Registration of motorvehicles and proposed improvements E-Government portal

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Abstract
E-Government is to automate the process of new styles of management, strategy and conduct business. Facilitates the flow of information and significantly exceeds the physical barriers of traditional systems. As one aspect of the use of electronic administration, in this paper we will be based on the extension of the registration of motor vehicles through the E-Government portal of the Republic of Serbia. The aim of this work is to improve the service with certain proposals that facilitate the communication between the Interior Ministry and the citizens. The work consists of five chapters and conclusion. Chapter one is an introduction, the second is proposals to improve, the third is infrastructure and the trust of users, the fourth is smart government with m-government and the chapter five is the application for mobile devices. The conclusion is that the modern state consists of strong and centralized e-government, with innovative solutions.

Keywords: Smart City, Iot, m-government, app.

1. Introduction
Material objectives of e-government are creating a better business environment, with customers whose time is respected, as well as the accuracy of the information. Strengthening good governance and greater citizen participation in it is one of the key conditions for the proper functioning. Other conditions, not as less important, are productivity growth and ensuring quality of life. Extension of vehicles authorized to the technical inspection of the citizens significantly facilitate vehicle registration without going to the police station. However, this service has a number of drawbacks that can be eliminated thus greatly facilitate the end users (individuals and legal entities).In fact, when we talk about private individuals, it is possible to issue a registration label on the authorized technical inspection the owner of the vehicle, and not the authorized person who has a valid and applicable authorization permanent, but the authorized person referred to the police station. We can conclude that this service can and should enable by persons who operate with such powers as appropriate qualified person acting on the above-mentioned tasks of issuing registration stickers on the authorized technical inspections(for these activities received decision of the Ministry of Interior) so that it can and known to the expert assessment . In simplification situations not even the owner of the vehicle can notget the registration sticker on the authorized technical inspection, but is referred to the police station. For example, the reason for this may be that the owner of the vehicle has changed his address on the identity card, expiration of ID card or a fictitious address. The lack of electronic services portal of e-government of the Republic

of Serbia is because in such a situation does not allow law graduate has insight into the reason why the owner of the vehicle referred to in the police as an additional dissatisfaction of citizens. In terms of legal entities, only companies can issue registration label. The first disadvantage is that in this category are not considered entrepreneurs'papers attached the same documentation as well as companies. Entrepreneurs only receive the registration sticker at the police station. Other lack of registration of legal entities through the portal of e-government is paying. Legal persons only do payments made through their accounts and their transactions was made visible, or MUP RS obliges legal entities that as proof of payment when you download the registration stickers and attach a certificate of executed payments, certified by the bank. This represents an additional effort and cost.

Intelligent infrastructures digitizing operations include constant monitoring of market dynamics, and e-government journey of transformation is relatively closed to public structures open to the public, with constant economic efficiency.

2. Improvement suggestions

- To municipalities, RS budget, the Institute for Manufacturing Banknotes and MUP RS as a state administration bodies can recognize made electronic payments and that does not require a certificate of payment. Therefore, facilitating the interests of the client (legal entity) as the end-user. An additional benefit of a legal person would be and firmer connection connectivity data between the RS MUP and the Business Registers Agency, it would be the keys identification number of each legal entity in the portal of e-government for car registration exactly know whether a particular entity exists in register of the Business registers Agency. In this way, to save time and cost of a legal person, because he would not be obliged to take over and enclose a copy of your APR when each vehicle registration.
- When it comes to vehicles owned by leasing companies, the portal of e-government does not allow the extension of registration even when it comes to "clean" the extension of registration when there is no change.
- The same applies to vehicles owned by persons with disabilities. In the interests of such persons, eGovernment portal should allow vehicle registration at the authorized technical inspection without going to the police station. Certain solutions that these persons were required to have the registration, namely the solution of physical damage, which is obtained from the Ministry of Labor, it is possible to link. This means that through the eGovernment portal enables the electronic receipt of the necessary documents required for registration of vehicles by public administration bodies.
- Starting registration of the house that faces that have chipped ID card with an electronic certificate.

