Abstract - State governments, through the digitization of services that have been provided through conventional ways, have made possible to the citizens and businesses to find and use information and services electronically. Through the formation of e-government portal, as a single point of access to services, governments have greatly facilitate business and communication between relevant institutions and stakeholders. Subjects can be informed, they can download forms but also they can realize services using portal. The above is made possible with the clear objective of removing barriers that are an integral part of the administrative system. In this paper, we will give a brief theoretical review of the concept of operations of the state administration in the provision of services through e-government portal, starting with the concept and definition of e-government, with the goals of this concept, to the benefits of its application from the perspective of the citizens and business as users, and the government itself as provider. Also, the paper aims to present and analyze the level of realization of services provided at e-government portal in Montenegro, and also to identify possible problems and give recommendations for further improvement of the same.

Key words: e-government, public services, one-stop-shop, portal

I INTRODUCTION

Significant changes that have occurred in the field of information and communication technologies development in the last two decades have influenced the change in the earlier paradigm of business. The development of the Internet and the emergence of a growing number of companies using the Internet as a means to reduce costs, but also to save time, was one of the main impulses that influenced the governments of a number of countries to launch a variety of electronic services that are needed to facilitate the operations of private business, and ultimately through the development of entrepreneurship and the private sector to become more competitive in a growing global market.

Realizing that the development of information and communication technologies opens up a space for exchange, by nature inefficient bureaucracy portals with modern electronic government, many states are deciding to withdraw the move to facilitate access to its services for a large number of citizens and companies. With digitizing a large number of processes and procedures the states have been able to influence the increase of efficiency and productivity of a large number of services, which ultimately had a positive impact on the development of the business environment in their economies as well in improving the competitiveness of the economy as a whole.

Modern public administration is significantly different from traditional public administration. Although many factors have contributed to the steady transformation of the work, it is clear that the initiator of the all changes was the use of information and communication technologies (ICT) in the daily work of the governments and its agencies. Traditional public administration is largely recognized under the concept of bureaucracy, and bureaucracy is by definition inefficient. The application of knowledge management in public administration leads to its higher productivity, and thus the competitiveness of the national economy. It is this shift that marked a new era in the work of public administration, which is now known under different terms, such as an electronic public administration, networking governance and the like. The aim of these efforts and initiatives is to move closer to services and intensifying communication of public administration with citizens and representatives of industry, bearing in mind above all, the increase of the efficiency and transparency of the process.

Governments and public sector organizations around the world are trying to combine basic, but often conflicting, demands: to provide better, more relevant public services that are focused on the needs of the citizens and businesses they serve; to reduce costs but also improve the efficiency of their operations; as well as to change and improve their supply chains in order to create processes that are quick, cheap and effective.

However, the application of technologies and advanced technological solutions is not the only solution to the implementation of electronic governance. The technology is now available especially when it comes to small countries which did not require large investments in
infrastructure and services. It is necessary to bear in mind the extent to which people own a computer, from which place they most commonly use internet services, what kind of equipment they use, which is the level of internet penetration, what kind of public key infrastructures is, whether digital certificates are available to the average user and the like.

If governments want to get liberated of the growing internal and external pressures, they need to review, redesign and optimize its services, and to put the users - citizens, businesses and NGOs - in focus, i.e. center of their operations, rather than the needs of government organizations and service providers. Also, they need to shift from outdated business models, management, culture, technology and processes that are inherited from some prior periods quickly and efficiently. This transition will involve destructive and very painful changes from closed, top-down, bureaucratic and paper-based transaction services to online, integrated digital offers that will encourage and enable a new way of interaction between citizens and the state.

II THE CONCEPT AND DEFINITION OF E-GOVERNMENT

E-Government or e-business in the public administration is the use of information and communication technologies combined with organizational changes and new skills in order to improve the delivery of public services, increase of democratic participation and involvement of the public in decision-making and policy-making processes [11]. So, e-government use modern achievements of information and communication technologies in order to provide greater productivity and heterogeneity of its activities, in order to meet the needs of citizens. Defining the concept of e-government, it is clear that it has adopted the famous marketing concept: in the focus of marketing management must always be the consumer himself, or transferred to the field of e-government: the focus of the public sector is a citizen. On that basis, it is clear that the modern public administration is highly qualified, initiative, solid, responsible and efficient network of public services. The most important consequence of the introduction of information and communication technologies in public administration is the elimination of physical contact between the users and service administration, and increased efficiency and transparency of the public sector. Performing numerous procedures online, either citizens or legal persons, represents a tremendous savings in time, and that is the most valuable resource in the possession of any individual or business entity. In addition to increasing efficiency, public administration with the introduction of ICT in the work contributes to the creation of new skills that are expected of employees in the public sector, thus changing the situation on the labor market.

