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THE SYSTEMS OF INFORMATION AND COMMUNICATION TECHNOLOGY APPLYED BY THE GOVERNMENT

Absztrakt

Magyarország a többi EU-s tagállammal együtt próbál megfelelni korunk új követelményeinek. Ennek a tevékenységnek vannak már most pozitív eredményei, de még sok kihívás áll előttünk. E kihívásokkal az állampolgároknak és a kormánynak együtt kell szembe nézniük.

Hungary, together with the other EU members is trying to meet the new requirements of our age. This activity has already positive results, but we have a great number of challenges in front of us. The citizens and the government together have to face these challenges.

Kulcsszavak: kormány, infokommunikáció, elektronikus szolgáltatások ~ government, information and communication technology, e-services

INTRODUCTION

During the past decades but mostly in the past few years Information and Communication Technologies (ICT) have undergone an explosion-like development, moreover day by day we can meet continuously novelties. This is no wonder, as we are in the age of Information Society. The result of this is also that the formerly mysterious 'e-' prefix appears more and more often in our everyday life and it has become an everyday occurrence during the past years. Probably e-mail (electronic mail) is one of the most common expressions with this prefix 'e-', but there are some more activities that we can perform electronically e.g. e-administration, e-work, e-signature etc..

Practically ICT means[1] are almost present on all spheres of activities in our life. Today, many of us cannot imagine such a scope of activity that could not partly or wholly be performed on or by internet e.g. a driver does not look it up on a paper map where he has to go for picking up his boss but he starts a search on an internet-based map or he may use his PNA (Personal Navigation Assistant); or rather in private life the number of families is constantly increasing, where video telephone contacts are used for e.g. keeping contact with their grandparents instead of giving them a ring. The number of digital illiterates is constantly decreasing. Elementary and high school students come into daily contact with ICT means. One can also say that they come into contact with digital literacy already in the school.

According to the Hungarian Central Statistical Office (HCSO) [1] the number of internet subscribers is constantly increasing and their majority prefers broadband internet access. According to the data of the HCSO there are nearly 3.5 million internet subscriptions in Hungary, but this does not mean that 3.5 million inhabitants have internet access. However, this figure is misleading, because there are people who have land-line and mobile internet access, as well. But this is true vice versa, because in most cases where a family has one internet access it is used by each member of the family.

This article will mention some examples how the government may use the development of ICT means. Directives and regulations were created by the government in order to ensure the smooth transition to e-government.

E-PUBLIC ADMINISTRATION

Parallel to the social and technical changes of the past decades the public sphere is also changing and developing. It is fact that the public sphere is somewhat lagging behind, but the direction is correct. Nowadays the expressions like central and local e-governments, e-administration and e-Hungary are already accepted in everyday life. With the appearance of electronic services the functioning and operation of the public sphere may become quicker, more cost-intensive and more rational. In the interest of all these the EU and the European states including Hungary have prepared and are preparing e-governmental strategies. Even political decision makers recognize that these strategies promote the reassessment the connections between states and citizens. The electronic services will become more effective and quicker than traditional services if strategies and their execution will not be extended only to utilize and improve technical achievements, but together with those we simplify and ameliorate the methods and processes, as well. The government can naturally also function without the introduction of new technical achievements, but in order to keep up pace /step/

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[1] ICT means consists of all technical means used to handle information and aid communication, including computer and network hardware, communication middle-ware as well as necessary software.

with citizens and other countries, the system of e-government and electronic public administration must be elaborated. The aim of electronic public administration is that apart from the traditional channels or later instead of them electronic channels should be applied between the two parties of public administration and that should be maintained in a wide circle. The 2 parties of the administration are: on one side providers of administration services as central and local governments and their institutions and on the other side the beneficiaries of administration services as citizens, enterprises, other organizations and institutions. Applying e-governmental channels administration can be achieved through an advanced client-oriented service package.

This means that in the course of e-administration the following aspects should be realized:
1. publication of information on the WEB or on the internet
2. information of the citizens should be effective
3. interactive services and e-administration should be applied everywhere

A quick and inexpensive stream of information characteristic for an information society has to be achieved within the government, as well. The aim is that the information should be available in the proper form, with the required contents, as necessary. This refers to the obtainment, achievement, storing, handling, organizing, searching of data and introducing them in a modified form, as well. All these are important as these activities significantly influence the competitiveness and the whole economic life.

