



E-GOVERNMENT START-UP IN BELARUS

- CASE OF PUBLIC ONLINE SERVICES PORTAL
IMPLEMENTATION

DZMITRY MARUSHKA

Dept. of Economics

Belarusian State University

Belarus

dzmitry.marushka@gmail.com

MARIA ABLAMEYKO

Dept. of Law

Belarusian State University

Belarus

masechka86@mail.ru

Abstract

In this paper issues are discussed in relation to the development, implementation and usage of the National automated information system (NAIS) and its module “e-Government services portal” in Belarus. Key features of the national strategy for providing public online services are described and a brief review of the legislation system and options for the “one window” principle implementation using the module “e-Government services portal” are presented. The paper also includes proposals and conclusions.

Keywords: E-Belarus, Information Society, E-Government, Informatization

1. Introduction

During, approximately, the last 15 years the vast majority of the countries in the world have started to work towards building an information society. Special programs in order to achieve this aim have been elaborated upon and accepted. In Belarus, the National program called “Electronic Belarus” was approved by the government in December 2002. The “e-Belarus” program aimed to create an ICT environment and to provide the necessary conditions for improving the economy, state and regional management, and to guarantee human rights within the information society [Electronic Belarus, 2002].

In recent years many countries have actively implemented e-government solutions and have supplied public online services. E-government solutions improve the quality of public services and the performance of the “one window” principle.

Belarus has invested a considerable amount of effort in order to develop and implement public online services. As part of the “e-Belarus” program many information systems have been developed for almost all of the public agencies [Piatkowski, 2004]. Belarus has a competitive ICT industry that includes both computer and telecommunications equipment manufacturing and software

development. ICT enterprises in Belarus are separated into the following clusters: (1) custom software development services, (2) telecommunication services, (3) telecommunications equipment manufacturing and (4) system integration.

In Belarus, public online services became available to its citizens during the last 6-7 years [National program for accelerating the development of information technology services for the period of 2011-2015, 2011]. Before 2010 all public online services were offered separately to its citizens by each agency. In 2010 all these services were united within the National automated information system (NAIS) that, at the present time, offers them via its integrated public online services portal (module “e-Government services portal”). NAIS applies to all administrative levels in Belarus (national, regional and local municipalities). In this paper a description of the e-Government services portal that was launched in Belarus is presented and key features of the national strategy for providing public online services are described.

1.1. Government online strategy

At the present time, ICT in public administration is a priority area for the majority of countries [eEurope, 2002] and, in this respect, Belarus has also made important steps towards e-government development. It is a powerful tool for administrative reform that could enhance the quality of life for the Belarusian citizens and improve the competitiveness of domestic companies. In order to achieve these goals, public agencies are seeking opportunities to significantly improve access to their citizen-centric services using the “one window” principle, service centres and other solutions [Electronic Belarus, 2002].

The primary aim of e-government development in Belarus is in providing open and accessible online services for organizations and individuals. The key organization, which is responsible for building the information society in Belarus, is the Ministry of Communications and Informatization. The basic public agency that acts as an intermediary between the government and other players in the ICT sector is the Interdepartmental Commission on Informatization Issues of the Ministers' Council of Belarus.

The Ministry of Communications and Informatization is responsible for regulating the telecommunication market, granting licenses for activities in the field of telecommunications, and, additionally, it prepares drafts of ICT related legal acts for further approval by the government. The Coordination Council of the Ministry is responsible for the projects of the “e-Belarus” program. The Department of Informatization provides funding for projects and manages other types of activities.

The ICT performance of Belarus is quite favourable when it is compared with other countries. For example, according to the United Nations e-Government Survey 2008, Belarus was ranked 56 out of 182 countries based on the e-Government Readiness Index, and 98 out of 182 based on the e-Participation Index [United Nations e-Government Survey 2008].

In 2010 the Ministers' Council of Belarus created a new interagency committee to coordinate the activities of public agencies and other organizations subordinated to the government in relation to the establishment and implementation of modern integrated information systems and technologies. This committee includes representatives of the government, the National Academy of Sciences of Belarus, the High Technology Park, scientific and educational institutions and major industrial enterprises.

In recent years approximately 107 projects in relation to the “e-Belarus” have been implemented. Different business information systems have been developed for public agencies in Belarus – Administration of the President, National Assembly,

Ministers' Council, State Control Committee. These information systems have a number of different areas of work: health, education, culture, commerce, distance learning, electronic declaration for the customs and tax authorities.

