The Use of New Technologies in Electoral Process in Bosnia and Herzegovina: Where we started and where we are going

Suad Arnautović
BiH Central Election Commission, Sarajevo, Bosnia and Herzegovina
Introduction

2018 General Elections

Technological improvements in the electoral process in BiH

- the BiH institutions amongst political parties and
- the public.
Why to use information communication technologies in electoral process in BiH?

• Formal and legal reasons
• Economic side of this process
• Can BiH afford having expensive and overly complicated elections every two years?
• Bolstering public confidence in electoral processes in BiH
• ICT may encourage young voters
What are the benefits and the advantages of introducing new technologies in electoral process in Bosnia and Herzegovina?

• Where can technologies help strengthen the electoral process?
• Why should a new technology be used?

Four reasons to use new technologies in electoral process in BiH that should be considered.

• the accuracy of election results,
• reduce spoiling of the ballot.
• new technologies strengthen confidence
• accessibility
Where we started - Chronological overview of the use of electoral technology in Bosnia and Herzegovina

<table>
<thead>
<tr>
<th>ID</th>
<th>Application module name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Application for processing voter registration outside BiH</td>
</tr>
<tr>
<td>2</td>
<td>Module for generating reports from Central Voters’ Register</td>
</tr>
<tr>
<td>3</td>
<td>SMS centre application. Sun Platform SunFire T500 Platform (Solaris OS).</td>
</tr>
<tr>
<td>4</td>
<td>Application for processing, verification and validation of political entities’ submissions</td>
</tr>
<tr>
<td>5</td>
<td>An Application for Ballot Lottery of Political Entities. Existing application MS Access with VBA and Excel</td>
</tr>
<tr>
<td>6</td>
<td>Application for candidate entry</td>
</tr>
<tr>
<td>7</td>
<td>Application for candidate verification</td>
</tr>
<tr>
<td>8</td>
<td>Application for processing candidate lists</td>
</tr>
<tr>
<td>9</td>
<td>An application for connecting political subjects and candidates</td>
</tr>
<tr>
<td>10</td>
<td>An application for generating reports on candidates and candidate lists</td>
</tr>
<tr>
<td>11</td>
<td>An application for generating election results summary form</td>
</tr>
<tr>
<td>12</td>
<td>An application for generating ballots</td>
</tr>
<tr>
<td>13</td>
<td>Database Preparation Application for the Central Counting Centre (asp and MS Server 2005)</td>
</tr>
<tr>
<td>14</td>
<td>Application for the Central Counting Centre</td>
</tr>
<tr>
<td>15</td>
<td>Module for receiving, entering, checking, and verifying the voting results</td>
</tr>
<tr>
<td>16</td>
<td>The statistics generation and reporting in the main counting centre</td>
</tr>
<tr>
<td>17</td>
<td>An application for entering election results</td>
</tr>
<tr>
<td>18</td>
<td>An application for tracking input and validating election results</td>
</tr>
<tr>
<td>19</td>
<td>Desktop application for input of election results from municipal election commissions</td>
</tr>
<tr>
<td>20</td>
<td>Web application for displaying election results</td>
</tr>
<tr>
<td>21</td>
<td>Application for mandates allocation</td>
</tr>
<tr>
<td>22</td>
<td>An Application for Generating Official Gazette report of election results and mandate allocation</td>
</tr>
<tr>
<td>23</td>
<td>An application to automatically generate mandate allocation reports</td>
</tr>
<tr>
<td>24</td>
<td>An application for generating statistics reports of elections</td>
</tr>
<tr>
<td>25</td>
<td>Application for keeping records of mandates</td>
</tr>
<tr>
<td>26</td>
<td>An application for personal data records for the purposes of enforcing a conflict of interest law</td>
</tr>
<tr>
<td>27</td>
<td>Application for electoral bodies records</td>
</tr>
</tbody>
</table>

Overview of application modules before JIIS project
(Source: Technical Specification of JIIS project)
Where we started - Chronological overview of the use of electoral technology in Bosnia and Herzegovina

