



ASSESSMENT OF BOSNIA AND HERZEGOVINA E-GOVERNANCE AND E-ADMINISTRATION

Final Report
December 12, 2018

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MONITORING AND EVALUATION SUPPORT ACTIVITY (MEASURE-BIH)

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(MEASURE-BiH)

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MEASURE-BiH's assessment team members who worked on this evaluation and prepared this report are Davorin Pavelić, assessment team lead and MEASURE-BiH Chief of Party; Anesa Hadzic, assessment team member and Senior Research Analyst at MEASURE-BiH; and Sadik Crnovrsanin, assessment team member and external information communication technology and e-governance expert.

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ACRONYMS

AIDRS	Agency for Information Society of Republika Srpska
APIF	RS agency for information and financial services
BiH	Bosnia and Herzegovina
CA	Certification authority
CDCS	USAID's Country Development Cooperation Strategy
CoM	Council of Ministers
DMS	Document management system
EGDI	E-government Development Index
eIDAS	EU Electronic Identification and Authentication Services
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
G2B	Government to business
G2C	Government to citizens
G2G	Government to government
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German international development agency)
GSB	Government Service Bus
ICT	Information and communication technology
IDDEEA	Agency for identification documents, registers, and data exchange of BiH
ITA	Indirect Taxation Authority
IT	Information technology
KI	Key informant
KII	Key informant interview
MEASURE	USAID/BiH's Monitoring and Evaluation Support Activity
NSCP	National Survey of Citizens' Perceptions
PARCO	Public Administration Reform Coordinator's Office, BiH
PIN	Personal identification number
PKI	Public key infrastructure
RS	Republic of Srpska
UN	United Nations
UNDOC	United Nations Office on Drugs and Crime
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VAT	Value-added tax
WB	World Bank

EXECUTIVE SUMMARY

PURPOSE, PRIMARY AUDIENCE, AND QUESTIONS

IMPAQ International, LLC, (IMPAQ) has been commissioned by the United States Agency for International Development (USAID)/Bosnia and Herzegovina (BiH) within the USAID/BiH Monitoring and Evaluation Support Activity (MEASURE-BiH) to conduct a brief assessment of BiH e-governance and e-administration to identify which current issues and needs could be met most effectively by USAID assistance. This report presents the results of this assessment of BiH e-governance.

The primary audience for this assessment is USAID/BiH, which will use the findings, conclusions, and recommendations to inform further the BiH public administration reform sector.

This assessment of BiH's e-governance status covers the following assessment topics: (1) the current context under which the public administration of BiH provides e-services to citizens and the business community, (2) the most pressing issues in e-governance, (3) the ongoing or planned interventions of other stakeholders, and (4) the current gaps and needs for further technical assistance. The assessment also provides recommendations to the USAID Mission for further programming in e-governance and provision of e-services to assist citizens and businesses in BiH.

METHODOLOGY AND LIMITATIONS

The assessment team used a mixed-methods approach based on an extensive desk review of relevant reports from international organizations and of local government documentation, focus groups with representatives of the business community, a mini-survey with private sector companies, and semi-structured interviews with 35 institutions and 70 key informants (KIs). The main limitations of this assessment are possible response bias and the inability of the assessment team to interview some major stakeholders, including representatives from the Agency for Information Society of Republika Srpska (AIDRS) and the European Union (EU).

ASSESSMENT OF BIH E-GOVERNANCE AND E-ADMINISTRATION

The majority of citizens of BiH are dissatisfied with the work and services provided by the public sector regardless of the government tier: state, entity, canton, or municipality. According to results from the 2018 National Survey of Citizens' Perceptions (NSCP) conducted by MEASURE-BiH, more than 60 percent of citizens consider that the work and services of public administration are of poor quality. Also, according to the same surveys, more than 80 percent of citizens believe that there is corruption among low- and mid-level public officials who interact with citizens; 33 percent believe that these officials are extremely corrupt. About 92 percent of citizens believe that the corruption is to *some extent* an integrated and essential aspect of the economic, social, and political system and that there are no alternatives to dealing with corrupt officials. More than half of citizens (60 percent) believe that corruption is *extremely* integrated and an essential aspect of the economic, social, and political system in BiH. About 93 percent of citizens believe that high-level public officials and people with political power are corrupt to some extent; 58 percent believe that they are extremely corrupt. According to the 2013 United Nations Office on Drugs and Crime (UNDOC),¹ about 10 percent of surveyed enterprises in BiH bribed public servants. The UNDOC survey also finds that, of all bribes given to public servants in BiH, 29.1 percent were given to speedup processes, 17.4 percent were given to complete the procedure, and 14.4 percent were given to receive preferential treatment. In cases of bribery, public servants directly requested these bribes from enterprises in 26.8 percent of cases and indirectly requested them in 20.4 percent of cases. In 15.8 percent of cases of bribery, enterprises initiated and offered bribes.

¹ United Nations Office on Drugs and Crime; Business, Corruption and Crime in Bosnia and Herzegovina, 2013. https://www.unodc.org/documents/data-and-analysis/statistics/corruption/Prevod_izvjestaja_BHS_fina_za_stampu_ispravljeno.pdf.

The 2013 World Bank Group Enterprise Survey² found that 14.3 percent of enterprises expected to give gifts to obtain an operating license, 9.6 expected to give gifts to obtain a construction permit, 7.5 percent expected to give gifts in meetings with tax inspectors, 7.6 percent expected to give gifts to secure government contracts, and 0.6 expected to give gifts in order to obtain an import license.

Public sector digital transformation and digitization of services is used as one of the tools that could lead to greater transparency in public administration work, reduce corruption, and increase citizens' satisfaction with public services. Citizens and businesses expect public administration to provide information and services online and at low cost. According to the results of the MEASURE-BiH mini-survey, about 97 percent of surveyed enterprises stated that digitization of interactions with public administration would substantially help their business operations. About 88 percent of enterprises agreed that digitization of administrative procedures and interactions with government institutions would substantially reduce the possibility of corruption.

BiH has made little progress to date in meeting the expectations of citizens and the business community. The poor status of e-governance in BiH is confirmed by other surveys and reports, such as the UN e-government survey³ or the BiH Audit Office of Institutions report on the efficacy of electronic operations in government agencies of BiH.⁴

Lack of progress in e-governance results from the absence of a structured approach to e-governance reform. Confrontation among diverging political interests has led to further fragmentation of e-governance systems and to a piecemeal approach among international development organizations and agencies, which have tried many times and at different levels to jump-start reform processes with little or no success. This situation, which has lasted for more than a decade, has resulted in a patchwork and dysfunctional e-governance system.

A mini-survey of 369 private sector companies conducted by the assessment team highlighted the need to intensify activities to improve the business environment. Fully 96 percent of respondents said that, when interacting with public administration, they are required to submit hand-signed hard copy forms.

The assessment team examined several factors that affect e-governance and e-administration in BiH, including the policy and regulatory framework, the institutional framework, and information technology (IT) infrastructure. The results of the assessment indicate that diverging political interests resulted in the absence of a common IT strategy for services oriented toward citizens and businesses. Also, despite the adoption of several laws and bylaws that regulate e-governance at the state level and in Republika Srpska (RS), no functional legal framework for e-governance is in place. Implementation of the legal and regulatory framework for e-governance has stalled, primarily due to politics and disputes over the authority of BiH and RS. At this moment, the Federation of Bosnia and Herzegovina (FBiH) has no e-government legal framework.

At the state level and in RS, e-signature laws are outdated, based on an old EU directive that has been replaced with a new one. Both BiH and RS plan to enact new e-signature laws. The new draft of BiH's e-signature law is disputed by RS on the basis of alleged transfer of RS authority to the state-level

² The World Bank and International Finance Corporation; Enterprise Surveys; Bosnia and Herzegovina, Country Profile 2013.

<http://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/Profiles/English/Bosnia-and-Herzegovina-2013.pdf>

³ United Nations E-government Survey 2018;

https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2018-Survey/E-Government%20Survey%202018_FINAL%20for%20web.pdf

⁴ The report on the efficacy of electronic operations in institutions of BiH; The Audit Office of Institutions of Bosnia and Herzegovina; October 2017.

http://www.revizija.gov.ba/revizioni_izvjestaji/revizija_ucinka/lzvjestaji2017/?id=5679

government. The F BiH e-signature law has been drafted and is awaiting adoption. Given the present political situation, it is difficult to predict the timeline for adoption of the F BiH law.

During the assessment, the team noted that a large number of laws and rule books have complex procedures that vary among government levels and have different legal definitions of supporting documentation. In multiple instances, the business community has raised the issue of having to deal with a large number of complex forms that differ from agency to agency.

In the document review, the assessment team found that several general administration and sectoral laws and bylaws at the state and entity levels need alignment with the e-signature law to ensure full functionality of the legal framework. For example, the Law on General Administrative Procedures states that agencies should request supporting documents (different statements, certificates, etc.) through official channels from other institutions. However, in practice, agencies transfer this burden to citizens. In some instances, information and documents are shared between institutions through IT systems, but these documents are not used to enable completion of the administrative procedures citizens and businesses request. Also, BiH and F BiH have no framework on cyber security. RS has adopted several bylaws that regulate this area.

There is no adequate mechanism for coordination and management of a comprehensive public administration digital transformation. Regardless of the government tier, public institutions are not obliged to obtain any approval from the relevant authorities for e-governance when implementing their own IT systems. Although interoperability frameworks have been adopted at the state and entity levels, the national interoperability framework does not oblige BiH administration to exchange data over the Government Service Bus (GSB) system. BiH's interoperability body was recently established. In the F BiH and RS, these informal coordination bodies have existed for more than one year.

As a result, BiH and its entities have multiple autonomous IT systems that differ in quality and efficiency. The independence of these systems limits data exchange. In cases where data exchange is possible, the data are typically considered to be for information only; citizens and businesses are still required to provide supporting documentation in paper format as part of any application processes. The World Bank has supported use of the GSB system, but the absence of a certification authority (CA) has hindered implementation. RS has taken a step toward the centralization of information and communication technology (ICT) systems design and development by creating a coordination body, AIDRS. There are no similar agencies at the state level or in F BiH.

The BiH Council of Ministers issued a decision on introduction of document management systems (DMSs) in public institutions to ensure interchangeability of data and documents. However, the DMSs implemented by BiH agencies use different technologies, which hinder easy data and document exchange. As a result, the many different, often incompatible, IT systems create obstacles to exchange of information and data among agencies.

The lack of a CA to issue digital certificates at all government levels in F BiH and RS has been identified as a key factor that limits further developments in e-governance. The main precondition for establishment of e-services is the existence of a public key infrastructure (PKI). BiH has no such infrastructure for legal and physical entities at the state level, but there are many independent PKIs, such as e-banking and certain public administration e-services (such as e-taxes and e-procurement), which are operating as closed internal systems.

Some institutions, notably the tax administrations of F BiH and RS, have created closed-loop systems to support the submission of tax declarations online. In the absence of a CA, each institution has created systems that utilize internal PKI certificates. The certification and legal provisions for these systems are supported by internal rule books and procedures defining obligations and responsibilities for end users. It is estimated that over 50,000 active taxpayers in F BiH and 40,000 in RS utilize these closed-loop systems. Other institutions that are not able to use such a design have created hybrid IT systems whose services and processes are digitized to a certain extent but require hand-signed

applications in the end. Applicants submit a hard-copy signed application while the scanned or digital document is processed internally. Once the institution decides the outcome of the application, the document is printed and signed by the institution. These hybrid systems, which provide some process monitoring, represent a step toward automation. Unfortunately, the hybrid systems have indirectly created additional work for institutions in order to conform to the current legal framework on decisions and appeals.

A database containing all services offered by public institutions at all administrative levels does not exist. This comprehensive database of administrative procedures should include data sets with clear indicators of data sensitivity, data ownership, type of service, and requirements. The state-level service database has been prepared but not published because the relevant agency is waiting for the rule book. FBiH has indicated that establishing a database is part of its long-term implementation plan. In RS, KIs indicated that some work toward creation of a database has been done.

CONCLUSIONS

The NSCP data indicate that citizens believe that BiH is faced with systemic corruption driven by high-level civil servants and powerful politicians. Digitization of administrative processes and administrative services for citizens and businesses, by “removing the middleman,” will primarily address rent-seeking behavior on the part of low- to mid-level civil servants and government employees. It will have less effect on the decision-making processes of high-level public officials and people with political power. USAID/BiH therefore should not expect potential new e-governance activity to substantially reduce corruption in the public sector.

Issues related to the policy and regulatory framework. According to KIs, the lack of harmonization of legislative solutions and misalignment between the state and entity legal frameworks have created gaps in the support of e-signature, e-document, and e-archive services. According to KIs, the Law on General Administrative Procedures, regulations governing office procedures in BiH public institutions, and specific sectoral laws are inconsistent when it comes to e-services. These laws also sometimes require unnecessary paper support documents from citizens and businesses.

Issues related to the inadequacy of the institutional framework. The absence of a CA to issue digital certificates to end users hinders broader use of e-services.

The lack of a CA has been identified as a key limitation to further development and provision of e-services to citizens and the business community. Only a limited number of e-services are available at this time. There are several closed and isolated e-service systems at various stages of development. Even with international donor assistance, most e-service projects are set up to work around the crucial missing element, which is a framework for e-signatures. The lack of e-signature platform is hindering almost all e-service projects, whether they are set up to be closed-loop or hybrid solutions. In these systems, most work can be done online, but paper documents must still be submitted, and instead of replacing hand signed hard copies with digital documents and e-signature, agencies are processing both digital copies and hand-signed digital copies.

The most advanced e-services are those related to the collection of public sector revenues. Although governments made certain commitments by joining various regional initiatives or through development of e-governance policies, not much has been done in the development of other types of e-services important to citizens and the business community. The assessment team’s desk review found several strategic and action plans for the development of e-services. However, these plans have been at best only partially implemented. Even though documents and recommendations may have been based on best international practices and standards, very little has been done to bring the services online.

There are no examples of best practices in BiH that could be used to reduce corruption and rent-seeking behavior of public officials. Even with the most advanced e-services in sectors that are most

prone to corruption, existing closed-loop systems do not address points of the process or the most probable enablers of corruption such as the elimination of interaction.

RECOMMENDATIONS

Attempts to address systemic challenges related to the establishment of an e-signature platform may involve high implementation risks and unpredictable outcomes. Therefore, USAID/BiH should consider financing interventions focused on supporting specific agencies that are rather close to completion of the CA accreditation process. These interventions would create the necessary preconditions for further development of specific e-services to citizens and the business community. In addition, the assessment team identified a set of e-services that should be considered for further development by any new activity in e-governance and e-administration in BiH. These e-services have strong potential to curb corruption and rent-seeking behavior in public administration.

USAID/BiH should consider providing technical assistance to the Indirect Taxation Authority (ITA) and BiH Agency for Identification Documents, Registers, and Data Exchange (IDDEEA) as well as to the FBiH and RS Tax Administrations, in aligning existing sector laws and administrative procedure regulations with e-signature law. The technical assistance should also support amending operating procedures, integrating e-signature into existing systems and IT security. ITA and IDDEEA should also be provided with technical assistance on e-services from advanced certification institutions in developing of supporting procedures (rule books, manuals, guidelines).

The ITA and IDDEEA efforts to obtain certification endorsement are currently supported by the EU, however there are key parts of the certification process that are not covered by EU or other donors' assistance (atomic clock tube, or a hardware security module, etc.). USAID should consider setting aside a fund in the range of 350,000 USD to cover unforeseen gaps in the certification process of these agencies. Given that ITA collects 80 percent of BiH revenue and serves over 50,000 registered tax and customs entities, implementation of e-signature within the organization is key for widespread adoption.

Regarding specific e-services, USAID should consider providing technical assistance to the existing closed-loop systems of e-services and their transformation into fully developed end-to-end e-services based on an e-signature platform. All of the proposed e-services could have a substantial impact on corruption by increasing transparency and access to services, reducing monopoly and discretionary powers of public officials and reducing or eliminating interaction between citizens, businesses and public officials.

Although judicial sector official records on corruption cases do not provide any information on the existence of corruption in the proposed sectors and services, public perception of corruption in these sectors and investigative reports from various anti-corruption organizations suggest a high level of corruption and rent-seeking behavior among public officials.