In Hungary, in the past century already the idea has emerged to start the joining of information societies. Formerly, taking a decision was hindered by lack of information. Nowadays, practically all information can be made available within seconds. Now we have to face the problem of deciding which information out of the available information stream is exactly needed. The solution of this problem is: the installation and operation of such information systems that are able to properly handle the available information stream and are able to support decision making and can supply decision makers with necessary information within a reasonable time limit, as well.

As we proceed on the road of development, our fellow citizens are expecting an early, exact, more and more accurate and detailed information. This means that the sharing of the constantly increasing number of information must be ensured. Computers are a great help in this sharing e.g. there is a given customer service that is supposed to meet the different requirements of customers. At present a significant number of customers are able not only to find the required answers by searching the internet but they also require a similar information service. In case the quality of electronic information and service is acceptable, then the traditional overburdening of the customer service and even its maintenance cost also may be reduced.

We should not think that the e-government consists only of the application and operation of the newest means of ICT. It is necessary to check, by all means, even in case of e-governmental and electronic public administration solutions whether the application and wide use of new Information and Communication Technologies promote the following [2]:
1. political participation
2. equal, free and unhindered access to information
3. transparent and clear governmental activities
4. the more open and clear relation between state and citizens
5. etc.

The examination of these is the most important question of e-governmental strategies.

When joining the European Union the e-governmental strategy of Hungary was based on the eEurope2005 e-governmental program. It was our task – among others – to create a possibility of securing electronic access to the twenty basic services required by the EU. Nowadays the

citizens and the enterprises already draw a benefit from electronic public administration services. A successful example is that the 'Ügyfélkapu' (the official Hungarian portal for electronic public administration services) has more than 800 thousands users and services of more than 30 governmental institutions can be reached electronically through this system [3]. Some examples of the offered services are [4]:

1. eBev services (electronic tax declaration)
2. administration regarding different certificates (birth, marriage etc.)
3. administration regarding sole trader's license
4. administration regarding automobile registration
5. administration regarding home address card
6. administration regarding international driver's license
7. Office of Government Issued Documents on internet
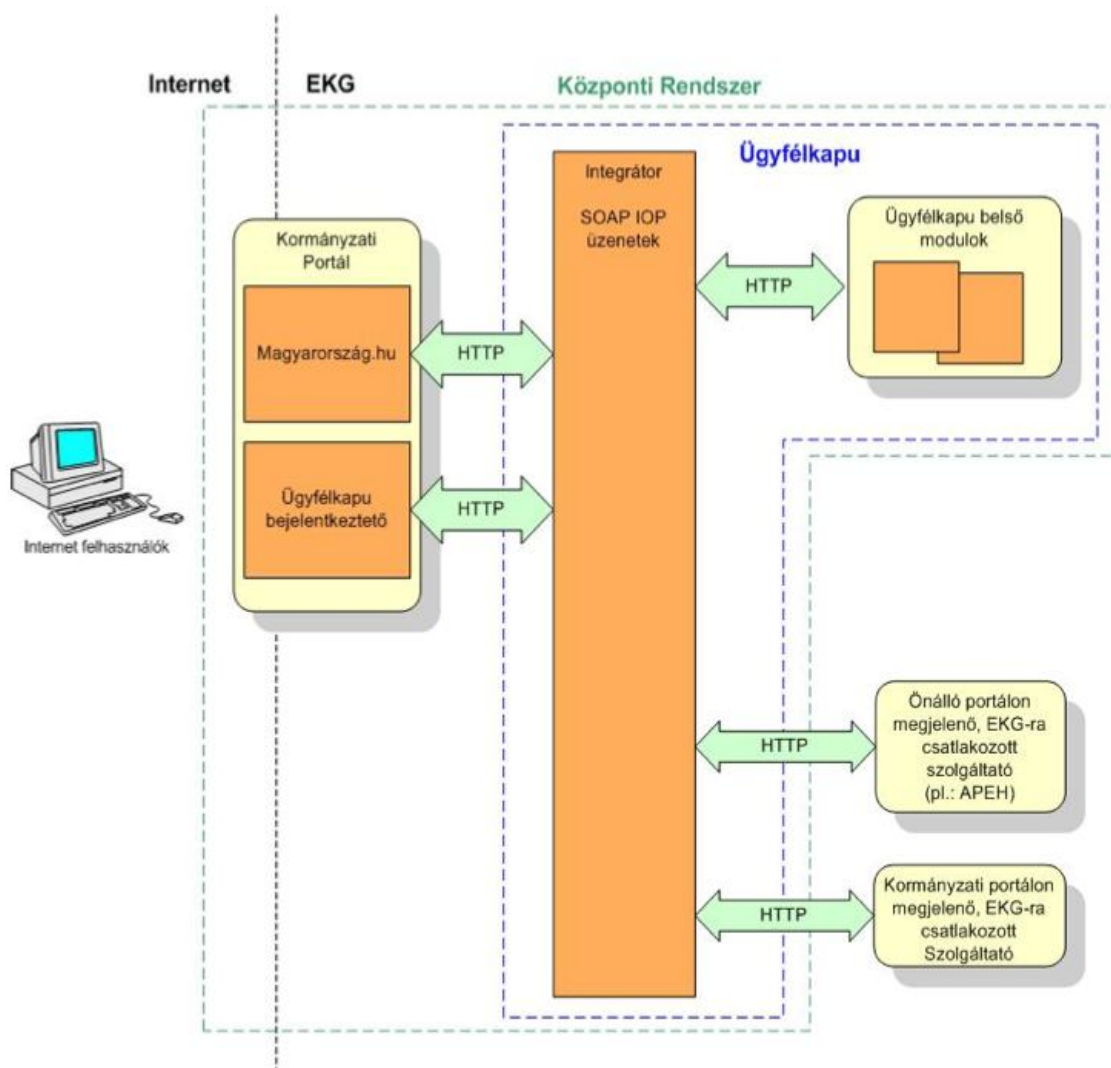8. etc.

