

e-government



Furthermore, this new governmental service and administrative approach contributes to a city's or a country's dynamic image.

Within the framework of future technological progress, the number of ways to interact will be bigger than ever before (e.g.: 3G/UMTS Mobile Wireless Access, iDTV).

What is e-government?

There is no clear consensus on the definition of *e-government*. Bureau Van Dijk Management Consultants (BvDMC) considers the essence of e-government as follows:

Above all, e-government is a new approach of the relationship between the Government and its citizens, companies and other administrations and institutions. Consequently, the administration should be re-organized with the focus on an optimisation of the public service. The existing and future information technology is an excellent tool to achieve that goal.

In recent years, BvDMC has been advising and realising several projects concerning e-government. With this experience in mind, BvDMC distinguishes four different e-government related activities:

- * virtual counter,
- * online voting,
- * IDA: Interchange of Data between Administrations,
- * e-Security.

➤ *Virtual counter*

Instead of a physical visit to a public administration, a virtual counter offers the possibility to handle legal affairs via an internet-based connection. Actually, it offers even more service perspectives than those of a physical counter (e.g.: measurement of the community's satisfaction rate of the services is only possible through concrete electronic data).

The concept of a virtual counter has also different point of views, which is illustrated in the matrix presented at the next page.

Introduction

The new information and communication technologies (ICT) have a big impact on many levels of our society. To keep up with these social and technological changes, the governmental institutions evolve too. Since a few years, e-government has high priority for most of the European members. According to their political view, e-government should not only be implemented in the national administrations, but also in the local, regional and even pan-European governmental organisations. Consequently, laws are introduced and action plans are developed on every organisational level to obtain a uniform way of implementation (concerning security matters, privacy and so on).

The operational use of e-government as a daily organisation tool offers some major benefits for the administration. First of all, it leads to efficiency improvements and cost savings through:

- * simplification of the administration's processes;
- * faster transactions at lower cost for both parties (win-win situation for both government and citizen);
- * paperless procedures;
- * exact information making studies and market surveys superfluous and offering a better view on the expectations of the citizens and the companies. This makes it easier to adapt the services to the people's needs.

E-government also facilitates the information flow towards the citizens, corporations and other administrative institutions.



	<i>Citizens: Administration to Citizen (A2C)</i>	<i>Business Corporations: Administration to Business (A2B)</i>
<i>Informative</i>	<ul style="list-style-type: none"> * Consultation of the regulation on registration rights e.g.: when building a house. * Consultation of the city council's decisions. * Downloading of printable versions of official documents such as tax papers. 	<ul style="list-style-type: none"> * Consultation of regulation concerning the employee rights. * Consultation of the city council's decisions. * Downloading of printable versions of official documents such as patent requests.
<i>Interactive</i>	<ul style="list-style-type: none"> * Consultation of the regulation on registration rights e.g.: when building a house. * Consultation of the city council's decisions. * Downloading of printable versions of official documents such as tax papers. 	<ul style="list-style-type: none"> * Consultation of regulation concerning the employee rights. * Consultation of the city council's decisions. * Downloading of printable versions of official documents such as patent requests.

A virtual counter has some advantages in comparison with a physical one:

For the administration

- * Time-efficiency: virtual visits diminish .
- * Time consuming physical contacts.
- * Cost savings on working hours and communication.
- * Easy addressing of new target groups e.g.: the youth is very familiar with the Internet.
- * Image building.

For the user (citizen or corporation)

- * Visiting a virtual counter can happen anywhere (home, office), anytime (24/7).
- * No more queues in front of the administration's box offices.
- * No more complex labyrinth of administrations: one common virtual counter sends the data to the correct department.

➤ *Online voting*

E-democracy or "Cyber democracy" are other terms to define the interaction of the citizen with the government through online voting.

Even though it is only to a small extent, e-voting for elections is already used in a number of cities. At the polling station, the inhabitants receive an electronic card, which has a unique identification key and which stores their vote. Such civil consultations and elections by e-voting have a lot of advantages. For instance, counting digital votes by computer happens a lot faster than counting ballot papers by humans.