The specific services that should be considered for further development include:

- **Facilitation of further development of the current public procurement system.** Public procurement system in BiH, in average, spend annually 1.5 billion BAM on procurement of goods and services⁵. Current e-procurement system is designed with the support of GIZ, with a focus on adding more advanced modules to the system not covered by other donors. These include contract monitoring, fraud profiling, procurement budget planning, and service-level agreement (SLA) monitoring. Digitization will curb corruption by undermining bidding rings, reducing interaction between bidders and procurement officers and by enabling contract

⁵ <https://www.cin.ba/en/baze-podataka/>

monitoring and audit services trials and easier identification of integrity breaches. According to results from the 2018 National Survey of Citizens' Perceptions (NSCP) conducted by MEASURE-BiH, at least 60 percent of citizens believe that corruption is present in public procurement. Survey results of business leaders' opinions show that 67 percent of companies consider digitization of the public procurement system to be very important in curbing corruption. There are also many investigative reports that identified serious irregularities in public procurement processes in BiH.⁶

- **Facilitate development of e-concessions service.** This e-service would include a registry of concessions, criteria for concessions award and services, including concessions contract monitoring. This service would have an effect on transparency, improved access to information and consequently increased competition, reduce interaction between public officials and applicants and limit public officials' discretion in the decision-making process.
- **Facilitate development of e-subsidy service.** According to CIN, between 2011 and 2017, BiH public sector agencies disbursed 976 million BAM in subventions to public and private companies and farmers. Subventions to farmers amounted to 700 million BAM⁷ and employment agencies disbursed about 140 million BAM in subventions for subsidized employment and self-employment. Both types of subventions are characterized by low transparency and the absence of control and oversight, which create opportunities for corruption. In 2018, the former Minister of the FBiH Ministry for Agriculture was sentenced to 9 years' imprisonment for extortion of about 800,000 BAM from farmers who, in order to receive subventions, were asked to return 50 percent of the amount to him. Two recent cases related to employment subvention programs from the FBiH Employment Agency provide examples of the lack of transparency in the disbursement of public funds. Based on a complaint filed by Transparency International BiH about irregularities in a public call for self-employment co-financing, which was published by the FBiH Employment Agency in 2018, the Ombudsman gave a recommendation confirming that the public call was not implemented in accordance with the principles of good governance and that it was not equally available to all citizens.⁸ E-subsidy service would list subsidies for which businesses could apply, based on industry. It would also include a list of open calls and issued subsidies. By linking data from multiple sources, it would provide overviews of subsidies disbursed to businesses, selection criteria, recipients of subsidies, and implementation reports. The e-service solution would limit the discretionary powers of public servants in the decision-making process, bring transparency to the process and could increase the chances that high quality applicants receive subventions.
- **Facilitate improvements in the customs system and inspection services and implement e-services data exchange.** Results of our mini-survey of the business community show that inspection is rated as the second most important service for reducing public corruption. The current IT systems in the inspection offices in BiH and in both entities could benefit from data exchange among systems. These exchanges could create a more unified procedure for importing goods, thus improving the quality of imported goods, achieving greater integration with customs, and speeding up import procedures. Furthermore, the improvement of data exchange would facilitate the development of risk profiling and data gathering systems. Customs duties are collected by ITA, which has developed some customs e-services. Digitization and further transfer of the existing e-service into a fully developed e-signature-based service could potentially reduce corruption by preventing the undervaluation or under-

⁶<http://zurnal.info/novost/20797/evropska-investiciona-banka-odbila-manipulacije-uprave-autocesta-fbih>
<http://zurnal.info/novost/20856/firma-povezana-s-kukicem-dobila-poslove-u-vrijednosti-12-miliona-maraka>
<http://zurnal.info/novost/20737/potrosili-23-miliona-maraka-za-poslovni-prostor-na-palama>

⁷ <https://www.cin.ba/poticaji/>

⁸ <https://ti-bih.org/ombudsmani-potvrdili-sporan-nacin-podjele-sredstava-za-start-up-programe-samozaposljavanja/?lang=en>

declaration of goods, preventing illegitimate detainment of shipments of goods by customs officers and preventing illegitimate tax categories changes in classification of goods. A recent case in which the BiH Prosecutor's Office indicted the former ITA director for 1.72 million BAM⁹ worth money laundering, bribe taking and abuse of office and authority, provides just one example of why it is important to make improvements in the customs system.

- **Facilitate further development of existing e-tax services: corporate tax and Value Added Tax (VAT).** Tax e-services for both corporate and VAT taxes are available through the Tax Administrations of FBiH and RS and ITA. However, these services are limited to obligatory online tax declarations. All companies are required to submit tax declarations online. The main objective of further development of this e-service would be to limit procedural interaction between tax officers and taxpayers, limiting discretionary powers of tax officers and limiting possibilities for frequent and abusive inspections motivated by illegitimate reasons. Limiting frequent and continuous procedural interaction between tax officers and taxpayers would decrease tax officers' opportunity for favorable interpretation of regulations in exchange for illegal payments.
- **Facilitate development of e-transport service.** The BiH Ministry of Transport and Communications issues multiple transport licenses for truck drivers. These licenses and additional special licenses, which are needed to transport goods inside the EU, are relevant to businesses operating in transportation. This e-service would improve transparency in the process of issuing CEMT licenses and curb rent-seeking behavior and corruption. The issue with corruption was raised in 2009¹⁰ by a representative in Parliament, who stated that some CEMT¹¹ licenses ended up on the black market with a price tag of 10,000 EUR. In 2012, the Secretary of the BiH Ministry of Transport and Communication was convicted to 3 years imprisonment for abuse of office and authority in a case related to CEMT licenses.
- **Facilitate development of e-hospital service.** This service was mentioned as one of the most important to citizens in meeting their needs by almost all KIs. The NSCP 2018 survey data show that 28 percent of citizens stated that they gave gifts and money to doctors in order to receive better treatment. Also, according to a Transparency International survey,¹² 76 percent of BiH citizens felt that medical services are corrupt. In this sector, corruption occurs in the form of under-the-table payments to doctors, nurses and other medical staff for jumping the queue or shorter waits for medical services and for admission to hospital, receiving better or more care, and obtaining drugs not enlisted as essential drugs. E-hospital services would allow people to schedule medical services and admission to hospital. The e-hospital solution would provide a fully automated online calendar system that allows patients to pick the next available appointment. This system would eliminate the ability of medical employees to manipulate the schedule or hold empty slots.
- **Facilitate further development of e-employment service.** There is a complete absence of transparency in the public sector hiring. According to the FBiH Audit Office Report ¹³, between 2014 and 2016, out of total 2,282 new employees in public companies, 1,674 were hired without publicly advertising the jobs. The e-employment service will be implemented through the civil service agencies at the state and entity levels. Obtaining jobs in public sector can be associated with bribes, nepotism and political connections. The NSCP 2017 survey data show that 70 percent of citizens believe that corruption is present in public sector employment. The e-employment service is developed by civil service agencies to a certain

⁹ <https://www.cin.ba/en/kemal-causevic-optuzen-za-primanje-mita/>

¹⁰ <https://www.mojportal.ba/2009/12/04/kriminal-i-korupcija-u-izdavanju-transportnih-dozvola/>

¹¹ Conference of European Transport Ministers

¹² https://www.transparency.org/gcb2013/country?country=bosnia_and_herzegovina#

¹³ The Audit Office of the FBiH Institutions; Audit Report; Transparency of Employment in Public Enterprises; June 2018;

level. Digitization and further transformation of the existing e-service into a fully developed e-signature-based service would increase transparency in the hiring process and curb corruption. There are also many investigative reports that identified serious irregularities in public sector hiring in BiH.

- **Facilitate development of e-voting system.** The new e-voting system, which could be implemented as an online portal or as electronic kiosks, could automate counting and validation of ballots in order to address concerns raised in the 2018 elections¹⁴ about the large number of invalid ballots—8 percent in some cases.¹⁵

¹⁴ <https://www.state.gov/r/pa/prs/ps/2018/10/286502.htm>

¹⁵ http://www.izbori.ba/rezultati_izbora?resId=25&langId=1#/2/0/0/0/0/0

I. ASSESSMENT PURPOSE, QUESTIONS, DESIGN, AND LIMITATIONS

IMPAQ International, LLC, (IMPAQ) has been commissioned by the U.S. Agency for International Development (USAID) Bosnia and Herzegovina (BiH) within its Monitoring and Evaluation Support Activity (MEASURE-BiH) to conduct an assessment of e-governance and e-administration in BiH.

USAID/BiH aims to support multilateral policy initiatives predominately through engagement in the areas of economic development and growth and democratic and transparent governance. Within the economic growth portfolio, USAID focuses on increasing the competitive capacity of the private sector and improving governance issues related to private sector growth and investment while increasing transparency and reducing opportunities for corruption.

MEASURE-BiH conducted a short assessment to prioritize potential areas of assistance in improving the business environment and service delivery to citizens in BiH. As a result, USAID/BiH is planning to assist the host government to implement e-governance reform that will introduce electronic signature in BiH. USAID/BiH then plans to build upon the e-signature reform to simplify procedures and reduce corruption in sectors related to foreign and domestic investments in BiH. USAID is particularly interested in interventions that can reduce corruption, produce immediate effects, and reduce the time and cost of providing services to businesses and citizens. USAID/BiH intends to facilitate these outcomes through improved support to public administration officials and simplification of administrative procedures. These prospective reforms should build on the foundation laid by the e-signature reform.

The main purpose of this brief assessment of e-governance and e-administration in BiH is to identify which current issues and needs in e-governance and e-administration could be met most effectively by USAID assistance. To fulfill its mandate, MEASURE-BiH used a rigorous methodological approach in addressing the assessment questions. Our analysis provides insights into the present situation of e-governance and e-administration in BiH, current and planned interventions of other donors, and remaining issues and gaps not being addressed. Based on this information, MEASURE-BiH provides recommendations for USAID/BiH's possible further programming in this area.

The primary audience for this brief assessment is USAID/BiH, who will use the findings, conclusions, and recommendations to inform further programming in the area of e-governance and e-administration.

The brief assessment of e-governance/e-administration in BiH addressed the following questions:

1. What is the present e-governance/e-administration and e-signature situation in BiH? Specifically, what is the current status of legal, regulatory, and institutional frameworks; availability of information technologies; registry of public services and public administration processes planned for digitization and use of an e-signature platform; policies and plans for digitization; e-governance implementation; and establishment of an e-signature platform? What are the gaps in the above-mentioned areas, and what resources and timeframe are needed to address these gaps in order to create the necessary and sufficient preconditions for e-governance/e-administration implementation and establishment of a functional e-signature platform?
2. What services and public administration processes, if any, are already digitized through the use of an e-signature platform? What examples of best practices could be used to reduce corruption and rent-seeking behavior of public officials and to improve services and public administration processes by reducing time and cost and simplifying procedures?
3. What recent and ongoing interventions using e-governance and e-signatures to fight corruption have been implemented by BiH government institutions and major bilateral and multilateral international donors?

4. Which three to five sectors, and which public administration services/ processes provided to citizens within these three to five sectors, could be digitized through an e-signature platform to produce the most immediate effect in addressing corruption and rent-seeking behavior of public officials, improve the transparency of the work of the public administration, and reduce the time and cost of accessing and acquiring these services by citizens?
5. Which three to five sectors, and which specific services and public administration services/ processes provided to businesses within these three to five sectors, could be digitized through an e-signature platform to produce the most immediate effect in addressing corruption and rent-seeking behavior of public officials, improve transparency of the work of the public administration, and reduce the time and cost of accessing and acquiring these services by businesses?

The assessment team used a mixed-methods approach and correlated methods in the data collection and analysis process to combine the sources of information.

I.1. DATA COLLECTION

The assessment team collected data that enabled an analysis of the sectors and specific services and public services/processes provided to businesses and citizens in terms of:

- The feasibility of digitization
- The degree to which digitization of services and administrative processes would address corruption and produce the most immediate effect
- The degree to which digitization of services/processes would simplify administrative procedures and reduce the time and cost of accessing and acquiring public services by businesses and citizens

The data collection sources and methods were (1) document review, (2) semi-structured interviews with KIs (personnel from relevant ministries and agencies at all government levels including municipalities, respondents from business associations and businesses, and citizens), (3) focus groups with representatives of the business community, and (4) a mini-survey of business leaders.

I.2. DESK REVIEW

The assessment team reviewed all existing relevant documents, including, but not limited to, legal and regulatory documents related to e-governance and e-signatures; strategies and action plans; and analysis and reports related to e-governance, e-signatures, and digitization of services and administrative services/processes in BiH. The desk research also included international and local documents relevant for the assessment of e-governance and e-administration in BiH and issues relevant for e-services.

The extensive list of documentation reviewed is contained in Annex VII. Based on these documents, the assessment team identified the present status, gaps, and impediments to digitization of services and administrative processes provided by the public administration and institutions to the business community and citizens in BiH.

I.3. KEY INFORMANT INTERVIEWS

A total of 35 key informant interviews (KIIs) were conducted with representatives from different agencies and organizations, with 70 informants participating in those interviews. A comprehensive list of all interviews and participants is provided in Annex III. Interviews were structured according to defined interview protocols in order to ensure objectivity, focus, consistency, and comparability of responses. KII protocols are provided in Annex II. All KIIs were conducted with a minimum of two assessment team members present.

Interview data helped identify what KIs consider to be the key issues that need to be addressed. Those key issues helped the assessment team determine the most effective ways of improving e-government services by utilizing CA infrastructure and of assisting with administrative procedures by using digital certificates for businesses and individuals.

I.4. SURVEY DATA

The team used two sources of survey data: the National Survey of Citizens' Perceptions (NSCP), which was conducted from 2015 to 2017 by MEASURE-BiH, and a mini-survey of private sector companies conducted in November 2018. Both surveys cover topics and issues relevant to this assessment. The survey data were correlated with KIIs and information from the desk review in order to provide a holistic picture of current e-government practices and thorough answers to assessment questions.

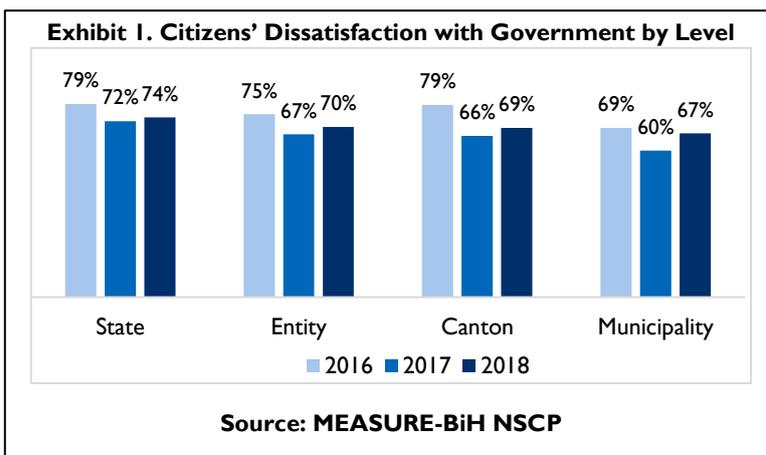
I.5. LIMITATIONS

The first limitation of this assessment is possible response bias. KIIs may have understated the positive effects of advancements made in e-governance and e-administration in BiH and overstated the negative effects of current issues. The assessment team mitigated this bias to the extent possible by drawing on multiple sources of information, guaranteeing the interviewees' confidentiality, and carefully designing and implementing data collection to request specific examples from the KIIs to describe their responses.

The second limitation of this study is that the assessment team was unable to interview some major stakeholders, including representatives of the EU and the Republika Srpska (RS) information agency AIDRS. After multiple emails and phone calls were made, an EU representative stated that our request had been forwarded to the right department, but we were not able to confirm this information. We tried to contact AIDRS by email and phone, but we were not able to schedule a meeting because management was not available for interviews at the time.

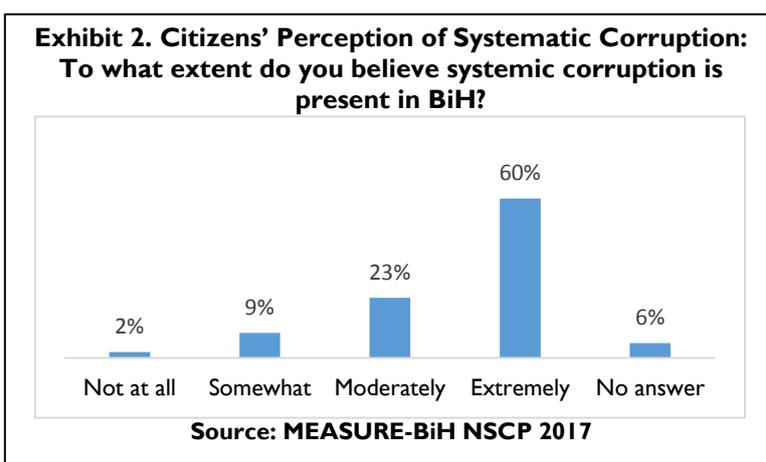
2. BACKGROUND INFORMATION ON E-GOVERNANCE IN BIH

The majority of citizens of BiH are dissatisfied with the work and services provided by the public sector regardless of the government tier: state, entity, canton, or municipality. According to results of the NSCP conducted annually by MEASURE-BiH from 2015 to 2018, citizens are most dissatisfied with the work and services provided by higher tiers of government. However, the differences in citizens' dissatisfaction with the work of different government tiers are not large. According to NSCP data from 2018, 67 percent of citizens considered the work and services provided by municipalities to be poor, as shown in Exhibit 1. Dissatisfaction with work and services provided by canton- and entity-level public administration was roughly equivalent, with 69 percent and 70 percent of citizens considering them as poor, respectively. The highest citizen dissatisfaction was with the state level—the tier with which citizens have the least contact. It should be noted that, over the last three years, no improvement was seen in citizens' satisfaction with the work and services provided by the public sector.

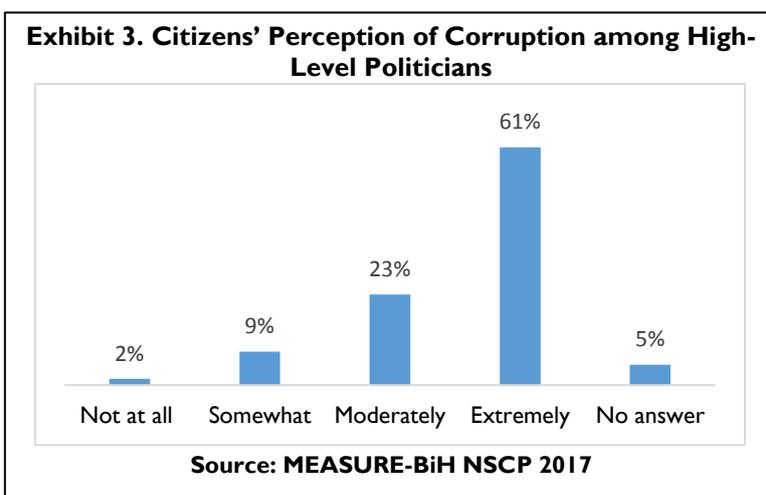


Dissatisfaction with work and services provided by canton- and entity-level public administration was roughly equivalent, with 69 percent and 70 percent of citizens considering them as poor, respectively. The highest citizen dissatisfaction was with the state level—the tier with which citizens have the least contact. It should be noted that, over the last three years, no improvement was seen in citizens' satisfaction with the work and services provided by the public sector.

Perceptions of corruption in public administration in BiH are high, as shown in Exhibit 2. The NSCP 2017 survey data show that 60 percent of citizens believed that corruption is a systematic component of the economic, social, and political system in BiH.



According to the 2017 NSCP, citizens believe that systemic corruption is mainly driven by high-level civil servants and powerful politicians. As shown in Exhibit 3, about 61 percent of citizens believed that high-level civil servants and powerful politicians are extremely corrupt. In contrast, 33 percent of citizens believed that low- and mid-level civil servants are extremely corrupt.



