



Centar za politike i upravljanje
Centre for Policy and Governance



Efficiency and Transparency Instruments: eRegisters and eAdministration in Bosnia and Herzegovina

Analysis summary conducted by the *Centre for Policy and Governance*
Aug 2015

Introduction

Bosnia and Herzegovina is fighting unemployment for years, which, depending upon reports varies from 20 to 47%. Due to unfavorable business environment, foreign investors are bypassing our country and if that trend continues, it will not be possible to expect the advancement in the standards of Bosnia and Herzegovina citizens. The fact that Bosnia and Herzegovina is by its legislative divided into two markets, Federation of Bosnia and Herzegovina and Republika Srpska, is one of the main issues. The harmonization of directives would minimize the complications that investors and entrepreneurs face in daily business conducts.

One of the serious issues the investors often point out is complicated procedures for the

registration of business entities in BiH. According to the *Doing Business* reports, it is necessary to go through 11 procedures, which take 37 working days in Bosnia and Herzegovina. In reality, this process can last both longer and shorter, and investors are, more often than not, forced to accept corruption already at the beginning of business registration process. Apart from that, investors often emphasize the issue of complicated procedure of tax and contribution paying, which, when it comes to salaries, are collected independently in three constitutionally ratified territorial units in Bosnia and Herzegovina, while a high amount of salary contributions is a problem for itself.

Already in 2006, the *Public Administration Reform Strategy* was adopted as well as the *Action Plan 1* for its enforcement. As one of the statements of this strategy and its plan, the

establishment of eAdministration is indicated, which will have a direct impact on the advancement of business climate but also the elimination of the blackmailing of investors in this process. Four years after adopting of the *Action Plan 1*, the plan was revised because the measures pointed out in the four-year long period were not conducted so the *Revised Action Plan 1* (RAP 1, 2010) whose exertion is also not happening in concord with the dynamics as planned.

EAdministration is a necessity, which, sooner or later, have to be implemented in BiH as well. Regional countries are already further up the road in this process, and they have recorded first positive results, which is why this analysis will offer an overview of good practices of these countries. The implementation of these recommendations, the legislative as well as the technical ones will lead to a significant change in the facilitation of business conduct in BiH. Changes in ease for further investing and development of small and medium-sized enterprises in BiH will take place as well. Unfortunately, hardships in implementing these recommendations are not those of technical but political nature, which shall also be discussed in the analysis.

Business Entity Registration

The Legislative

The Federation of BiH

The Law on Registration of Business entities in the Federation of Bosnia and Herzegovina, adopted in 2004, regulates the registration of business entities in the Federation of BiH and last changes were added in the year 2014. **It is necessary to have precisely ten documents for the beginning of the procedure of business registration** and in order for the person to gather necessary documents, it is necessary to visit **at least five addresses** (depending upon the

municipality in which the business entity is registered). According to law, the *Registration Court* is obliged to investigate whether the necessary registration documents are submitted with the application for the registration and whether they are in concord with other regulations of the *Federation* according to which the founding, organization, and business conducting regulated all in duration of three days After the receipt of the documents, it should take three days to process them If one takes into consideration the deadline for waiting on the registration decision (5 days), and the three-day long deadline for the gathering of tax identification and tariff number, it becomes clear that the business entity in FBiH can, in ideal conditions, **be registered in duration of 8 days**.

Republika Srpska

The registration of business entities in Republika Srpska is regulated via the *Law on Registration of Business Entities in Republika Srpska* and according to it, **eight documents** are needed for the business registration. In RS, the application for the registration of business is submitted to the *Intermediary, IT and Financial Services Agency (APIF)* through the so-called **“one stop-shop”** system. This system enables the applicants to be registered, get the identification and tariff number all in one place. This mode of business entity registration in RS exists from 12/1/2013 at 11 locations of Business Units of APIF and it is paid for in **35 KM**.

