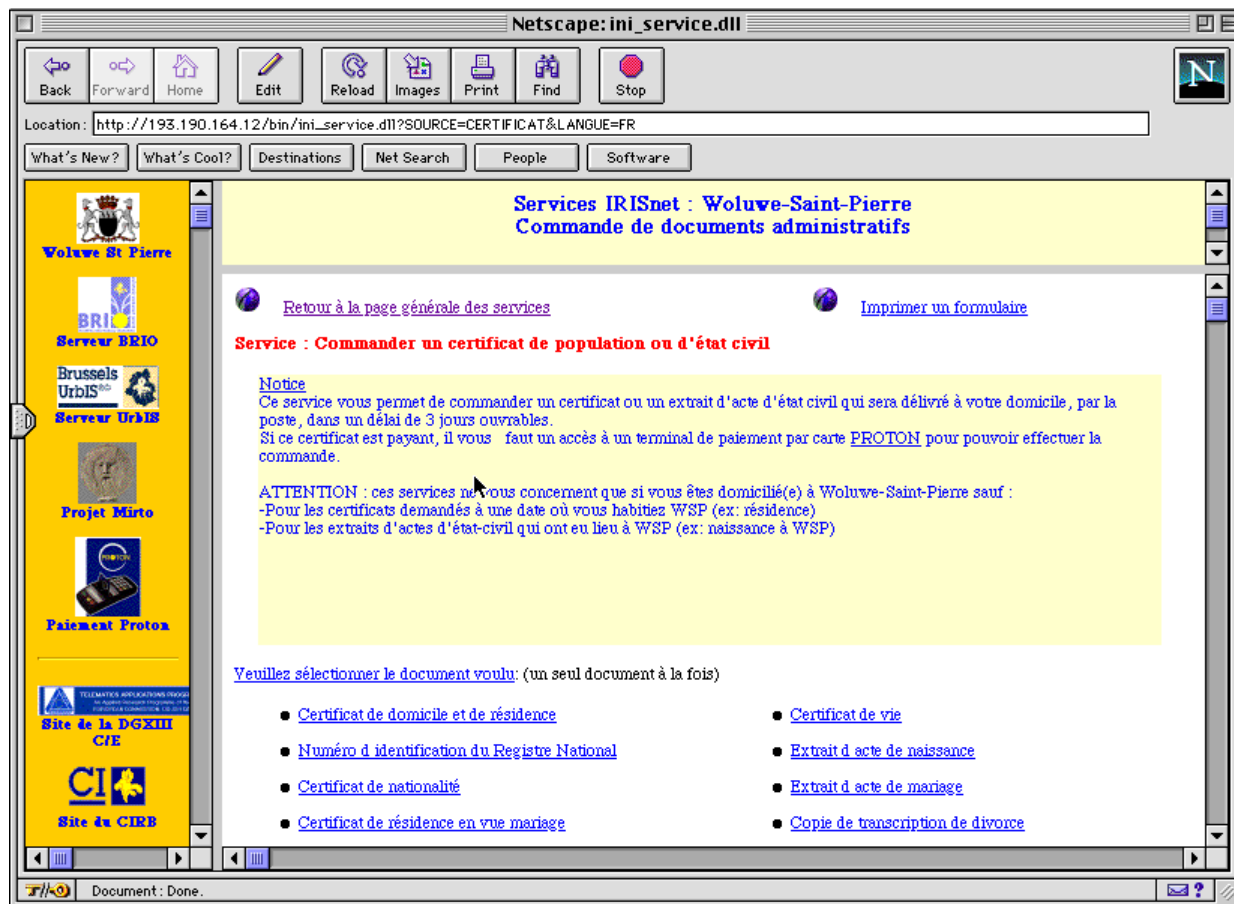
This On line delivery of forms and certificates service allows printings or requests by citizens connected to Internet of “Forms” (environmental permit, ...) and certificates issued by the ‘population’ service (certificates of birth, death, adoption, divorce) or issued by the ‘Etat civil’ service (certificates of residence, family components, ...).