According to the 2013 United Nations Office on Drugs and Crime (UNDOC),¹⁶ corruption is a central part of doing business for BiH enterprises. About 10 percent of surveyed enterprises had provided bribes to public servants in the 12 months prior to the survey, providing an average of 6.6 bribes per enterprise. In 15.8 percent of cases of bribery, enterprises initiated and offered bribes even when they were not requested by public servants. In cases of bribery, public servants directly requested these bribes from enterprises in 26.8 percent of cases and indirectly requested them in 20.4 percent of cases. The UNDOC survey also finds that only 6.6 percent of all corruption and rent-seeking cases are reported to authorities such as the police. According to the UNDOC survey, of all bribes given to public servants, 29.1 percent were given to speedup processes, 17.4 percent were given to complete the procedure, and 14.4 percent were given to receive preferential treatment.

As shown in Exhibit 4, according to the 2013 World Bank Group Enterprise Survey,¹⁷ the highest percentage of firms bribed public officials to obtain an operating license (14.3%), followed by obtaining a construction permit, securing a government contract, and giving gifts to tax inspectors. However, the reasons for bribing public officials differ based on the size of firm. For large firms, bribery is most frequently associated with interactions with the tax administration (tax inspectors) and in public procurement.

Exhibit 4. Corruption Indicators by Sector (2013)

Sectors	Total	Small Firms (1-19 employees)	Medium Firms (20-99 employees)	Large Firms (100 + employees)
% of Firms Expected to Give Gifts in Meetings With Tax Inspectors	7.5	5.9	8.6	15.2
% of Firms Expected to Give Gifts to Secure a Government Contract	7.6	10.7	0.0	13.3
% of Firms Expected to Give Gifts to Get a Construction Permit	9.6	1.4	17.0	5.1
% of Firms Expected to Give Gifts to Get an Import License	0.6	0.8	0.3	2.9
% of Firms Expected to Give Gifts to Get an Operating License	14.3	14.4	14.3	9.6

Source: The World Bank and International Finance Corporation; Enterprise Surveys; Bosnia and Herzegovina, Country Profile 2013.

According to e-governance literature, digitization of public administration processes and administrative services provided to citizens and the business community is a solution for curbing rent-seeking behavior of public sector officials¹⁸.

Despite substantial assistance provided by donors to various levels of public administration in BiH, there has been little or no progress in digital transformation of public sector governance. The UN

¹⁶ United Nations Office on Drugs and Crime; Business, Corruption and Crime in Bosnia and Herzegovina, 2013. https://www.unodc.org/documents/data-and-analysis/statistics/corruption/Prevod_izvjestaja_BHS_fina_za_stampu_ispravljeno.pdf.

¹⁷ The World Bank and International Finance Corporation; Enterprise Surveys; Bosnia and Herzegovina, Country Profile 2013. <http://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/Profiles/English/Bosnia-and-Herzegovina-2013.pdf>

¹⁸ John C. Bertot, Paul T. Jaeger, Justin M. Grimes; Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies; April 27, 2010; https://s3.amazonaws.com/academia.edu.documents/30761266/transparency_government.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1544018665&Signature=QI8F7VbT9jTa3neYU9hb6NdIPY0%3D&response-content-disposition=inline%3B%20filename%3DUsing_ICTs_to_create_a_culture_of_transp.pdf

biannual global e-government survey, which tracks e-government progress, ranks BiH 105 out of 193 countries, as measured by the E-Government Development Index (EGDI), which tracks a country's readiness and capacity to use information and communication technology (ICT) to deliver public services. Exhibit 5 shows that BiH lags behind other countries in the region. Despite limited but steady progress, BiH's global ranking on the EGDI worsened from 2014 to 2018.

Exhibit 5. E-Government Development Index Rankings

Country	Rank 2014	Rank 2016	Rank 2018	EGDI 2014	EGDI 2016	EGDI 2018
Slovenia	41	21	37	0.6506	0.7769	0.7714
Serbia	69	39	49	0.54715	0.7173	0.7155
Croatia	47	37	55	0.6282	0.7162	0.7018
Montenegro	45	47	58	0.63455	0.6733	0.6966
Albania	84	82	74	0.50455	0.5331	0.6519
The former Yugoslav Republic of Macedonia	96	69	79	0.47198	0.5886	0.6312
Bosnia and Herzegovina	97	92	105	0.47069	0.5118	0.5303

Source: UN e-government surveys for 2014, 2016, and 2018

The situation in relation to citizens' e-participation in public affairs, measured by the UN e-participation index, is even worse. As Exhibit 6 shows, BiH again ranks at the bottom among countries in the region.

Exhibit 6. E-participation Index Rankings

Country	Rank 2018	EPART 2018
Slovenia	48	0.8146
Serbia	48	0.8146
Croatia	57	0.7697
Albania	59	0.7584
Montenegro	64	0.7416
The former Yugoslav Republic of Macedonia	71	0.7022
Bosnia and Herzegovina	125	0.4326

Source: UN e-government survey for 2018

The absence of e-services was also confirmed by the MEASURE-BiH mini-survey. Almost 96 percent of surveyed enterprises stated that, to submit requests or applications to government agencies and municipalities, they had to fill out paper forms and submit them in person.

3. FINDINGS AND CONCLUSIONS

3.1. ASSESSMENT QUESTION I

What is the present e-governance/e-administration and e-signature situation in BiH? Specifically, what is the current status of the legal, regulatory, and institutional frameworks; availability of information technologies; registry of public services and public administration processes planned for digitization and use of an e-signature platform; policies and plans for digitization; e-governance implementation; and establishment of an e-signature platform? What are the gaps in the above-mentioned areas, and what resources and timeframe are needed to address these gaps in order to create the necessary and sufficient preconditions for e-governance/e-administration implementation and establishment of a functional e-signature platform?

3.1.1. Present E-Governance and E-Signature Situation in BiH

To examine the current status of e-governance/e-administration and e-signature in BiH, the assessment team analyzed:

- Current policies and laws and the adequacy of the existing institutional framework for operationalization of an e-signature platform
- Use of the e-signature platform for digitization of administrative processes
- Services provided by public administration to citizens and the business community

3.1.2. E-Governance / E-Administration Policy, Regulatory, and Institutional Frameworks at the State Level

BiH, as a member of the Initiative for Electronic South East Europe, signed the ESEE Agenda for the Development of the Information Society in 2002 in Belgrade. The agenda stipulated that the signatory states should develop and adopt a policy and strategy for the development of an information society and, through the priority area of Unique SEE Information Space, defined a process to establish a public infrastructure for secure business based on e-signatures. The agenda also defines 23 e-services from the ESEE Agenda Plus. However, slow implementation of the e-signature law in BiH does not allow for the development of end-to-end e-services. BiH is behind other countries in the region in meeting the requirement of the ESEE Agenda Plus that 23 basic e-government services be established by the end of 2011.

Policy and Regulatory Framework

The BiH legal and regulatory framework creates rules for interaction between the public administration and citizens, businesses, and other legal entities when interaction is established through ICT. The BiH government has limited jurisdiction over the adoption and implementation of e-governance policies at the entity, cantonal, and municipal levels. However, state-level regulators and the executive branch of government adopted a broad range of policies, laws, and bylaws that create a sufficient basis for the establishment and functioning of e-government.

In 2004, the BiH CoM adopted the Policy, Strategy, and Development Action Plan Information Society in BiH for 2004–2010. In 2006, the Law on Electronic Signature in BiH and the Law on Electronic Legal and Commercial Transactions in BiH were adopted. The Law on Electronic Documents was adopted in July 2014. The BiH CoM also adopted a range of decisions and rulebooks¹⁹ regulating the use of e-signatures and provisions on certification services. All of these documents provide the necessary legal foundation for the implementation of digital signatures.

¹⁹ The Decision to adopt the Interoperability Framework in BiH; The Rulebook on Registry of Verifiers; The Rulebook on Issuing Qualified Certificates; The Rulebook on Measures for the Use and Protection of a Digital Signature, Means for Forming E-Signature and Certification System.

In May 2017, the BiH CoM formally adopted the Policy on Development of Information Society in Bosnia and Herzegovina for 2017–2021, which aligns with the EU’s digital agenda. The policy identified the following issues related to e-governance development in BiH:

- Lack of institutional support and political will for investment in ICT
- Lack of competition in the broadband market
- Absence of broadband infrastructure
- Low level of ICT security
- Inadequate legal framework

The CoM also formally adopted the Policy on Management of Information Security in Institutions in Bosnia and Herzegovina for 2017–2020.

In the summer of 2018, the updated BiH e-signature law, which was in accordance with EU eIDAS regulations, was disputed by RS, which considers e-signature law to be the sole purview of the entity level of government.

Institutional Framework

The e-government system was established in 2008 with technical assistance from the UN Development Programme (UNDP). In 2010, the BiH CoM established a unit within its General Secretariat to provide ICT infrastructure to ministries, agencies, directorates, and other BiH CoM bodies. The General Secretariat is responsible for the development and maintenance of ICT infrastructure and the electronic operations of BiH institutions.

Presently, only 35 institutions are fully or partially integrated into the e-governance system established by the BiH CoM. According to KIs, the e-governance department of the BiH Ministry of Communications and Transport does not have sufficient resources to facilitate consolidation and integration of institutions in the e-governance system.

The Personal Data Protection Agency does not have sufficient expertise in data classification, procedures, and rule books, creating an obstacle to developing e-services. Multiple KIs indicated that the agency had acted inconsistently and offered contradictory rulings on the same topic. Furthermore, some of these rulings have led to court cases that are still active.

The list of the main institutions and agencies in charge of e-governance coordination and implementation of the e-signature platform and e-services at the state level is provided in Exhibit 7.

Exhibit 7. The List of Agencies and Key Stakeholders at the State Level

Role	Agencies and Key Stakeholders
Coordination	PARCO
	Ministry of Justice
	Ministry of Transport and Communication
Implementation of E-Signature Platform and E-Services	General Secretariat of CoM
	Office for Supervision and Accreditation
Important Stakeholders	BiH Personal Data Protection Agency
	The Communications Regulatory Agency
Advanced E-Service Providers	IDDEEA
	BiH Public Procurement Agency
	Indirect Taxation Authority
	BiH Civil Servants Agency

ICT Infrastructure

According to KIs, the ICT system and infrastructure within the CoM was developed primarily with assistance from donors including the EU, UNDP, World Bank (WB), and others. Through continuous development, the ICT system and infrastructure were transformed from a predominantly physical

platform to a virtual platform with about 100 virtual servers on three Microsoft-based clustered virtual platforms. These platforms are used to provide web servers, mail exchange servers, standalone applications, registers, electronic registry, electronic meetings, and more.

In 2014, BiH also started to issue biometric identification cards and completed the ICT for the IDDEEA project, which issued e-ID to all citizens who were renewing ID documents. IDDEEA is issuing PIN “keys” to all new ID-document owners; these PINs could be used as e-passwords. An e-ID personal identification number (PIN) was written on the second page of the renewal document, but most citizens were not aware that they had been given this PIN. The lack of e-services from government agencies and the lack of IDDEEA authorization to issue digital certificates has limited public knowledge of these services.

IDDEEA has started the application process to become a CA and is waiting for international certification, which is a legal requirement to become a digital CA. Certification is expected to be completed in six months. Because IDDEEA has already issued PINs to citizens, once it has been accredited as a CA, a large proportion of the population could start using e-ID quickly. KIs indicated that some e-services are ready and awaiting introduction. The assessment team cannot say with certainty that IDDEEA will be able to implement these services by itself; it will most likely need other agencies involved in other administrative processes to have their own certificates as well. It is important to note that IDDEEA does offer identification data to other agencies, using GSB infrastructure, as part of its G2G services.

3.1.3. E-Governance / E-Administration Policy, Regulatory, and Institutional Frameworks in Republika Srpska

RS has adopted a strategic document called The Strategy of Electronic Government Development for the Period 2009–2015 and formed a body for monitoring the implementation of the strategy. RS also adopted full set of laws and bylaws including the Law on E-signature of RS, the Law on Electronic Document of RS, the Law on Electronic Transactions of RS, and the Law on Information Security of RS. The Law on E-signature of RS regulates the use of e-signatures and e-signature certification. Jurisdiction of the RS e-signature law is specific to RS and EU member countries; BiH and FBiH are not mentioned by the law.²⁰ In the second quarter of 2019, RS is planning to change its e-signature law.

The RS also adopted a range of rulebooks and guidelines²¹ that regulate the use of e-signatures and provisions on certification services.

The new strategy for e-governance development will cover several pillars such as e-health, e-education, and e-registration. The strategy document will be presented for approval in the first quarter of 2019. KIs were not willing to provide details about the content of this strategic document.

Institutional Framework in Republika Srpska

In 2007, the RS government established AIDRS, which is in charge of the development of the information society and promotion of ICT. AIDRS is under the jurisdiction of the Ministry of Science and Technology of RS. The list of key institutions and agencies in charge of e-governance

²⁰ Article 1 of the RS e-signature law: “This law regulates the right of individuals and legal entities to use electronic signatures on the territory of Republika Srpska....”

Article 33 of the RS e-signature law: “Qualified certificates ... one of the Member States of the EU have the same legal force as the qualified certificates issued in the RS.”

²¹ Rulebook on Information Security Standards; Regulation on Information Security Measures; Rules on the records of certification bodies; Registration policy certification; Rulebook on Electronic Signature and Qualified Electronic Signature Protection Measures, minimum amount of compulsory insurance and application of organized and consolidated text; Technical rules for ensuring the connection of records of certificates issued and revoked by certification bodies in RS

coordination and implementation of the e-signature platform and e-services at the state level is provided in Exhibit 8.

AIDRS is working on proposing and implementing measures for the construction of information systems of local government bodies, ensuring communication with RS authorities, applying unified software solutions as much as possible, and coordinating the establishment of a single database of BiH authorities and local government bodies in the RS.

Exhibit 8. The List of Agencies and Key Stakeholders in the RS

Role	Agencies and Key Stakeholders
Coordination	RS Ministry of Governance and Local Self-Governance
	RS Ministry of Science and Technology
Implementation of E-Signature Platform and E-Services	General Secretariat of RS Government
Advanced E-Service Providers	FBiH Tax Authority
	Federal Administration for Geodetic and Property Affairs

According to KIs, AIDRS has taken an active role in implementing a digital authority. In 2015, the RS parliament was discussing the adoption of a new law on e-documents and e-signature. The draft of the new law described enabling the use of e-documents and e-signature in many areas including the judicial sector. The lack of any commercial CA in RS has been an issue since the law was passed.

According to KIs, AIDRS is about to finalize the tender procedures to purchase and implement a digital CA, which will issue digital certificates to the general public. Based on estimates, the CA could be operational in August 2019. Importantly, AIDRS currently owns some of the CA infrastructure, which has been used to issue digital certificates to government agencies across RS.

RS and the BiH government have passed the Law on the Establishment of the National Center for Digital Identity Management within AIDRS, putting in place the prerequisites for the issuance and usage of digital signatures to both legal and natural persons. AIDRS started the process of setting up its CA, and agency personnel expect that AIDRS will become the first national CA in the next six months. According to an announcement²² in October 2018,²³ the contract for public key infrastructure (PKI) implementation has been signed.

At the end of 2014, RS established a registry of business entities, which is regularly updated by the agency for information and financial services (APIF). Also, RS established the RS Data Center as an information system for registering businesses. The time and cost of business registration has been substantially reduced. However, there is a lot of work to be done to fully digitize business registration.

A web portal for public administration, eSrpska (www.esrpska.org), was created.

3.1.4. E-Governance / E-Administration Policy, Regulatory, and Institutional Frameworks in Federation of Bosnia and Herzegovina

The assessment team learned through KIs that FBiH has tried to bypass 10 years of disputes with BiH over the creation of an agency for accreditation, a precondition for e-signature and PKI adoption, by proposing its own e-signature law. The FBiH e-signature law, which is in accordance with EU eIDAS regulations, passed the lower House of Representatives in 2017 and is on the agenda for the next session of the upper house of Parliament.

The government has determined that the General Secretariat of FBiH is the CA body responsible for PKI implementation that would be used by FBiH institutions and agencies. The list of the key

²² http://aidrs.org/wp-content/files/Odluka_o_izboru_najpovoljnijeg_ponudjaca_NCA.pdf

²³ Contract reward notice 09.10.2018 to company "Pointer ITSS doo" Banja Luka, amount 2.390.071KM without PDV

institutions and agencies in charge of e-governance coordination and implementation of the e-signature platform and e-services at the state level is provided in Exhibit 9.

Exhibit 9. The List of Agencies and Key Stakeholders in the FBiH

Role	Agencies and Key Stakeholders
Coordination	FBiH Ministry of Justice
	FBiH Ministry of Transport and Communications
Implementation of E-Signature Platform and E-Services	General Secretariat of FBiH Government
Advanced E-Services Providers	AIDRS
	APIF
	RS Tax Authority
	City Banja Luka Municipality Gradiska

The General Secretariat of FBiH is in charge of administering one of BiH’s four GSBs, facilitating the exchange of data, and issuing certificates used for communication among institutions. The General Secretariat has sufficient ICT infrastructure to facilitate internal FBiH government e-services and has started hosting services for the FBiH Gender Center and the FBiH Ministry of Justice, which provides a registry of nongovernmental organizations and foundations.

Interoperability Framework

In 2018, the BiH CoM adopted an interoperability framework. However, information collected during KIs with the three governments’ secretariats (BiH, FBiH, and RS) revealed that the interoperability working group does not yet include all members. Each organization that intends to participate in the interoperability working group decides on its own representatives; the group is currently waiting for the governments to make appointments. Also, the group includes members from the FBiH Ministry of Communication, which has the objective of connecting the entity-level interoperability frameworks and the state-level framework. It is important to note that RS and FBiH have already established interoperability working groups. The FBiH interoperability group has produced a long-term strategic implementation plan for development of e-services. Documentation provided by the CoM says that the first subjects to be addressed will be the consolidation of existing registries and the development of a list of public services. In addition, the CoM will require that all future data exchanges occur over the GSB infrastructure established with WB assistance. However, base registries are only either partially connected to an interoperability system or are exchanging data with other public bodies based only on bilateral agreements—and often only vertically within silos of government. According to KIs, a horizontal interoperability framework across government exists only in a handful of agencies.

