

# Interoperability Data for Bosnia and Herzegovina, 2012

1. Interoperability as a strategic goal	
1.1. Strategic Priority on Interoperability	Yes (2011)
<p>Bosnia and Herzegovina does not have a National Interoperability Strategy. Nonetheless, interoperability of organizational units is foreseen as a course of action within the eGovernance development pillar of the <i>Strategy for Information Society Development</i> for the period 2004-2010, along with public administration re-engineering, technological and developmental basis, communication and IT infrastructure, security, fundamental registers, informalization of joint and specialized functions of the administration, e-democracy, electronic services, and portals and access points, under the prism of several of which it is also viewed as a prerequisite and critical factor for their achievement [1]. The <i>Strategy</i> acknowledges interoperability as key to implementation of eGovernance, and states more specifically, that “technical specifics and solutions should be defined with the aim of ensuring interoperability and coherence of the information systems in the public sector, which must be viewed as foundations to overall strategy of eGovernance development” [1].</p> <p>Remarkable is also the fact, that the concept of interoperability appears in several other pillars of the <i>Strategy</i>, while among the activities foreseen, there are the definition of concepts and standards for IT interoperability in the public sector, the implementation of an interoperability project to verify and render operational the interoperability concept, as well as the establishment of an IT Interoperability Forum [1]. The same notion is delivered in the Action Plan for Information Society Development in Bosnia and Herzegovina, which complements the aforementioned strategy [2].</p> <p>Additionally, similar activities as well as the establishment of an eGovernment Interoperability Framework are foreseen in the <i>National Strategy and Action Plan of Public Administration Reform</i> [3, 4].</p> <p>Interestingly, in both the aforementioned strategies there is a persistent focus on the need to guarantee interoperability of public registers, in order to provide cross-organizational and transactional services. A strategy on public registers, enclosing the solutions for harmonization and interoperability of the latter, is thus to be developed [3, 4].</p> <p style="text-align: right;">(2011) [9, 10, 11, 12]</p>	
1.2. National Interoperability Strategy Status	Not planned (2011)
2. National Interoperability Frameworks	
2.1. National Interoperability Framework Status	
2.1.1. Title	Not applicable
2.1.2. Version	Not applicable
2.1.3. Release Date	Not applicable
2.1.4. Focus / Scope	Not applicable
2.1.5. Audience	Not applicable
2.1.6. Status	Planned (2011)
<p>The Interoperability Framework development was tendered in April 2009, by the Public Administration Reform Coordinator's Office, but unsuccessfully [5].</p> <p>According to the National Strategy of Public Administration Reform [3] an eGovernment Interoperability Framework is to be developed by 2010, however, there is not available information whether the necessary procedures have commenced or the development of the framework is still in the stage of planning.</p>	

(2011) [11, 13]

2.1.7. Responsible Agency	Unknown (2011)
2.2. Compatibility of National Interoperability Framework with the European Interoperability Framework	<i>Not applicable</i>
<p>(The establishment of an IT interoperability framework for the BiH public sector, harmonized with the European Interoperability Framework (EIF) constitutes a long term priority according to the National Strategy for Public Administration Reform and Action Plan.)</p> <p style="text-align: right;">(2011) [11, 12]</p>	

### 3. Interoperability Projects and Activities

3.1. Number of interoperability-related projects of local or national scope	Moderate
<p><b>National-Public Administration Portal:</b> -</p> <p><b>E-Government Backbone:</b></p> <ul style="list-style-type: none"> <li>- <b>eGovernment at the Council of Ministers BiH</b> (Sep 2006 – Sep 2008), to enhance the efficiency of BiH Council of Ministers through the introduction of a secure networking system and basic communication and collaboration services that will interconnect all Ministries and departments within the CoM, and increase the capacity of the Government to manage grant resources, through the establishment and successful functioning of a system for the registry and reporting of grants assistance made available to the public sector in BiH [3].</li> </ul> <p><b>Research &amp; Education Network:</b></p> <ul style="list-style-type: none"> <li>- <b>SIF</b> (Schools Interoperability Framework) project, with the objective of standardization in the field of Education Management Information Systems [1].</li> </ul> <p><b>Environmental Geoportal:</b> -</p> <p><b>Marine Data Management Infrastructure:</b> -</p> <p><b>Legislation &amp; e-Justice System:</b></p> <ul style="list-style-type: none"> <li>- <b>HJPC</b> (High Judicial and Prosecutorial Council) project, targeting the creation of a single information and communication space for all courts and prosecution offices, as well as the establishment of a case management system and judicial documentation centre, and with the view of being linked with the CIPS database [5].</li> </ul> <p><b>e-Health System:</b> -</p> <p><b>e-Tax Portal &amp; Infrastructure:</b> -</p> <p><b>Other projects:</b></p> <ul style="list-style-type: none"> <li>- <b>CIPS</b> (Citizen Identification Protection System) project, targeting the issuance of new identity cards, meeting the EU standards, as well as the development of the necessary infrastructure, central database and re-organization of relevant procedures, to enable communication and shared access to a common set of data between the central unit and a number of remote locations where the ID cards are issued, and faster service delivery respectively [5].</li> </ul>	