For example, the electronic customs system started to operate from 2008. At present, 95% of all export declarations are performed digitally. It is also worth mentioning online public services such as data accumulation about taxpayers, e-registration of business companies, public e-trade, and telemedicine system for consulting, information seeking support system for Minsk citizens (“Mingorinfoservis”).

The corporate information system for the Minsk city executive committee was developed and implemented in 2005. In several district executive committees of Minsk, online public services based on the “one window” principle started to operate as a result of the installation of this system. All of the city’s regional municipality offices started to offer online services several years ago and, at the present time, more than 60 administrative service procedures are performed digitally by each regional municipality office. These e-services include, for example, administrative procedures for approving, declining and confirming such operations as buying, selling and exchanging, awarding one-time grants for construction (reconstruction) of real estate, applying for family benefit payments (maternity benefits, payments for childbirth), etc. It is also possible to obtain information concerning the designated amount of child allowance and its payment period, the amount of money withheld in relation to alimony, the amount of pension which is to be received, etc.

Objectives for the new five-year period are mainly defined by the National program for accelerating the development of services in information technology for 2011-2015. This includes 146 events in eight projects: “National information and communication infrastructure”, “Electronic Government”, “E-health”, “E-employment and social protection for population”, “E-learning and human capital development”, “Formation of national content”, “Electronic Customs”, “ICT and digital trust” [National program for accelerating the development of information technology services for the period of 2011-2015, 2011]. This program is focused on the quality and effectiveness of the improvement of online services for both the public and private sectors.

In our opinion, only the best practices of international development should be taken into consideration during the implementation of this program. It is also very important to consider the opinion of the citizens in relation to the design of new public online services. It is possible that this could assist public agencies in providing better customer services by giving certain aspects greater consideration.

2. ICT Law and Regulations

Currently, Belarus has completed the groundwork for the creation of the information society and the legal basis for it is also in place. The National ICT infrastructure is being successfully developed and it is able to offer new telecommunications and online services based on broadband access technologies.

For the past 15 years, a set of basic legal acts aimed at increasing the efficiency of information technology usage has been implemented. It is important to mention some of these acts without performing a complete analysis.

The Law “About informatization” was approved on September 6, 1995 that put in place the legal basis for the national legislation development in the informatization sphere. It regulates relations within the process of information resource creation and implementation, information systems and networks development, determines the

means for R&D protection and, in addition, deals with actors' rights and responsibilities [About informatization, 1995]. Following on from this, the concept of public policy in the field of informatization has been approved by Presidential Decree on April 6, 1999 No. 195 "About some questions of informatization in Belarus". According to this concept, public policy in informatization is focused on the transition to a new stage of the country's development – towards the information society and to the introduction of Belarus to the international ICT community [About some questions of informatization in Belarus, 1999]. Many public laws have been adopted during the years 2000-2011. A selection of this is given below:

- The President's Directive "On measures for further de-bureaucratization of the public apparatus" (No 2, December 27, 2006). According to this, de-bureaucratization includes two modules. The first is devoted to an improvement of the interaction between public agencies and the citizens. The second module is focused on improvements to the internal operations of public agencies and the interaction between them, the de-bureaucratization of public apparatus, correspondence processing and report preparation [On measures for further de-bureaucratization of the public apparatus, 2006].
- Law "About information, informatization and information security" (No 455-3, November 10, 2008). It is intended to regulate relations arising from the right to search, transmit, receive, store, handle, use, distribute, and provide information; to develop and use ICT; to provide information services and to protect information [About information, informatization and information security, 2008].
- Law "About electronic document and electronic digital signature" (No 113-3, December 28, 2009). It establishes the legal basis for electronic document usage, defines the basic requirements for the rights, obligations and responsibilities in this field. Key provisions are aimed at expanding the scope of the regulations for social relations and the legal conditions for the usage of electronic documents and digital signatures in Belarus [About electronic document and electronic digital signature, 2009].
- The President's Decree "About measures on usage perfection of the national network segment of the Internet" (no. 60, February 1, 2010). It is designed to protect the interests of individuals, society and the whole country within the information sector, to create conditions for the further development of the national segment of the Internet, to improve the quality and accessibility of information about public agencies' activities and their online services for both citizens and companies [About measures on usage perfection of national network segment of Internet, 2010]. According to this decree, all public agencies and organizations should publish and store information about themselves at those servers that are physically located in Belarus and create a national segment of the Internet. Every website has to include a minimum set of information about its owners and access to it should be free of charge.
- The President's Decree "About administrative procedures which are carried out by public structures and other organizations under requests of citizens" (No 200, April 26, 2010). It aims to improve the efficiency of the activities of

the public agencies and includes a list of administrative procedures, conducted according to the requests of the citizens [About administrative procedures which are carried out by public structures and other organizations under requests of citizens, 2010].

