



# ***E-vote 2011***

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**Use case specification: 0.2 Configuration of The Election System**

**Project: E-vote 2011**

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## 1. Executive Summary

The system shall include a 'configuration module' which allows central/local administrators to:

1. Create a new configuration for an election/referendum. It must be possible to create a new configuration based on an existing configuration (With or without template data)
2. Amend an existing configuration

Configuration includes:

1. The creation and maintenance of Elections (General Election, County Election, Municipality Election, Referendums, and Sami Election) system data based on the EML schema using relevant EML elements and attributes. The current version is described in [Election Markup Language \(EML\) Version 5.0](#). The user must be able to set attribute values describing the characteristics of the election/referendum.
2. Create and/or maintain Party/Group details, codes, roles etc.
3. The creation and/or maintenance of system terms and the translation of these (Captions, menu texts, help texts, error messages etc.). It must be possible to create a new language, copy all existing terms and export these for translation. The system must also facilitate the import of translated terms. Norwegian Bokmål, Nynorsk and English terms must be translated and available in the system for the 2011 election.
4. The creation and/or maintenance of roles (See use case 0.1 'Definition of roles')
5. The creation and/or maintenance of reports (See use case 5.1 'Reporting')
6. The creation and/or maintenance of workflows (Approvals, alerts etc.)
7. The creation and/or maintenance of rules (See 'Representation of the People Act')
8. The creation and/or maintenance of layouts for ballot papers and polling cards
9. The configuration of external interfaces and web services (Electoral Roll, Interface to SSB etc.)
10. The import/export of a configuration (EML/XML).

The system shall also facilitate the approval of a new configuration or the approval of amendments made to an existing one.

## 2. Purpose

The purpose of this use case is to facilitate an environment that does not require programming skills for the configuration of elections/referendums.



### 3. Actors

Actor	Description
Central system administrator	A system administrator which have access to configure at all levels
Local system administrator	A system administrator which have access to configure at a local level
ES	Election System
AI	Authorized individual (Approver of configuration)

### 4. Pre-Conditions

ID	Description	Comments
0.2.1	Electoral Roll schema has been created in the system	See use case 0.3 'Electoral roll'
0.2.2	Users are authenticated	See use case 9.1 'Authentication'
0.2.3	The Register of Political Parties codes must be available from The Brønnøysund Register Centre	