The interoperability framework adopted in July 2018 is intended to facilitate exchange of electronic documents and electronic services (1) among institutions at the same government level, (2) among government bodies of different government levels, and (3) with EU institutions and governments of other states. The interoperability framework is focused on provision of e-services to citizens and businesses, linkage of business processes within public administration, exchange of data from public registries for electronic services, and assessment of public administration performance in communication with citizens and businesses.

Institutions in BiH are expected to create the preconditions for provision of services within their respective authorities and to establish a register between 2019 and 2021 as a foundation for the provision of electronic services. Entity governments are expected, in accordance with their own interoperability frameworks, to create preconditions for the provision of electronic services. Entity governments are expected to establish a registry of legal entities in 2019 to further improve the established registry of citizens. They must establish birth registries between 2019 and 2021 and systems for data on space, buildings, and e-maps by 2021. During the implementation of the plans, institutions are expected to sign interoperability agreements and protocols. Implementation of an interoperability plan is the responsibility of the coordination for interoperability group of the BiH CoM. The CoM also

rendered a decision on the establishment of a stakeholders working group composed of four representatives of each entity, four representatives from Brcko district, and four representatives from the CoM. The stakeholders working group is expected, among other things, to (1) cooperate with EU institutions in the development of a framework for EU public services, (2) establish and adjust ICT infrastructure in order to achieve interoperability and establishment of services in public institutions at all government levels, (3) develop legislation that regulates interoperability of services in public institutions, and (4) determine areas and means for linking joint and individual infrastructures of interoperability. (Interoperability infrastructure is based on e-signature, e-document, and e-identity systems.)

Interoperability among institutions is established for each service through agreements and protocols that regulate legal, semantic, process, and technical cooperation among institutions. However, according to KIs, the executive branch of the BiH government has done very little to promote GSB infrastructure and extend it to additional agencies.

The FBiH General Secretariat and Ministry of Communication and Transport are charged with implementation of interoperability decisions in FBiH. KIs confirmed that successful implementation of the four GSB connection hubs (FBiH, RS, Brcko district, and CoM) will serve as a framework for data exchange among government levels. GSB implementation was based on a WB project, with inspectorates as the pilot institutions.

“FBiH and RS inspectorates have just completed a successful pilot project over GSB infrastructure. The institutions exchange data between inspection offices, business registers, and tax administration. These data exchanges are governed by institution-to-institution memorandums.”

– Public institution KI

Regarding services to citizens and businesses, the interoperability framework document states that BiH is focused on digitization of services from the EU interoperability framework, EIF 2.0. The list of services targeted for digitization by the BiH government is provided in Exhibit 10.

Exhibit 10. Services Targeted for Development in the Interoperability Framework of BiH

Sector	Services
Business	Business registration
	Public procurement
	Patent registration and brands
	Consumer protection, products marking and packaging
Personal documents and certificates	Birth and wedding certificates
	Driving license
	Passports and visas
	Working permits and residence permits
	Vehicle registration
Education	Establishment of schools and faculties
	Scholarships
Citizens' taxes	Online tax declaration
Social protection	Information on services
	Assistance to the unemployed
	Child allowances
	Pensions
	Health insurance
Taxes, customs and excises	Taxes for businesses
	Value-added tax (VAT) return
	Information on tax subventions
	Declarations on excises on goods
Labor	Qualification and recognition of diplomas
	Job search
Consumers	Information on custom obligations
	Customs declarations

Source: Interoperability Framework of BiH

A brief overview of the digitization status of services targeted for digitization by the BiH government is provided below.

There is no online business registration at this time. A new WB project is expected to implement online business registration in RS by the end of 2019. The implementation of the same project in the FBiH is on hold until supporting laws are amended and adopted.

A new e-service for public procurement, created by GIZ, has just started. The e-service includes online auctions, tender calls, and a submission process. Not all of the processes are fully online, since they require e-signature. In order to bid for tenders, businesses can download forms and file online, but they still have to provide hand-signed tender application documents. In the second phase of the project, over the next two years, GIZ plans to implement mobile services, online application submission, and other new services.

Although considered to be an e-service that could be introduced quickly, nothing has been done in the registration of trademarks and patents. The assessment team could not find any information about potential e-services related to consumer protection, products marking and packaging.

Also, there is no e-service at this time for personal documents and certificates. According to KIs, a car registration e-service is ready but not made public. IDDEEA does provide these services for the G2G system. The introduction of e-car registration is technically possible once e-signature processes are available.

Not much has been done in the area of citizens' taxes. Private individuals do not have online access to data or reports on personal income tax. Recently the FBiH tax administration created an online system that allows employees to review contributions paid on their behalf. In order to utilize the service, individuals need to visit the tax office or have a copy of their last year's income tax validation statement.

There is no e-service at this time for social protection. The pension and retirement website has some general information and forms available to end users. According to KIs, RS is planning to implement a digital social benefit card for citizens in order to centralize subventions and have better monitoring. That service is a part of long-term strategic implementation plan, which is expected to be approved in the first quarter of 2019.

Corporate tax e-service is active as one of the services available from the tax administrations of FBiH and RS. All companies are required to submit tax declarations online. The process is governed by each tax administration's internal procedures using self-signed certificates. The VAT e-service is active, involving about 18,500 registered payers of VAT. Use of the new service and online declaration submission will be mandatory beginning January 2019. The service does not include online payment or VAT registration. The VAT is collected by ITA, which has applied to become a CA the state level. IDDEEA is awaiting the international certification process, which is a precondition to becoming a state-level CA. Customs e-services are not available to citizens, but customs houses can submit customs declarations electronically. Importers still have to provide original papers during the customs clearance procedure. UINO, one of the agencies that collects customs duties, has applied to become a CA at the state level. It is awaiting international certification.

In labor sector, online job listings are available on the BiH Agency for Civil Servants portal. Applicants can search job listings and download online application forms. Online services include job postings and announcements, public service exams, and online distance learning. However, the process of submitting job applications and supporting documents is manual. Several rulings by the Agency for Data Protection have required that applicants' personal data be removed from online postings, but the agency still requires the posting of the same data on public internal bulletin boards.

3.2. CONCLUSION

An inadequate and to some extent outdated legal and regulatory framework will continue to be the most important obstacle to digital transformation of public administration in BiH. Even where a legal and regulatory framework is in place, it will need to be either replaced or amended in order to keep up with recent developments. For example, current e-signature laws are outdated and are not aligned with the EU eIDAS regulation, which states that EU member states must recognize electronic identification from all other EU member states beginning September 29, 2018. Furthermore, the electronic seal and time stamp modules of the new e-signature regulation could greatly benefit government and corporate entities.

There are also a number of general administrative laws and sector-specific laws that need alignment with the e-signature law. Any new USAID activity in e-governance should take into account that the adoption of new legislation and changes in existing legislation are time-consuming and highly unpredictable processes. In addition, disputes and hostility between the governments of BiH and RS about alleged transfer of authority from the entity to the state are increasing there is already a high risk related to establishment of a functional e-governance regulatory framework to enable e-governance. The design of any future activity should account for the competitive relationship between the state level and RS and RS's efforts to block all attempts to establish a functional e-signature platform at the state level. This may result in a legal case between the state level and RS in the BiH Constitutional Court. All the above contribute to the unpredictability of any legal and regulatory intervention aimed at creating an adequate legal and regulatory framework for a functional e-signature platform.

The complete absence of regulatory and institutional frameworks in FBiH will create additional limits to the design of potential new e-governance activity; it will be difficult to develop and implement any e-services in an institutional and regulatory void.

In the next six to eight months, RS will have a functional CA body, part of ADRIS, which will be able to issue digital certificates. Although this development will be an important step forward for the development of an e-governance system in RS, it might lead to further fragmentation of e-governance and the complete separation of the RS e-governance system from the BiH and FBiH systems.

One of the biggest issues is the capacity of BiH institutions to maintain and further develop ICT systems that will support further development of e-services. The General Secretariat of BiH CoM presently manages about 56 e-services for 36 institutions, but it cannot maintain the system. The secretariat is underfinanced and understaffed; the equipment was patched together from various sources and is being used up to its limit. There is no data disaster recovery location. Up to 245 e-services need to be added to the system, but the existing 56 are barely being maintained.

The lack of funds for ICT systems and the small number of qualified IT staff is an issue in all other public institutions in BiH. These limitations jeopardize the maintenance of existing ICT systems and established e-services. They also present major obstacles to development of new e-services.

According to KIs, a key issue is an absence of a disaster data recovery location. The General Secretariat of the CoM attempted to resolve this issue several times but was not successful. Absence of a disaster data recovery location is an issue for most other important institutions involved in establishment of an e-governance system in BiH.

Governments and agencies at all levels use diverse IT operating systems, applications, and databases, which creates an obstacle to data exchange between agencies. Although governments formally adopted frameworks for IT interoperability, and the World Bank assisted in establishment of the Government Service Bus (GSB),²⁴ public institutions are not obliged to use it.

²⁴ The GSB is one of the main pillars of the national ICT infrastructure. It comprises intermediary systems that contain integrated structure of hardware and software designed to facilitate exchange of shared government data among government institutions and agencies for safe and timely online delivery of services.

The absence of interoperability among public institutions in BiH, both horizontally and vertically, is limiting the public sector's ability to provide services to citizens and the business community. Because of that, the current practice is to transfer the burden of submitting supporting documents to citizens, though administrative procedure law states that agencies should request supporting documents through official channels. Citizens must submit documents in person, often going from one counter to another. When documents are shared among institutional IT systems, they are often used as information only but cannot be used to facilitate citizens' procedures.

Further fragmentation of e-governance systems in BiH could nullify one of the main purposes of e-governance and e-services: simplification of processes and reduced time and cost. Digitization of public services might not lead to reduction of costs for citizens and businesses that need services from different institutions at the state and entity levels.

There is no single online portal repository of existing e-service listings or e-services that are candidates for digitization. The CoM General Secretariat created the list of 254 services but it is not made public. The FBiH's system (<http://euprava.fbih.gov.ba/>) is not active, and RS's system (<http://www.esrpska.com>) has a limited number of services listed.

The lack of a CA has been identified as a key limitation to further development and provision of e-services to citizens and the business community. Only a limited number of e-services are available at this time. There are several closed and isolated e-service systems at various stages of development. The most advanced e-services are those related to the collection of public sector revenues. Although governments made certain commitments by joining various regional initiatives or through development of e-governance policies, not much has been done in the development of other types of e-services important to citizens and the business community. The assessment team's desk review found several strategic and action plans for the development of e-services. However, these plans have been at best only partially implemented. Even though documents and recommendations may have been based on best international practices and standards, very little has been done to bring the services online.

3.3. ASSESSMENT QUESTION 2

What services and public administration processes, if any, are already digitized through the use of an e-signature platform? What examples of best practices could be used to reduce corruption and rent-seeking behavior of public officials and to improve services and public administration processes by reducing time and cost and simplifying procedures?

Presently, 140 countries and their governments around the world provide at least one transactional service online. BiH governments provide none. The absence of a CA, combined with many other obstacles, makes the provision of online transactional services based on an e-signature platform to citizens and businesses in BiH impossible. Instead, public institutions in BiH, mainly through donor support, have established internal systems that are based on internal rule books to create “self-signed” certificates in closed-loop systems. Closed-loop systems are the one where each institution creates its own internal certificates, which are granted to individuals within the institutions and to users of the service outside of the institution. These closed-loop systems have become part of the design of BiH IT systems as a workaround solution to address the lack of an official CA.²⁵ The most notable examples of these workaround implementations are the tax administrations of FBiH and RS (Box 1).

Box 1. Mini Case: Tax Administration Closed-Loop Systems

Closed-loop systems utilize what is called self-signed digital certificates generated by the issuing institution. The RS and FBiH tax administrations both issue such certificates. A key disadvantage of self-signed digital certification is that browsers often reject them, so that establishing certification is getting harder. Some security options have to be disabled on clients’ computers for this method to work at all. Most importantly, this system creates a burden on the government agency to create and maintain registry keys and to recreate them when they are misplaced. Often, government agencies have to recreate and resend all digital certificates manually every four or five years. On the client side, each digital certificate is valid only for a specific service; businesses end up having multiple certificates. Finally, the utilization of digital certification is governed by internal procedures only, so the certificates could be disputed.

Often browser alerts advise the visitor to abort the page for security reasons.



Many other agencies and institutions were not able to “close the loop” but still provide some e-services to citizens and businesses. These services allow submission of electronic documents. However, in order to complete the transaction, users still must physically submit hard copies of supporting documents. One example is the interactions between BiH financial agencies and businesses (Box 2).

²⁵ The role of the CA is to guarantee that the individual granted the unique certificate is, in fact, who he or she claims to be.

Box 2. Mini Case: Digital Plus Paper Business Financial Services

Companies in BiH are obligated to submit annual and semiannual financial statements to the Financial Intelligence Agency or to APIF, depending on the kind of business they operate. The Ministry of Finance defined about 600 financial statement positions, called AOP positions, which are used to standardize reporting. The lack of e-signature processes makes it obligatory for companies to submit financial statements in paper form as well as digital format, based on strict rules. Employees of the receiving financial agency review submitted copies of documents and validate that paper and digital documentation match before importing the documents. In case of any dispute or misreporting, only the paper version of the document is considered legally binding. It is important to note that all business are required to submit financial statements at the same time of year, making it very hard for agency employees to validate such a large number of documents. The digital version of the financial statement is then used for reporting and for decision-making processes, including industry sector and economic analysis. The data are also used by banks to perform creditworthiness and risk calculation for loan approval processes. In short, the lack of an e-signature process has created burdens for the business community and government agencies across the board.

A number of municipalities have started to implement internal DMSs as way of monitoring the internal movement of documents as well as to provide faster service to clients. Lack of digital certification has crippled the functionality of these DMSs: Exchanged documents can be used for information purposes only. An example of the increased work for clients and BiH agency employees is the use of an e-service to validate whether an individual requesting service is the subject of any ongoing court case (Box 3).

Box 3. Double the Work Municipal DMS

A municipal administrator prepares a case file (application / request), which circulates through the administration in a digital form. When the administration makes a decision on a specific case, a document is printed and hand-signed. The paper document is then scanned and imported to the DMS, from which a copy is sent out to the applicant.

Certificate about existence of an ongoing legal case against individual

This e-service is available over a closed network to select government agencies, including courts and police. KIs indicate that lack of digital certification has created gaps because the system cannot digitally validate data. This lack of digital validation makes this e-service and the data it provides useful for information purposes only; the data cannot be used for administrative procedures. The end result is that municipal employees check the e-system; if they see a court case against the individual, then they send an official request, which asks that information available from the e-service be provided in hard copy, signed and stamped. This process adds 15 to 20 days of wait time while the documentation reaches its destination.

3.4. CONCLUSION

Presently there are no examples of best practices that could be used to reduce corruption and rent-seeking behavior of public officials.

Also, at the present stage of digitization of services and administrative processes, even in the cases of the most advanced institutions and services, does not result substantive reduction of time and costs. Presently, due to the absence of a CA and functional e-signature platform, instead of replacing hand signed hard copies with digital documents and e-signature, administrative processes are doubled and now agencies are processing both digital copies and hand-signed digital copies. The benefits of digitization of administrative processes and services at this stage of development include easier access to basic information and forms and easier document search functionality through document archives.

Even with the most advanced e-services in sectors that are most prone to corruption, i.e. public procurement and taxation, existing closed-loop systems do not address points of the process or the

most probable enablers of corruption such as the elimination of interaction between tax officers and tax payers and procurement contracts management and inspections.

3.5. ASSESSMENT QUESTION 3

What recent and ongoing interventions to fight corruption through e-governance and e-signatures have been implemented by BiH government institutions and major bilateral and multilateral international donors?

3.5.1. Recent, Current, and Near Future Donor-Assisted Projects

The assessment team was not presented with documents that map current interventions in the e-governance sector. KIs revealed that individual donors have limited knowledge about what other donors are doing. Almost all donors interviewed expressed this view.

Through a review of data from KIs and available online project documentation, the assessment team found a number of donor e-services projects currently being implemented or planned in BiH. To provide USAID/BiH with an overview of the current status of donor assistance, the assessment team created a matrix (Exhibit 11) presenting all identified e-government donors and projects, the institutions being targeted, and project status.

Exhibit 11. Donor Assistance in Digitization of Public Processes and Services

Donor	Project	Institution	Status
GIZ	E-procurement BiH	BiH Public Procurement Agency	Ongoing; project ends by Q1 2019
	E-procurement, follow up BiH	BiH Public Procurement Agency	Planned, waiting for approval and scope
	Land registry FBiH	FBiH Land Registry Agency	Recently finished
The World Bank Group	Business registration RS	RS AFIP	Ongoing, will include online application process
	Court archive digitalization (business registration) RS	RS courts	Ongoing
	Construction permits RS	City of Banja Luka and Gradiska municipality	Ongoing, pilot project
	Business registration Brcko District	Brcko District courts	Waiting for supporting laws
	Business registration FBiH	FBiH AFIP and courts	Waiting for supporting laws
	Court archive digitalization (business registration) FBiH	FBiH courts	Ongoing
	Government Service Bus BiH	BiH CoM	Completed
EU	Support for establishment of CA	IDDEEA and ITA	Planned
PARCO	E-tourist services	PARCO	On hold
	Central portal for e-services in RS and FBiH	RS and FBiH General Secretariats	Just completed
USAID	Internal PKI for e-tax in RS and FBiH	RS and FBiH tax administrations	Completed

Most of the domestic policy documents the assessment team reviewed focused on the 20 basic e-services (12 + 8) the EU says should be available to citizens and businesses in member countries.

Public procurement. A new e-service for public procurement, created by GIZ, has just started. The e-service includes online auctions, tender calls, and a submission process. Not all of the processes are fully online, since they require e-signature. In order to bid for tenders, businesses can download forms,

but they still have to provide hand-signed tender application documents in person. In the second phase of the project, over the next two years, GIZ plans to implement mobile services, online application submission, and other new services.