For certificates, depending on the motivation and the nature of the administrative document

requested by the citizen, the same service is free or charged. An electronic payment system based on electronic purse (Proton) is therefore implemented.

Due to legal and security aspects, the certificates can not yet be delivered directly at the kiosk or at the PC. The users are able to order and pre-pay the documents that will be delivered to them by postal mail or may be taken out at the town hall.

The forms on the other hand, are directly printed at request.



- Mail Services (for Kiosk or PC) :
 - Send a message (message identification number + print message)
 - Read the answer (After 3 days + print answer)
- Internet Mail Service (for PC only) : message to the Webmaster of the municipality

This Electronic Mail service gives access for the citizen to the Mail-Box of contact-persons in the municipality and access to a personal answer to that message made available to the user, in three days, through a unique identification number assigned to the message and communicated to the user, at the end of the first transaction.

ini_service.dll?SOURCE=COURRIER&LANGUE=FR at ... - Microsoft Internet Explorer

File Edit View Go Favorites Help

Back Forward Stop Refresh Home Search Favorites Print Font Mail Edit

Address http://193.190.164.12/bin/ini_service.dll?SOURCE=COURRIER&LANGUE=FR

**Services IRISnet : Woluwe-Saint-Pierre
Courrier électronique**


- Retour à la page générale des services
- Lire une réponse
- Retour à la première page de ce service

Service : Envoyer un message (Population-Etat civil)

Pour obtenir une réponse personnalisée, indiquez vos coordonnées (facultatif).

Nom et prénom:	<input type="text"/>
Adresse:	<input type="text"/>
Ou votre numéro de carte d'identité (facultatif)	<input type="text"/>

Cliquez sur la carte d'identité pour visualiser l'emplacement de ce numéro



Tapez votre message

Start | File Manager | Printers | Oracle Administr... | Exploring - D... | Eudora Light | Paint Shop ... | Microsoft W... | Exploring - D... | ini_servic... | FR | 15:55

ini_service.dll?SOURCE=COURRIER&LANGUE=FR at ... - Microsoft Internet Explorer

File Edit View Go Favorites Help

Back Forward Stop Refresh Home Search Favorites Print Font Mail Edit

Address http://193.190.164.12/bin/ini_service.dll?SOURCE=COURRIER&LANGUE=FR

**Services IRISnet : Woluwe-Saint-Pierre
Courrier électronique**

- Retour à la page générale des services
- Lire une réponse
- Retour à la première page de ce service

Service : Envoyer un message

Nous avons bien enregistré votre message et nous vous remercions de l'intérêt que vous portez à ce service.
La réponse sera réservée à votre attention sous le numéro de message suivant :

Numéro de message : 89593-62

Notez ce numéro ou demandez maintenant son impression, car il vous sera indispensable pour lire la réponse.
La réponse sera disponible dans un délai de 3 jours ouvrables.

[imprimer](#)

Start | File Manager | Printers | Oracle Administr... | Exploring - D... | Eudora Light | Paint Shop ... | Microsoft W... | Exploring - D... | ini_servic... | FR | 16:47

Services from the Server Brio



The BRIO (Bruxelles Informations Ouvertures) database contains information about roadwork in the Region of Brussels.

Initiated by the contractors grouped in a 'Public Services Council' and acting at the level of the Brussels Region (Belgacom, Electrabel, intermunicipals Interelec and Interga, Distrigaz, Sibelgaz, Coditel, Brutele, CIBE and IBDE so as the regional administrations AED, ARNE and STIB), this project aims to co-ordinate the roadwork between the various institutions and the contractors, based on a computerised system offering the following functionalities:

- Encoding of all planned roadwork (type, description, start-dates, ending-dates, scope, ...);
- Electronic document exchange for co-ordinations, requests for maps and formalities to the authorising parties (Municipalities, Police, Region), follow-up, ...;
- Diffusion of the information towards all the involved parties within the shortest delays;
- Audit and statistics.