3. E-Services Integration

The “One window” principle is one of the most famous service-oriented management schemes in the world and it implements a customer centric approach and forms part of the administrative reform in Belarus. This administrative mechanism enables citizens to apply for the necessary information to one organization, fill in one application form and provide a minimum set of required documents. In addition, all approvals are performed through the internal communication channels of the public agencies. “One window” integrates the management process of these agencies.

Digital interaction between the public agencies and citizens does not change the essence of the social and legal relations based on a traditional understanding of its workings. One of the most important issues of digital interaction implementation is to provide free access to public documents and to perform them digitally.

Public online services are mainly delivered by means of a public contract in accordance with article 396 of the Civil Code of Belarus and involve one party undertaking to provide services for an indefinite number of persons.

NAIS is intended to deal with the automation activities of public agencies that are providing information services to other agencies, organizations and citizens. In 2009 an integration scheme of the NAIS kernel software and e-Government services portal was developed. The technical infrastructure for the NAIS expansion was built on the platform of the national telecommunication operator “Beltelecom”. The access list of public services, provided by NAIS, was approved by the Ministry of Communications and Informatization. These services are used as web services and interaction is provided in terminal mode (by filling the appropriate forms at the portal) and at the level of information systems (web services format, WSDL, message format SOAP).

At present, NAIS integrates the information resources of the following public agencies: Ministry of Internal Affairs (Expert “Passport”); Public Unitary Enterprise “National cadastral agency” (Uniform public register of real estate, Uniform register of administrative-territorial and territorial units); Ministry of Justice (Uniform public register of companies, SMEs, individual entrepreneurs); Ministry of Education; Ministry of Taxes and Tax Collection (Public register of tax payers) and others.

NAIS delivers the public online services:

- Public agencies and other organizations use the NAIS Intranet-portal, which is accessible exclusively within the allocated network and is not part of the communication network for general access. It is used to create a closed inter-agency EDM (electronic documents management) system for Belarus. It implements inter-agency exchange of electronic documents between public agencies and other organizations.
- Individuals and private companies use the module “e-Government services portal” of NAIS.

In Belarus there are many government websites, however, no national e-Government services portal existed until December 2010. Such a portal was launched on January 1, 2011 under the program “e-Belarus” and it now integrates more than ten public

information resources and offers more than 60 online services. The main aims of this portal are:

- Increase efficiency and accessibility, simplify procedures and shorten the delivery time of public services.
- Reduce administrative costs for individuals and organizations involved in obtaining public services.
- Minimize personal interaction between public agencies and end users (customers) through the implementation of the “one window” principle.
- Increase information transparency of public and local agencies activities.
- Implement common standards for providing services to citizens, information sharing between executive authorities, public agencies and organizations.

The portal was originally developed as a single system based on the priority construction of basic infrastructure units and only after this had been completed was it focused on public services delivery. E-Government services portal is a gateway for the integrated services of other portals and sites of public agencies and organizations (sub-portals) that are a part of NAIS. The portal is supported, not only by the basic service group, but it is functionally separated into “professional groups” that are set up within the internal departments of public agencies. The general support group is managed by the Ministry of Communications and Informatization.

In general, the structure of the e-Government services portal was designed to integrate the activities involved in daily life [Electronic Belarus, 2002]. The E-Government services portal implements module-based design and is divided into four circuits:

- Integrated public online services portal, providing access to the content of NAIS.
- NAIS information portal that consists of sub-portals, old and shared systems.
- Middleware consisting of a search engine, a system for automating business processes, systems for application and data integration.
- Infrastructure software, consisting of RDIMS (Record, Document, Information Management System) and database storage systems.