- 1997, Active registration of voters (OSCE developed 26 modules (applications))
- 2001, Election Law of Bosnia and Herzegovina,
- 2006, Passive Voter Registration
- 2007/2008, BiH CEC Data Centre upgraded virtualization of all data processing servers, presentation of results, and storage of user data was implemented.
- 2008, a SMS service for the citizens.
- 2010, Integrated Election Information System of Bosnia and Herzegovina (JIIS thereafter)
Where we started - Chronological overview of the use of electoral technology in Bosnia and Herzegovina

- 2012 – 95% of MEC are able to conduct data entry electronically by accessing JIIS through secure SDH network.
- 2014 – Data entry and data processing for the political entities was implemented within the JIIS system thus enabling the case workers to speed up the political entities registration process.
- 2016 – 40,000 email messages with registration forms, or about 60% of all applications, arrived in the last days before the expiration of the deadline and they were all processed.
Where are we going?

• Prepared an analysis of potential technical improvements in the electoral process in Bosnia and Herzegovina
• Final Report - feasibility study with the suggestions of potential solutions
• Pilot project proposal
• Presentation of the use of advanced technologies in the electoral process recommended for BiH electoral process by an international expert
• Information on possibilities for testing (pilot project) advanced technologies in the electoral process at the 2016 Local Elections
Where are we going?

- Inter-departmental Working Group for the analysis of the situation and proposal of modalities for introduction of new technologies to BiH election process
  - Round Table entitled “Analysis of the Situation and Proposing Modalities for the Introduction of New Technologies to the Electoral Process in Bosnia and Herzegovina”,
  - Expert Debate entitled “Role of Competent Authorities in the Development of the Central Voters’ Register”
- Adopted the Report of the Inter-departmental Working Group
- Development of a long-term Strategy and Action Plan for introducing new technologies into the electoral process in BiH
Integrated Election Information System of Bosnia and Herzegovina (JIIS)
1. voter registration (passive registration system - IDDEEA),
2. voter identification and authentication (smart cards, biometric information currently not implemented in Bosnia and Herzegovina)
3. voting and recording of votes cast (not implemented in Bosnia and Herzegovina)
4. vote counting (JIIS) allows electronic input of election results in Counting Centre or from remote locations of MECs, validation of results is done by JIIS.
5. publication of election results (Central Election Commission of Bosnia and Herzegovina uses MVC.NET web application technology with MS SQL Server 2012 to publish election results to the public)
Integrated Election Information System of Bosnia and Herzegovina (JIIS)

It is important to mention the preparatory processes for every election which include:

1. Compilation of Central Voters’ Register
2. Registration of political entities
3. Entry, verification and validation of candidates lists
4. Generation of ballots, preparation for printing
5. Election results entry
6. Election results validation
Conclusion

• There are three main elements that BiH must immediately initiate and consistently implement in order to catch up with not only the countries with a long democratic tradition, but also with the so-called “new democracies”, which greatly enjoy the benefits of using modern IT equipment in the electoral process.
  • electronic voting machine
  • registration and voter identification
  • new ballot design

These elements are the icons of practical “electronic” voting, which some countries have been practicing for many years.
Conclusion

What would, in general, be obtained by computerization of the electoral process in BiH?

- the highest possible speed in obtaining, processing and announcing election results, approximately two to three hours after closing of the polling stations.
- the highest possible accuracy of the results
- maximum transparency of the electoral process, eliminating the possibility of violations of the electoral process such as registration and "voting" of the dead, multiple voting, carousel voting, etc.

New technologies also offer us an accelerated electoral reform. The question is, just, do we want that?!
1. Decision on adoption of design project "Passive voters registration in BiH" ("Official Gazette of BiH", number 21/06)

2. Decision on realization of the Program Integrated Election Information System of BiH – JIIS under competence of BiH CEC ("Official Gazette of BiH", number 25/10)


7. Analysis of the Situation and Proposing Modalities for the Introduction of New Technologies to the Electoral Process in Bosnia and Herzegovina

THANK YOU

Suad Arnautović
Centralna izborna komisija BiH
Danijela Ozme 7, 71000 Sarajevo
Email: suad.arnautovic@izbori.ba