Three software are used for the implementation:

- Oracle Rdbms for the data
- Alphanumerical files of Brussels UrbIS®© as the Brussels Urban Information system
- StaffWare as a workflow software to manage flows.

The screenshot shows a web browser window with the address `http://193.190.164.12/bin/ini_service.dll?SOURCE=GISCHANTIER&LANGUE=FR`. The page title is "Services IRISnet : Serveur Brio". The main content area features a map of Brussels with three municipalities highlighted: Etterbeek, Schaerbeek, and Evere. A text box above the map states: "Service en cours de développement et d'amélioration. Limité provisoirement à une recherche des chantiers sur 3 communes Etterbeek, Schaerbeek et Evere. (Données tests de 1996)". To the right of the map is a detailed view of a specific roadwork location, showing a street map with a red square indicating the work site. Below the map, the following details are provided: "Nom de la rue : Avenue Maréchal Foch", "Municipalité: Fodhan", "Début : 1/1/96 Fin : 12/31/96", "Trottoir : Oui Voirie : Non Traversée : Oui", and "Impéranant : EAUX (TEST)-(TEST)-Eaux (TEST)". A button labeled "Retour à la carte des chantiers" is located below the details. The left sidebar contains several navigation links: "Woluwe St Pierre", "Serveur BRIO", "Brussels UrbIS", "Serveur UrbIS", "Projet Mirro", "Paiement Proton", "Site de la DGXIII C/E", "Site du CIRB", and "Site de Bruxelles". The browser's taskbar at the bottom shows several open applications, including "Oracle Administr...", "Exploring - D...", "Eudora Light", "Paint Shop...", "Microsoft W...", "Exploring - D...", and "ini_servic...". The system clock shows the time as 16:27.

The citizen is able to consult the database to know about roadwork in its neighbourhood or along its repetitive itineraries in order to avoid subsequent traffic jam or obstructions. The news reporters will be allowed to download limited maps to bring that information to their readers.

Services from the Server UrbIS



Brussels UrbIS®© for Brussels Urban Information system, is a combination of geographical and alphanumerical databases for the territory of the Brussels Capital Region, as well as a collection of software facilitating their use.

Different products are mentioned from which the most visual and used is the digital administrative map (UrbIS Administrative Map).

On the one hand, this product gives an image of the administrative cutting out of the 19 municipalities of the Region. On the other hand, it relates each graphical object with official codification recorded in tables that are easily manageable in standard database formats.

The administrative objects displayed in the UrbIS Administrative Map are :

- The limits of municipalities, of statistical sectors, of blocks, cadastral divisions and cadastral parcels;
- The streets, street-sections, crossroads and names of the streets;
- The postal numbers.

Parks, watersides and remarkable buildings have been implemented to allow a better interpretation of the created maps.

Another product is the street network showing every axes of circulation as graphical object with their main characteristics and eventual traffic restrictions recorded in alphanumerical tables.

Two application's products have been developed to answer to the needs of the users :