### 5. Post-Conditions

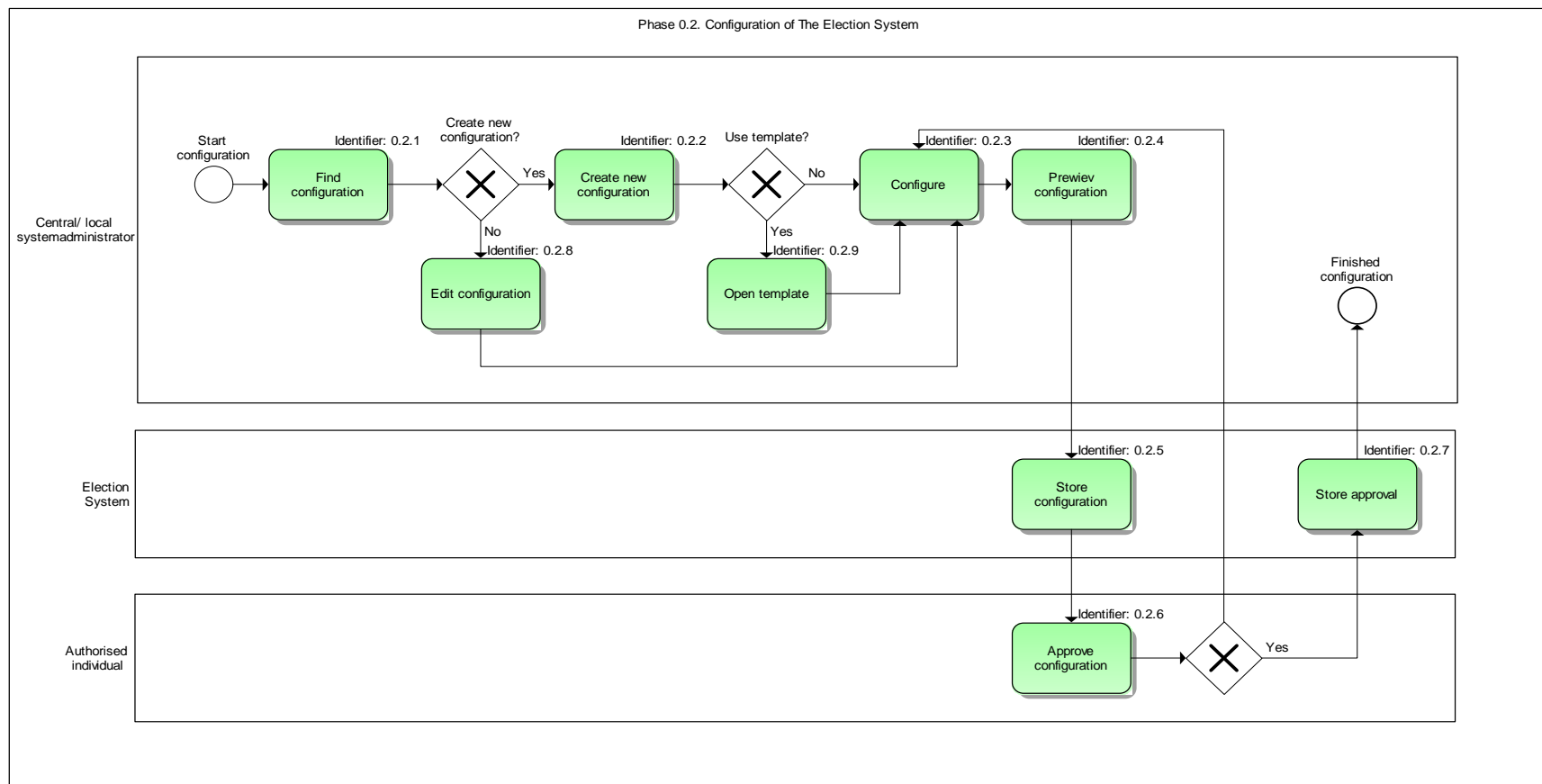
ID	Description	Comments
0.2.4	A new configuration is stored in the system	
0.2.5	Changes to an existing configuration is stored in the system	
0.2.6	The update schedule for the Electoral Roll has been configured	



## 6. Trigger

The need for creating a new configuration or edit an existing one.

## 7. Main Flow - Functional Requirements





ID	Actor	Function (Requirement)	Requirement description	Ref
F 0.2.1	Central/Local system administrator	Find configuration	The central/local system administrator must be able to retrieve an existing configuration or create a new one.	A1
F 0.2.2	Central/Local system administrator	Create new configuration	The central/local system administrator must be able to either create a brand new configuration or a new configuration based on an existing template.	A2
F 0.2.3	Central/Local system administrator	Configure	<p>The Central/Local system administrator must be able to perform configuration in a design environment. This environment shall not require programming skills. The design environment shall guide the user through a set of steps where they must be able to:</p> <ol style="list-style-type: none"> <li>1. The creation and maintenance of Elections (General Election, County Election, Municipality Election, Referendums, and Sami Election) system data based on the EML schema using relevant EML elements and attributes. The current version is described in <a href="#">Election Markup Language (EML) Version 5.0</a>. The user must be able to set attribute values describing the characteristics of the election/referendum. Import of external files (XML/EML) must be possible.</li> <li>2. Create and/or maintain Party/Group details, codes, roles etc.</li> <li>3. Create and/or maintain terms for an election (Captions, menu texts, help texts, error messages etc.) and the translation of these. It must be possible to create a new language, copy all existing terms and export these for translation. The system must also facilitate the import of translated terms. Norwegian Bokmål, Nynorsk and English terms must be translated and available in the system for the 2011 election.</li> <li>4. Create and/or maintain roles (See use case 0.1 'Definition of roles')</li> <li>5. Create and/or maintain reports (See use case 5.1 'Reporting')</li> <li>6. The creation and/or maintenance of workflows. Workflow management shall provide end users with a way to orchestrate or describe complex processing of data in a visual form, much like flow charts but without the need to understand computers or</li> </ol>	