Figure 1.
Technical description of connection to 'Ügyfélkapu' portal [5]

Former e-governmental targets as improvement of governmental services, more effective and cost saving operation of the state, and the increase of the democratic participation of citizens even today form an organic part of e-governmental targets. Aims of the e-government are being realized in the form of e-services. From these services both, the administration and the

citizens, the enterprises also enjoy different advantages. The actual advantages of the electronic public administration are:

1. less human resources are needed and the administration is more effective
2. performance is more favorable, deadlines are shorter (the citizens' requirements can be completed in a shorter time, thus the government official can sooner perform his task)
3. less time is needed for filling-in and managing the different forms
4. administration gets simpler, certain processes can be automized and consequently expenses can be reduced
5. e-democracy will be realized: through the different portals citizens will get to know the activities and work of central and local governments and other organizations

Concerning the above, an actual example is the establishment of e-administration in case of the Courts of Registration [6]. In July 2008 the electronic services of the Courts of Registration were introduced, thus registration process of the different enterprises is performed completely electronically. Today anybody can register a company within one hour supposing that the registration is carried out via the application of a sample contract. For a quick registration we have to choose a legal adviser who disposes of an electronic signature. This is important because an e-signature is an indispensable prerequisite of the e-registration of the Court of Registration. This method is advantageous for both, the citizens and the Court, as well. For the Court it is not necessary any more to spend such a long time with the registration, as the information system will do that for them, thus, they can spend more time on legal controlling activities.

In case of electronic services it is important that proper trust should be formed. This also refers to security and authenticity. This authenticity is by all means supported by the fact that according to chapter VII of Act CXXX (year 2010) 'Magyar Közlöny' (Official Journal of Hungary)) has to be published as an electronic document on the governmental portal. This electronic publication must be accepted as authenticated document.

It is a requirement of electronic services that these should be simple, respectively simpler than the former traditional services. Otherwise a great part of their initiatives will be lost. Electronic services may also be quite new, formerly non-existent services. An interesting example is one of the innovations of the state-owned MÁV (Hungarian State Railways Company): the eMIG [7] – by this service the actual movement and status of trains can be followed. Apart from the data figuring on the map information is available on each train: departure and destination; probable delay and early arrival; and station data.

It is necessary to talk about regulations, too. Obligatory and generally applied regulations can be found everywhere. The electronic public administration is no exception either. As we live in a constitutional state, law-enforcement organizations and officers are responsible for law and order. The public transportation system is regulated the KRESZ (Hungarian Code of highway) at the same time for smooth operation and in order to avoid peremptory decisions the proper legal background must be created in e-administration, as well.

According to the above it may be stated: a well-functioning e-government must have a stable basis of 4 pillars. These pillars are [8] :

1. regulations and processes: no territory can be found where regulations are not needed, no processes are elaborated and the e-government is no exception either
2. human abilities and culture: it is necessary to form the digital literacy of the citizens and enterprise employees
3. ICT infrastructure: increase of the number of internet accesses and improvement of their quality is imperative
4. organization: precondition of an Information Society is the proper organizational structure corresponding to the challenges of an Information Society. The organizations, their tasks, their legal sphere of activity and responsibility, furthermore their hierarchy of their organizations has also to be clarified.