Land registry. In 2002, GIZ started a land registry project in an effort to search for a solution to complex and outdated records. GIZ personnel, together with lawyers and geodetic experts, met with stakeholders to consult about whether land registration powers should be separated (i.e., the Land Registry and the Cadastre) or centralized under one institution. In 2006, the WB began implementing the Land Registration Project to improve technical infrastructure for the registration and clarification of land records. GIZ decided to end its nine-year project in 2011.

Business registration in RS. By mid-2019, APIF is planning to offer online business registration as part of a WB project. Currently, APIF acts as a one-stop shop for business registration processes. This consolidation had great results, reducing the time needed from 23 to three days and reducing the duration of procedures from 11 to five days. The new WB project will further develop the one-stop-shop service and extend it to online registration of businesses.

Court archive digitalization (part of business registration activity) in RS. An ongoing WB project is focusing on digitizing all business registration case files in courts across RS. This centralized digital archive will include case files, using metadata tagging to assist in file searches and reviews. This capability will allow courts to quickly review all relevant archive files.

Construction permits. Banja Luka and Gradiska are beneficiaries of the WB Life Project, which is working to reduce regulatory burdens at the local level, close regulatory implementation gaps, and advance transparency in regulatory service delivery. All of these activities are aimed at introducing e-construction permits.

Business registration project in Brcko and FBiH. WB is also supporting one-stop-shop projects in Brcko district and FBiH. Both projects are waiting on regulatory amendments that would allow online registration.

Government Service Bus. A WB project aims to build the e-governance capacity of the state and entity governments by creating mechanisms for data exchange and interoperability of the public registers and institutions of BiH, RS, and FBiH. Implementation focuses on establishing the GSB, an interoperability platform through which information from various sources (databases, registers, records, etc.) would be exchanged and integrated, thereby increasing utilization of the available information. The data exchange is solely a G2G service. The result should be a single point of access to various databases regardless of the location and source of the information. The interoperability platform can be accessed through an application or through online information exchange services.

Support for establishment of CAs. The EU is planning to support IDDEEA and ITA to become state-level CAs. Specifically, the project will help these two agencies acquire international security certification, which is a prerequisite to becoming a national digital certificate issuer.

E-tourist. The e-tourist portal was one of the PARCO activities of the Public Administration Reform Strategy. Available information indicates that the project is on hold until the FBiH Tourism Law is amended.

Internal PKI for e-tax. Past USAID/BiH projects have helped the RS and FBiH tax administrations to find and implement workable alternatives to e-signatures. The RS and FBiH tax administrations established internal systems that based on “self-signed” certificates in closed-loop systems. For more details please refer to the self-signed certificate section of this analysis (page 28, text box 1). The tax administrations have mandated the online submission of tax declarations for businesses for few years now.

Information portal on tax contributions paid on behalf of employees. Recently, the FBiH tax administration, with assistance from USAID, created an online system that allows employees to review contributions paid on their behalf. In order to utilize the service, individuals need to visit a tax office or have a copy of last year's income tax validation statement.

3.6. RECOMMENDATIONS FOR USAID/BIH

Based on the Mission's needs, the key recommendations provided to USAID/BiH focus on providing assistance to institutions to facilitate further development of their existing e-services, prioritizing standalone interventions in the development of e-services that do not require amendments to legislation (more specifically – procurement, inspections and customs services), and providing a range of e-services to citizens and the business community that curb corruption and rent-seeking behavior among public officials.

Under Assessment Question 4 and Assessment Question 5 we provided recommendations for the development of specific e-services to citizens and the business community. In this section, we focus our recommendations on providing support to specific institutions that can support functional e-signature platforms and CAs and are able to complete digitization of important services to fight corruption and rent-seeking behavior in a relatively short amount of time.

Assist the most advanced institutions in completing their projects related to digitization of services

Provide expertise and advisory support to agencies venturing into e-services in the following areas: amendments to operating procedures; e-signature integration in existing systems and technical assistance on IT security and best practices.

Agencies including the FBiH and RS tax administrations, ITA, the BiH Ministry of Communication, the BiH Institute for Accreditation, and IDDEEA would greatly benefit from technical assistance on e-services from advanced certification institutions in development of supporting procedures (rule books, manuals, guidelines), aligning other sector laws to support digital processes, and integrating e-signature into existing systems.

This assistance would also include funding smaller sub-activities of certification projects.

ITA and IDDEEA have started the process to become CAs based on BiH law. IDDEEA is missing one security certification endorsement, while ITA needs two endorsements; this process could take about six months to complete. The process of certification endorsement is financed by the EU but gaps have been identified. For example, the EU project cannot purchase a replacement atomic clock tube, which is made in the USA, or a hardware security module,²⁶ a device that safeguards and manages digital keys. One KI estimated that addressing these gaps would cost about 150,000 USD. Some additional gaps might be identified in the future: The CA endorsement process has not begun, and audit findings might identify additional topics to be resolved before approval. A fund in the range of 200,000 USD should be set aside to cover unforeseen gaps.

A second set of activities would include assistance in aligning existing sector laws and administrative procedure regulations to e-signature law. KIs indicated that the existence of e-signature by itself is insufficient to facilitate administrative procedures. The Law on Administrative Procedure and the Law on Archives, for example, include sections that are not aligned with digital business processes. KIs cited one administrative procedure law that requires submission of a self-signed document to start the administrative process, maintenance of a strictly formatted paper log book, and submission of paper case files to an administrative clerk. One example of successful alignment is ITA, which had a

²⁶ https://en.wikipedia.org/wiki/Hardware_security_module

technical e-signature advisor who helped draft internal procedures and rule books and provided advice on new laws to support digital business processes.

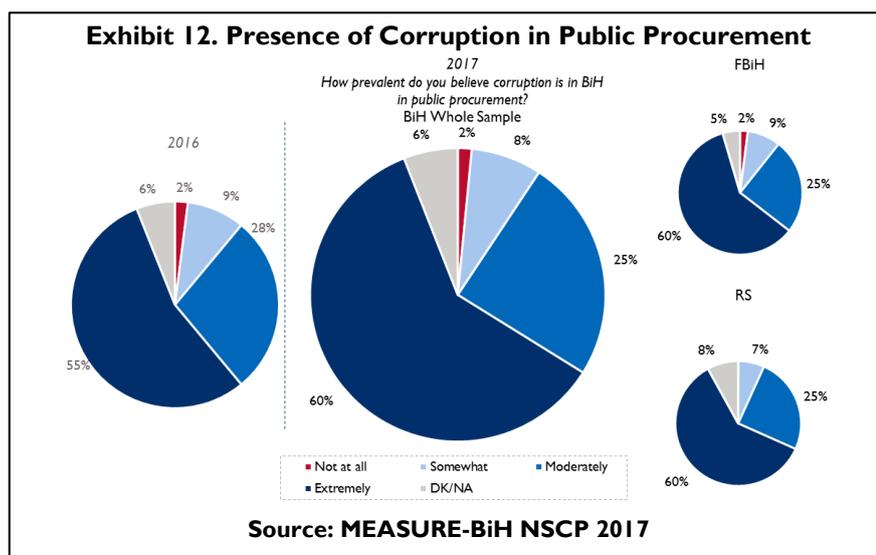
Time is the biggest risk for this recommendation. Since the CA endorsement process has not begun and the first audit findings might identify additional topics to be resolved, it is difficult to predict when ITA and IDDEEA are going to complete the process of being recognized as international CAs.

Engage in standalone interventions not requiring amendments to legislation. These two sectors and e-services (e-procurement and e-inspections) were selected from the list of e-services for the business community recommended under the AQ5. These specific services were selected because the relevant changes in specific sectoral laws have already been made.

Facilitate further development of the procurement system and implement e-procurement services. Any future activity in this sector would require a high level of coordination of interventions with GIZ and other interested donors.

The public procurement system in BiH spends, on average, 1.5 billion BAM on the procurement of goods and services. Based on the survey of businesses conducted by the assessment team, digitization of the public procurement system was ranked by the business leaders' highest in the list of services that could have a high impact on corruption. The MEASURE-BiH mini-survey data show that 67 percent of companies consider digitization of the public procurement system to be very important in curbing corruption and rent-seeking behavior of public officials. According to the 2013 World Bank Group Enterprises Survey, 13.3 percent of the large firms gave gifts to secure government contracts.²⁷

Exhibit 12 presents BiH citizens' perceptions of corruption in public procurement in the country. Regardless of entity, at least 60 percent of citizens believe that corruption is present in public procurement.



The current procurement system was developed with the support of GIZ. The procurement e-service includes online auctions, tender calls, and an online submission process. However, not all of the relevant processes are fully available online, since they require e-signature. For example, in order to bid for tenders, businesses can download forms but they still have to provide a hand-signed tender application document in person. Current BiH law requires all tender processes to be processed using this platform. Further development of this system could include introducing additional services such as contract monitoring, fraud profiling, procurement budget planning, and service-level agreement (SLA) monitoring. Current law has a minimum threshold for tenders to be processed by the procurement agency, whose IT system has been developed to simplify monitoring of tenders.

²⁷ The World Bank and International Finance Corporation; Enterprise Surveys; Bosnia and Herzegovina, Country Profile 2013. <http://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/Profiles/English/Bosnia-and-Herzegovina-2013.pdf>

Digitization will curb corruption and rent-seeking behavior by increasing transparency and improving access to information that increases competition, undermines bidding rings, and increases the chances for high quality contractors to win contracts. Digitization will also curb rent-seeking behavior by reducing interaction between bidders and procurement officers and by enabling contract monitoring and audit services trials and easier identification of integrity breaches. An additional IT module could perform data analysis by matching data from the Ministry of Finance and an agency’s spending budget to monitor the consistency with which contracts are awarded. This module would help with monitoring smaller tenders, utilizing a simplified procedure that might offer opportunities for negotiation of bulk buys and for better planning.

Facilitate improvements in inspection services and implement e-services data exchange (also linked with recommendation of e-customs service under AQ5).

This e-service is primarily a government-to government service (G2G) and its development is one important precondition for design of the e-customs service recommended under AQ5. This G2G service would improve efficiency and prevent corruption. The current IT systems in BiH, FBiH, and RS inspectorate offices could benefit from improvements and e-services facilitated by cross-border data exchange among the systems. These changes could create a more unified procedure for importation, improve the quality of imported goods, and facilitate integration with customs to speed up import procedures. Furthermore, these improvements could assist with the development of risk profiling and data gathering systems for better control and planning. Data from the custom system could be processed to help create risk profiles. This service would require G2G data exchanges among ITA customs, the three state and entity inspectorates, and external systems.

3.7. ASSESSMENT QUESTION 4

Which three to five sectors, and which specific services and public administration services/processes provided to citizens within these three to five sectors, could be digitized through an e-signature platform and produce the most immediate effect in addressing corruption and rent-seeking behavior of public officials, improve transparency of the work of the public administration, and reduce the time and cost of accessing and acquiring these services by citizens?

Exhibit 13 lists possible e-services that could be implemented in three years or less, according to KIs’ input, the MEASURE-BiH mini-survey, and EU best practices. The key indicator for prioritizing specific e-services is the potential to curb corruption and rent-seeking behavior of public officials through digitization of services.

Exhibit 13. Potential G2C E-Services with Duration and Effect on Corruption Reduction

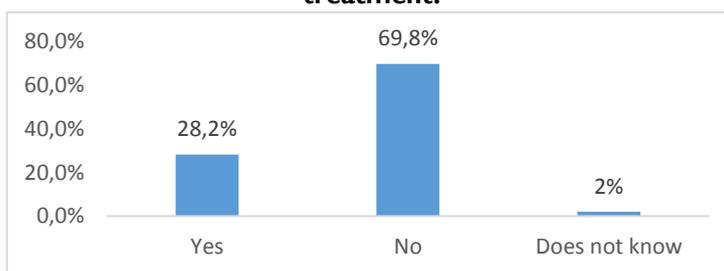
E-Service	Short Description	Duration	Decrease Corruption
E-hospital	Enable scheduling of medical visits; for complex medical cases, allow upload of medical records when transferring from canton to canton	2 years	Moderate impact
E-employment	Provide a registry of unemployment services including training, trade adjustment, and workforce development	2 years	Moderate impact
E-voting	Enable citizens to vote online	3 years	Moderate to low impact
E-social	Social map and social benefits	3 years	Moderate to low impact

A major precondition for these e-services to function as true services for citizens is that applicants, both individuals and businesses, have their own valid qualified e-signatures and that the public service agency be able to sign digital documents.

Facilitate improvements in health sector and implement e-hospital service.

This service was mentioned as one of the most important to meeting citizens' needs and combating corruption by almost all KIs. Perceptions of corruption in the health sector in BiH are high, as shown in Exhibit 14. The NSCP 2018 survey data show that 28 percent of citizens stated that they gave gifts and money to doctors in order to receive better treatment. Also, according to a Transparency

Exhibit 14. Have you yourself ever had to give money, gifts, services, or similar to doctor, in order to get better treatment?



Source: MEASURE-BiH NSCP 2018

International survey,²⁸ 76 percent of BiH citizens felt that medical services are corrupt. Corruption occurs in form of under-the-table payments to doctors, nurses and other medical staff for jumping the queue or shorter waits for medical services and for admission to hospital, receiving better or more care, and obtaining drugs not listed as essential drugs. E-hospital services would allow people to schedule medical services and admission to hospital, facilitate transfer of medical records from hospital to hospital for high-risk patients, and provide a repository of patients' emergency medical histories. Efforts in FBiH will need to focus on cantons. To achieve success, more than one canton should be involved. Because Sarajevo, Mostar, and Tuzla have the most expansive medical infrastructure, these cantons would be preferred for initial implementation of e-hospital services. The introduction of this system will be complex and time consuming; however, the services would have a substantial effect on transparency and corruption. KIs indicated that medical scheduling could be considered subject to petty corruption because waiting lists are more than six months in some cases. Bribes enable patients to skip the waiting list. The e-hospital solution would provide a fully automated online calendar system that allows patients to pick the next available appointment. This system would eliminate the ability of medical employees to manipulate the schedule or hold empty slots. A health platform would also allow individuals access to all services provided by various healthcare institutions and medical service providers. Platform services facilitate searches of medical licenses of facilities, personnel and their information.

This service could also include the ability of patients to review services and any instances of corruption based on their experience. A unique code would be generated for each service the patient receives, which the patient can enter into the platform to leave feedback on his or her experience. This type of system would create an overall evaluation of the patient experience by linking all parties that the patient interacts with in the healthcare system. Patient reviews could then be translated into anonymous score cards, which would be included in the search engine to report on the quality of service and probability of being solicited for bribes. By publicly reporting individual experiences of corruption in the health system, individuals would be given the power to self-regulate corruption in healthcare in a public and transparent fashion.

A health platform could also be used to provide information on the essential list of drugs for each canton and their respective prices. Making this information public will curb rent-seeking behavior among medical staff when patients need drugs not listed as essential drugs²⁹.

The platform could also enable health facilities and individuals to access the sick leave system electronically, and health facilities could verify the authenticity of reported claims and the reliability of their approved source. Sick leave abuse, and to that linked rent-seeking behavior of medical staff,

²⁸ https://www.transparency.org/gcb2013/country?country=bosnia_and_herzegovina#

²⁹ <https://www.cazin.net/vijesti/kapic-od-mene-je-trazeno-da-blokiram-esencijalnu-listu-za-neke-genericke-lijekove-kako-bi-i#sthash.c6nSlYr0.dpbs>

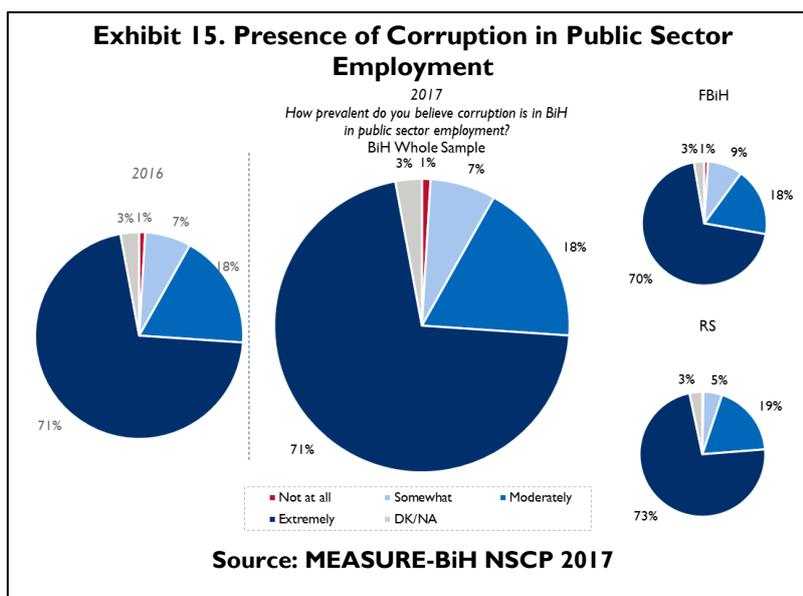
directly impacts the cost of doing business and is a key area of concern for employer associations³⁰. In Una-Sana Canton alone³¹, there were almost 1,430 cases of sick leave longer than 42 days in 2016.

Facilitate improvements in labor sector and implement e-employment service.

Exhibit 15 presents BiH citizens' perceptions of corruption in public employment in the country. Regardless of entity, at least 70 percent of citizens believe that corruption is present in public sector employment.

BiH citizens believe that bribes, nepotism and political connections are inextricably linked with public sector employment. Perceptions of corruption in public sector hiring can be addressed by digitizing this service, which some civil service agencies have already begun to do.

Further development and digitization of existing e-services into an integrated, civil service-wide e-signature-based service would increase transparency in the hiring process and curb rent-seeking behavior and corruption.



Online job listings are available on the BiH Civil Service Agency portal. Applicants can search job listings and download online applications. The process of submitting job applications and supporting documents is very much a manual process. There have been several rulings by the Agency for Data Protection, which have required that applicant data not to be visible online but still requires the posting of the same data on public bulletin boards inside the agencies.

Fully automated e-service processes should be implemented at all levels of government and integrated at each stage of the hiring process, including recruitment, online application, random exam generation, and candidate evaluation. The primary objective of digitizing this service would be to eliminate personal contact and objectivity in public sector hiring. These online functions will provide an objective method by which to evaluate a candidates' competencies and attributes against the requirements for public sector employment. Examination results should be used for shortlisting candidates as part of an automated process.