Practice

No matter the reasonably defined legal deadlines and relative similarity of legislatives between that of FBiH and RS, the business registration process in both entities still lasts for too long¹. Between Republika Srpska and the

¹ According to the most recent *Doing Business* report of the World Bank, Bosnia and Herzegovina deteriorated for five places in the year 2015 in the category of business startup, from 142 to 147 place. In average, for the opening of a firm, according to this

Federation of BiH there are significant differences in the prices of business entity registration – the situation in RS is a lot more favorable after the introduction of the one-shop stop system of registration by the end of year 2013.

| DIFFERENCES IN BUSINESS ENTITIES' PRICES OF REGISTRATION | | |
|--|------------------|--------------|
| | FB% ^H | RS |
| Court taxes | 420 KM | - |
| Notary fees | 360 KM | 3,4 or 45 KM |
| Minimal formation expense | 2000 KM | 1 KM |

Even though both laws on the registration of business entities (FBiH and RS) have prescribed deadlines, according to which the authorized Registry Court should check the entire documentation (3 days in FBiH, 2 days in RS), in practice, this deadline can take a few more working days, and it commonly happens that the application forms get lost. For some time now, institutions in Republika Srpska is working on the establishment of a *Unique information system for business registration in Republika Srpska*, which already has an active web page (bizreg.esrpska.com) but even though it is announced that it shall start working in February 2015, it still isn't possible (August 2015) to register a business entity *online*.

Taxes and Contributions

In Bosnia and Herzegovina there are three territorial units (Federation of BiH, Republika Srpska, and Brčko District) which collect salary contributions independently and only two entities have PIO Funds. Because of that, in Brčko district, the employee needs to decide in which PIO/MIO Funds (the Federation of BiH or

report, 37 days are needed by which BiH is the worst in the region, because in Croatia this amounts to 15 days, in Serbia 12, and in Montenegro 10 days.

Republika Srpska) s/he would want his contributions to be paid in.

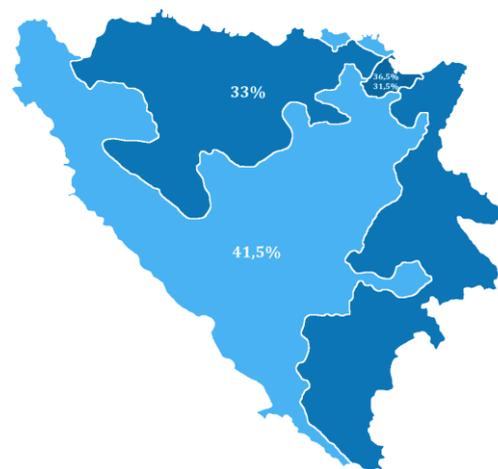


Illustration 1: The overview of taxes and contributions in BiH

The Legislative

| | |
|-------------|--|
| FBiH | <i>The FBiH Tax Administration Act</i> <i>The FBiH Law on Contributions²</i> <i>The FBiH Law on Corporate Income Tax</i> <i>The FBiH Law on Corporate Income Tax</i> <i>The Act on the Unified System for Registration, Control and Collection of Contributions³</i> |
| RS | <i>The Law on Tax Procedure of Republika Srpska</i> <i>The Law on Contributions of Republika Srpska</i> <i>The Law on Corporation Tax of Republika Srpska</i> <i>The Law on Income Tax of Republika Srpska</i> |
| BD | <i>Decision on Tax Base and Health Insurance Rate</i> <i>Decision on Contribution for Employment Rate⁴</i> |

Practice

The deposition of taxes and contributions is in practice one of the key issues which entrepreneurs face in BiH. Apart from a large

²It determines types of contributions which are paid in: a pension and disability insurance contribution, additional pension and disability insurance contribution, for accrual insurance which is determined with heightened lasting, a contribution for primary health insurance and a contribution in case of unemployment; in summary, these amount to 41,5% of salary upon which contributions are paid in, and they need to be paid in in the month in which the salary is being distributed.

³Its deliverance enabled the establishment of the Tax Administration Information System of FBiH.