- **RIC** (Regional Information Centre), a multipurpose information-communication and service centre, in Herzegovina, to provide services to SMEs and micro businesses in the region, based upon the creation and operation of a network of 22 First Stop Shops in 22 municipalities, connected with RIC. RIC has established a business directory of 18000 SMEs, as well as of all business zones in Herzegovina [6].
- **SPIRA** (Streamlining Permits and Inspection Regime) project, to eliminate barriers delaying the registration of unincorporated businesses and allow entering the market in only a single day [7].
- **HRMIS** (Human Resources Management Information System, started in Oct 2006), to support horizontal function of human resources management throughout the public administration at the BiH level, by facilitating human resource planning, recruitment, training and the full range of associated functions, automating the most frequent human resource management procedures at the level of individual institutions and building human resource management capacity, based on personnel files, kept in the HRMIS database, and providing vertical integration of data to allow the Civil Service Agency to operate effectively [2, 4]. (UNDP Good Practice Label)
- **e-Archive Portal of the Ministry of Communications and Transport**, to solve problems that arise in the process of managing cases and documents in the administrative office [8].
- **Digitalization and Informatization of Cultural Heritage of Bosnia and Herzegovina**, this project includes mainly the: i. digital capture and transformation from analogue to digital form, ii. describing and representations of heritage objects and documentation about them, iii. processing of digitized content, iv. presentation and long term preservation of digitized content (<http://www.digi.ba>) [8].

[1, 2, 3, 4, 5, 6, 7, 8]

3.2. Number of EU-funded interoperability-related projects	Non-existent (2011)
3.2.1. Indicative projects	
	(2011)

#### 4. National Interoperability Practices

4.1. Number of Interoperability Cases with Good Practice Label	Low
<ul style="list-style-type: none"> <li>- <b>HRMIS</b> (Human Resources Management Information System, started in Oct 2006), to support horizontal function of human resources management throughout the public administration at the BiH level, by facilitating human resource planning, recruitment, training and the full range of associated functions, automating the most frequent human resource management procedures at the level of individual institutions and building human resource management capacity, based on personnel files, kept in the HRMIS database, and providing vertical integration of data to allow the Civil Service Agency to operate effectively. (UNDP Good Practice Label)</li> </ul>	
[2, 4]	
4.2. Best Interoperability Practice	
4.2.1. Title	HRMIS (Human Resources Management Information System) (2011)
4.2.2. Description	

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[2, 4]

#### 4.2.3. Status

Operational

(2011)

#### 4.2.4. Indicative interoperability aspects covered

- Business Process Management
- Data Repositories
- Back-office systems
- Business Process Rules

(2011)

#### 4.2.5. Impact

##### *Benefits - Reusable Components – Patterns:*

- A modern human resource management information system that allows to strategically manage the human capital of the BiH public administration.
- Capability to optimize and align the workforce in institutions, and improve its responsiveness, productivity and efficiency.
- Provision of centralized and personalized information, operational intelligence and delivery of answers to complex questions.
- Recruitment module, with a web front-end to be used by the public and easy-to-use functionalities for the job seeker.
- Employee Self Service module, allowing government employees to change personal data (e.g. contact information), apply for time off, view their history, apply for training etc.