Facilitate improvements in BiH voting system and implement e-voting service. Digital voting is complex, requires a very large investment, and is estimated to take two to three years to implement. One of the main issues would be updating election software. One example of prior implementation of this e-service comes from Estonia, where 20-25 percent of voters voted over an e-voting system in the last elections, indicating that the popularity of e-voting in Estonia is small³². The new e-voting system, which could be implemented as an online portal or as electronic kiosks, could automate counting and validation of ballots in order to address concerns raised in the 2018 elections³³ about the large number of invalid ballots—8 percent in some cases.³⁴

³⁰ http://www.upfbih.ba/uimages/dokumenti/U21285B9_Newsletter20broj205020-20Maj202017.pdf
³¹ <https://www.rtvslon.ba/svaki-cetvrti-zaposlenik-u-tuzlanskom-kantonu-koristio-je-bolovanje-u-prosloj-godini/>
³² J. Alex Halderman, Harri Hursti, Jason Kitcat, Margaret MacAlpine, Travis Finkenauer, Drew Springall; Security Analysis of the Estonian Internet Voting System; May 2014; https://www.verifiedvoting.org/wp-content/uploads/2014/10/Estonia_2014_IVotingReport.pdf
³³ <https://www.state.gov/r/pa/prs/ps/2018/10/286502.htm>
³⁴ http://www.izbori.ba/rezultati_izbora?resId=25&langId=1#/2/0/0/0/0

Digital voting systems can help reduce a range of voting errors, such as illegible answers, missing signatures, incorrectly completed forms or invalid lists. An e-voting system can also prevent mistakes that invalidate a ballot, such as picking too many or no candidates, thereby improving the effectiveness of voting. Under this system, voters would receive confirmation of their candidate choices and that their vote has been successfully received. Optional functionality, such as paper receipts printed at voting machines, would make it easier to perform recounts and audits. If needed, an additional layer of identification could also be introduced by using biometric card readers, which could decode IDDEEA identification cards.³⁵ Electronic voting and vote counting systems could also reduce the time before official election results are received, potentially to within hours.

Other e-services, frequently mentioned by KIs that could increase citizens satisfaction with public administration services include e-social services, e-car registration, e-education, e-baby registration, birth, marriage and death certificates. However, these have very limited or no impact on curbing corruption and rent-seeking behavior of public officials.

Facilitate improvements in social protection systems and implement e-social service.

The proposed digitized social security registry will record the social assistance programs through which each citizen has applied for benefits and identify benefits that they currently receive. The most important functions of this service will include the integration of data from all levels of government providing social assistance, thereby creating a “social map.” This system will also centralize household data on property, income, expenditures, social and healthcare needs. By aggregating this data, the e-social service can develop accurate reports to gain insight into household social welfare that can serve as a basis for determining eligibility for benefits. Eligibility for means-tested social transfers can be determined the same day an application is submitted, thereby facilitating citizens’ access to their benefits and reducing the administrative burden of collecting paper-based proof of eligibility. Importantly, e-social services create a fairer system of social protection for the poor and vulnerable groups of the population while simultaneously improving the quality of service.

Implementing this e-service could be complex because all levels of government provide some form of social assistance. This complexity requires the creation of a centralized system, integrated across all levels of government and bureaucratic departments. Integration with the Ministry of Finance would also be required for necessary oversight. Despite the complexities, because no similar centralized registry currently exists, implementing this e-service could reduce rent seeking behavior and improve transparency in social benefit allocation. A centralized registry would also allow for better monitoring, cross-link benefits across departments, and improve transparency on available benefits. At present, simply getting information on available benefits is a challenge.

3.8. ASSESSMENT QUESTION 5

Which three to five sectors, and which specific services and public administration services/processes provided to businesses within these three to five sectors, could be digitized through an e-signature platform to produce the most immediate effect in addressing corruption and rent-seeking behavior of public officials, improve transparency of the work of the public administration, and reduce the time and cost of accessing and acquiring these services by businesses?

According to the results of the MEASURE-BiH mini-survey, almost 96 percent of surveyed enterprises stated that, when interacting with government institutions, agencies, and municipalities, they must submit requests and fill out applications in paper form and in person.

Electronic interaction is predominantly related to accessing basic information from the websites of government institutions and downloading forms, activities cited by 79 percent of survey respondents. About 70 percent of surveyed enterprises said that they use email to communicate with government institutions. Only 46 percent of enterprises reported submitting any forms, applications, or reports

³⁵https://www.iddeea.gov.ba/index.php?option=com_content&view=article&id=521&Itemid=224&lang=bs

online to government institutions. About 48 percent of enterprises said that they paid electronically for some public administrative procedure.

Regarding digitization of administrative services, 40 percent of surveyed enterprises stated that all of their interactions with public administration are completed in person and on paper; 58 percent stated that only a small part of their administrative processes and services is digitized and that most interaction is physical and on paper.

About 97 percent of surveyed enterprises stated that digitization of interactions with public administration would substantially help their business operations. About 88 percent of enterprises agreed that digitization of administrative procedures and interactions with government institutions would substantially reduce the possibility of corruption and rent-seeking behavior.

Survey results on business leaders' opinions on the administrative services whose digitization would reduce corruption are provided in Exhibit 16.

Exhibit 16. Businesses' Opinions on the Importance of Digitization in Reducing Corruption

Type of Public Service	Importance of Digitization to Reduce Corruption		
	Not Important	Somewhat Important	Very Important
Construction permits	19.41%	28.82%	52.06%
Tax declaration	16.57%	20.00%	63.43%
Public procurement	16.33%	16.03%	67.64%
Worker registration	16.48%	20.17%	63.36%
Concessions	23.33%	23.33%	53.64%
Inspections	11.63%	23.55%	64.83%
Social contributions for workers	17.14%	20.00%	62.86%
Business registration	15.38%	21.65%	62.96%
Customs declaration	16.37%	23.98%	59.65%
Environmental permits	18.08%	30.03%	52.19%

The highlighted entries in Exhibit 16 are the two top-ranked services whose digitization could reduce rent-seeking behavior: public procurement and business-related inspections. Many surveyed enterprises also cited government subventions as a potential service where digitization might reduce corruption and rent-seeking behavior.

Business survey respondents also cited other public administrative services (besides the ones in Exhibit 10) whose digitization might not reduce corruption but would make their business operations easier:

- Issuance of various types of certificates, with online payment
- All types of reporting
- Car registration
- Worker registration
- Getting VAT and other statistics for the company as part of the business registration process

During the focus group discussion, KIs indicated that environmental permits and workers registration are some of the key issue for the business community.

Exhibit 17 shows the list of e-services that should be candidates for further analysis based on the results of the mini-survey, KIs, and EU government-to-business (G2B) best practices. The key indicator for prioritizing specific e-services is the potential to curb corruption through digitization of services and the expected duration of implementation. Projects that do not require changes to laws are expected to take less time to complete. E-services that require complex changes in laws and synchronization with lower levels of government could take at least two and a half to three years to implement.

Exhibit 17. Possible G2B E-Services with Duration and Effect on Corruption Reduction

E-Service	Short Description	Duration	Reduce Corruption
E-procurement	Digitization of public procurement systems could potentially reduce corruption by increasing access to information and increasing system transparency	Ongoing	High impact
E-concessions	Online concessions, similar to e-procurement, could potentially reduce corruption by increasing access to information and increasing system transparency across all government levels	2 years	High impact and limited visibility
E-subsidy	A list of subventions based on industry, for which businesses could apply	2 years	High impact
E-taxes: Corporate and Value Added Tax	Online tax declaration is obligatory for both taxes. Existing e-service does not tackle the main opportunities for corruption.	2	High impact
E-customs	E-service developed by ITA but not operational. Does not address the main opportunities for corruption.	2	High impact
E-construction	Construction permits including existing regulatory plans	2 years	High impact
E-transport	Issuance of multiple transport licenses for truck drivers based on EU regulations	1 year	High impact and limited visibility

In addition to the recommended interventions to improve public procurement systems, USAID/BiH should consider following:

Facilitate further development of the public procurement system and implement e-concessions service. Several KIs and mini-survey respondents from businesses indicated that this service would be important in fighting corruption and curbing rent-seeking behavior by public officials. By defining concessions as part of the public procurement system, this e-service can be developed as an added functionality to the e-procurement service proposed earlier. As with the e-procurement service, digitization will curb corruption and rent-seeking behavior by increasing transparency and improving access to information. Promoting transparency and access to information in the bidding process increases competition between firms, resulting in higher-quality bids and increased likelihood that high quality contractors win concessions. By removing interaction between bidders and members of concession commissions, digitization limits public officials' discretion in the decision-making process, thereby curbing rent-seeking behavior. Additionally, it enables contract monitoring and audit services to identify integrity breaches more easily. This e-service would include a registry of concessions, criteria for concessions award and services including concessions contract monitoring. This service could be complex to implement because all government levels would need to participate. Information about the conditions under which governments award concessions is hard to find in publicly available media, a fact that makes this service very interesting for future analysis. In a report available on its website,³⁶ the Commission for Concessions of BiH has identified the need to develop such a database.

Facilitate improvements in governments grant mechanisms and implement e-subsidy service. This e-service would list subsidies for which businesses could apply, based on industry. It would also include a list of open calls and issued subsidies. The e-service solution would limit the

³⁶ http://www.koncesijebih.ba/home/images/Strukovni_pregled_Koncesije_javno-privatna_partnerstva_BiH.pdf

discretionary powers of public servants in the decision-making process and bring transparency to the process. As noted by several KIs and business mini-survey respondents, this e-service, as with e-procurement, would increase transparency and access to information and increase the chances that high quality applicants receive subventions. By linking data from multiple sources, it would provide overviews of subsidies disbursed to businesses, selection criteria, and implementation reports. Recently, a high-profile court case relating to misuse of the agricultural subsidy funds was completed.³⁷ Another example of misuse of the agricultural subsidy funds are subventions for infrastructure development. Farmers in the Federation of BiH received subventions based on the number of square meters of their stables. Size of subventions was based on a falls report prepared by the court witness-experts.³⁸

In order to successfully implement this data harmonization, the e-service should utilize the GSB data exchange system to integrate data from multiple sources. A risk-based system, taking cadaster data into account, could be used to validate the existence of specific asset holdings, such as land and buildings. Based on the Single Payment Scheme (SPS) EU regulation, it is crucial that designing of an e-subsidy. An important functionality of this system is the ability to monitor the approval and rejection process. Indicators for rejected applications and notices could be used for planning and analysis for gaps. This service could be complex to implement because all government levels would need to participate.

Facilitate further development of BiH tax system and implement e-tax service for corporate and Value Added Taxes. Corporate tax e-service is available through the tax administrations of FBiH and RS. However, this service is limited to obligatory online tax declarations. All companies are required to submit tax declarations online. The process is governed by each tax administration's internal procedures using self-signed certificates. Issues such as illegal payments to tax/custom officials to reduce taxation, grant tax exemptions, licenses, and clearances that speed up processes or block business activities of companies for illegitimate reasons are not addressed by existing e-services. The main objective of further development of this e-service would be limiting procedural interaction between tax officers and taxpayers, limiting discretionary powers of tax officers and limiting possibilities for frequent and abusive inspections motivated by illegitimate reasons. One of the main enablers of corruption are monopoly and discretionary powers of tax officers and absence of reporting and monitoring mechanisms. Limiting frequent and continuous procedural interaction between tax officers and taxpayers would decrease tax officers' opportunity for favorable interoperation of regulations in exchange for illegal payments. Filling in forms online, paying taxes electronically and providing statements online limit personal interaction between tax officers and taxpayers.

The VAT e-service is currently active, involving about 18,500 registered payers of VAT. Use of the new service and online declaration submission will be mandatory beginning January 2019. The service does not include online payment or VAT registration. Corruption might occur by illegal payment to speed up procedures and VAT refunds. The VAT is collected by ITA, which has applied to become a CA the state level. It is awaiting international certification.

E-taxes should include a module for risk assessment, which would be based on GSB data exchange getaways. Data exchange between the tax administration of RS and FBiH and VAT and customs is needed. Although some data exchange does exist, it is not fully integrated between these agencies, especially in relation to audit procedures. Audit findings should be shared across all tax administrations to allow for better planning and monitoring. One tax inspector has visited a taxpayer, findings from that inspection should be imported to a risk assessment system to analyze level risk. The risk assessment system will allow tax administrations to ensure that non-compliance with tax law or tax fraud is kept to a minimum. These systems should take a holistic approach to risk management, assessing all risks and their relationship to each other, and avoiding focusing on a single source of

³⁷ <https://www.cin.ba/poticaji-u-lijanovicevim-dzepovima/>

³⁸ <https://www.cin.ba/poljoprivredni-poticaji-za-lazne-kvadrate/>

information – tax inspector. Risk analysis helps build an understanding of why the taxpayer is behaving in a particular fashion. Based on available data, the tax administration could perform a desk audit if the data exchange between multiple data source is created.

Facilitate further development of customs system and implement e-customs service.

Full digitization of customs duties and tariffs could curb rent-seeking behavior of customs officials and reduce requests for bribes from the process of paying tariffs and duties. Automation of payments could enable greater control over the funds and prevent public officials from manipulating them. Customs duties are collected by ITA, which has developed some customs e-services. Customs houses can submit customs declarations electronically, however, importers still have to provide original papers during the customs clearance procedure. Digitization and further transfer of the existing e-service into a fully developed e-signature-based service could potentially reduce rent-seeking behavior of customs officials by preventing the undervaluation or under-declaration of goods. Custom officers could also request illegal payments by detaining shipments of goods and preventing them from entering or leaving a country or by threatening importers with classification of goods into higher taxed categories. Digitization could also address issues related to the transition of information on goods from the point of origin to the recipient country, thus improving monitoring abilities of the customs system and reducing information asymmetry that is the main bargaining power of rent-seeking custom officers.

Facilitate further development and expansion of e-construction service. Any further activity working in this sector and assisting digitization of this service should be closely coordinated with the World Bank Group.

This e-service would assist with construction permits, including existing regulatory plans. The WB is working on a related pilot project in Banja Luka and Gradiska. Banja Luka and Gradiska are beneficiaries of the WB Life Project, which is working to reduce regulatory burdens at the local level, close regulatory implementation gaps, and advance transparency in regulatory service delivery. According to the 2013 World Bank Group Enterprise Survey,³⁹ the second highest percentage of the all surveyed firms that bribed public officials provided bribes related to getting a construction permit – 9.6 percent on average and 17 percent in the case of medium sized firms. According to the results of the MEASURE-BiH mini-survey, 52 percent of surveyed enterprises stated that digitization of construction permit-related administrative procedures would substantially reduce the possibility of corruption and rent-seeking behavior. Transparency International has published a report⁴⁰ on BiH citizens' perceptions of corruption. In response to the question, "Which of the following procedures fall under 'corruption' based on your perception?", 64 percent cited "Personally contacting the municipality / municipal officer to obtain a construction permit" as an example of corruption. An e-construction service was listed by multiple KIs as a potentially valuable e-service.

The implementation of the current WB e-construction project is slow because the process is heavily dependent on the quality of data and because many local agencies participate in the approval of construction permits. This e-service solution would limit the influence and discretionary powers of civil servants involved in application processing and decision-making, bringing transparency to the decision-making process.

Facilitate improvements in transport sector and implement e-transport service. The BiH Ministry of Transport and Communications issues multiple transport licenses for truck drivers. These licenses and additional special licenses, which are needed to transport goods inside the EU, are relevant to businesses operating in transportation. This e-service would improve transparency in the process of issuing CEMT licenses and curb rent-seeking behavior and corruption. This service could be implemented quickly because most of the preparatory work is done and some data exists. The issue

³⁹ The World Bank and International Finance Corporation; Enterprise Surveys; Bosnia and Herzegovina, Country Profile 2013.

<http://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/Profiles/English/Bosnia-and-Herzegovina-2013.pdf>

⁴⁰<https://ti-bih.org/wp-content/uploads/2011/05/Percepcija-gra%C4%91ana-o-korupciji-l-kvartalno-lstra%C5%BEivanje-2009.pdf>

with corruption was raised in 2009⁴¹ by a representative in Parliament, who stated that some CEMT⁴² licenses ended up on the black market with a price tag of 10,000 EUR. The permit enables a company that holds a freight transport permit issued by a competent authority to run international commercial freight transport by vehicle or vehicle combination between EU and a non-EU country.

This e-service would be based on simple registration form and online application process. Once the application is submitted, the system would perform a risk-based analysis using data from an external system, including data from past years. Integration of this system with an inspection system is needed in order to validate utilization of license.

⁴¹ <https://www.mojportal.ba/2009/12/04/kriminal-i-korupcija-u-izdavanju-transportnih-dozvola/>

⁴² Conference of European Transport Ministers

4. ANNEXES

5. ANNEX I: ASSESSMENT SCOPE OF WORK

SCOPE OF WORK

E-Governance / E-Administration in Bosnia and Herzegovina Assessment

INTRODUCTION

IMPAQ International LLC is seeking to hire a consultant, group of consultants or consulting firm to carry out an assessment for MEASURE-BiH, a USAID-funded Activity focusing on technical, analytic, advisory, training, monitoring, evaluation, and related support services for USAID/Bosnia and Herzegovina (BiH). The successful bidder will have expertise and experience in e-governance and public administration and digitization of administrative processes and services.

PURPOSE

USAID BiH programs aim to support multi-lateral policy initiatives, predominately through engagement in the area of economic development and growth, and democratic and transparent governance. Within the economic growth portfolio, USAID focuses on increasing the competitive capacity of the private sector and improving governance issues related to private sector growth and investment, while increasing transparency and reducing opportunities for corruption.