3. Infrastructure and trust users

Digital certificates are providing funds to prove your identity in electronic transactions. This means that should assure friends, business associates, and online services that the electronic information they receive is authentic. After standardization, a digital certificate

is used in combination with the basic system of public encryption and is issued by a third party known as a verifier. This third party certification has the responsibility to verify the identity of the certificate holder, as well as to provide a reliable way of doing business. Digital certificates have two basic functions. First, to confirm that the people, websites, applications, network resources (servers, routers ...) a reliable source on the question, who or what they claim to? The second function is to provide protection of data exchange between the user and the web site, or mobile applications. Electronic certificate containing the CA (Certification Authorities) identity, the identity of the owner, the owner's public key (public-key), confirmation of the date of expiry of the CA and the signature of the certificate. Leading companies that provide digital certificate, such as RSA, Thawte and Verising, as global service providers provide various certificates, such as SSL certificates (Wildcard SSL certificates), SGC SuperCerts and Extended Validation SSL certificates. In addition, they are based on supporting digital contexts such as Extended Validation, two-factor authentication, identity protection, management of network security, public-key infrastructure (PKI), security consulting and a variety of other solutions for intelligent communications. Public-key infrastructure (PKI) is the management and distribution of certificates to system wide testing system eng. wide-ranging authentication, which provides encryption services, integrity and service without rejection eng. non-repudiation services. Such infrastructure provides the basis for the formation of PMI (Privilege Management Infrastructure), as well as their interoperability with the possibility of full autonomy both infrastructure and independent management. Combined use certainly contributes to increasing confidence among users (Katsikas, Lopez and Pernul, 2005).

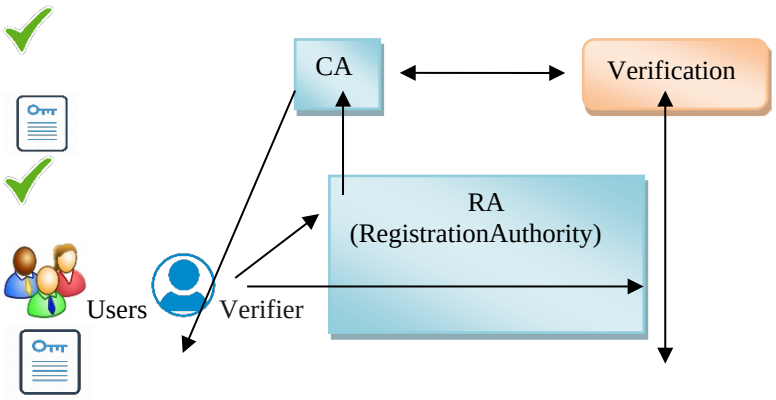

Fig. 1. PKI (*Public-key* infrastructure)

Analysis of confidence in e-commerce, is a process that continuously monitors and participates in the development of intelligent systems. So dynamic management processes have the advantage, in other words that the dynamic nature of trust changes credibility value of an entity assigned to it, with confidence, with the passage of time in different terms (Dillon, Chang and Khadeer, 2004). The concept of e-business, is a business model that should be better to harmonize the implementation of the needs of all the participants, who are on the Internet rely on PKI as a security mechanism. Setting the SSL (Secure

Sockets Layer) and the exchange of public keys is the basis for mutual authentication process. This process begins with an e-commerce customer contact e-commerce server to initiate secure communication using X.509 digital certificate and sending automatic SSL number. The data is then client. If the server after validation of client information can perform a successful authentication, the client begins with a single session to encrypt all communications with the server using asymmetric encryption. Server decrypts session using a private key and realized SSL secure communication. Then using a symmetric encryption is much faster than asymmetric. When the session ends, the key to eliminating (Rattan, 2010). PKI architecture provides a time stamp, or if certain sessions last longer than the scheduled time, the session is terminated and the client can only start a new session. Also, customers can enjoy security and so as to eliminate malicious transactions, in accordance with legal regulations.

4. Smart Management

Finding ways of functioning smart administration (Smart Goverment), in cohesion with Technological solutions, requires transformational policy of e-government, to productivity, innovation and openness. The social and economic benefits, which is achieved with this approach, reinforcing the general public to gain insight into the formation of platforms SC (Smart City). The dilemma in the context of performance measures, whether that access is widespread or limited to the management, is the key issue to governments around the world. On the other hand, the cultural challenges that affect the decision, requiring the participation of Citizens, as well as co-productions. Such interaction allows the government to identify the needs of citizens and to coordinate how with them and with the various agencies. In this way, the conditions are created for the social capital in the formation of ideas about the SC using ICT to improve the democratic debate about what the city wants to be and what its people want to live (Hollands, 2008). Smart administration as advanced e-government includes the concept of mobile services, and m-government (M-Government), which is focused on mobile devices, which are connected to a wireless network and used to deliver e-services (Lallan, 2008). M-administration has four levels of communication: interaction between government and citizens (M-Government to citizen mG2C), interaction of the government and business (M-Government to business mG2B), the interaction between the government and employees (M-Government to employee mG2E) and interaction between government agencies (M-Government to government mG2G) (Kumar, Hanumanthappa and Reddy, 2008).