There are different approaches when it comes to measuring the level of e-government development. If we focus on the concept of e-governance, it is possible to analyze the different levels of maturity of e-Services, e-Management, e-Democracy and the like. Most of the measurements tries to encompass all of these questions, but the scope of the analysis is often narrow and restricted. As long as it comes to the used methodology, the assessment is carried out by combining several techniques including web research, questionnaires, face-to-face interviews and the like. However, reliable and relevant measurements can provide key inputs to point to policy makers and practitioners to chances but also the problems they may face and to help them, in this regard, to focus in the right way.

One indicator of the level of development of e-government is e-government index, developed and administered by the United Nations, which is widely recognized as the authoritative measure of the capacity of the public sector in the provision of electronic and mobile services. According to research by the United Nations for 2014 [12], the index of development of e-government (e-Government Development Index -EGDI) for Montenegro has shown that Montenegro is in the category of high-income countries (High EGDI between 0.50 and 0.75). According to these data, it is considered that there is considerable scope and opportunity for Montenegro to continue the development of e-government. Government can achieve the development of e-government with implementation of clear strategy, continuous investments in primary, secondary and tertiary education, as well with the radical transformation in the offer of online public services available to citizens.

With the aim of easier facilitating the functioning in the world of internet, variety of platforms have been created. The purpose of their creation is to allow everyone access to services and portals. That is why it is necessary to allow everyone access to the Internet, and then make most of the work available online, for which it took a long time to finish in the real world, which will ultimately save time and make customers satisfied.

III DEVELOPMENT OF E-GOVERNMENT IN MONTENEGRO

In late 2010 the European Commission adopted the Digital Agenda for Europe as one of the seven most important initiatives of the European strategy 2020, which was established to define the key role of information and communication technologies in social and economic development of the country. In this context, the main goal of “Information Society Development Strategy 2012-2016. - Montenegro digital society”, which is the most important strategic document that defines and provides a road map for Information Society Development in Montenegro, is planning activities that will maximize the social and economic potential of ICT, especially the Internet as an important means of economic and social activities [11].
As one of the priority areas of Information Society development, this document has recognized the development of e-government. Through the use of information and communication technology, substantially will be improved the delivery of public services with improvement of democratic participation and public involvement in decision-making and policy-making. The main goal of e-government is to increase the availability of public services to citizens and businesses. It should also enhance the effectiveness of state management, as well as to enable it to have better insight into the allocation of economic and social resources. Through efficient interaction of all participants - state, private and corporate customers - will stimulate political, social and economic development of the country.

Respecting the guidelines defined in the policy document for the development of information society in Montenegro [11] as well as EU standards, with a goal to implementing e-government, in Montenegro was developed web portal www.euprava.me who has aims to bring together in one place, consolidate, and enable electronic realization of services used by citizens, businesses and employees in the state administration.

IV ANALYSIS OF THE E-GOVERNMENT WEB PORTAL IN MONTENEGRO

Ministry for Information Society and Telecommunications of Montenegro has implemented the project of development and realization of internet e-government portal - www.euprava.me. The institutions of state administration and local government units are providing via the aforementioned portal services to citizens and legal persons, as well as other institutions, by electronic means.

Web portal is a unique platform that provides (some) electronic public services offered by public administration. The basic principles on which web portal is built are: security, control, simplicity, transparency, services created by the user's needs, scalability, flexibility and adaptability looks, adapting to people with special needs, in person, and for anyone, anytime-anywhere, connect with other systems [15]. It is a unique place on the Internet where you can find all the public services offered by public administration. E-government services are available 24 hours 365 days a year. The aim of the implementation of the e-government portal is to provide an easier, cheaper, more transparent communication between government and citizens, government and companies and government agencies themselves. The government today operates through networked databases, and automated administration, which represents the essence of e-government. Therefore, the goal of e-government is to improve service delivery to citizens, and thus save time in a manner which will provide their services via the Internet.

E-government portal has started on 7th of April 2011 in cooperation with the five state institutions with the initial operation of the 12 services. Currently web portal provides 77 electronic services, which provide 25 institutions. The portal is based on a one-stop-shop system (all services in one place for the user), along with a complete or partial re-engineering processes and operations. In addition to the information and services on the portal grouped into three categories, such as services for: citizens, legal entities/businesses and government officials, information and services on the website are grouped in several ways, so that users can easily access the desired services. Information on this website is grouped according to the situations of life, in order to follow all significant situations of citizens (education, business, issuing documents, etc.) or legal entities (business and labor, document, finance, etc.).

