E-vote 2011

Relevant Reference Projects

Project: E-vote 2011
<table>
<thead>
<tr>
<th>Customer</th>
<th>OSLO KOMMUNE, NORWAY</th>
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</table>
| Project Name | **E-counting** solution for the 2003 Local and District Elections, 2005 Parliamentary elections, 2007 Local and District Elections and 2009 Parliamentary Elections  
**Election administration solution** for 2009 Parliamentary Elections |

| Project description | Indra has been awarded the contracts for the electronic counting of ballot papers for Oslo for the 2003, 2005, 2007 and 2009 elections. The services included the customization and testing of the software applications, the supply and installation of the technical infrastructure, the production of results and statistics books, the printing of ballot papers, together with the training documentation, solution testing and the operational and technical support during the elections.  
The projects in numbers:  
- The **design, printing, packaging** and **distribution** of 5.5 million **ballot papers** in average  
- The **design, supply** and **installation** of the **hardware architecture** based on the simultaneous use of **15 high production scanners**  
- The **customization** of the electronic counting solution using OCR, ICR, OMR and BCR recognition software  
- The definition of **operating procedures**  
- **Training documentation** and **support** for the staff operating the system  
- The **design** and **printing** of **results** and **statistics**.  
- System **tests**  
- **Support** for the counting operation and the central systems operation  
- The generation of **results files** and **statistics** for the KRD and for the Oslo Kommune  
In 2009, Indra Sistemas has been awarded two different contracts in relation to the 2009 parliamentary elections in Oslo:  
1. **Contract for the supply of an election management system for the 2009 parliamentary elections:** The services includes supply of voter cards, the system to manage the electoral register, the nominations of parties and candidates standing for the elections, the advance voting system with real time access to registration information and the processing of the advance votes.  
2. **Contract for the electronic counting of ballot papers for the Oslo Kommune for 2009 Parliamentary Elections, with possibility of an extension for 2011 elections.** |
### Project Tasks

- Project management (following PMI methodology)
- Software development: design of specific software for:
  - Electoral Management System including advance voting capabilities
  - OCR, ICR, OMR and BCR recognition software
  - Supply of voter cards and ballot papers
- IT architecture design: design and testing of solution for 15 high production scanners
- Training of personnel: two different training modules, one for staff of the Oslo Kommune and one for the Advance voting polling stations Presiding Officers. Specific training materials were delivered for each position.
- Testing: extensive field testing was carried out to check: server’s performance and communications, access from advance polling station to the servers and a final end to end test of the complete system.
- Logistics and deployment of the data center in Oslo

**Technical support during all stages of the project**

### Resources

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<thead>
<tr>
<th>Role</th>
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<tbody>
<tr>
<td>1 Project manager</td>
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<tr>
<td>2 Development managers</td>
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<tr>
<td>4 Software designers</td>
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<tr>
<td>2 Software analysts</td>
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<tr>
<td>1 Operational delivery manager</td>
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### Period

- **Contract Value**: 8.86 Mill. NOK (average, each contract)
- **February 2009-September 2009** for Election Management Indra System and April 2009-September 2009 for the electronic counting project