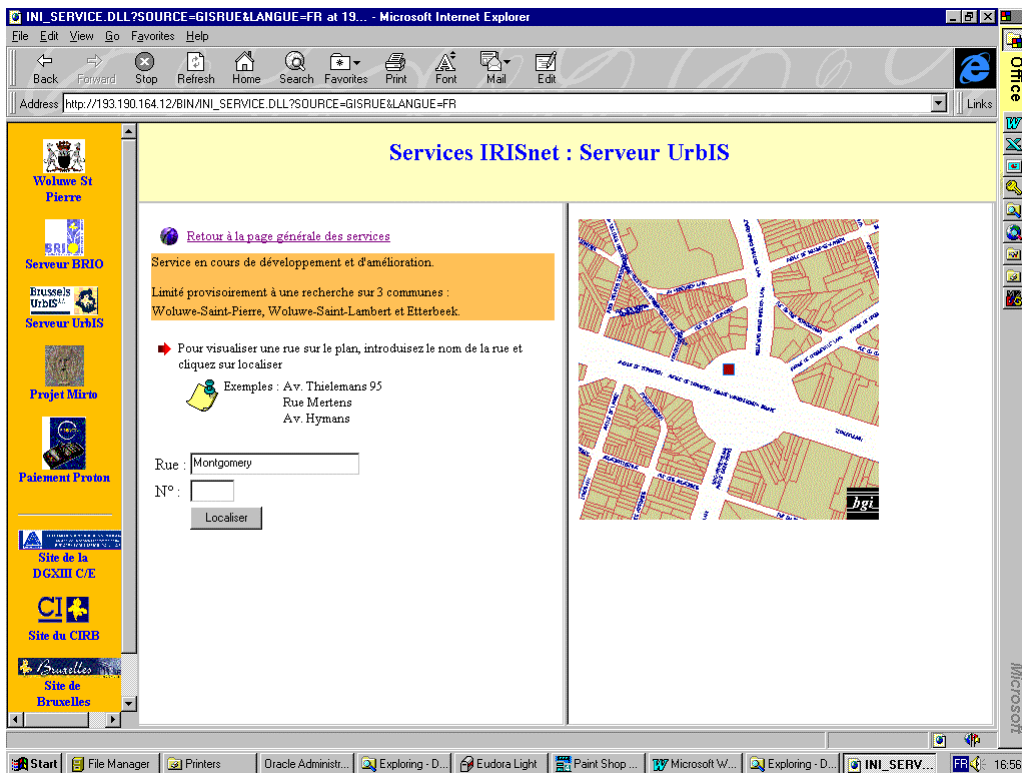
- The "Search Public Way" program which selects list of addresses by specific codes
- The "UrbIS Manager" program, which facilitates the access to the data in a "Microstation" environment, a graphical software used by 50% of the users of Brussels UrbIS®© in the Brussels-Capital Region.

Brussels UrbIS®© is designed to be the base of the regional GIS by allowing the users to join their own data and obtain a spatial representation of it. Thematic maps are already implemented and used in information systems put at the disposal of citizens : maps of the public transport, Regional Plan of Development, Regional Plan of the land's occupation, areas of selective collects of garbage and waste, university studies,...

At the present time, Brussels UrbIS®© has a precision allowing its use at a scale of 1/10.000. The ongoing development will improve the precision of the graphical objects to a topographical level (up to 1/1000) that will enlarge the scope of the applications based on it : architectural design, 3D simulations, ...