MEASURE-BiH is currently seeking proposals from a qualified contractor(s) to conduct a short-term assessment to prioritize potential areas for assistance, focusing on improving the business environment for the private sector and service delivery to citizens in BiH. USAID/BiH is planning to assist the host government to implement e-governance reform that will introduce electronic signature in BiH. USAID then plans to build upon the e-signature reform to simplify procedures and reduce corruption in sectors related to foreign and domestic investments in BiH. USAID is particularly interested in interventions that can reduce corruption and rent seeking behavior of public officials, produce immediate effects, and reduce the time and cost of providing services to businesses and citizens. USAID intends to facilitate these outcomes through improved support public administration officials and simplification of administrative procedures. These prospective reforms should built on the foundation laid by the e-signature reform.

BACKGROUND

E-governance relates to the use of information and communications technology (ICT) to deliver government services, exchange information, communicate, conduct transactions, etc. Through e-governance, government services are made available to citizens in a convenient, efficient, and transparent manner.

E-governance includes three areas of implementation:

- E-democracy relates to the use of ICT for opening spaces for civic participation, reinvigorating representative democracy, and reframing its traditional concepts.
- E-administration relates to the provision of public services to citizens online, including developing sections of websites that are dedicated to citizens, providing online access to governmental procedures, and providing online legal forms and payments.
- E-business facilitates online transactions between businesses or between public services and business or citizens.

E-governance framework in BiH

The present status of e-governance reform in BiH is characterized by the following:⁴³

⁴³The report on the efficacy of electronic operations in institutions of BiH; The Audit Office of Institutions of Bosnia and Herzegovina; October 2017.

- The absence of a functional legal framework for e-governance. Despite the adoption of several laws and bylaws that regulate e-governance, there is no functional legal framework in place.
- The Agency for Identification Documents, Registers and Data Exchange (IDDEEA) is the legally authorized body for issuance of e-signatures, registry, and data exchange. IDDEEA acquired technology worth over 10 million BAM and the Indirect Taxation Authority invested an additional 1.3 million BAM in procurement of the necessary equipment for issuance of e-signatures. However, due to constraints, these two institutions are unable to issue qualified e-signatures.
- The lack of an adequate mechanism for coordination and management of e-business with the BiH public administration.
- Regardless to government tire public institutions are not obliged to obtain any approval from relevant authorities for e-governance when implementing their own IT systems.
- There is no registry of services that are candidates for digitization provided by the BiH public administration.
- There is no registry of information systems and e-services.
- There is no implementation plan for any type of e-services within BiH institutions.
- There is no framework for IT interoperability between BiH institutions nor is there infrastructure for existing IT systems to exchange data.
- Although the COM issued a decision prescribing how institutions should introduce document management systems (DMS) and ensure interchangeability of data between government institutions, implemented DMSs use different technologies and data exchange is not possible.
- Presently, only 35 institutions are fully or partially integrated into the e-governance system established by the BiH COM, and the E-governance Department of the BiH Ministry of Communications does not have sufficient resources to facilitate consolidation and integration of institutions within the e-governance system.

BRIEF ASSESSMENT DESCRIPTION

The e-governance/ e-administration assessment will be conducted through, but not limited to the following data collection methods: document review, semi-structured interviews with key informants, focus groups, and surveys.

The assessment will focus on sectors and specific services and administrative processes where public administration and institutions provide services or interact with businesses and citizens.

The proposed methodology will identify and classify services and administrative processes to be improved through the use of e-signatures into the following groups:

1. Services and administrative services and processes provided to citizens by governments/public administration and institutions;
2. Services and administrative services and processes provided to the private sector/business community by governments/public administration and institutions;

Within each of these groups, the successful bidder will develop and execute a sound methodology to identify specific sectors (i.e. public procurement, health, construction, education, etc.) and services and that:

- Could be digitalized and improved in a reasonable time period (please classify services by duration of implementation into 3 categories; 1 year, 2 years, 3 years) and in which the use of e-signatures could produce the most immediate impact;
- Reduces corruption and rent seeking behavior of public administration officials (bribes, nepotism, favoritism, etc.);
- Covers a large number of businesses and citizens and increases the business community's/citizens' satisfaction with services;
- Could substantially decrease the time and cost for businesses and citizens in accessing and acquiring these services.

TASKS AND DELIVERABLES

Desk review: The assessment team is expected to review existing literature on best practices related to digitization of services and administrative services/processes and introduction of e-signatures in other countries in the European Union. The purpose of the literature review is to describe the process and sequencing of digitization of services and the introduction of e-signature. The literature review should also describe best practices from successful efforts to create the preconditions, legal and regulatory framework, and infrastructure for successful digitization of services and public services/processes that could be replicated in BiH.

The successful bidder is expected to review all existing relevant documents, including but not limited to: legal and regulatory documents related to e-governance and e-signatures, strategies and action plans, analysis and reports related to e-governance and e-signatures, and digitization of services and administrative services/processes in BiH. Based on these documents, the bidder will identify the present status, gaps, and impediments to digitization of services and administrative processes provided by the public administration and institutions to the business community and citizens in BiH.

Data collection: The assessment team is expected to collect data that enable an analysis of the sectors and specific services and public services/administrative processes provided to businesses and citizens in terms of the:

- Feasibility of digitization
- Degree to which digitization of services and administrative processes address corruption and produce the most immediate impact
- Degree to which digitization of services and administrative processes simplify administrative procedures, reduce time and cost of accessing and acquiring public services by business and citizens.

The data collection sources/methods are to include, but not be limited to: (i) document review, (ii) secondary statistical data, (iii) semi-structured interviews with key informants (relevant ministries and agencies at all government tiers, municipalities, banks, business associations and businesses, citizens, etc.); (iv) focus groups with representatives of the public administration, the business community, and citizens, (v) mini-surveys.

Analysis and Recommendations: The assessment team is expected to provide a detailed description of the proposed analysis. This analysis should be accompanied by high-quality recommendations that can inform USAID/BiH programming in e-governance and e-services. These recommendations should enable USAID/BiH to identify specific sectors and services within these sectors where digitization will reduce corruption and rent seeking behavior among public officials, produce an immediate effect, increase transparency of the work of the public administration, and increase the satisfaction of businesses and citizens with the work and services provided by public administration through reduced time and cost of accessing and acquiring services.

Through the analysis and recommendations, the successful bidder will answer following assessment questions:

1. What is the present e-governance/e-administration and e-signature situation in BiH? Specifically, what is the current status of legal, regulatory, and institutional frameworks; availability of information technologies; registry of public services and public administration processes planned for digitization and use of e-signatures platform; policies and plans for digitization; e-governance implementation; and establishment of an e-signatures platform? What are the gaps in the above-mentioned areas and what resources and timeframe is needed to address these gaps in order to create the necessary and sufficient preconditions for e-governance/e-administration implementation and establishment of a functional e-signatures platform?
2. What services and public administration processes, if any, are already digitized through the use of an e-signatures platform? Which could be used as examples of best practices in terms of reduced corruption and rent seeking behavior of public officials and improved services and public administration processes through reduced time and cost and simplification of procedures?

3. What recent and ongoing interventions have been implemented by BiH government institutions and major bilateral and multilateral international donors in terms of fighting corruption through e-governance and e-signatures?
4. Which three to five sectors and which specific services and public administration services/ processes provided to citizens within these two to three sectors could be digitized through an e-signature platform and produce the most immediate effect in addressing corruption and rent seeking behavior of public officials, improving transparency of the work of the public administration, and reducing the time and cost of accessing and acquiring these services by citizens? (please classify services by duration of implementation into 3 categories; 1 year, 2 years, 3 years)
5. Which three to five sectors and which specific services and public administration services/ processes provided to businesses within these two to three sectors could be digitized through an e-signature platform and produce the most immediate effect in addressing corruption and rent seeking behavior of public officials, improving transparency of the work of the public administration, and reducing the time and cost of accessing and acquiring these services by citizens? (please classify services by duration of implementation into 3 categories; 1 year, 2 years, 3 years)

Timetable

Task	Deliverable	Deadline
Desk review	Desk review report	November 9, 2018
Data collection completed	Audio recordings and transcripts	November 15, 2018
Presentation of preliminary finding to the Mission	Final PPT presentation	November 20, 2018
Assessment report submitted to the Mission	Final draft report	December 5, 2018 COB

6. ANNEX II: LIST OF DOCUMENTS REVIEWED

J. Alex Halderman, Harri Hursti, Jason Kitcat, Margaret MacAlpine, Travis Finkenauer, Drew Springall; Security Analysis of the Estonian Internet Voting System; May 2014;

John C. Bertot, Paul T. Jaeger, Justin M. Grimes; Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies; April 27, 2010;

Generalno tajništvo Vijeća ministara BiH; Ministarstvo komunikacija i prometa BiH; Analiza korištenja servisa e-vlade i mogućnosti korištenja servisa od strane drugih institucija; Srpanj, 2018. godine.

BiH Ministry of Communications and Transport and the World Bank Group; Analysis of the impact of regulations on legal and institutional issues electronic signature frame; August 31, 2011.

PARCO; Draft Strategic Framework for Public Administration Reform in Bosnia and Herzegovina 2018-2022; Not adopted.

The Audit Office of Institutions of Bosnia and Herzegovina; The report on the efficacy of electronic operations in institutions of BiH; October 2017.

The Audit Office of the FBiH Institutions; Audit Report; Transparency of Employment in Public Enterprises; June 2018;

The Council of Ministers of Bosnia and Herzegovina; The Decision to adopt the Interoperability Framework in BiH;

The Council of Ministers of Bosnia and Herzegovina; The Policy, Strategy and Development Action Plan Information Society in BiH for the period 2004-2010.

The Council of Ministers of Bosnia and Herzegovina; The Rulebook on Registry of Verifiers;

The Council of Ministers of Bosnia and Herzegovina; The Rulebook on Issuing Qualified Certificates;

The Council of Ministers of Bosnia and Herzegovina; The Rulebook on Measures for the Use and Protection of a Digital Signature, Means for Forming E-Signature and Certification System.

The Government of FBiH; Long-term implementation plan for the implementation of the interoperability framework at the level of the Federation of Bosnia and Herzegovina.

The Government of Republika Srpska; Rulebook on Information Security Standards; Regulation on Information Security Measures;

The Government of Republika Srpska; Rules on the records of certification bodies;

The Government of Republika Srpska; Registration policy certification;

The Government of Republika Srpska; Rulebook on Electronic Signature and Qualified Electronic Signature Protection Measures;

The Government of Republika Srpska; Technical rules for ensuring the connection of records of certificates issued and revoked by certification bodies in RS.

United Nations Office on Drugs and Crime; Business, Corruption and Crime in Bosnia and Herzegovina, 2013.

The World Bank and International Finance Corporation; Enterprise Surveys; Bosnia and Herzegovina, Country Profile 2013.

United Nations E-government Survey 2018;

7. ANNEX III: INTERVIEW GUIDE

E-GOVERNANCE/E-ADMINISTRATION IN BOSNIA AND HERZEGOVINA ASSESSMENT

This interview is being conducted to explore the opinions and approaches used by different stakeholders in e-governance integration in BiH, with specific interest in efforts to reduce corruption. Our purpose in meeting with you today is to learn about your thoughts and experiences on this topic. Your insights will help us understand and summarize the information on the existing activities, practices, and gaps when it comes to e-government/e-administration and e-signature platform in BiH.

All your comments are confidential and you will not be identified by name in any report. [NOTE: Make sure you have name, position, and office organization]

Would it be alright if I record this interview?

Organization/Institution	
Project/Activity	
Interviewee	
Position in organization	

LEGAL FRAMEWORK

1. How would you describe the present e-governance/e-administration and e-signature situation in BiH?
2. What is the current status of the Law on e-signature?
PROBE: Which other legal documents are drafted/submitted/signed/adopted/implemented in terms of fulfilling the eSEE Agenda?
3. Which institutions are responsible for the implementation of Law on e-signature? What are the main activities/tasks of these institutions?
PROBE: In your opinion, are mentioned institutions enough competent for implementation of the Law on e-signature?
PROBE: In your opinion, to what extent the activities/tasks of various institutions related to the implementation of this law overlap?
4. What are the gaps in current legal framework and what resources and timeframe is needed to address these gaps in order to create the necessary and sufficient preconditions for e-governance/e-administration implementation and establishment of a functional e-signatures platform?

INFORMATION TECHNOLOGY INFRASTRUCTURE

5. How would you describe the current situation in terms of infrastructure in your institution?
PROBE: Has your institution invested in infrastructure in the last 5 years? For what exactly?
PROBE: Do you know if there is a plan in the coming period for the purchase of some equipment (hardware or software)?
6. Does your institution have a separate IT department that maintains computer equipment (hardware and software)?
7. In your opinion, is the existing infrastructure sufficient for the introduction of e-signature in the everyday work of your institution?
PROBE: What are the gaps in current infrastructure and what resources and timeframe is needed to address these gaps in order to create the necessary and sufficient preconditions for e-governance/e-administration implementation and establishment of a functional e-signatures platform?
8. Does your institution offer any e-service (G2G, G2C)? (this can include e-service, email, public portal, etc)
PROBE: What type of data other institution request from you and do you have signed memorandums with them, or data is public?
9. Does your institution have long term IT/process strategy, does it cover e-service?

PUBLIC ADMINISTRATION PROCESS AND CORRUPTION

10. How would you describe the present administration processes and their relation with corruption in BiH?
PROBE: In your opinion, which part of the public administration processes are mainly affected with corruption?
PROBE: Can you tell us the exact public services that are affected with corruption?
11. In your opinion, how can e-government/e-administration services help in fighting against corruption?
PROBE: Does your institution have policies and plans for digitalization of certain administrative services?
PROBE: How would your institution implement e-governance/e-administration and e-signature platform?
PROBE: Would the implementation of e-governance and e-signature automatically affect the corruption in public administration?

12. What services and public administration processes, if any, are already digitized through the use of an e-signatures platform?

PROBE: Which could be used as examples of best practices in terms of reduced corruption and rent seeking behavior of public officials and improved services and public administration processes through reduced time and cost and simplification of procedures?

13. What recent and ongoing interventions have been implemented by BiH government institutions and major bilateral and multilateral international donors in terms of fighting corruption through e-governance and e-signatures?

14. What services and processes can be digitalized in future and will result in reducing corruption?

PROBE: Which other results can occur when using e-signature platform for reducing corruption, (example, reducing costs, time, etc.)

PRIORITY SECTORS AND SERVICES

15. Which three to five sectors can be the most important sectors for citizens when looking at e-governance/e-administration and/or e-signature platform integration in everyday work?

16. Which specific services and public administration services/processes provided to citizens within these three to five sectors could be digitized through an e-signature platform

PROBE: Which digitalized services and processes produce the most immediate effect in addressing corruption and rent seeking behavior of public officials, improving transparency of the work of the public administration, and reducing the time and cost of accessing and acquiring these services by citizens?

NOTE: Please classify services by duration of implementation into 3 categories; 1 year, 2 years, 3 years.

17. Which three to five sectors can be the most important sectors for businesses when looking at e-governance/e-administration and/or e-signature platform integration in everyday work?

18. Which specific services and public administration services/processes provided to businesses within these three to five sectors could be digitized through an e-signature platform

PROBE: Which digitalized services and processes produce the most immediate effect in addressing corruption and rent seeking behavior of public officials, improving transparency of the work of the public administration, and reducing the time and cost of accessing and acquiring these services by businesses?

NOTE: Please classify services by duration of implementation into 3 categories; 1 year, 2 years, 3 years.

19. What specific services that are provided by the financial/banking sector to businesses and citizens could be digitized through the use of an e-signature platform that would reduce the time and cost and improve clients' satisfaction?

8. ANNEX IV: LIST OF INTERVIEWEES

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9. ANNEX V: MINI SURVEY OF COMPANIES REGISTERED IN BIH

1. Does your company use online (electronic) services of different government institutions, agencies and municipalities?
 - a) Yes
 - b) No
2. Does your company use online services for commercial services from other legal entities (e-banking, online payments, e-invoices, etc.)?
 - a) Yes
 - b) No
3. Does your company when interacting with government institutions, agencies and municipalities, use the administrative procedures, submit a request, and fulfill some forms through physical contact with institutions and in paper form?
 - a) Yes
 - b) No
4. Online (electronic) services you use in interacting with different government institutions, agencies and municipalities are: (multiple responses)
 - a) E-mail communication with institutions
 - b) Access to basic information on the website of government institutions, agencies, municipalities
 - c) Access and download of different types of forms of government institutions, agencies, municipalities
 - d) Submitting the form electronically when submitting a request and fulfilling the obligations
 - e) Electronic payments for various services, requests, permissions at the end of the process
5. Administrative procedures of government institutions, agencies and municipalities in submission of applications, bids or compliance with legal obligations:
 - a) They are not digitized and need to be filled in paper form and by physical contact with the institutions
 - b) They are digitized only in a small part and most of the processes take place in paper form and in physical contact with institutions
 - c) They are digitized in a large part and only a small part of the process take place in paper form and physical contact with the institutions
 - d) They are digitized and there are no parts of the processes that require physical contact with the institutions
6. Digitizing administrative procedures in interaction with government institutions, agencies and municipalities would significantly facilitate your company's business?
 - a) Yes

b) No

7. Digitizing administrative procedures in interaction with government institutions, agencies and municipalities would significantly reduce the possibility of corruption in the administration?

a) Yes

b) No

8. Digitizing administrative procedures and processes in interaction with government institutions, agencies, and municipalities would significantly reduce the potential for corruption in the following areas (rank relevant for the business of your company)

a) Issuing building permits

b) Submission and payment of tax liabilities

c) Public purchase

d) Reporting workers

e) Concessions awarding

f) Inspections

g) Paying contributions for workers

h) Registration of the company

i) Submitting customs reports

j) Issuing of environmental permits

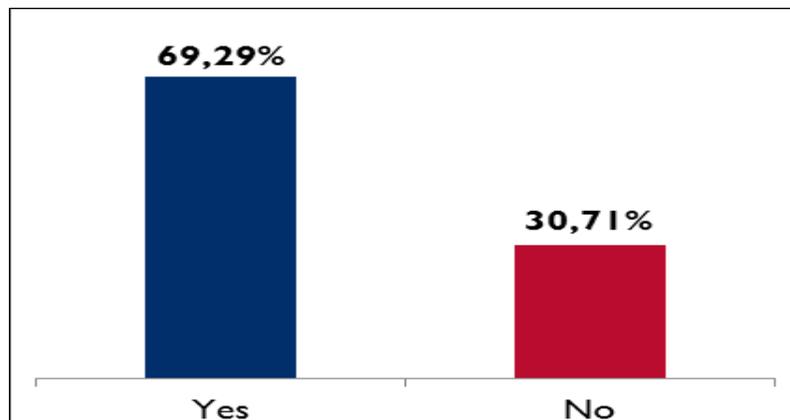
10. ANNEX VI: MINI SURVEY RESULTS

The survey of business community highlights the need to intensify activities across a number of agencies to improve e-government services. The anonymous survey was conducted during November 2018 over online survey platform with 365 distinct responses.