⁴When it comes to pension and disability contributions, the employer decides into which PIO Fund is the contribution deposited and appropriate rates are applied (24% for FBiH, 18% RS). The health insurance contribution amounts to 12% of the salary, and the unemployment insurance amounts to 1,5%.

amount of forms that need to be filled in on a monthly basis, the fact that these forms are often returned or lost is a separate issue. This kind of situation is especially problematic in case of small and medium-sized business entities, which have no finance-specialized departments and need to pay for the accountancy services. The re-starting of the procedure due to lost documents implies significant burden for their budget. According to the Doing Business report, **407 working hours are spent on tax deposition during a year in Bosnia and Herzegovina, or something more than 10 working weeks.** Even though the Tax Administration of FBiH has services for submitting electronic tax returns, these services are still not enough used in practice.

Current eAdministration Condition in BiH

Existing Strategies and Plans in BiH

A more efficient, effective, responsible, and transparent public administration, which shall be oriented towards citizens and ready to respond to all the European demands is a vision of public administration reform drafted in documents: *The Public Administration Reform Strategy* and *The Action Plan* for its execution. In the year 2006, the Federation of BiH, Republika Srpska, and the Brčko District of Bosnia and Herzegovina as well as the Council of Ministers adopted these documents. In the year 2010, a thorough revision of AP 1 has been conducted because not only the ultimate deadlines were not met but also because the goals were set too ambitiously, i.e. in a way which does not guarantee benefits for citizens, business entities and society. The revision accented goals that are more concrete and real indicators of success by what they became the concrete results such as the advancement of

user's satisfaction, time, and money sparing for the citizens, business entities or the budget.

The Existing Legislative

The State Level

Bosnia and Herzegovina has adopted the contemporary legislative in order to create an efficient framework for modern electronic services. An entire list of other law and bylaw acts which regulate certain areas of electronic service functioningⁱ, are tied to the umbrella Electronic Signature Law and legal acts which are in preparation will also contribute to a more favorable environment for its implementationⁱⁱ.

The Federation of BiH

The Federation of BiH has no legislative for the appliance of electronic signature because it leans on the Electronic Signature Law of BiH.

Republika Srpska

In accordance with the *Government Strategy 2009 – 2012*, the Government of Republika Srpska has adopted following legal and bylaw acts: *The Electronic Signature Law of RS* which is administering the use of electronic signature in legal business and other legal activities as well as rights, obligations, and responsibilities in relation to electronic licenses (certificates) as well as a variety of bylaw actsⁱⁱⁱ. According to the regulations of the *Government of Republika Srpska Law* and the *System of Public Administration Law*, the Government of Republika Srpska adopted a *Decision on Establishing Public Institution, "Agency for Information Society of Republika Srpska"*. By this act, Republika Srpska has established an institution responsible for monitoring the development of information society and promotion of the usage of information-communication technologies. The monitoring over the work of the *Agency*, in the name of the Government of Republika Srpska, is conducted by the *Ministry of Science and Technology of RS*.

The Condition of eAdministration at the End of the Year 2014

By the very end of year 2014, some important preconditions for the implementation of electronic services in the field of eBusiness and eAdministration were met:

1. General politics, regulations and standards with the main goal of establishing adequate legal and institutional framework for the development of electronic business conducting of the citizens and entities with administration;
2. The strengthening of the capacities with the goal of empowering institutional and human capacities in this area;
3. IKT infrastructure with the goal of advancing the infrastructure, i.e. basics for the development of eAdministration;
4. Information systems, ePortals, and eServices with the goal of concrete advancement of inner functioning of the public administration and delivering existing services to the citizens and the business community by using modern technologies with the focus on those eServices which would be of biggest use to the business community and the citizens.

Key Problems

According to *the Report on the Realization of Revised Action Plan of the Public Administration Reform Strategy*, the key obstacle in the realization of adopted activities and goals from the *RAP 1 Public Administration Reform Strategy* is the adoption of legal and subordinate legislation solutions which regulate the area of eAdministration at the levels of BiH, FBiH, RS and BD BiH, and which apply to:

1. The formation of the Supervision and Accreditation Bureau;
2. The recognition of all accredited verifiers⁵ on the territory of BiH;
3. Full implementation of the *Electronic Signature Law in BiH*;
4. Adoption of regulations for informatics security; the establishment of CERT institutions;
5. The establishment and further empowering of the capacities ensuring quality IT officials in public administration.