The portal provides the following services:

1. Search and retrieval of information, categorization of the services list provided by the portal, search by keyword and grouping the public services list:
 - a. For agencies providing services.
 - b. By subject (education, taxes, real estate, etc.).
 - c. By groups (categories) of users (parents, retirees, owners of cars, etc.).
 - d. Location search of public agency that provides online services.

2. The interaction of individuals and organizations with public agencies. This feature is provided by a set of services that enable individuals and organizations to request, obtain on-line assistance or permits, and to submit inquiries to public agencies. In addition there is an option to track the status of any requests that have been made.

The portal has a list of available online services that are grouped to life events, departments and categories. Information and services related to a “life episode” that are provided by various public agencies are frequently not available in one place. The grouping of on-line services around specific “life episodes” is intended to facilitate communication between the citizens and the public agencies.

The portal also provides users with enhanced search capabilities, implements such tools as a site index, search tips, searching by name and an advanced search that facilitates navigation in public records.

The concept of the “private user’s office” is also implemented. It provides “one window” access for both the ordering and payment of services. Access is provided by means of user authentication using a digital signature. This digital signature provides additional digital information which is generated by both special hardware and also software tools using a user’s personal (secret) key. Digital signature verification can also be performed by means of hardware and software tools using the user’s public key.

According to the law “About electronic document and digital signature”, the public management system of public keys should, in future, follow the hierarchical principle of public administration that involves the creation of certification authorities for EDM with the appropriate structure: from the upper level, through regional centres down to individual departments, organizations and end users.

The important reasons for the development and implementation of the e-Government services portal in Belarus are as follows:

- Strengthening the focus of the “e-Belarus” program on improving public online services delivery.
- Improvement of internal prestige and trust. Perfectly designed and well-functioning (based on “24/7/365” model) portal for e-Government services with plenty of online services and internal accountability mechanisms and transparency could improve the prestige of Belarus and the trust and respect of its citizens.
- Improvement of international prestige.
- Facilitation of coordination, interchanges and cooperation of international institutions. The portal should create a powerful impetus in the acceleration of cooperation between institutions in online service development that requires data from more than one institution.
- Promoting standardization of processes and services. It is highly likely that the portal could have a strong effect on the implementation of the same standards to the internal processes and mechanisms of public services delivery.

- Cost reductions. The portal could assist public agencies in avoiding significant investment in both hardware and software facilities and in the development of their own portals and online services and it should, instead, become possible to employ the central e-Government services portal.

4. Conclusions and Future Prospects

NAIS development requires a new approach in order for informatization regulation to be implemented and to expand the framework for the usage of ICT and public online services. The positive experiences of several countries caused the Ministry of Communications and Informatization and the National Academy of Sciences of Belarus to develop, in 2009, the Strategy of Information Society Development in Belarus for the period up to 2015. Approval of this Strategy and the National program for accelerating the development of services in information technology for 2011-2015 by the Ministers Council is a very important event for the informatization of Belarus and its progress towards e-government and the development of an information society.

The activities dealt within this program should reduce the administrative burden associated with providing necessary online services and should also reduce the number of requests and the waiting time in relation to receiving a response. The successful implementation of this program should assist in achieving the following key results by 2015 [National program for accelerating the development of information technology services for the period of 2011-2015, 2011]:

- Number of companies that use a digital signature during public online services provision should increase by 20%;
- Rate of public services integrated to NAIS should increase by at least 20% of the total amount of public services;
- Waiting time for the delivery results of public online services should be reduced by not less than 50%;
- Number of schools that have Internet access should reach 100%;
- Rate of medical records performed digitally should be at least 50%;
- Public procurement orders for goods, works and services would be totally (100%) distributed via e-trading platforms;
- Rate of goods and services sold on the domestic market by means of e-commerce solutions should reach 30%.

In order to achieve these key results, it is very important to implement the following recommendations that are based on the performed analysis in our research and could raise, in our opinion, the efficiency of the e-government development in Belarus:

1. It is necessary to implement perfectly established international e-government practices in order to develop and deliver public online services properly.

2. It is necessary to enable each citizen to design public online services independently.

3. It is necessary to encourage end-users to participate in the development and management of public online services. User participation and involvement in further development of new public online services is very important, because it would be possible for them to correctly describe their information requirements and demands.

4. It is necessary to develop effective ICT governance mechanisms that would assign roles and responsibilities in relation to managing and making decisions concerning the implementation and usage of public online services.

5. It is necessary to develop and approve additional legal acts that would allow citizens to use their personal digital signatures.

