Information Services
IT Systems Integrator and Provider of Intelligent Election Solutions

Mihail Konstantinov
Chairmen of the Board
Information Services JSC
History of the Company

• Established in 1970 as the government IT solutions provider
• Nationwide coverage with local IT service centers
• Strong software development and integration specialization – from mainframes to PC platforms
• Working closely with science institutions and universities
• Responsible for all national databases and state registers
Information Services JSC today

- HQ in Sofia and 26 regional offices
- Over 300 qualified IT specialists in broad technological spectrum
- Own secure datacenters and connectivity network
- Qualified digital signatures provider, eIDAS certification
- IT security, services and quality certified management system
- Leading eGovernment service provider and integrator
Election Information Systems

- Strategic IT partner of the Central Election Commission of Bulgaria since 2003
  - Presidential elections
  - Parliamentary/EU elections
  - Local elections
  - Referendums

- Full computer processing of election results – from protocol data entry to tabulation and presentation
Solution highlights

- Digital signatures for data entry and data in transit since 2003
- Zero error double entry system and fraud detection
- First government institution to implement opendata
- Publicly accessible via the Internet scanned polling stations protocols since 2011
- National registers realtime integration
- Live video feed for Central and regional election commissions sessions
Processes

Regional/Municipality Election
Comission Computing Centers

- Local DB
- Scanning of the Election Protocols
- 1st Data Entry

Central Election Comission
Computing Center

- Central DB
- 2nd Data Entry
- Consolidated DB
- Discrepancy Analysis
- Results Tabulation

Publish and OpenData
- Digital Signatures
- Expert Teams
- Information Security
- Transparency
### Attack Response

Mitigated largest DDoS attack in Bulgaria in 2015

<table>
<thead>
<tr>
<th>Total Bandwidth</th>
<th>Cached Bandwidth</th>
<th>Uncached Bandwidth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Week</td>
<td>Last Week</td>
<td>Last Week</td>
</tr>
<tr>
<td>2 TB</td>
<td>2 TB</td>
<td>276 GB</td>
</tr>
</tbody>
</table>

**Graph**

- **X-axis**: Time (local time)
- **Y-axis**: Bandwidth
- **Data Points**:
  - **Uncached Bandwidth**
  - **Cached Bandwidth**

- **Legend**: Uncached, Cached
Ready for New Challenges

• Next generation IT security threats
• Internet voting solutions
• Machine voting solutions
• Optical ballot recognition systems
• Mobile applications
• eLearning solutions for election staff
Challenges and Negative Trends in eVoting

eVoting includes 1) voting with machines in polling stations and 2) internet voting. Both ways meet serious challenges:

- Accusations for “hacked” elections in USA, Germany, Scandinavian states, etc. Global ban of eVoting in Germany
- Large and technically advanced states (USA, Netherlands, Germany, France) abandon eVoting
- Broad public loses confidence in eVoting

What follows next?
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