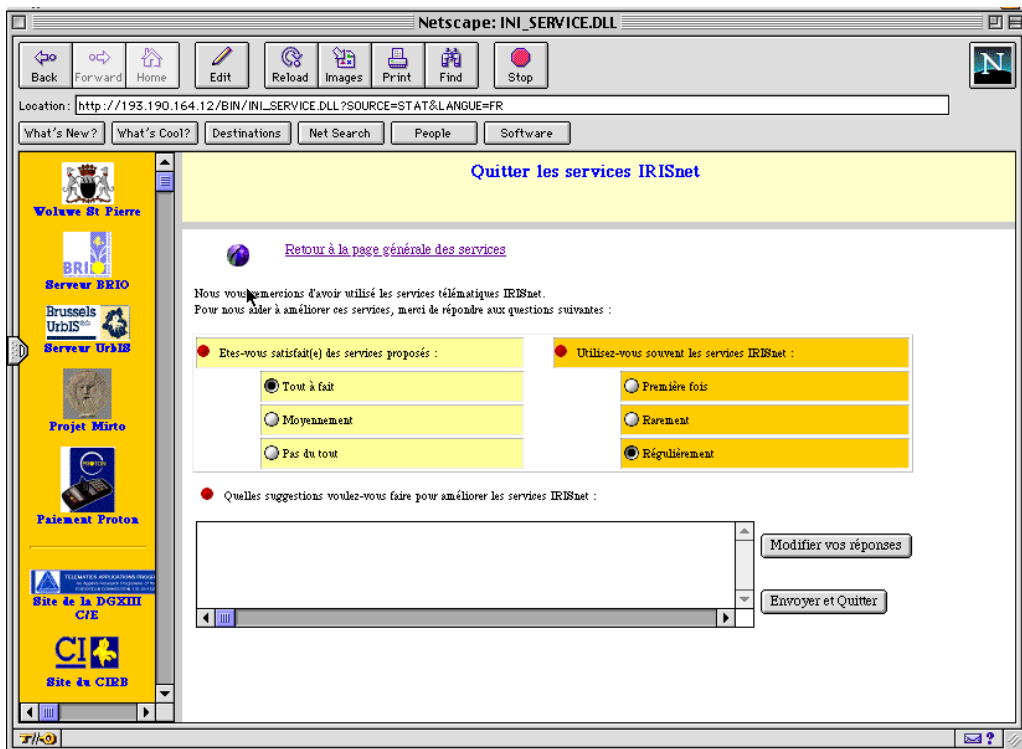
Hosted at CIRB, the alphanumerical information on the graphical objects of the GIS are contended in an access database soon to be migrated on an Oracle server for better performance and security.

The goal with this generic service is to improve the information issued from different content providers by sending back to the user an integrated answer locating the request on maps with additional geographic data or images.



On line Survey

Both from PC or kiosk, this service asks a feed-back to the end-user and let him/her send a comment in the hint box in order to follow-up closely on the citizen satisfaction rate and to improve permanently the services.

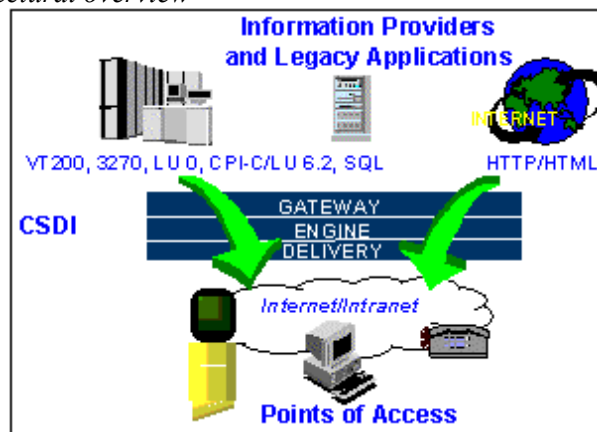


Common Service Delivery Infrastructure

An Overview

The evolutionary progress of the Information Society continually needs access to whatever information, in a multimedia format, that is available from different places. Local and central public and private organisations are forced by citizens, professionals and companies, together with Public Administration needs, to deliver different information and services in a rapid and easy way. Organisations are also in need of a concentration of the various services located in the different local and central administration systems, and mitigation of the complex technologies stemming from connections to heterogeneous systems. They need delivery of services homogeneously, by using the right media and modes for providing self-service, attended and home accesses. They need the implementation of new value-added services, and the increase of the information exchange. Based on *Olivetti Ricerca* technology, the M_{IRTO} CSDI (*Common Service Delivery Infrastructure*) was enhanced during the project life in accordance with the M_{IRTO} User Requirements. The CSDI is an application platform that enables easy development, controlled execution and extended monitoring of telematic services. It is therefore an integrated solution oriented to build-up and to manage Information and Services Centres.

Figure: Common SDI architectural overview



The Architectural Approach

The M_{IRTO} CSDI platform allows organisations to act as Service Brokers, by collecting information from a wide variety of sources - the Information Provider systems. Usually, these IPs reside on legacy systems. The CSDI merges and normalises data so that it can be collected from these different sources. The platform gives *transparent and non intrusive access* to data and applications provided by the Information Provider systems and, therefore, protects the legacy.