The strategic advantages that have been discovered for the e-Government services portal which could act as a driving force for the further development of the information society in Belarus are:

- Opening administrative reform possibilities.
- Improving public services delivery to citizens and business.
- Improving transparency, openness and accountability of the government.
- Creating opportunities for better governance.
- Promoting an anti-corruption program.
- Support for national priority programs.
- Improving global competitiveness of Belarus.

It is also extremely important that the infrastructure activities should have the appropriate legal support. The above-mentioned recommendations were submitted to the Ministers' Council of Belarus by the authors of this paper and it is expected that some of them could be accepted and approved in a new and improved edition of the National program for accelerating the development of services in information technology for 2011-2015. Since 2011 this part has played a less significant role for the National program "Electronic Belarus" which is focused on a strategy for the information society development and its implementation in Belarus. It is also expected that public online services of the e-Government services portal would fit the republican hierarchy system, become integrated and available at the national, regional and local level within Belarus.

Acknowledgments

Part of this publication has been produced by Dzmitry Marushka during his scholarship period at Linköping University, thanks to a Swedish Institute scholarship. Special thanks to Prof. Dr. Alf Westelius (Sweden) and Prof. Dr. Sergey Ablameyko (Belarus) for their contribution to this research and the possibility to conduct it.

References

- Public Program "Electronic Belarus"*, Decision of Ministers Council No 1819 of December 27, 2002. DOI= <http://www.pravo.by/webnpa/text.asp?RN=C20201819>
- Law of Belarus "About informatization"* No 33 of September 6, 1995.
- President's Decree "About some questions of informatization in Belarus"* No 195 of April 6, 1999. DOI= <http://www.pravo.by/webnpa/text.asp?start=1&RN=P39900195>
- President's Directive "On measures for further de-bureaucratization of the public apparatus"* No 2 of December 27, 2006. DOI= <http://www.pravo.by/webnpa/text.asp?start=1&RN=P00600002>
- Law "About information, informatization and information security"* No 455-3 of November 10, 2008. DOI= <http://www.pravo.by/webnpa/text.asp?start=1&RN=H10800455>
- Law "About electronic document and electronic digital signature"* No 113-3 of December 28, 2009. DOI= <http://www.pravo.by/webnpa/text.asp?start=1&RN=H10900113>
- President's Decree "About measures on usage perfection of national network segment of Internet"* No 60 of February 1, 2010. DOI= <http://pravo.by/webnpa/text.asp?start=1&RN=P31000060>
- President's Decree "About administrative procedures which are carried out by public structures and other organizations under requests of citizens"* No 200 of April 26, 2010. DOI= <http://www.pravo.by/webnpa/text.asp?RN=p31000200>
- Civil Code of Belarus*. DOI= <http://www.pravo.by/webnpa/text.asp?rn=hk9800218>
- Integrated e-services online portal*. DOI= <http://portal.gov.by>
- Strategy of Information Society Development in Belarus for the period until 2015*, Decision of Ministers Council No 1174 of August 9, 2010. DOI= <http://www.pravo.by/webnpa/text.asp?RN=C21001174>
- National program for accelerating the development of information technology services for the period of 2011-2015*, Decision of Ministers Council No 384 of March 28, 2011. DOI= <http://www.it-strana.by/154>
- eEurope (2002). "eEurope – Progress Report". DOI= <http://www.kbn.gov.pl>
- Piatkowski, M. (2004) "The Impact of ICT on Economic Growth in Russia and Eastern Europe in 1990-2001", with S. Perminov and E. Egorova, CEMI Working Paper Series WP/2004/164, Central Economics and Mathematics Institute, Russian Academy of Sciences, Moscow (in Russian).
- Online Availability of Public Services: How is Europe Progressing? Web Based Survey on Electronic Public Services, *Report of the Fifth Measurement, Capgemini*, 2005. DOI= www.europa.eu.int/information_society/soccul/egov/egov_benchmarking_2005.pdf
- ICT Infrastructure and E-Readiness Assessments in the Republic of Belarus, Grant # ICT 015, *E-Readiness Assessment Report*, April, 2003, Minsk (Editor U.Anishchanka). DOI= <http://siteresources.worldbank.org/INTBELARUS/Resources/Introduction1.pdf>
- United Nations e-Government Survey 2008: From e-Government to Connected Governance (2008). DOI= <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan028607.pdf>