Moreover, services within the portal euprava.me are defined through three “statuses” ie. the degree of realization, which are:

- informative services - services that provide users with information on how they can be implemented in a physical way, whether they are necessary and which documents, what it the competent institution which implements the service, etc. These services can not be realized electronically.
- electronic services that can be realized through the portal euprava.me, and can be done in two ways:
  - registering by e-mail adress
  - signing with the digital certificate

Depending on the type of the service, the portal supports the following system users: anonymous users - users who access the portal anonymously, without prior registration and they are allowed use of the services of the state administration on the level of information about procedures, contact details for the implementation of procedures and other necessary information about the institutions, as well as all the information of public importance which have the character of free access; registered users by e-mail - users who access the portal by registering the mail address, without the use of qualified and valid certificates; portal enables the use of government services, in addition to obtaining information, at the level applying for services that do not require digital signatures; and registered users - users who are accessing the portal with qualified and valid digital certificates. Registered users may be individuals, legal entities and civil servant who use the services of the portal as well as authorized officials of the relevant institutions (employees of public institutions) responsible for providing services and the provision of services on the e-government portal. Registered users can register via the following system users:

1 Post of Montenegro is qualified Certification Body in Montenegro managing public key infrastructure (PKI-PoštA) for public needs of Montenegro. As part of the PoštA-PKI for the purpose of providing certification services is established certification body with a Single Rooted Certification Authority - PoštA-Certificate Authority Authority - PoštA-GCA, which issues qualified
Registered users are employed by the institutions in charge of public services have assigned corresponding rights that are recognized by the portal, and depending on the rights, they can set up the service of the state administration, create electronic forms on the site, track user requests, administer electronic public debates on the Portal and the like. Portal keeps a history of all activities and identities of all participants in the process [19].

Taking into account the level of development of e-government portal services, for this study was conducted a web research of the euprava.me portal, through an analysis of the number of available services, as well as the extent to which the services are developed. Bearing in mind that the services can be informative, and that can be electronic services that can be implemented by logging with e-mail or using a digital certificate, we have, for this study, used these three categories for "evaluation" the level of implementation. In addition, we have analyzed it in terms of categories of users that use the available services.

Bearing in mind the above mentioned, although that 77 services are available on the portal euprava.me, information on the degree of realization of these services show that 36 service are developed just to the level of providing information, while the 41 service can be realized by electronic means (including 20 service using digital signatures and 21 service through registration by e-mail). When it comes to the services that are informative, 8 services are related to the services for citizens, 23 are services for business entities, while only 5 services are for employees in the state administration. For services that can be executed electronically and using a digital certificate, the six services are for citizens, 12 service are to local businesses and 2 are related to the services of Public Administration. On the other hand, of the services that can be done electronically by registering by e-mail, 21 are for individuals while for businesses and government officials are still no services in this category. Although it is expected that the businesses are the main users of electronic services, more of such services (which may be executed electronically) are developed for individuals. On the other hand if we analyze the types of these services, it is not surprising, bearing in mind that the services on the portal and divided by the institutions that offer them, and that a significant number of these services for individuals that can be realized by registering an e-mail are just service request for free access to information (portal has 14 such services). The data are presented in Table 1.

![Figure 1. Distribution of the services based on users and level of implementation](image)

The fact that there are more services that can be implemented using digital certificates are developed for businesses and employees in the state administration is fully correlated with the current state of development and use of digital certificates in Montenegro, bearing in mind the high cost of certificates, as well as the level of use and the citizens need to use a certificate.

Thus, the same number of services is developed for individuals and legal entities, although the distribution by way of provision of services is different. In addition to these services, which can be implemented in any of the three modes, the portal also lists the services for which there is no information, following: 13 for individuals, 14 for businesses and one for employees in the state administration. Also noticeable is that the particular service in parts of legal entities and individuals coincide, as for example Statistical data. In the category of individuals this service is not developed while in the category of legal persons it is developed. When it comes to the category of administration that is employed in the state administration, there are many services that are supported by the portal, but the state administration only
needs to work on its expansion, which would imply better coordination between the state institutions.

