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THE INCREASE OF THE SPEED OF INTEGRATION OF ONLINE SERVICES FOR CITIZENS THROUGH STANDARDIZATION OF MUNICIPALITY PORTALS

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ABSTRACT

In recent years, development of E-Government has taken a great leap across the world. With the constitution of the local self-government institutions in Kosovo, the basement for online services within E-Government was also introduced. The aim of this paper is to show how to increase the speed of integration of services for citizens onto municipality portals. Our work is concentrated in local government processes. We have presented benefits of standardization of municipality portals for integration of all services for citizens. We use Web Services as a part of development to do this integration. Also, we used Web Services to collect data from municipalities and present them to the central administration, to ease this way performance measurement of local institutions in real time. With this solution, central institutions can take information about how the local institutions are performing to fulfill the needs of citizens.

Keywords: Increase of speed, e-Government, Web Services, services for citizens, municipality portals

1. INTRODUCTION

Development of Information Technology has helped the realization of different services for citizens, making this way the process of getting services quicker and much easier. This was enabled by Internet, through which the people can access to their services. The need for efficiency has made us to think of how to solve the problems the people are facing in everyday life and how to solve those problems by using Internet. The standardization of municipality portals has involved a need for having services with fast speed in all municipalities of the Republic of Kosovo. The method of how we made this standardization will be the focal point of this paper. The realization of communication among other systems has been enabled by using Web Services, which provide an easy possibility for reporting data for central institutions, providing their performance to their respective hierarchy.

2. E-GOVERNMENT IN KOSOVO

Seeing the progress of E-Government in the European countries, and since Kosovo is pretending the integration in European Union, it's been identified the need for these developments in our country, too. For this, Kosovo institutions have introduced a strategy for E-Government. After a lot of efforts

and after visiting some European countries where the E-Government it's being implemented, Kosovo Government has approved a strategy for E-Government 2009-2015 [1]. We are trying to implement best practices from European countries and also to avoid any problem that these countries were faced with during implementation of E-Government.

E-government system helps to improve the public administration sector, the effective application of new management systems (subsidiarity, efficiency, productivity), as well as the adoption of modern management problems, the challenges of increasing efficiency and reducing costs. [2]

3. THE ADVANTAGES OF UNIFYING MUNICIPALITY PORTALS

Standardization of municipality portals has a great importance in providing services to citizens, because for citizens to address one of their needs, they have to go to respective institution, and to get information where to go to get their service done. This way of going from one institution to other, and from one office to another one, is very tiring for residents, and also depressing for municipality officials. The purpose of unification of services to citizens is not invented by us but is a European standard for countries were the services for their citizens are very important, so the citizen needs are in first place. Standardization of municipality portals is done by using same Content Management System (CMS) for all municipalities. Unification of technology and standardization of content of these portals provides a possibility for easy maintenance for all officials working with it. This has provided a lot of benefits for rapid integration of services, by respecting all legal norms in Republic of Kosovo, that all local portals to be located within the institutions that are responsible for implementing E-Governance. Situation before the standardization of portals in the municipalities of Kosovo didn't allowed the integration of services, because different technologies were used to build those portals and also because of non-respecting legal rules applied here. Taking into consideration these factors, was born the need for unification of the municipality portals and placing them in institutions that are responsible for these portals management. After some good efforts, first results are shown.

The problems of unification were also in Slovenia because there were a lot of portals offering different services for citizens, with no standard used for offering those services. [3]

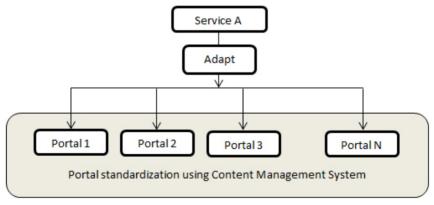


Figure 1. Standardized municipality portals

On the other hand, these portals do not offer services more than a static newspaper presentation and cannot be integrated with other services. By using CMS the process of standardization has become easy and efficient one. Figure 1 presented the unification of portals where can be seen that it is easy to add or modify new institutions. We compare this model, with the model in figure 1 with non-standardized portals; we can see that with standardization the citizens can find much easier their services without needing to go to other municipality to get documents. While in Figure 2 is shown how to integrate a service, for each portal the service must be adapted regarding development platforms, functionalities and designs.