The CSDI is based on a three tiered architecture that connects generic Information Providers to multiple and different access points. To ensure that the greatest possible number of users can access the services the platform provides an interface to various types of access points.

Main Functionalities

Depending on the type of access point, the service results can be delivered in HTML pages form both for standard browsers or for specialised kiosk-based browser, printable documents, Text to Speech or pre-recorded vocal messages. Services can also be delivered to client applications that can implement their own presentation logic. The platform's versatility allows various and exhaustive services composition. The main phases of a generic service consists of one or more of the following actions: User Identification and Authorisation; Information Access and Delivery; Payment and Accounting. These phases are indicated in the Service Profile. The Service Profile contains all the information needed to deliver the service, such as, input data, routing rules, activation sequences, accounting, and so on. Services can be easily defined by configuring the Service Profiles. In summary:



The CSDI is independent from the services as well as from the access point to be interfaced. It manages the start and the provision of a configured and composed service without worrying about the semantics of the information to be used.



CSDI uses standard mechanisms of the Internet/Intranet environments.



The CSDI aims to easily obtain powerful on-line services that can exploit new and existing applications and data sources without affecting their behaviour, thanks to “wrapping” techniques.



All the provided information and services are in accordance with standard security mechanisms and technologies.

Experiences

Various organisations, enterprises and businesses through the CSDI platform distribute information and offer on-line services, possibly based on their existing information systems. In general PAs, Banks and Organisations take profit from this type of products. The list of the major pilot sites based on Microsoft Windows NT or Unix platforms includes:

User name: Regione Umbria (Italy);

Services provided: Handling of HTTP/HTML clients for Institutions and Citizens; Service delivery through Phone (CTI techniques).

User name: PostKantooren (The Netherlands);

Services provided: ticketing, reservation and purchases of goods and services.

User name: Distretto Tecnologico Canavese (Italy);

Services provided: Registry certificates for 24 Municipalities; Health-Care reservations.

User name: Brescia Municipality (Italy)

Services provided: Information on Brescia municipality; Services from Public Utilities.

User name: Regione Toscana (Italy);

Services provided: some 40 different service centres located throughout Tuscany, to deliver information to many public institutions.

User name: ABN-Amro (The Netherlands);

Services provided: Replacing, through a RAD approach, an existing teller application running.

User name: Olivetti Ricerca (Italy);

Services provided: Intranet-based automation of Organisational and Business processes.

Conclusion

The M_{IRTO} consortium contributed to focus the CSDI platform to the specific European PAs and Organisations. Following the M_{IRTO} experiences, the CSDI can be adopted also in other European Projects. Furthermore, the platform itself gained maturity thanks to M_{IRTO} and to the above experiences, so that it can be exploited in operational commercial projects.

Electronic payment by electronic purse : PROTON



Proton : the card for life's little expenses

Proton is a rechargeable electronic purse invented by Banksys and marketed by the Belgian banks. It is the card for life's little expenses.

From now on, you can pay for all those little necessities using the electronic payment system: buying a newspaper at the newsagent, bread in the bakery, your midday sandwich at the snack-bar, a drink from the dispensing machine...

Your Proton card puts an end to all that small change which makes your pockets heavy, your purse bulge and which gets lost in the bottom of your bag.

The advantages for the card holder are numerous :

- ideal for life's little expenses
- always the correct change at hand
- no more loose coins or banknote
- the speed
- access to all services
- one card only
- can be reloaded anywhere, 24 hours a day.

Proton is plugged in to the Internet via the C-ZAM/PC, a Proton card reader which is linked to your PC. It contains the software needed to allow you to make payments on the Internet from your PC. It is a completely safe and easy-to-use system.

How does payment with Proton actually work ?