Nevertheless, mobilisation of the people to the voting office still is a critical factor for the polls to be successful.

BvDMC is convinced that an evolution to an online voting system is upcoming. With online voting technology, instead of mobilising the people, votes are passed on online without getting in line at the poll office. This is a considerable gain of time and money, for the organisers as well as for the voters: less paper voting and counting, no more physical visits; the organisation of an online poll is less substantial than a physical one (e-voting or manual voting at the poll office). So, e-government will make it easier to let citizens participate in democracy.

Besides general elections, this technique can also be used to involve citizens, members and companies in important decision-making processes such as referenda: e.g. voting on a proposition for an underground parking lot in the middle of the centre, voting on a new chairman within a political party...

With the possibility to do all this online, the participation rate to referenda and opinion polls will increase.

➤ *IDA: Interchange of Data between Administrations*

Every government is a complex organisation of several divisions with interests in other institutions. These units generally operate autonomously and work with information collected on their own. As a result, citizens are often confronted with a pile of different administrative papers requesting the same kind of information. For that reason, there is a considerable quantity of redundant data among the total amount of information.



-government however allows a quick approach with a minimum of redundant info: all the governmental departments are linked to a common platform of data exchange. An example of such a project in Belgium is BO (KruispuntBank Ondernemingen), a database with all kinds of information of Belgian companies used by the governmental institutions in their operational activities. So, identical data won't be retrieved more than once or at different government departments and everything is processed electronically. This means no more unnecessary human interventions and a smaller risk of errors. This leads inevitably to an efficiency increase of the A2A processes (Administration to Administration).

Such technology does not only mean an optimization of hardware utilization; it also leads to uniformity of information between the departments. For instance: if a citizen alters his address (e.g. via the virtual counter of his city), this information will be adjusted in the collective database, which can be consulted by every authorized unit.

> e-Security

Virtual counter, e-democracy and IDA processes are all specific e-government activities. But there is a fourth concept, which is of great importance for the preceding functionalities to operate successfully: e-security.

In the process of sending and securing data, there are two matters that must always be kept in mind: security of information contents itself and strong authentication of the user.

Security of the information content implies:

Access control: ensure that not all users have access to restricted information.

Confidentiality: ensure that the users' privacy is respected and that the information stays confidential.

Integrity: ensure that data cannot be modified or deleted during communication by unauthorized persons.

Non-repudiation: ensure that both sides of the transaction cannot later deny the transaction took place.

But before all this, it is much more important that the user really is the person he says he is. Therefore, strong identification rules are required.

Such identification technology already exists. Shared secrets such as a password or a symmetric cryptography key are used to identify a person. However, due to the shared information, there is the danger of hackers and eavesdroppers.

The technology of Public Key Infrastructure (PKI) is a safer way to transfer data. Encryption and decryption keys are not the same (asymmetric cryptography) but can't exist without each other. If the unique private key belongs to the user, only the receivers who own the public key can access the content of the information flow and they know that the identification is authentic and authorization is thus granted. The Belgian Belpic project is one of the few actual e-government projects implementing PKI. Belpic develops an electronic identity card with basic identification information (social security number...).

No matter what the security approach is, the government should play a part in it.

Things are still evolving in this area, but when e-security will be fully operational applications and benefits will be:

- * The electronic signature. This makes it possible to do online business and governmental transactions on a juridical correct base.
- * Online voting would not longer be an utopia.
- * Secure way of doing online payments, e.g. with online e-cheques.

If organized through the government, all this happens in a uniform and efficient way.

Expertise & references of Bureau van Dijk

BvDMC consists of different specialized consultancy teams as well as an information technology department. Each unit has its specific professional focus, knowledge and experience.

As a result of the synergy between these units, BvDMC has a considerable amount of expertise at its disposal. In addition, Bureau van Dijk Management Consultants is an ISO-certified company, which guarantees the quality of its services.

Up till now, BvDMC managed and advised several e-government related projects.