The laws and regulations spoken about in the previous paragraph need to be adopted both at the entity and state level. Since these are not complicated laws, it is clear that there is a lack of political will to adopt them and it also noticeable that there is no adequate general public and non-governmental sector's pressure to move these reforms from the deadlock.

Future Activities

In their last report, the PARCO (The Bureau of the Coordinator for the Public Administration Reform) has given a significant recommendation, which is that the bureau of the public administration reform coordinator in collaboration with authorized institutions at the levels of Council of Ministers BiH, Federation of BiH, and Brčko Distrikt should implement the project "Business Registration Reform Road Map"⁶. This project will be financed from the Public Administration Reform Fund, and at a meeting in May 2015, the Council of Ministers expressed support to these goals. The Federation of BiH and Brčko District BiH should have individual reform road maps, which should

⁵ Accredited verifiers are all institutions or any other entities which can deliver qualified certificates.

⁶ *Annual Report on Advancement for the January – December 2011 period* (the monitoring of the Revised Action Plan 1 and Public Administration Reform Strategy of BiH), the Bureau of the Public Administration Reform Coordinator, February 2012.

be complementary with the plan of the reform implemented earlier in Republika Srpska.

The Examination of Needs

The Needs of Companies

The main need of all the companies and persons who want to start a business is clear – the improvement of business climate in BiH. According to the *Transparency International* data, Bosnia and Herzegovina is at the 72 place out of 175 of examined countries when corruption is in question, and almost three halves of business people in Bosnia and Herzegovina sees corruption as a significant obstacle in doing business, and more than 5% of them has decided not to invest a lot due to the fear of bribery⁷. Bosnia and Herzegovina is temporarily at the 107 position in relation to the ease of doing business (decrease for 3 places in relation to the year 2014), and 147 in relation to the ease of starting a business (37 days are needed to start a business). Neither in view of paying the taxes does BiH temporarily stand in a privileged place taking the place number 151, bearing in mind that 407 working hours or more than 10 working weeks are yearly spent in BiH on the procedures of taxation.

Since almost all of the procedures are conducted *offline*, there are many opportunities for corruption, for example, the blackmailing of entrepreneurs while starting a business in the way that certain documents get “lost” and they are requested to pay certain amounts of money so the process of business registration is “unlocked”. Even if the blackmailed person reports the case to the authorities that does not solve the problem

⁷*Business, Corruption and Crime in the Western Balkans: The impact of bribery and other crime on private enterprise*, United Nations Office on Drugs and Crime (UNODC), 2013.

because a painful process of evidence submitting follows during which the process of registering a business entity is blocked. Similar happens with taxation so more often than not, entrepreneurs are maltreated with all kinds of inspections, and are punished for even the slightest delay in submitting tax returns.

The Needs of Institutions

State institutions should be in service to citizens and their needs should not differentiate from those of their citizens. The needs of the citizens are clear: bigger employment opportunities and better living standards. The main obstacle in reaching that goal is a huge and corrupted administration, which burdens the budget and often gets, not only investors, but also domestic entrepreneurs to start some kind of business. Therefore, key needs of the institutions in BiH are the increasing of the level of institutional efficiency, reducing the administration and reducing the corruption rate inside of the institutions.

These tools, eRegisters and eAdministration, would respond to both the needs of the companies and the needs of institutions, and for the following reasons:

1. In view of business entity registration, it is sure that the time needed for registration would shorten.
2. The human factor in application procedure would be eliminated and there would be an exact evidence of submitted forms.
3. The evidence forms would at any time be available to the person registering a business entity, where the possibility for blackmailing decreases.
4. The introduction of eAdministration would contribute to the lessening of huge and pricy administration which represents a great burden for the budget.
5. The institution efficiency level would increase thanks to the eAdministration.