Once the card has been loaded, paying with Proton is astoundingly quick and easy: everything happens "off-line" and without a secret code because the money to be used has already been stored in the card's "chip":

- The retailer types the amount due into the Proton terminal either manually or via his cash register
- you slide your Proton card into the electronic card reader.
- the amount due will appear on the screen.
- Is this amount correct ? All you have to do is press the green button (OK)."OK". The payment is completed.
- Would you like to know how much money you have left on your Proton card? Press the yellow button with the question mark (?). The balance will appear on the screen.

C-ZAM/PC terminal



The C-ZAM/PC terminal, which was designed and developed by Banksys, allows the card holder to make payments by Internet.

The C-ZAM/PC comprises an electronic card reader (with its own screen and keyboard) which is linked to a PC basically like a mouse. However, even though it is easy to install and to use, the technology behind the system is sophisticated. Paying on the Internet demands total security and confidentiality. In perfecting the C-ZAM/PC, Banksys has responded completely to the need for essential security in electronic transactions.

C-ZAM/PC is totally safe and easy to use because it is the owner's card which gives the authorisation and not simply the number of the card. It is the card holder who authorises the transaction via the key pad of his C-ZAM/PC and not simply an operator on the network.

The C-ZAM/PC avoids all problems associated with reliability and security (fraud) or the ability to carry out transactions from the hard disc of a PC or from floppy disc.

All information needed for the transaction is stored in the owner's card and the C-ZAM/PC reader functions without any interference from the software of the PC. Moreover, all data are sent in encrypted form to guarantee the total security of the payment.

Apart from the main advantage of offering completely safe transactions on the Internet, the C-ZAM/PC uses existing payment types and banking infrastructure. The card used in the C-ZAM/PC (whether it be Bancontact/Mister Cash or Proton) is the same as the one used in the Bancontact/Mister Cash network or the one used in the corner shop. The code remains exactly the same.

Nothing changes for the retailer either: all the retailer has to do is to connect his system to the banking network in order to obtain authorisation for a payment, just like any other retailer does today with a classical C-ZAM terminal.

Paying with any card - anywhere.

The future of paying by Internet ?

With the support of the European Commission and in co-operation with international partners, Banksys is at the heart of a project to set up an international standard for payment by Internet using the technology linked to the smart card. This standard, which is referred to as "Interoperable C-SET", gives us reason to believe that a card holder with a Belgian smart card will, for example, be able to pay from a French Internet site in the future.

CITIES Project : Electronic one-stop-shop for administrative services

The project intends to create a new information space, leading to an improved quality of services, a wider range of easily-accessible information, a permanent access to information and services, an access to EU common information.

The validation sites are: Rome City, Marseilles City also with the user site of Guadeloupe, Madrid City and the Brussels Region.

CITIES contributes to enhance the relationship between PAs and Citizens. It is expected to increase the efficiency of information delivery and to reduce the heaviness and the complexity of bureaucracy. Multimedia systems and carefully tailored telematic applications are expected to provide modern and effective means to reduce the distance between various public bodies; as a result, communication efficiency should increase and information exchange costs decrease.

For the Brussels Region, packaging, marketing, and delivery of the services is handled by CIRB as Information and Services Brokering Companies.

On top of packaging and delivering services, Services Centres manage a technological infrastructure, which represents the vehicle to connect Content and Service Providers to citizens or end-users.

There is a general agreement among the major market analysts that the following scenario will prevail for the next few years:

- Internet is rapidly maturing into a commercial medium, it will become the 'dial tone' of the data communications world;
- The rapid growth of Internet will continue, reaching the majority of computer users;
- By 1998, the largest obstacles to commercial development of the Internet will have been resolved, and the pressure for every business to get on the 'Net' will become irresistible;
- By the turn of the century, the Internet will be as much a part of everyday life as the PC is today.

The expectation in terms of Telematic Networks within Public Administrations is very high and current estimates show that there will be a dramatic increase in the near future.

Citizens seem to be willing to pay for the delivery of innovative and efficient services.