On the other hand, with the unified portals, the service is adapted once and it is used to all portals. Of course this is much easier for development and for the institutions to maintain the portals in very efficient way.

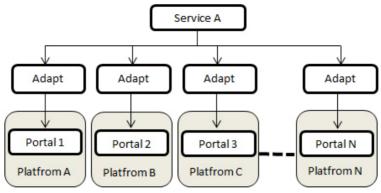


Figure 2. Non-standardized municipality portals

4. REALIZATION OF COMMUNICATION BETWEEN CSC AND CMS

Improving government efficiency and effectiveness associated with the provision of basic public services for all citizens are essential components necessary to achieve expected goals [2]. Now we will present the communication among municipality portals that are placed in one central CMS, and on web application that serves the administration to handle citizen's services. This web application is called Citizen Service Centre CSC and we will use this name from now on. To achieve the unification of services for citizens, we should first consider the standardization of a point of contact with citizens in municipality object, so to have an input/output point for addressing citizen's needs.

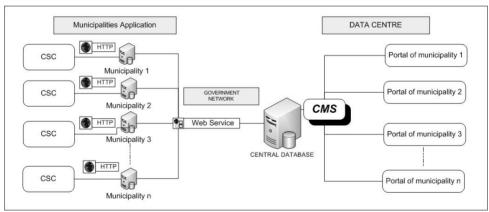


Figure 3. CSC-CMS communication scheme

This office will serve as an information point for all citizens.

In figure 3 it is presented schematically the realization of communication of these two systems. Here we can see that to interconnect these two systems we use a Web Service that communicates with central level of administration that has to get and to send data from central level database to local databases and vice versa.

We can see that the speed of integration of the services is much faster than with non-standardized portals, because of different technologies used there, with every portal with its own database. By creating the possibilities for citizens to get services online, we increase the confidence of citizens in electronic government.

This also increases the interoperability. Interoperability is ability to exchange information, knowledge and experience between institutions. [4]

5. THE GOODS THAT BRINGS STANDARDIZATION

5.1. The increase of quality of services

By using municipality portals, the citizen can see the status of the document that has applied for. Also the citizens are closely related to the information that is published by municipalities. The report of data from municipality servers by using Web Service in central server increases the efficiency of the management by eliminating the redundancy of data media disconnection. This enables that decision taking to be supported with actual and correct data in any time from every place that has access to the internet

5.2. Reliability increases

Standardization improves the flow of information with accuracy, fast speed and security. Transparency with the active involvement of citizens establishes credibility between citizens and municipalities. Also offered services from municipalities helps the citizens with special needs. Municipalities through this standardization will be increasingly closer to the citizen and to his own involvement in decision making.

6. MEASURING THE PERFORMANCE FROM THE CENTER OF SERVICE

The main purpose of all this is to have a measurable administration in delivering services to citizens, collection of data in the center allows the supervisory institutions of municipalities measurement of services that municipalities offers for their citizens, in our case the municipal administration services provided through the CSC.

7. CONCLUSION

From all that has been sad in this paper, we can conclude that through the standardization of local portals we will have a fast speed of offering services to the citizens. This enables that citizen can find the service more easily and quickly in all portals of municipalities. In addition, redundant jobs are eliminated by means that there is no need to create Web services specific to each portal, but only one Web service that is used it in all portals. Measurement of performance for each municipality from the supervisory institution helps provide accurate observations and recommendations. This simultaneously increases the efficiency of municipal administration in delivering services to citizens.

Now, it remains to proceed with interconnections of municipalities with each other and the manner of their realization

8. REFERENCES:

- [1] E-government strategy 2009-2015, http://kk.rks-gov.net/mapl2/Files/mshp_08.aspx (30.05.2011)
- [2] M.Afanasjev.E-government projects in Lithuania: Problems and Prospects.
- [3] Tina Jukic, Mirko Vintar (November 2006) E-government: the State in Slovenian Local Self-government –
- [4] Lithuanian e-Government Interoperability Model Rimantas Gatautis, Genadijus Kulvietis, Elena Vitkauskaite, 2009