STATUTES, STRATEGIES AND RECOMMENDATIONS OF E-GOVERNMENT

For the application of ICT systems in public administration there are two types of regulations in Hungary: general IT regulations and special ones [10]. Statutes not specifically applied in electronic public administration are called general statutes (e.g. act on electronic signature). While those specifically applied in the electronic public administration are the special statutes. Some important statutes concerning electronic public administration in Hungary are:

1. Act XXXV of 2001 on Electronic Signatures
2. Act CXL of 2004 on the General Rules of Administrative Proceedings and Services (Chapter X.)
3. Act LX of 2009 on Electronic Public Services
4. Act CLVII of 2010 on Enhancing the Protection of Public Registries Belonging to Public Digital Assets
5. 222/2009 Decree of the Government on the Operation of Electronic Public Services
6. 223/2009 Decree of the Government on the Security of Electronic Public Services
7. 224/2009 Decree of the Government on the Identification of Clients of the Central Electronic Public Services and on the Identification Services
8. 225/2009 Decree of the Government on the Electronic Public Services and the Utilization of the Electronic Public Services
9. Act LXIII of 1992 on the Protection of Personal Data and the Disclosure of Information of Public Interest (i.e. 'the Data Protection Law')
10. Act IV of 1978 on the Criminal Code

Hungary started the establishment of its electronic public administration system on the basis of electronic strategy defined by the government in the past years. The results of this are the above mentioned statutes. Although, as compared to the situation of 10 years ago, a great number of statutes were brought concerning the electronic public administration, however these are not yet complete. There is still much to be done for a real electronic public administration, and statutes are only a part of the tasks to be done. This was recognized by the present government and therefore the digital renewal action program was created, hoping that the realization of this plan will speed up the evasion from the economic crisis and to pave - among others – the road of the future of electronic administration for the coming years [11]. According to the planners of this action program, in a short time significant improvement can be achieved in quality of life by securing access to the up-to-date ICT infrastructure furthermore on-line contents and services. The short-time expectation can be accepted, but unfortunately the number of digital illiterates is rather large. Digital illiterates can only enjoy a small part of these advantages. Fortunately, the aims include the plan of transforming the majority of the population into digitally literate persons and regular internet users.

The center of the action plan is the citizens, the enterprises, the public administration and development of ICT infrastructure. All of these are indicated in 83 proposed measures, and in contradiction to former IT strategies this action program covers not only specific territories but also a complex unit with actions and proposed measures connected to each sector. However, in order to achieve success the importance of ICT should be introduced with identical importance in each sector's action plan and concept.

As we are an EU member state we have to act in accordance with the endeavors of the European Union. One of these is that by the end of 2013 broadband internet should be accessible everywhere. Because the digital illiterates probably won't take advantage of the ICT technologies available, they are not going to subscribe for a broadband internet access for home use, because they will not be able to utilize it. They will probably ask somebody else to do certain things for them. It is therefore advantageous that the teaching of ICT is planned to be carried out not only in schools but for adults, too. Summarizing: we can state that such an

action program was needed by the whole country. Although this action program contains ideas that have already been reconsidered by the government itself (e.g. who will be responsible for managing data elaboration tasks of the national data property), however, it is hoped that the government will continue to act in the same spirit, will succeed in observing the deadlines, and further sector's action plans and proposed measures will also be outlined.

Following the statutes and the action program we have to mention the recommendations, as well. The Information Technology recommendations, as it is indicated, were not prepared as obligatory instructions. These are not summaries of special regulations but represent only short requirements and summaries of alternatives elaborated by experts of great experience in this field and to be understood by everybody.

Some recommendations concerning public administration of the former Public Administration Committee for Information Technology (in Hungarian: KIB – Közigazgatási Informatikai Bizottság) are:

1. KIB's Recommendation No 19 on internet activities of central governmental organizations (in Hungarian: KIB 19. ajánlása: A központi államigazgatás szervezeteinek internet-tevékenységére, valamint az általuk működtetett honlapok tartalmi és formai követelményeire 3.0)

2. KIB's Recommendation No 21 on technical specification of 'Ügyfélkapu' portal and Official portal (in Hungarian: KIB 21. ajánlása: Az ügyfélkapu és hivatali kapu kapcsolódás műszaki specifikációja)

3. KIB's Recommendation No 22/1 on IT strategy of governmental institutions (in Hungarian: KIB 22/1. ajánlása: Kormányzati Intézmények Informatikai Stratégiájának készítése).