Major findings below:

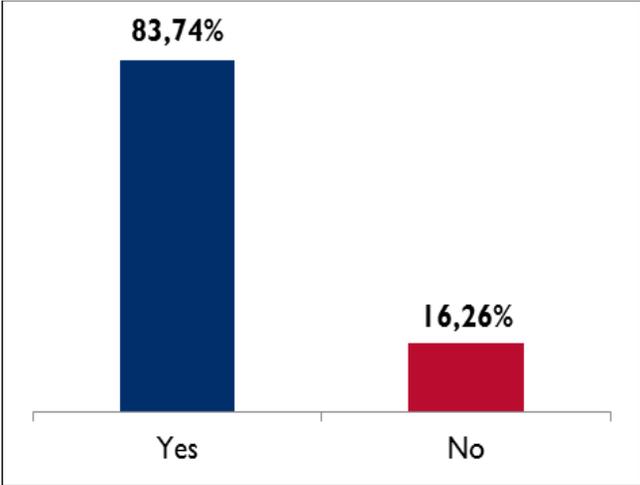
- Companies have high level of motivation (84%) to use e-service, where (95.6%) believe that e-service would significantly felicitate business (Figure 6), and reduce (87.6%) possibility of corruption.
- Companies are required (95.7%) to submit application in paper form during administrative procedure.
- Only 9% of process is fully digitalized with government institution, current level of e-service is to download forms (79.5%) or to access basic information (79.2%) which clearly indicates lack of two way communication.
- Digitization of administrative procedures would dramatically reduce potential of corruption in all major sectors.

Exhibit 1. Does your company use online (electronic) services of different government institutions, agencies and municipalities?



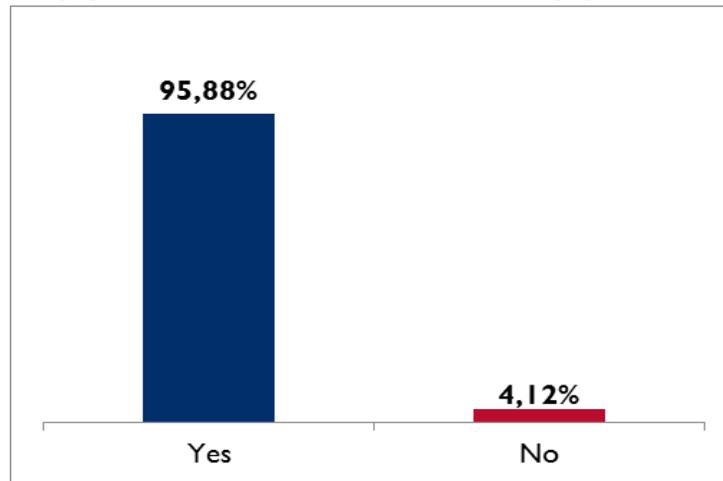
About 84 percent of surveyed companies use commercial online services such as e-banking. Somewhat less percentage (69 percent) of enterprises use some form of electronic interaction with different government institutions, agencies and municipalities.

Exhibit 2. Does your company use online services for commercial services from other legal entities (e-banking, online payments, e-invoices, etc.)?



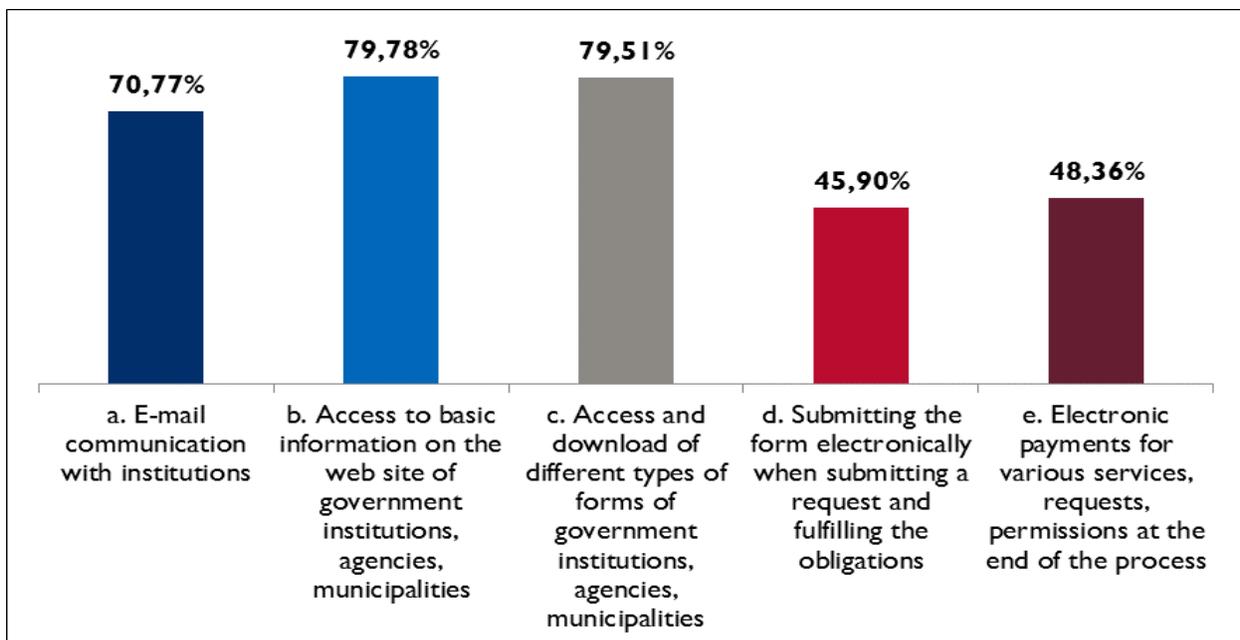
However, almost 96 percent of surveyed enterprises stated that when interacting with government institutions, agencies and municipalities and submitting requests and must fill some applications they must do that in paper form and by bringing it in person.

Exhibit 3. Does your company when interacting with government institutions, agencies and municipalities, use the administrative procedures, submit a request, and fulfill some forms through physical contact with institutions and in paper form?



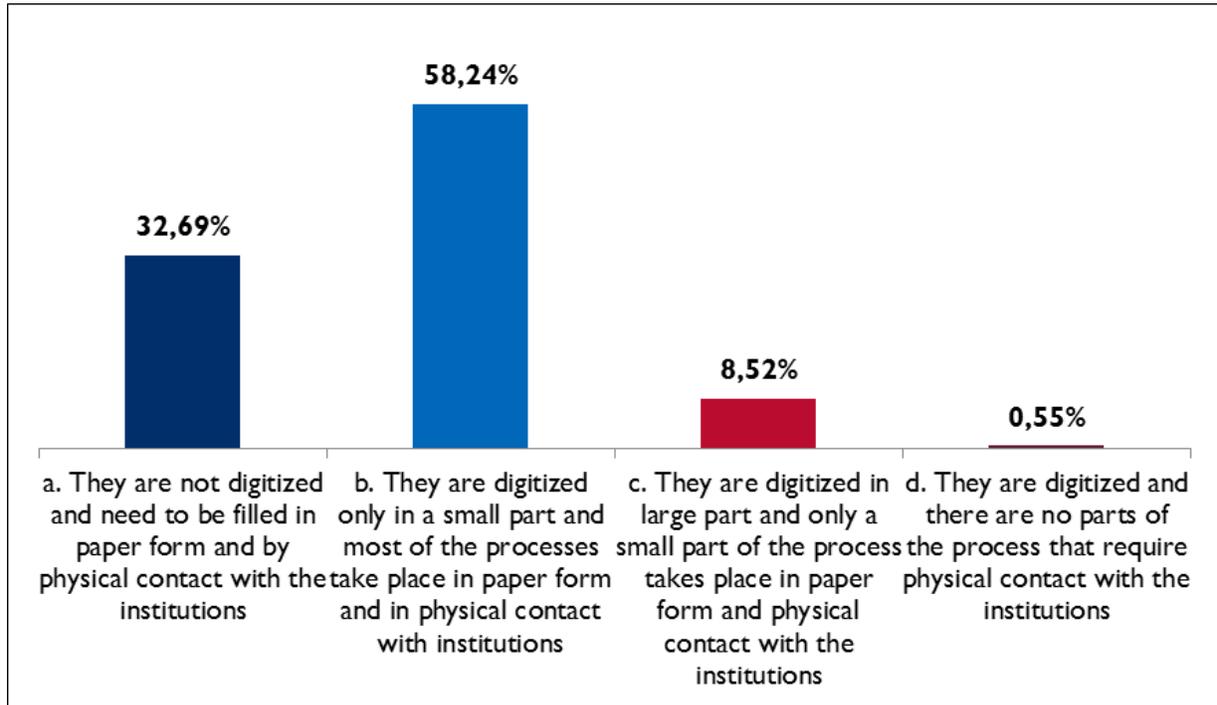
Electronic interaction is predominantly related to accessing basic information from the websites of government institutions and/or downloading different type of forms (79 percent). About 70 percent of surveyed enterprises used e-mail to communicate with government institutions. Only 45.9 percent of

Exhibit 4. Online (electronic) services you use in interacting with different government institutions, agencies and municipalities are: (multiple responses)



enterprises used possibility to submit some kind of form / application / report to government institutions. About 48 percent of enterprises paid electronically at the end of some administrative procedure and interaction with public administration.

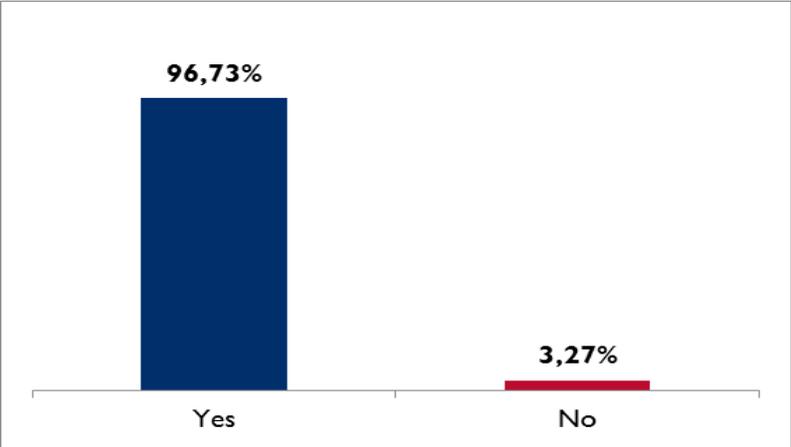
Exhibit 5. Administrative procedures of government institutions, agencies and municipalities in submission of applications, bids or compliance with legal obligations:



Regarding digitization of administrative services relevant to enterprises, 32.7 percent of surveyed enterprises stated that entire interaction with public administration is physical and in paper form, and additional 58.2 percent stated that only a small part of administrative processes and services relevant to enterprises is digitized and that majority of interaction is physical and in paper form.

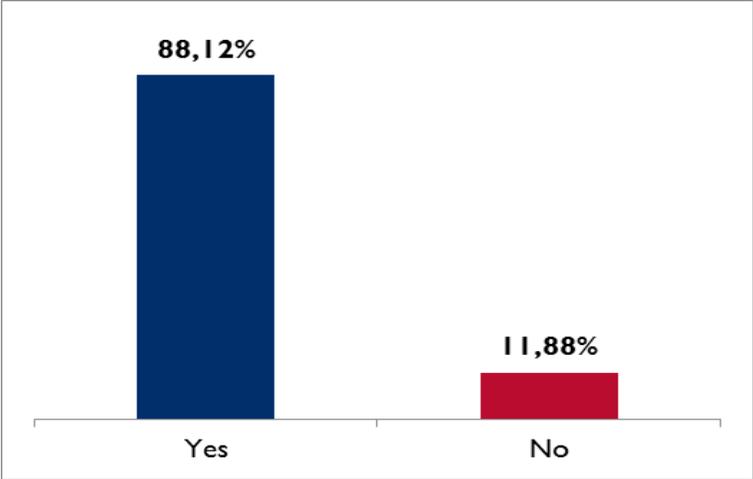
About 97 percent of surveyed enterprises stated that digitization of interaction with public administration would substantially help their business operations.

Exhibit 6. Digitizing administrative procedures in interaction with government institutions, agencies and municipalities would significantly facilitate your company's business?



About 88 percent of enterprises is of opinion that digitization of administrative procedures and interaction with government institutions will substantially reduce possibility of corruption in the administration.

Exhibit 7. Digitizing administrative procedures in interaction with government institutions, agencies and municipalities would significantly reduce the possibility of corruption in the administration?



Business community opinions on which administrative services digitization would reduce corruption in public administration are provided in Exhibit 8.

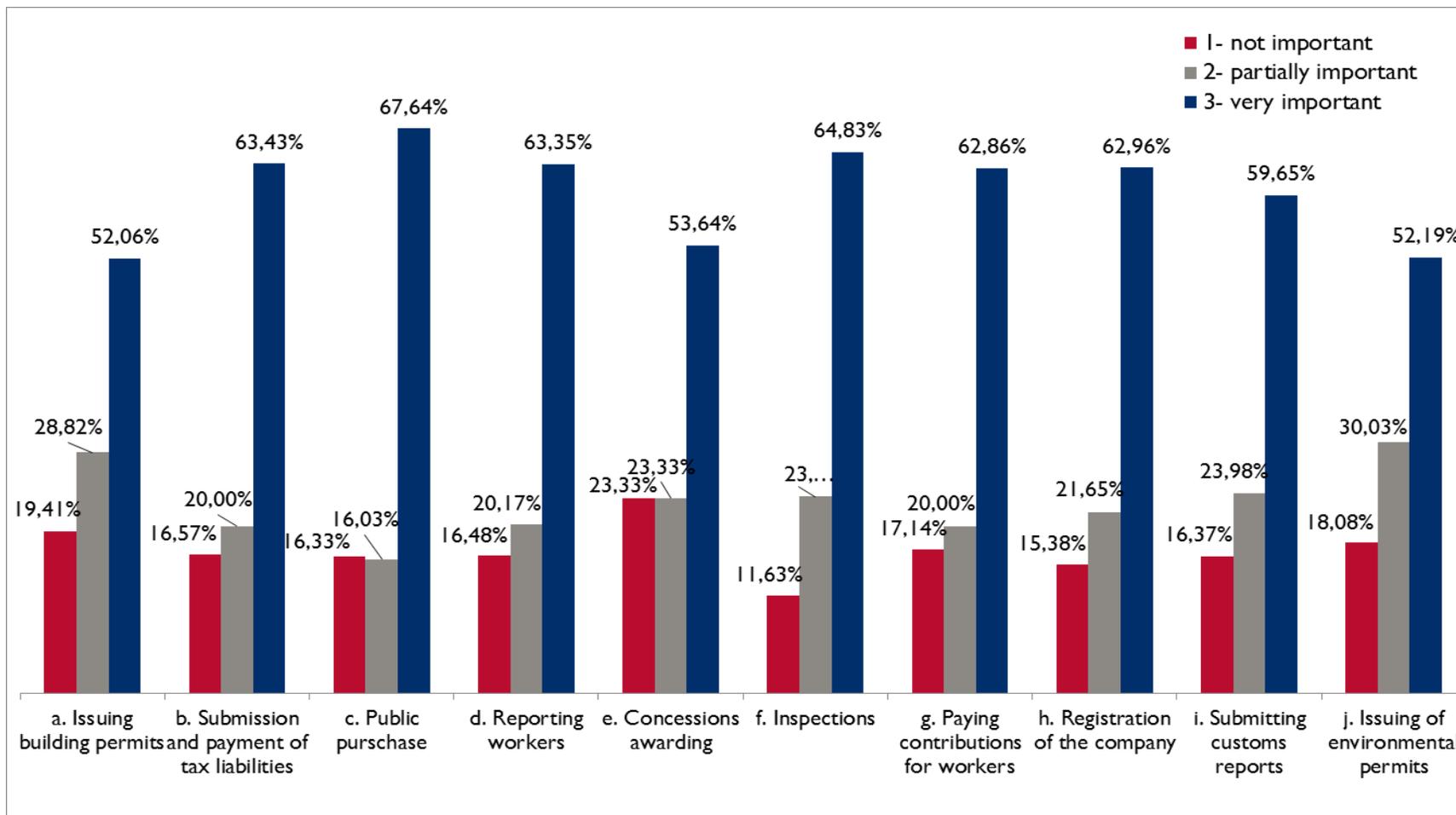
Exhibit 8.

Type of Public Service	Digitization importance for corruption reduction		
	Not Important	Partially Important	Very Important
Construction Permits	19.41%	28.82%	52.06%
Tax Declaration	16.57%	20%	63.43%
Public Procurement	16,33%	16.03%	67.64%
Workers Registration	16.48%	20.17%	63.36%
Concessions	23.33%	23.33%	53.64%
Inspections	11.63%	23.55%	64.83%
Social contributions for workers	17.14%	20%	62.86%
Business registration	15.38%	21.65%	62.96%
Customs declaration	16.37%	23.98%	59.65%
Environmental permits	18,08%	30.03%	52.19%

Other important public administrative services (besides one from exhibit 1) mentioned by surveyed enterprises and which digitization could ease their business operations are: The list of public services that enterprises consider important are:

- Issuing different types of certificates and online payment for them;
- Government subventions
- All types of reporting
- Car registration
- Workers registration and
- Getting VAT and Statistical numbers for company (part of business registration process)

Exhibit 9. Digitizing administrative procedures and processes in interaction with government institutions, agencies, and municipalities would significantly reduce the potential for corruption in the following areas (rank relevant for the business of your company)



**MONITORING AND EVALUATION
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