Good Practice Examples

| THE OPENING OF A FIRM | | |
|-----------------------|----------------|----------------------|
| | Number of days | Number of procedures |
| Montenegro | 10 | 6 |
| Croatia | 17 | 15 |
| Serbia | 12 | 6 |
| BiH | 37 | 11 |

| TAX EXPENDITURES | | |
|------------------|--------------------------|---------------------------|
| | Number of hours (yearly) | Number of shares (yearly) |
| Croatia | 208 | 19 |
| Montenegro | 320 | 29 |
| Serbia | 279 | 67 |
| BiH | 407 | 45 |

Table 1: Bosnia and Herzegovina in relation to regional countries

Montenegro

Montenegro is one of countries of the region, which invests most in creating efficient public administration. Since 2011, new business entities are enabled to register their entity at one place (the one-stop shop system), and the request for the registration of business entities can be submitted via the web page www.euprava.me. The entire procedure ends up in a few minutes, in only four steps, and the request is handled in 4 days the latest after the submitting of the certificate. As for the tax returns, the *Montenegro Tax Administration* web page offers a possibility of electronic submitting of the applications (<https://eprijava.tax.gov.me/TaxisPortal>), the possibility of IOPPD registering form (the form for registering of all the contributions), VAT and corporation tax and the submitting of requests for VAT returns.

Croatia

In Croatia, the registration of business entities via Internet is only partly enabled. Via the www.hitro.hr service (a site which is a platform of the Government of the Republic of Croatia),

under the option “e-tvrtka”, electronic founding of companies with “limited liability” and “a simple company with limited liability with basic monetary capital from any Public notary or HITRO.HR Bureau in duration of 24h”⁸. It is necessary to mention that, in comparison to Montenegro, in Croatia it is necessary to go to some Public notary or HITRO.HR Bureau in order to electronically register a company and also that these services are enabled only for Ltd. or Simple Ltd. companies. As for the tax returns, the web page www.e-porezna.porezna-uprava.hr enables the submitting of tax forms electronically.

Serbia

The *Electronic Administration Direction* which maintains a website www.euprava.gov.rs is responsible for all the business in the area of eAdministration in Serbia. However, the registration of business entities cannot be conducted via the website but the website allows taking over certain forms, which have to do with the registration of business entities. This makes Serbia, apart from Bosnia and Herzegovina, temporarily the only country in which it is not possible to start a business via eServices.

When tax reporting is at issue, Serbia has a webpage www.eporezi.poreskauprava.gov.rs, at which it is enabled to submit a monthly or three-month long VAT tax report, the authentication of the authenticity of data entered, the electronic application signature, the submitting of electronic VAT form and getting a confirmation on the arrival of the application sent.

Estonia

Estonia is one of the countries which advanced most in the area of eAdministration. Their *e-businessregistration* model was presented in 2007 and it has since shortened the time

⁸ www.hitro.hr/Default.aspx?sec=72

needed for registering a business entity from 5 days to 2 hours, made the country more attractive for investors, and decreased the consumption of administrative resources.

A pre-condition for that was the introduction of e-ID (electronic identification card) by the help of which the citizens of Estonia can be registered at the *e-businessregister* site (<https://ettevotjaportaal.rik.ee/>) and that possibility exists for the citizens of Finland, Portugal, Belgium, and Lithuania. After registering at the *e-businessregister* site, every citizen can start a business in only a few steps, which is why the registration of business entity in Estonia is conducted *online*.

Since 2007, Estonia made the use of the e-tax system obligatory for all the business entities and in that way, eliminated the need for submitting tax returns in print. According to the *Doing Business Report*, during one fiscal year in Estonia, tax is paid for 7 times which takes away merely 81 working hours a year. In 2013, 95% of all the tax returns in Estonia were done *online*. By the introduction of eAdministration, which has eliminated intermediaries, corruption decreased and the transparency in the work of government increased.

Technical Feasibility of eRegister Introduction

The Establishment of PKI Infrastructure

The basic prerequisite for the implementation of eRegisters is the design or establishment of PKI infrastructure (public key infrastructure)⁹ at the state level. There are different ways to establish this: the hierarchical infrastructure with one main organ for the delivering of

⁹ The PKI infrastructure is a set of hardwares, softwares, persons, laws and procedures which enable safe data exchange via the network (Internet or local network) to the users.