On the level of the European Commission, the **Directorate General** for the Information Society involved BvDMC in:

- * the ESPRIT Program (concerning information technology): participation in the development of e-commerce of immaterial goods;
- * the management of the E-Commerce Legal Issues Platform (Esprit Eclip I & Eclip II projects);
- * the assistance to the design and the implementation of an electronic author's rights management system (Esprit Copearms project);



- * modeling and experimenting an industrial solution for the e-management of rights, based on specific software (Esprit Copysmart project);
- * the development and testing of regional transport assistance solutions based on the latest mobile technologies (TRASCOM project).

BvDMC has also a wide range of expertise on the **federal** level resulting from years of cooperation with several ministries and governmental organizations.

A project for the Home Department was the realization of an Internet and Intranet site for the management of the legislation on refugees and the handling of publications, contacts...

On the **regional** level, VIZO (Flemish institute for independent entrepreneurship) contracted BvDMC for strategic and technical consultancy regarding an Internet site with a virtual counter for entrepreneurs and small businesses to handle their administrative formalities. The professional advice also related to the development of intra- and extranet applications for data communication between the different training centers of VIZO.

For VLIF (Flemish investment fund for agricultural companies), BvDMC is setting up and implementing an extranet system. The VLIF aims at a modern, quick and effective data transfer with the financial institutions for the management of the investment subsidies for agricultural companies.

From the synergy between the skills of the informatics department, the knowledge of the consultancy cells and the opportunities and advantages of e-government, Bureau Van Dijk Management Consultants developed some professional online tools.

iForm is a strong and dynamic Internet tool to gather crucial information from the user. Examples of iForm applications are:

- * inquiries: every organization with interest in the opinions of their members, clients, citizens,... can use iForm as a tool to get that opinion in a fast and efficient way;
- * administrative formalities (virtual counter applications): every administration, whether it's a public or a private one, can use iForm to increase the quality of the customer services and the effectiveness of the administration.

The only thing the customer is responsible for is the design of the form which is very easy and comprehensible to do. Moreover, the implementation of the service into the existing website happens through a simple hyperlink.

To answer the questions, the interviewee is guided step by step through user-friendly screens. It is also possible for the user to consult and reconsider his answers at all times. Afterwards, the system automatically sends an e-mail to the user with the confirmation of participation or with information concerning the status of the form.

This happens in the safest way: every user has its own unique user name and password, which gives him access to the data and the functionalities that have been assigned to him.

The storage and the analysis of the data take place at BvDMC: specific software automatically generates graphics for the customer to analyze the data very quickly.

If wished for, the customer can always download the data on their own system to do their own calculations and statistical treatment in Excel, Access...

The iForm concept is thus unique: based on an ASP platform (Application Service Provider), this service offers an all-in-one Internet service. BvDMC invested in high performance hardware and back-up services and in fast Internet infrastructure for the storage and transfer of the data. The latest anti-virus programs guarantee the security of the information.

So, the customer has no more worries about investing in professional design and programming software and hardware, no problems with the maintenance of the servers or other infrastructure, no more concerns about updates...

The iForm technology has already been implemented at VVSG (Association of Flemish cities and communities), the European Commission and Eurocontrol Luxemburg.

For further information concerning iForm, you can always surf to www.iform.be.

iClass is an online application and service which helps you to manage your company's strategic information. We developed several tools to assist you in the process of collection, analysis, benchmarking, research and securisation of your information. Furthermore, the user friendliness, flexibility and multilinguism of iClass will most certainly please you! We invite you to take a look on the website of iClass, www.iclass.be, where you can find more information.

Contacts

For further information regarding the services offered and/or missions carried out, don't hesitate to contact



Mr. W. Van Obberghen, Sales Executive (wvo@bvdmc.com)
or Mr. L. Orluc, ICT Manager (lor@bvdmc.com)

bureau van Dijk Management Consultants
Avenue Louise 250 box 14
B-1050 Brussels — Belgium
Tel +32 2 639 06 06 — Fax : +32 2 648 82 30 —
<http://www.bvdmc.com>