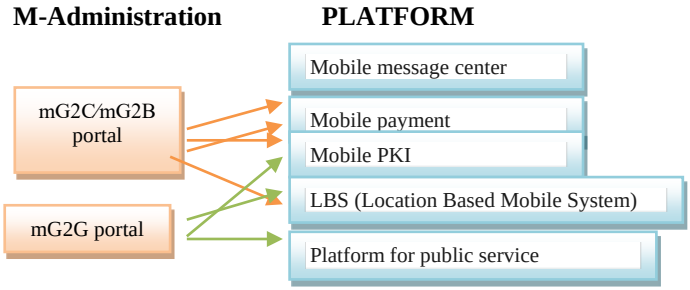

Fig. 2.M-Government Architecture

The success of the implementation of m-government in developing countries depends on many factors, but one of the more critical it is tied to infrastructure investments, which can be realized through a public-private partnership (PPP). M-government services should be based on a solid legal basis, and in addition to such a regulatory framework, political environment should be directed to the telecommunications market in order to provide better services to citizens. On the factor of awareness and acceptance of the services offered by the citizens and employees in administrative bodies, can be influenced by providing relevant information and training. Security and privacy is a condition for the functioning of any ICT system that deals with sensitive data, especially with m-government, where mobile devices are prone to loss and theft of data. The success of m-government significantly affects equal access to information, and has been identified as "one of the most vital principles in an effort global information economy" (Karan, Cheng Hoon Khoo, 2008). Promoting efficiency m-government in the processes, distribution and management of resources should be in the interest of the government, but at the same time, they have the primary responsibility in ensuring the credibility of such a system, giving the public the necessary assurances regarding the security of their personal data (Basamh, Qudaih, Suhaimi, 2014). Based on forecasts GSMA estimated that the level of mobile broadband through 3G and 4G network in 2020 will be about 70% higher than in 2014 (GSMA, 2015).

4. Applications for registration of motor vehicles

Through the research of this topic for this work was carried out applications that users of e-government, via mobile devices provide convenience for the registration of motor vehicles. This means that customers, who have new-chipped ID card with an electronic certificate, can through mobile applications to reach the amount required fees for their motor vehicles. The first step towards this is to determine the identity of the client, which is checked at registration and access to e-government entering pin code ID card. If the verification is successful, the application enables the next step, to enter the serial number of a traffic permit, Fig. 3.

Fig. 3.Display layout applications

However, if the client is in the register of unpaid fines, the application displays a notification that the owner should contact the closest Magistrate Court, Fig. 4.

Fig. 4.Display notices for unpaid fines

Such a client will not be able to access fees for their vehicle. If the client's registration is approved, it will be allowed to accede to exhaustively specified payment slips, which are vehicle tax, municipal tax, the Institute for Manufacturing Banknotes and Coins, and the Ministry of Interior of the Republic of Serbia, Fig. 5. Money orders can be printed, using a Wi-Fi connection that is stored in the memory of mobile devices, or be sent to a specific e-mail.

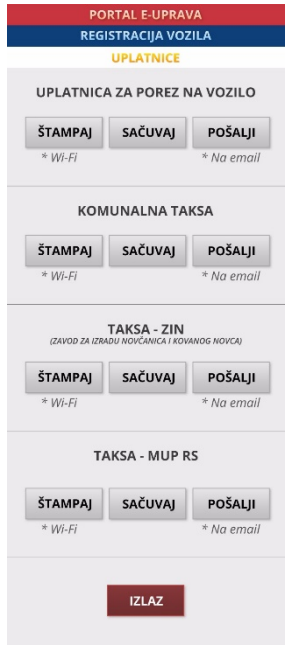

Fig. 5.Display approved invoice

The success of online administration depends on the citizens themselves, of their desire and ability to take advantage of the benefits that traditional business can not provide. This is a time saving, finance and more efficient planning. Therefore, it is especially important to create a relationship of user-friend, because the integration of the user's strategic principle. Since 2007, the EU countries have set a higher level of on-line sophisticated

business, which represents a new approach to public administration, with a view to the fact that in line with this approach, service to citizens must be pro-active (Matei and Iancu, 2009). Through this application, they would be in a certain percentage encourage the issuance of ID cards with chips, which would mean the following. E-government has an impact on every citizen, business and public authority (Beck, Brezoianu and Oprican, 2010). That is the goal, to open the market of e-government and make it more competent (Negoita, 2011).

Conclusion

The foundation of the modern state is strong and centralized e-government, which increases the transparency of the institutions, to optimize their operations, reducing costs and bureaucracy. In this way, it allows a number of public-private partnerships and a positive impact on the economy and on citizens. E-government should link all databases on a system, it would also open data contributed to the comfortable life of citizens and businesses and were important not only for the business of the private sector and the state, but also for citizens of the Republic of Serbia as well as end users.

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