4. KIB's Recommendation No 22/2 on E-governmental strategies for local governments and smaller communities (in Hungarian: KIB 22/2. ajánlása: E-önkormányzati stratégiakészítési ajánlás kistérségek és önkormányzatok számára

5. KIB's Recommendation No 25 on MIBIK, MIBÉTS, IBIX (in Hungarian: KIB 25. ajánlás: MIBIK, MIBÉTS, IBIX)

6. KIB's Recommendation No 26 on Hungarian requirements for different electronic hardware (in Hungarian: KIB 26. ajánlás: A Magyarországon elektronikus azonosításra, hitelesítésre, aláírásra és elektronikus azonosítók hordozására alkalmas eszközök követelményei /HUNeID/ 1.0 verzió)

7. KIB's Recommendation No 27 on Directives for electronic application of forms of public administration (in Hungarian: KIB 27. ajánlás: Útmutató a közigazgatási eljárások során használt nyomtatványok elektronizálásához 1.0 verzió)

8. KIB's Recommendation No 28 on Collection of requirements in public administration system (in Hungarian: KIB 28. ajánlás: Az e-Közigazgatási Keretrendszer projekt eredményeként létrehozott Követelménytár)

9. KIB's Recommendation No 29 on Cost-profit analyses of electronic public administration (in Hungarian: KIB 29. ajánlás: Az elektronikus közigazgatási projektek költség-haszon elemzéséről) for details see Bibliography annex, details according to ...page...

As ICT means and systems are developing, more and more experience will be gained in connection with their planning, installing and operating, thus new recommendations or the updating/revision of the older ones will be necessary. After months and years the revision is required because when taking the recommendations into consideration it happens or it may happen that experiences may be gained that have to be included into the revised recommendations. Furthermore problems may occur that should be or have to be eliminated, therefore revision can also help in avoiding future problems and troubles. It has already happened that certain elements of the recommendations have been included in statutes.

The EU has also been interested in economic, social and environmental protection renewal, it is no wonder because development is in everybody's interest. For this purpose the EU has elaborated several action programs and carried out these more or less successfully.

Some programs, action programs, action plans and strategies of the European Union in connection with the formation and development of Information Society) are:

1. IDA (electronic Interchange of Data between Administrations) program
2. e-Europe 2002 Action Plan
3. PROMISE program (Multi-annual Community program to stimulate the establishment of the Information Society in Europe)
4. e-Europe 2005 Action plan
5. MODINIS program (this program provided financial support for the implementation of the e-Europe 2005 Action plan)
6. i2010 European Union policy framework – a European Information Society for growth and employment
7. Europe 2020 Strategy– the European Union growth strategy for the coming decades (Digital Agenda for Europe is one of the seven flagship initiatives of the Europe 2020 Strategy)

SUMMARY

Because of the introduction of ICT means it can already be seen that the speed of administrative work is becoming quicker and quicker. E.g. a tax declaration can be presented to NAV (in Hungarian: Nemzeti Adó és Vámhivatal, this is the National Tax and Customs Administration of Hungary – formerly APEH, in Hungarian: Adó és Pénzügyi Ellenőrzési Hivatal, i.e the Hungarian Tax and Financial Control Administration) within a minute by applying the filling-in program of NAV. This program is able to communicate directly with the 'Ügyfélkapu' portal (official governmental portal for electronic public administration). The confirmation of dispatch will be received immediately from NAV. In such cases we must remember our fellow citizens, who are presenting their tax declaration in the very last minute and have therefore to queue up for hours at the Post Office for mailing their declaration in time. However, it's very probable that they will not change this procedure in case of electronic dispatch either, but it must not be forgotten that too many late mailers may overload the system and they will miss the deadline if they postpone their obligations to the last minutes.

Another example is that the activities of the Office of Government Issued Documents have also been speeded up. Urgent passport applications may take only 3 hours [12].

It is expected that the number of different cards (ID card, Driving license card, TAJ card - Hungarian health insurance card) issued by the government will be reduced already by the end of this year). It is planned that a unified national card system will substitute the former ID card, Driver's license card, Health Insurance card etc. in the future. Actually, with the exception of the passport nearly all (5-6 pieces) documents issued by the authorities will be included in this newly planned document. In consequence of this the administration of office work will become simpler and citizens will have to carry fewer documents with them and last but not least the costs of the government can be decreased.

Considering the above, we have big steps in front of us. Not only the government but we, the citizens, have to take these big steps in order to enable our nation to keep up pace with the requirements of the 21st century and to create a better world for us. It is important that we should want and be ready to accept new developments. Let us be open and not be afraid of learning. We have reached a point where intelligent buildings (houses, offices, institutions,

etc.), public utilities, schools and transportation will assist our everyday life. It is important that all these should not be auto telic but should assist our lives.

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