Analyzing Monstat data, which state that in Montenegro Internet penetration is 60.3%, this means that around 400,000 citizens of Montenegro have access to the internet and the possibilities it offers [17]. In accordance with these data, the number of laptops and PCs in households was around 80% and the number of mobile phone users as much as 90%. All these data suggest that in Montenegro all households do not own a computer, but has at least one mobile phone. When talking about the e-government portal, it can be concluded that the approach to it is not possible for about 40% of the citizens of Montenegro due to lack of internet access. However, the fact that the penetration rate of mobile telephony is constantly growing, and that penetration in the fixed-line declines, shows that an increasing number of users opt exclusively for the use of mobile telephony. Every citizen has an average of 1.6 mobile phone which, from the aspect of the e-government portal, is a good predisposition to increase the degree of usability services. Also, while retaining all the functionality of Web versions of the portal, there is developed a mobile version of the portal which give access to the portal via WAP and XHTML web browser with mobile phones. At this time, the portal offers access to the system via the email address and password. Full realization of the mobile version of the portal will be realized after such a system (electronic certificate on the SIM card mobile phone) is developed by some of the operators in Montenegro.

Action Plan for the development of information society [14], that follows strategic document, defines the objectives for the development of e-government, which implies that by 2016, 50% of the citizens of Montenegro and 80% of companies need to have benefited from e-government services. Also, one of the tasks defined in the “strategy of Information Society 2012-2016” is that the 100 most frequently used government services will be available on the website until 2014 and the 200 most commonly used services will be available until 2016 [11].

Although the portal of public administration is faraway from the defined guidelines and objectives, it is clear that such activities are conducted both in the promotion and improvement in order to be recognized as a unique access point, as well as to make portal and services available for all categories of users to use the services at the highest level. This is supported by the fact that the Government of Montenegro, in January 2015, adopted a “Program of Economic Reforms in Montenegro for 2015-2017” which defines specific objectives and measures towards the development of e-government in Montenegro. Although the analysis of the state of e-government from 2013 showed that the total level of sophistication of e-Services in Montenegro is below the average of all EU countries, the commitment to the realization of defined measures from the Program of Economic Reforms, technical and normative preconditions for its implementation (the portal of electronic government and the Law on e-government) that are created, are the guarantor for improvements in this area. In contrast to the positive trends stand resistance of the administration to change and resistance to centralized access to services in the state administration over the e-government portal as well as the identified risks to the achievement measures. According to the Law on e-government, state authorities, state administration, local government, public services and legal persons exercising public powers are obliged to, within about 18 months from the date of entry into force, all the services they provide to citizens and businesses available and electronically through the e-government portal. Although there are currently available 77 services on the e-government portal, which provide 25 institutions, the structure of the services are not satisfactory, and insufficient number of services relating to business and civil rights is available, which is the most measurable in terms of administrative barriers. In this sense, through strategic documents, action plans, reports on implementation of action plans as well as economic reform plans, the intention is that the more
services (relating to key life events, both for individuals and for businesses and employees in the state administration) is available online through the e-government portal.

V CONCLUSION

Technological progress has influenced to a governments facing the challenges of maintaining and directing the development of e-government until there is great uncertainty to a rapid technological change. Therefore, it is very difficult to predict the detailed impact of future policies. New technologies are very attractive because they often promise better solutions and create an environment in which certain business changes can happen. More often may, however, they promise solutions that include facilitating the implementation of information technologies without changes of their own business processes. Experience shows, however, that systems that are built on the unknown and emerging technologies are very susceptible to failure. In some cases, potential benefits may justify taking such big risks; but in most situations this is not the case.

E-government is a government that recognizes the opportunities and impact of information technology on management in terms of the digital economy and that makes maximum use of them to improve internal processes in order to provide high quality services and the establishment of management oriented towards users. As such it has to provide: effective realization of the rights and interests of citizens, the protection of human rights, the protection of public interest, improving the quality of life of every citizen, efficient and professional self-control and quality preparation of the law.

Montenegro is following current trends in the information economy which is confirmed by a strategic documents and concrete activities on economy which is confirmed by a strategic documents. However, in order to let the country became part of the information society, there are other institutions that will focus on particular segments of the electronic development. No matter what the e-government portal now has 77 services, it can be concluded that the administrative authorities have not recognized the importance of this portal and the benefits it provides in communication with citizens and businesses. The number of existing services in Montenegro is not entirely satisfactory and requires dynamic development of electronic services. As for the assessment of public administration services, they can be improved by adding the most current information and forms on websites. However, for significant progress in the development of e-government it is necessary to develop the back-office applications, which are reflected in the fact that it will provide services for users, realization of registers, integration of information from databases as well as a larger number of users of a service which will ultimately increase the value of the portal.

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