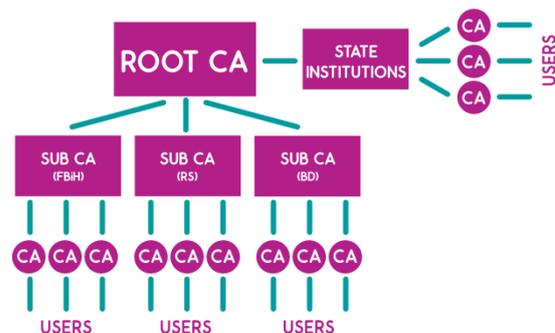
certificates, which furthermore has its subordinated organs for the delivering of certificates and the formation (or using of the existing ones) of more independent PKI infrastructures, which would furthermore, communicate in between each other.

At the state level, temporarily, there is no PKI infrastructure for legal and natural persons in Bosnia and Herzegovina. However, there is a list of independent PKI infrastructures, above all electronic banking and partly in the sector of electronic government which operate in closed systems by which it will temporarily be encompassed over 10,000 business entities and almost 10,000 state officials.

At this point, the PKI infrastructure in Bosnia and Herzegovina can be established at three levels, which shall briefly be presented in continuation.

The Hierarchical (root) Model

In the designing of PKI infrastructures, the expression “as centralized as better” is applied. Reason to that is that there is one “main” CA (*Certificate Authority*)¹⁰ which is called the Root CA. In the hierarchical structure, the Root CA generates a digital certificate of its subordinated CA, all up to the last user (citizen, institution, business entity). The Root CA is the absolute authority and the beginning spot of trust and it functions as the main CA for all the state institutions in their mutual communication.



¹⁰ CA (*Certificate Authority*) is an institution authorized for the deliverance of digital certificates.

Illustration 2: The Hierarchical (root) model

Steps, which BiH needs to take if it wants this model implemented, are following ones:

1. Naming a state level institution, which would be in charge for the delivering and generating of digital certificates (in most of the countries this is a ministry, which is by competencies similar to the *Ministry of Transport and Communication of BiH*).
2. Apart from that, it is necessary to form a *Monitoring and Accreditation Bureau* at the level of BiH.
3. Delegating an agency or agencies, which shall deal with the operative part of delivering digital certificates. In other countries for the needs of these kinds of services, *post office operators* are appointed. In our case, IDDEEA (*Identification Documents, Evidence, and Data Exchange Agency*) which is already responsible for the activities of CIPS (*Citizen Identity Protection System*) and other related activities¹¹, so it is clear that this agency is already in possession of needed knowledge and infrastructure for this kind of activity.

The advantages of this system are **an equal legal framework for both the state and entity level** (which is very important in the context of Bosnia and Herzegovina as one market) and then the fact that **the PKI infrastructure already exists and is maintained by IDEEA where it is possible to upgrade it**. This system is **technically the easiest** to implement.

¹¹ IDDEEA is the operative body of subordinated CABiH for the delivering of digital certificates in the closed "root" PKI EU for the use of the "TachnoNet" (the service of delivering cards for digital tachographs) in the field of transport, where the "Root" AC EU of this domain of trust ERCA (*European Root Certificate Authority*) is based in EU (Italy).

The disadvantages of the implementation of this kind of system are, above all, that of political nature. The establishment of this system would require a harmonization of the *Electronic Signature Law of RS* and the *Electronic Signature Law of BD* with the *Electronic Signature Law of BiH*. Apart from that, it is necessary to harmonize the *Decision on the Basics of Using the Electronic Signature and Offering Services of Certification* with EU Directive 1999/93/EC (*Directive Under the Community for Electronic Signatures*), and to span this decision (or introduce a new one) in a way in which it encompasses *European Technical Standards and Recommendations*.