### Contact Person at Customer

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<table>
<thead>
<tr>
<th>Customer</th>
<th>GREATER LONDON AUTHORITY (GLA)</th>
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<tr>
<td>Project Name</td>
<td>E-counting solution for the GLA 2008 Mayoral and Assembly Elections</td>
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</table>
| Project description   | The Greater London Authority (GLA), awarded Indra the outsourcing of the electronic counting system for the 2008 Mayoral and London Assembly elections. The contract also included:  
  ▪ **Printing** and **supply** of 12 million **ballot papers** and 1000 **ballot boxes** and their **distribution** to all 33 London boroughs  
  ▪ **Supply** and **installation** of IT infrastructure for the counting centres  
  ▪ **Training** programme  
  The Greater London Authority Election is “the biggest and more complex single election in United Kingdom”, in words of Mr. Anthony Mayer, Chief Executive of the GLA. This contract reinforces Indra’s presence in the British market.  
  Indra delivered the electronic counting of votes in centralized locations across London. Three supersites were installed where ballot papers from all 14 constituencies were scanned and the votes contained in each paper counted. The system transmitted the results from each constituency in each of the supersites to City Hall where the votes for the Mayoral election and the London Assembly - London Member seats were tallied and the results of the two elections declared. The London Assembly – Constituency Members seats were counted and declared at each of the 14 Constituencies in the corresponding count centre.  
  Over 5.5 million voters were eligible to vote. Each voter had four votes in three different ballots. The technology included the scanning of the ballot paper and the interpretation of the marks on the ballot paper digital image. Any vote not compliant with the voting rules was referred for adjudication. The system was operated by the corresponding Returning Officer Staff and managed and supervised by the Constituency Returning Officers.  
  The project development was based on the methodologies of reference in the management of projects and services, including standards such as PMP, Prince2 and ITIL. The resulting system guaranteed the reliability and quality of the electronic counting and is now a world-wide reference in this area.  
  London has successfully used the electronic counting of votes for the 2000 and 2004 elections, although this is the first time Indra is contracted as supplier of the e-counting technology. Anthony Mayer, maximum responsible for the GLA, stated: “We have selected Indra as technological supplier because we are convinced that together, the May election will be a success in quality terms, precision and efficiency” |
### Project Tasks

- Project management following ITIL and Prince 2 Methodologies
- Software development for OCR, ICR, OMR and BCR recognition software
- IT architecture design and testing program in specific testing facilities which were replica of the counting center on the Election Day
- Hardware installation and readiness testing
- Recruitment and training of more than 350 people. Training consisted in Presentations, hands-on sessions and an E-learning platform
- Printing of ballot papers and quality control
- Logistics and deployment planning for 3 Centralized Counting Centers and a Central Count declaration center
- Reporting of results in different formats

### Resources

<table>
<thead>
<tr>
<th>Role</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>1 Project director</td>
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<tr>
<td>2 Project managers</td>
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<tr>
<td>Project Manager support team: 2 ITIL certified consultants, 2 ISO 27001 consultants, 2 consultants, on Social and Environmental Governance, 1 Legal Consultant</td>
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<td>Logistics Team: 6 consultants</td>
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<tr>
<td>3 Development managers (software, communications and infrastructure)</td>
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<td>1 Service Manager</td>
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<tr>
<td>Development Team: 7 Software Engineers, 4 Communications Engineers and 3 IT Infrastructure Engineers</td>
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<td>7 technicians for Quality Control during the ballot Printing Phase</td>
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### Period

April 2007-May 2008

### Contract Value

**52.25 Mill. NOK**

### Contact Person at Customer

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Greater London Authority  
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## Project Name

**Internet voting** for the elections of members of the Advisory Board (2002, 2004, 2006 and 2009)

### Project description

The tasks developed by Indra for those projects were:
- Development and customization of the internet platform.
- Design of hardware infrastructure.
- Installation, testing and operation of the data center.
- Training of technical support staff.

Through the computers located at National Police installations, registered voters could cast their vote using the internet voting solution developed by Indra. In those elections the votes were carried out in a controlled environment.

The voting process had the following characteristics:
- Use of e-ID.
- Over 400 computers distributed in different voting locations.
- The electoral roll was over 100,000 registered voters.
- Voting period of three days.

The projects have included not only the voting and vote counting processes, but also pre-election tasks, enabling each voter to have online access to the electronic electoral roll, submit a candidacy or request a postal vote.

### Project Tasks

- Project management (following PMI methodology).
- Software development and customisation.
- IT architecture design.
- Training of technicians from the customer organisation in the technical configuration of voting kiosks.
- Quality assurance.
- Reporting of results in different formats.