##### *Lessons Learnt:*

- If dynamic changes are expected in the business process rules, flexibility is a must when specifying software requirements. Having in mind that HRM processes are far from being completed, optimized and harmonized, the driving force during functional requirements specification was that the HRMIS needs to be built extremely flexible. Flexibility of HRMIS should not be compromised even in order to increase the level of automation of HR processes, meaning that certain responsibilities are to remain in the user, and his/her knowledge of HRM rules and regulations will continue to be essential.
- Future users are (usually) the best experts. The project team held several workshops with HR practitioners from institutions. Participants identified all HR processes and then specified data and reporting requirements. A prototype database was available to play with, to trigger additional ideas. Participants came prepared having samples of documents needed in their daily work.
- Political leadership is more important than technical leadership. To overcome the resistance to change that may come from top management and employees, an appropriate attitude, sensitivity to users concerns and good communication, rather than technical competence and expertise are needed.

(2011)

5. e-Government Interoperability	
5.1. Interoperability Level of core e-Government services to citizens / businesses	36.0% (2010) [14]
5.2. Connected Government Status	0.0% (2008) [15]
6. e-Business Interoperability	
6.1. Intra-organizational Integration Level	<i>Not available</i>
6.2. Cross-organization Integration Level	<i>Not available</i>
6.3. Cross-organization Application-to-Application Integration Level	4.0% (2010) [14]
6.4. e-Invoicing Status	4.0% (2010) [14]
6.5. B2B Data Standards Usage	
6.5.1. EDI-based standards	<i>Not available</i>
6.5.2. XML-based standards	<i>Not available</i>
6.5.3. Proprietary standards	<i>Not available</i>
6.5.4. other technical standards	<i>Not available</i>
6.6. Interoperability Awareness	
6.6.1. Within their sector	<i>Not available</i>
6.6.2. Between sectors	<i>Not available</i>
6.6.3. For producing or providing products and services	<i>Not available</i>

## References

1. Council of Ministers of Bosnia and Herzegovina, UNDP (2004). "Strategy of Information Society Development in Bosnia and Herzegovina". Retrieved from link.
2. UNDP (2010). "eGovernance and ICT Usage Report for South East Europe", 2nd Edition. Sarajevo 2010. Retrieved from link.
3. UNDP Bosnia and Herzegovina: eGovernment at the Council of Ministers BiH. Retrieved from <http://www.undp.ba/index.aspx?PID=21&RID=80>.
4. ePractice.eu. Cases: CSA Human Resources Management Information System. Retrieved from <http://www.epractice.eu/en/cases/evig> (Last Edited Date: 01 November 2008).
5. We-Go: Enhancing Western Balkan eGovernment Expertise (2008). "Work package 1 – We-Go Interoperability Framework, Deliverable D.1.1. EIF Compliance Analysis and Recommendations EIF Compliance Analysis and Recommendations".
6. European Commission – Enlargement: Regional Info Centre in Herzegovina. Retrieved from link (Date of last update: 24.04.2008).
7. USAID Bosnia and Herzegovina: Fast start for entrepreneurship. Retrieved from link.
8. United Nations Development Programme. (2011). "Best Practice Compendium In Implementing the e-See Agenda + 2011". Retrieved from <http://www.undp.ba/upload/publications/Best%20Practice%20Compendium.pdf>
9. Council of Ministers of Bosnia and Herzegovina, UNDP (2004). "Strategy of Information Society Development in Bosnia and Herzegovina". Retrieved from link.
10. Council of Ministers of Bosnia and Herzegovina, UNDP (2004). "Action Plan of Information Society Development in Bosnia and Herzegovina". Retrieved from link.
11. PARCO. "Public Administration Reform Strategy". Retrieved from <http://parco.gov.ba/?id=68>.
12. PARCO. "Action Plan to the Strategy for Public Administration Reform". Retrieved from <http://parco.gov.ba/?id=75>.
13. UNDP (2010). "eGovernance and ICT Usage Report for South East Europe", 2nd Edition. Sarajevo 2010. Retrieved from link.
14. UNDP (2010). "eGovernance and ICT Usage Report for South East Europe", 2nd Edition. Sarajevo 2010. Retrieved from link.
15. United Nations. (2008). "eGovernment Survey 2008: From eGovernment to Connected Governance", New York 2008. Retrieved from link.