			<p>programming. (E.g. orchestration of approvals, alerts etc.).</p> <p>7. The creation and/or maintenance of rules (e.g. Sainte-Laguë's modified method and other rules given by the 'Representation of the People Act') allowing both technical developers and business experts to define and manage decision logic</p> <p>8. Create and/or maintain layouts for ballot papers, polling cards, etc. (All print out related elements)</p> <p>9. Configure external interfaces and web services (Electoral Roll update schedule, Interface to SSB, Import from The Brønnøysund Register Centre etc.)</p> <p>10. The import/export of an entire configuration (EML/XML).</p>	
F 0.2.4	Central/Local system administrator	Preview configuration	The Central/Local system administrator must be able to see a preview of the configuration and test the configuration.	
F 0.2.5	ES	Store configuration	The configuration is stored in the system	
F 0.2.6	AI	Approve configuration	An authorized individual must be able to approve the configuration	
F 0.2.7	ES	Store approval	The approval is stored in the system	

### 7.1. Alternate flow 1 – Edit existing configuration (A1)

ID	Actor	Function (Requirement)	Requirement description
F 0.2.8	Central/Local system administrator	Edit configuration	The central/local system administrator must be able to edit an existing configuration up until a preconfigured date.

### 7.2. Alternate flow 2 – Create a new configuration based on an existing configuration (A1)

ID	Actor	Function (Requirement)	Requirement description
F 0.2.9	Central/Local system administrator	Open template	The central/local system administrator must be able to create a new configuration based on an existing configuration (With or without template data).



## 8. Non-Functional Requirements

### 8.1. Accessibility and usability

ID	Requirement description	Ref
0.2.7	See 'Accessibility and usability requirements'	8.1

### 8.2. Security

ID	Requirement description
OS0.8	Authorized election officers shall be able to abort the e-voting process while allowing the paper voting for the election event to proceed. If aborted, It shall not be possible to restart the e-voting process for the same election event
OS8.6	The integrity of data communicated from the pre-election stage (e.g. voters' registers and lists of candidates) shall be maintained. Data-origin authentication shall be carried out.
OS8.17	No functions shall exist that allow the election officers to reset the election system to its initial state after the polling phase has begun.
OS13.2	At any time during an election the election officers shall be able to perform a self-test of the election system, assuring the integrity of the security functions and the user and system data. Any failure that may endanger the proper operation of the system shall be reported.
OS14.1	When using the Election System, before any election or referendum takes place, the System shall enable the competent electoral authority to satisfy itself that the election system is genuine and operates correctly. It shall be possible to ascertain that only approved and audited software is running in the election system.

### 8.3. Rules & regulations

ID	Requirement description	Ref
0.2.8	This use case refers to regulations described in the Representation of the People Act (the Election Act).	





	<a href="http://www.regjeringen.no/upload/KRD/Kampanjer/valgportal/Regelverk/Representation_of_the_People_Act170609.pdf">http://www.regjeringen.no/upload/KRD/Kampanjer/valgportal/Regelverk/Representation_of_the_People_Act170609.pdf</a>	
0.2.9	This use case refers to regulations relating to parliamentary and local government elections (Representation of the People Regulations) <a href="http://www.regjeringen.no/upload/KRD/Kampanjer/valgportal/Regelverk/Regulations_2003_EN_170609.pdf">http://www.regjeringen.no/upload/KRD/Kampanjer/valgportal/Regelverk/Regulations_2003_EN_170609.pdf</a>	
0.2.10	This use case also refer to the <a href="#">Council of Europe e-vote Recommendation Rec(2004) 11</a> . <a href="http://www.coe.int/t/dgap/democracy/activities/GGIS/E-voting/Key_Documents/Rec(2004)11_Eng_Evoting_and_Expl_Memo_en.pdf">http://www.coe.int/t/dgap/democracy/activities/GGIS/E-voting/Key_Documents/Rec(2004)11_Eng_Evoting_and_Expl_Memo_en.pdf</a>	