The expenses of the implementation of this kind of system would, **in the span of 5 years** amount to **2, 5 million KM**, while in the same period 12 million KM are spent for sending print forms by the institutions.¹²

In the *Analysis of the Impact of Regulations on the Legal and Institutional Framework for Electronic Signature* (Ministry of Transport and Communication BiH), the implementation of the following two models is recommended:

BoT model (Bridge of Trust)

The "Bridge of Trust" enables the establishment of independent PKI infrastructures, which would be under more eBusiness domains of trust. The model assumes a certain level of decentralization (under one domain there can be more CAs (*Certificate Authority*) while each domain has one main (principal) CA). The domains of trust can then be organized through hierarchical (Root) or the connecting (Bridge) model, and they could mutually be recognized through a "trust" center (center of trust). That

¹² According to the assessment of the Ministry of Transport and Communication BiH in the *Analysis of the Impact of Regulations on the Legal and Institutional Framework for Electronic Signature*, 2011.

“Bridge of Trust” would establish *one mutual domain of trust in BiH in the frame of which business conduct in electronic environment could easily be conducted*.

In order for the disturbance-free eBusiness on the entire territory of BiH to be established, is it, hence, necessary to find mechanisms for the establishment of trust (for example, “cross” certifying). In that way, the “Trust center” could function as a “hub” (concentrator) and maintain the relationship between PKI domains and their main CAs in the country as well as outside of it.

The advantage of this model according to the *Ministry of Transport and Communication in BiH*¹³ lies in the adjustability of the model in a complex internal administration of Bosnia and Herzegovina – the domains of trust, which it assumes, can be governed by the entities. The model also does not require any harmonization in between the already brought entity regulations and therefore it can more easily gain the political support.

The disadvantage of this model lies in the technical risk, which is assumed by its introduction: BiH still has no created framework of interoperability adjusted to the *European Framework of Interoperability* yet and because of that; difficulties may arise during the communication with the European countries CAs.

The Pareto principle (rule 80-20)

Instead of establishing individual PKI infrastructures of public administration, the existing infrastructure is used is the main principle of the Pareto principle.

If, however, after solving these legal questions comes to the establishment of public administration PKI infrastructure such as IDDEEA PKI for offering services to citizens,

closed systems in state organs or systems for offering post services, that infrastructure could be used without disturbance. However, as an addition to the existing PKI, it is at the same time possible to use the infrastructure of private owners such as, for example, banks or other private businesses.

In Bosnia and Herzegovina, there already exists an example of such PKI: it is an infrastructure for electronic banking, which gathers around 10,000 business entities and natural persons, which already use this closed system for their electronic transactions (eBanking). Their certificates are generated, accredited and contract engaged by CA in EU. If it would come to a deal between banks and institutions in BiH, this infrastructure, with the goal of exchange of eAccounts and eSolutions of their clients in communication with public administration, could be efficiently used for the purposes of eAdministration, with smaller software and hardware upgrades.

The advantage of this model is that by using it all potential technical obstacles could be bypassed, it would also have a “quick fix” alternative, and its effects would soon be able to note.

The disadvantage of this model is the need to take its PKI for rent, which would increase the costs of its implementation a lot in comparison to the Root model.

Business Entity eRegisters and Tax Returns

The search of business entities from both entities and Brčko District is already enabled via the webpage <http://bizreg.pravosudje.ba>. The establishment of eRegisters of business entities in Republika Srpska already started (<http://bizreg.esrpska.com/>) so it is clear that technical possibilities exist. For the online registration of business entities, it is necessary,

¹³Ibid.

as it was already mentioned in this analysis, to first establish adequate PKI infrastructures.

The Tax Administration of FBiH has already established certain eServices so it is possible to submit tax returns for corporation tax and the applications for contribution payments over their web pages (<http://www.pufbih.ba/v1/stranica/7>). *The Tax Administration of RS* also offers electronic services (<https://eusluge.poreskaupravars.org/>), but in this moment, they are limited to the overview of already submitted tax returns.

Hence, from the technical aspect, the establishment of these eServices is not problematic at all bearing in mind that certain aspects were implemented both in the Federation BiH and Republika Srpska so for the further implementation it is enough to implement the communication between entity bodies and exchange experiences. The information systems and databases, which would support these eServices already, exist under neither authorized bodies so from that side is there no technical nor resource obstacle for the implementation of these eServices.