The modernisation of existing networks or the building of broadband networks, based on ISDN and/or ATM switching backbone technologies, in the four digital sites, will allow to experiment and to prepare a widespread deployment of public telematic services in other Cities of the European Union.

The services offered in Brussels are designed to make the administrative data and information available to the end-user, through user friendly interfaces and easy-to-access terminals. The main objective being to demonstrate the new ways of communication among administrations and between administrations and Citizens or targeted segments of users and to develop the Information Society features

CITIES represents a key-opportunity to federate and co-ordinate various initiatives and to build a generic infrastructure and a generic implementation model in order to stimulate the delivery of new telematic services.

The year 2000 will also attract a lot of activities in Brussels as the Region has been elected as one of the Cultural Capitals of Europe and the European Football Cup will be hosted by sport facilities in the Region; these events represent a matchless opportunity to give high visibility to all the telematic services by offering them to the large number of people visiting the Region in this particular occasion.

The end users connected by PC will benefit from the extension in speed and bandwidth of the Internet network. For kiosks and VMS equipment, the demonstrator in Brussels will stimulate synergies between the existing equipment, by coupling by example, kiosks for integrated telematic services with the 'ticket-automate' already installed by STIB in the Metro stations and already intended to be equipped with a 'proton' (electronic purse) terminal.

CITIES will also closely follow the pilot projects linking PC, Television, Telephone and Internet or Intranet.

New IRISnet services added by CITIES to the citizens :

- **Statistics Service of the Brussels Regional Administration**

Currently several "paper" reports are produced by the Region of Brussels. These reports cover many topics, including: population, employment, health, education, enterprises, transport, ...

The on-line availability of this information will be very beneficial and the possibility will be offered to obtain it as thematic maps.

- **Export Directory**

The 'export directory database' describes all the companies of the Brussels Region wishing to export or already exporting goods and services. Available only as a book so far, the database will be connected to the platform and will offer functionalities such as a search engine, an e-mail connection and links to the existing related Web Sites.

Information on support actions by the Brussels Government about new market opportunities, and related services, will be made available on-line.

- **Brio server**

Brio server: Database on all the roadwork planned by the different contractors authorised to work in the municipal and regional streets and having now, by regional law, to co-ordinate their actions. Real time information on roadwork. Extension of multimedia information systems to implement the information correlated with transport with those correlated with special events (context sensitive information)

- **STIB Information Database**

General Information database from STIB on public transport, timetables and tariffs

- **STIB :PIVI Server**

PIVI server: (RATP application) giving to Citizens itineraries by public transport, visual route information and itinerary search, regulations and traffic disturbances affecting public transport;

New IRISnet services added by CITIES to Targeted Users :

- **Brussels Harbour Information**

Services to the attention of users involved in the maritime transport around the Brussels Harbour.

- **Medical information**

Services designed to the use of Health care professionals.

THE FUTURE

The telematic services already available and the integrated services planned in CITIES will generate more and more demand and expectations from users. The potential of dissemination of existing services and development of new ones is almost unlimited and will follow the generalisation of the Information Society Culture and the economical constraints.

New IRISnet services already planned for the citizens :

- **Real estate database**
Maintained and updated by the Housing and Spatial Development Administration, this database gives information on houses and flats or condos available in the Region
- **Brussels-Capital Region Council (Parliament)²**
Services on texts and legislation related to the Region

The effort realised these last years in Brussels by the CIRB, thanks to the European Commission DG XIII support, really allows to influence the future and allows us to ensure the reduction of the management and access costs to the information, the reduction of the access and the information processing timings, to improve the performed services and to develop information exchange (sharing) between citizens and Smes.

By demonstrating our capabilities in reaching these objectives through pilot projects, we become an "inescapable" partner for all public regional organisations.

Moreover, based on our proposal, the Government approved an over-three-years action-plan ensuring the dissemination of new technologies to the citizens' benefit.

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