### Resources

- 1 Project manager
- 3 Systems technician
- 2 Data base technician
- 1 Programmer analyst
- 5 Programmers

### Period

6 months before election day

### Contract Value

**3.24 EUR Mill. NOK (each contract)**

### Contact Person at Customer

Ricardo Llorente Hernán Gómez
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### Customer

**PRIVATE SECTOR**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>General Shareholder Meetings of the following companies:</th>
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<tr>
<td></td>
<td>- NH Hoteles 2007, 2008 and 2009</td>
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<td></td>
<td>- Solaria 2008</td>
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<td></td>
<td>- Unión Fenosa 2007, 2008 and 2009</td>
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### Project description

For the private area, Indra has executed many projects using the internet voting technology. Those projects are developed as turnkey projects, providing the following services:

- **Voting application**: Indra provides the e-voting software, adapted to each process.
- Proxy voting options
- Shareholders Address Register (a sort of electoral roll).
- **Access control** system to the meeting area.
- Management of Attendance Bonus.
- Infrastructure for internet voters.

In shareholder meetings, voters can cast their votes before the meeting takes place (the period depends of the Company Regulations). They can vote from any computer with internet connection, and the authentication methods will depend of the decision of the company (PKI, user and password).

### Project Tasks

- Project management (following PMI methodology).
- Software development and adaptation.
- IT architecture design.
- Users manuals development
- Quality Assurance.
- Reporting of results in different formats.

### Resources

- 1 Project manager
- 3 Programmers
- 1 Logistic responsible
- 1 Responsible of access control

### Period

1 month before election day

### Contract Value

300,000 Euros (average each contract)
| **Contact Person at Customer** | Carlos González Soria  
Secretary of Executive Board  
Tel: + (34) 91 480 9600  
gonzalez@indra.es |


### Project Name

Solution for **collation, consolidation** and **reporting** of Election results for the **Parliamentary Elections 9th March 2008** and all previous Parliamentary Elections since 1978 (10 elections)

### Project description

General Elections in Spain are managed and organized by the Ministry of the Interior, in a centralized way, so that the company in charge must capture all data, consolidate the votes at a national level and develop a specific website for the reporting of results. Although the Spanish law does not allow electronic voting, Indra combines all required technological means with proved logistics capabilities in logistics and methodological management processes to achieve the processing and consolidation of all the votes of each election in **less than two hours**, after the transmission of the results from each ballot box.

For each Parliamentary Election since 1978, Indra has undertaken the **design, installation** and **operation** of the information system for counting and reporting of results. The size, complexity and volume of information managed in electoral processes in Spain is reflected through the following data corresponding to the last General Elections that took place on 9th March 2008:

- Over **34,000,000** Voters
- **20 centres** for gathering information at a regional level
- **1 centre** for the consolidation of results at a national level
- **Real time** reporting of the results over the Internet, SMS and plasma screens at the central data centre

The provincial information gathering centres transmit the results to the national consolidation centre, using secure communications infrastructure. Once the results are consolidated, the data is sent on to the broadcasting systems that present the information about the results on plasma screens, multimedia systems, internet/intranet.

In addition, a number of post election reports are produced and distributed on digital media and as written reports.

### Project Tasks

- **Project management** (following PMI methodology)
  - Software development: software design for the mobile platforms (PDA’s) used to transmit the results from the polling stations, distributed data centers and for the central data center located in Madrid.
  - IT architecture design: High availability design with redundant architecture
  - Hardware installation and testing. Two full scale acceptance tests are carried out, one for infrastructure (including software) and another one including operating procedures
  - Quality assurance
  - Training of personnel: over than 9,000 people are trained following a tailored training programme. E-learning material is used as support to the training programme
  - Installation and operation of regional and central data center
  - Generation of post-election reports and statistics
| Resources | 1 Project Manager  
1 Technical Director  
1 Training and methodology manager  
1 Architecture and communications manager  
1 Communications technician  
1 Operational Delivery Manager  
1 Data center manager  
2 Logistics managers  
1 Data capture and integration manager  
9 Data capture and integration developers  
1 Reporting manager  
6 Internet site and text messages reporting developers  
1 Statistics manager  
4 Statistics applications developers  
1 Post-electoral services manager  
4 Post-electoral products  
2 Infrastructure managers  
1 Support manager  
1 Quality manager  
1 Legal consultant |
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<tbody>
<tr>
<td>Period</td>
<td>6 months prior Election day and one additional month until the closing of the project</td>
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<tr>
<td>Contract Value</td>
<td>84.13 Mill. NOK (on average for every project)</td>
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</table>
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