Recommendations

1. Forming a Bureau for development and accreditation of CA at the Ministry of Transport and Communication of BiH which is envisaged by the Electronic Signature Law of BiH

Without forming this Bureau, electronic certificates delivered by the institutions of BiH will not be recognized as valid abroad (primarily in the EU).

2. Urgent drafting of the Rulebook about the appliance of electronic signature

3. Establishment of a PKI infrastructure in BiH

The establishment of PKI infrastructure is the key moment in the informatization of all services in BiH. Without establishing of this infrastructure, eAdministration cannot fully be implemented. The PKI infrastructure in BiH can be established in three ways:

- Hierarchical model
- BoT model (Bridge of Trust)
- Pareto principle (rule 80-20)

Depending upon the level of political consensus, every of the three enlisted ways can be implemented in BiH. *The Pareto principle* would have immediate effects while the *Hierarchical model* is the safest and technically the easiest to establish. A recommendation of this analysis would be the establishment of the Hierarchical model but if there is no political willingness, the implementation of the Pareto principle would at large advance business opportunities in BiH which is the current goal of all the government levels in BiH.

4. Amendments of the Law on Contributions at all levels

It is necessary to re-amend the contribution laws at all levels in the sense of lowering the number of transfers and invoices the employer needs to submit monthly in order to meet his obligations.

In the later phase, after establishing of the PKI infrastructure and eliminating beginner issues, the re-amendment of the contribution law can be thought in the way that all the business entities could be obliged to submit their applications through the electronic system.

5. Amending the Law on Registration of Business Entities in the Federation of BiH following the model of the Law on Registration of Business Entities in RS

The Law on Registration of Business Entities in Republika Srpska is already amended in a way that it envisages one-stop shop registration of business entities. Even though this kind of solution, all up to the appliance of electronic certificates/signatures is not ideal, it would create necessary presuppositions for the registration of entities to be fast and efficient when the question of using of the electronic signatures solves.

6. Introduction of possibilities of submitting tax returns electronically in Republika Srpska following the model of the Federation of BiH

Since the Tax Administration of the Federation of BiH already implemented the submitting of reports for the income tax, contributions and other fees, and even though it has an established information system in which it is possible to check submitted tax returns the Tax Administration of Republika Srpska still has not that kind of functionality, it is clear that in this case only an exchange of experiences is necessary between the entity tax administrations in order to make opportunities to submit tax returns in the entire territory of BiH.

References

ⁱ Law on Electronic Legal and Business Transport, Administration Procedure Law, Decision on Basics of Using of the Electronic Signature and Offering Services of Verification, Decision on Electronic Business Conduct and eGovernment, Decision on Office Conduct of the Ministries, Agencies, Institutions and other Bodies of the of the Council of Ministers, Manual on Drafting and Maintaining Official Internet Pages of the Institutions in BiH.

ⁱⁱ The following legal acts are currently in preparation: *The Book of Regulations on Internal Organization of the Transport and Communication Ministry in BiH* (the founding of *The Inspection and Accreditation Bureau*) and the *Law on Information Society Development Agency*.

ⁱⁱⁱ Those are following laws: *Decision on the Carrier of Business of Electronic Certification in Republic Administration Organs*, *Book of Regulations on the Evidence of Service of Certification of Electronic Signature of Certified Organs Provider*, *Book of Regulations on Content and Mode of the Register of certifying Organs for the Deliverance of Qualified Electronic Certificates Maintenance*, *Book of Regulations on Electronic Signature Measures of Protection and Qualified Electronic Signature*, *the Lowest Amount of Obligatory Insurance and Appliance of Organizing and Technical Measures of Signature Protection*, *Book of Regulations on Technical Rules for the Insurance of Connectedness of Evidences*. *The Law on Electronic Document of RS* and the *Law on Electronic Business of RS* are also significant. These regulate areas such as the evidencing of the electronic signature certification service providers, a unique register of electronic signature service providers, which deliver qualified certificates, measures and acts of usage and protection of the electronic signature, resources for the drafting of the electronic signature, mandatory insurance of the qualified certificate delivering service provider.